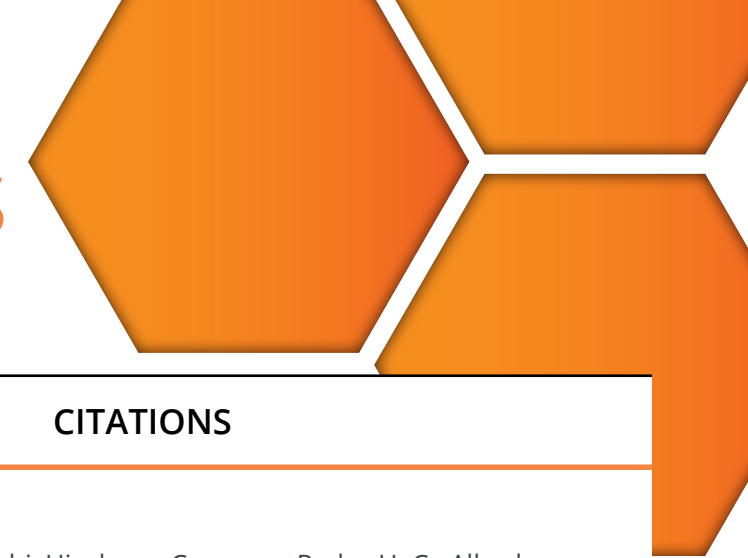




TITLE	WEB LINK	CITATIONS
In-situ TEM Observations on the Sintering Process of Colloidal Gold Using an Ultra-fast Heating Stage	https://www.cambridge.org/core/product/identifier/S1431927608082408/type/journal_article	Briceno, M; Hattar, K; Damiano, J; Nackashi, D; Robertson, Im , In-situ TEM Observations on the Sintering Process of Colloidal Gold Using an Ultra-fast Heating Stage, 2008, Microscopy and Microanalysis, 10.1017/S1431927608082408
A Novel Heating Technology for Ultra-High Resolution Imaging in Electron Microscopes	https://www.cambridge.org/core/journals/microscopy-today/article/novel-heating-technology-for-ultrahigh-resolution-imaging-in-electron-microscopes/5949C29C44409BC9D1E8AEFDEF8C20B5	Allard, Lawrence F.; Bigelow, Wilbur C.; Bradley, Steven A.; Liu, Jingyue(Jimmy) , A Novel Heating Technology for Ultra-High Resolution Imaging in Electron Microscopes, 2009, Microscopy Today, 10.1017/S1551929509000030
Nanoscale Imaging of Whole Cells Using a Liquid Enclosure and a Scanning Transmission Electron Microscope	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0008214	Peckys, Diana B.; Veith, Gabriel M.; Joy, David C.; Jonge, Niels de , Nanoscale Imaging of Whole Cells Using a Liquid Enclosure and a Scanning Transmission Electron Microscope, 2009, PLOS ONE, 10.1371/journal.pone.0008214
Electron microscopy of whole cells in liquid with nanometer resolution	https://www.pnas.org/content/early/2009/01/21/0809567106	Jonge, N. de; Peckys, D. B.; Kremers, G. J.; Piston, D. W. , Electron microscopy of whole cells in liquid with nanometer resolution, 2009, Proceedings of the National Academy of Sciences, 10.1073/pnas.0809567106
A New MEMS-Based System for Ultra-High-Resolution Imaging at Elevated Temperatures	https://analyticalsciencejournals-onlinelibrary-wiley-com.proxy.library.uu.nl/doi/pdf/10.1002/jemt.20673	Allard, L. F.; Bigelow, Wilbur C; Jose-Yacamán, Miguel; Nackashi, David P.; Damiano, John; Mick, Stephen, E. , A New MEMS-Based System for Ultra-High-Resolution Imaging at Elevated Temperatures, 2009, Microscopy Research and Technique, 10.1002/jemt.20673
Microfluidic system for transmission electron microscopy	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/abs/microfluidic-system-for-transmission-electron-microscopy/DD52A099B00899B61081DDF05BFC0F49	Ring, Elisabeth A.; de Jonge, Niels , Microfluidic system for transmission electron microscopy, 2010, Microscopy and Microanalysis, 10.1017/S1431927610093669
Correlative Fluorescence Microscopy and Scanning Transmission Electron Microscopy of Quantum-Dot-Labeled Proteins in Whole Cells in Liquid	https://doi.org/10.1021/nn1010232	Dukes, Madeline J.; Peckys, Diana B.; de Jonge, Niels , Correlative Fluorescence Microscopy and Scanning Transmission Electron Microscopy of Quantum-Dot-Labeled Proteins in Whole Cells in Liquid, 2010, ACS Nano, 10.1021/nn1010232
Simulating STEM imaging of nanoparticles in micrometers-thick substrates	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/simulating-stem-imaging-of-nanoparticles-in-micrometersthick-substrates/B7C114D223F7FC8615D4168BDFACADC7	Demers, H.; Poirier-Demers, N.; Drouin, D.; de Jonge, N. , Simulating STEM imaging of nanoparticles in micrometers-thick substrates, 2010, Microscopy and Microanalysis, 10.1017/S1431927610094080
Nanometer-resolution electron microscopy through micrometers-thick water layers	http://www.sciencedirect.com/science/article/pii/S0304399110001099	de Jonge, Niels; Poirier-Demers, Nicolas; Demers, Hendrix; Peckys, Diana B.; Drouin, Dominique , Nanometer-resolution electron microscopy through micrometers-thick water layers, 2010, Ultramicroscopy, 10.1016/j.ultramic.2010.04.001
Atmospheric Pressure Scanning Transmission Electron Microscopy	https://doi.org/10.1021/nl904254g	de Jonge, Niels; Bigelow, Wilbur C.; Veith, Gabriel M. , Atmospheric Pressure Scanning Transmission Electron Microscopy, 2010, Nano Letters, 10.1021/nl904254g
In situ microscopy of rapidly heated nano-Al and nano-Al/WO ₃ thermites	http://aip.scitation.org/doi/10.1063/1.3490752	Sullivan, Kyle T.; Chiou, Wen-An; Fiore, Richard; Zachariah, Michael R. , In situ microscopy of rapidly heated nano-Al and nano-Al/WO ₃ thermites, 2010, Applied Physics Letters, 10.1063/1.3490752
Behavior of Au Species in Au/Fe ₂ O ₃ Catalysts Characterized by Novel In Situ Heating Techniques and Aberration-Corrected STEM Imaging	https://www.cambridge.org/core/product/identifier/S1431927610013486/type/journal_article	Allard, Lawrence F.; Flytzani-Stephanopoulos, Maria; Overbury, Steven H. , Behavior of Au Species in Au/Fe ₂ O ₃ Catalysts Characterized by Novel In Situ Heating Techniques and Aberration-Corrected STEM Imaging, 2010, Microscopy and Microanalysis, 10.1017/S1431927610013486
Platinum Nanoparticles Grown by Atomic Layer Deposition for Charge Storage Memory Applications	https://iopscience.iop.org/article/10.1149/1.3365031	Novak, Steven; Lee, Bongmook; Yang, Xiangyu; Misra, Veena , Platinum Nanoparticles Grown by Atomic Layer Deposition for Charge Storage Memory Applications, 2010, Journal of The Electrochemical Society, 10.1149/1.3365031



TITLE	WEB LINK	CITATIONS
New insights into the growth mechanism and surface structure of palladium nanocrystals	https://link.springer.com/10.1007/s12274-010-1021-5	Lim, Byungkwon; Kobayashi, Hirokazu; Camargo, Pedro H. C.; Allard, Lawrence F.; Liu, Jingyue; Xia, Younan , New insights into the growth mechanism and surface structure of palladium nanocrystals, 2010, Nano Research, 10.1007/s12274-010-1021-5
Visualizing Gold Nanoparticle Uptake in Live Cells with Liquid Scanning Transmission Electron Microscopy	https://doi.org/10.1021/nl200285r	Peckys, Diana B.; de Jonge, Niels , Visualizing Gold Nanoparticle Uptake in Live Cells with Liquid Scanning Transmission Electron Microscopy, 2011, Nano Letters, 10.1021/nl200285r
Transmission electron microscopy with a liquid flow cell	https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2818.2010.03484.x	Klein, K. L.; Anderson, I. M.; Jonge, N. De , Transmission electron microscopy with a liquid flow cell, 2011, Journal of Microscopy, 10.1111/j.1365-2818.2010.03484.x
Silicon nitride windows for electron microscopy of whole cells	https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2818.2011.03501.x	Ring, E. A.; Peckys, D. B.; Dukes, M. J.; Baudoin, J. P.; Jonge, N. De , Silicon nitride windows for electron microscopy of whole cells, 2011, Journal of Microscopy, 10.1111/j.1365-2818.2011.03501.x
Fully hydrated yeast cells imaged with electron microscopy	https://www.sciencedirect.com/science/article/pii/S0006349511004036	Peckys, Diana B.; Mazur, Peter; Gould, Kathleen L.; de Jonge, Niels , Fully hydrated yeast cells imaged with electron microscopy, 2011, Biophysical Journal, 10.1016/j.bpj.2011.03.045
Electron microscopy of specimens in liquid	http://www.nature.com/articles/nnano.2011.161	de Jonge, Niels; Ross, Frances M. , Electron microscopy of specimens in liquid, 2011, Nature Nanotechnology, 10.1038/nnano.2011.161
An in situ SEM experimental study of the thermal stability of a LAST thermoelectric material	https://www.tandfonline.com/doi/full/10.1080/09500839.2011.579583	Ren, Fei; Howe, Jane Y.; Walker, Larry R.; Case, Eldon D.; Lara-Curzio, Edgar , An in situ SEM experimental study of the thermal stability of a LAST thermoelectric material, 2011, Philosophical Magazine Letters, 10.1080/09500839.2011.579583
On the behavior of Ag nanowires under high temperature: in situ characterization by aberration-corrected STEM	http://xlink.rsc.org/?DOI=C0JM02624G	Mayoral, Alvaro; Allard, Lawrence F.; Ferrer, Domingo; Esparza, Rodrigo; Jose-Yacamán, Miguel , On the behavior of Ag nanowires under high temperature: in situ characterization by aberration-corrected STEM, 2011, J. Mater. Chem., 10.1039/C0JM02624G
Graphene-based sample supports for in situ high-resolution TEM electrical investigations	https://iopscience.iop.org/article/10.1088/0022-3727/44/5/055502	Westenfelder, B; Meyer, J C; Biskupek, J; Algara-Siller, G; Lechner, L G; Kusterer, J; Kaiser, U; Krill, C E; Kohn, E; Scholz, F , Graphene-based sample supports for in situ high-resolution TEM electrical investigations, 2011, Journal of Physics D: Applied Physics, 10.1088/0022-3727/44/5/055502
In situ high-resolution transmission electron microscopy synthesis observation of nanostructured carbon coated LiFePO ₄	https://linkinghub.elsevier.com/retrieve/pii/S0378775311007889	Trudeau, M.L.; Laul, D.; Veillette, R.; Serventi, A.M.; Mauger, A.; Julien, C.M.; Zaghbi, K. , In situ high-resolution transmission electron microscopy synthesis observation of nanostructured carbon coated LiFePO ₄ , 2011, Journal of Power Sources, 10.1016/j.jpowsour.2011.04.003
Low-Cost, Atmospheric-Pressure Scanning Transmission Electron Microscopy	https://www.cambridge.org/core/product/identifier/S1551929511000228/type/journal_article	de Jonge, Niels; Ring, Elisabeth A.; Bigelow, Wilbur C.; Veith, Gabriel M. , Low-Cost, Atmospheric-Pressure Scanning Transmission Electron Microscopy, 2011, Microscopy Today, 10.1017/S1551929511000228
Imaging Specific Protein Labels on Eukaryotic Cells in Liquid with Scanning Transmission Electron Microscopy	https://www.cambridge.org/core/product/identifier/S1551929511000903/type/journal_article	Peckys, Diana B.; Dukes, Madeline J.; Ring, Elisabeth A.; Piston, David W.; de Jonge, Niels , Imaging Specific Protein Labels on Eukaryotic Cells in Liquid with Scanning Transmission Electron Microscopy, 2011, Microscopy Today, 10.1017/S1551929511000903
Effects of electrons on the shape of nanopores prepared by focused electron beam induced etching	https://iopscience.iop.org/article/10.1088/0957-4484/22/28/285303	Liebes, Yael; Hadad, Binyamin; Ashkenasy, Nurit , Effects of electrons on the shape of nanopores prepared by focused electron beam induced etching, 2011, Nanotechnology, 10.1088/0957-4484/22/28/285303
Effects of Ligand Monolayers on Catalytic Nickel Nanoparticles for Synthesizing Vertically Aligned Carbon Nanofibers	https://pubs.acs.org/doi/10.1021/am101290v	Sarac, Mehmet F.; Wilson, Robert M.; Johnston-Peck, Aaron C.; Wang, Junwei; Pearce, Ryan; Klein, Kate L.; Melechko, Anatoli V.; Tracy, Joseph B. , Effects of Ligand Monolayers on Catalytic Nickel Nanoparticles for Synthesizing Vertically Aligned Carbon Nanofibers, 2011, ACS Applied Materials & Interfaces, 10.1021/am101290v

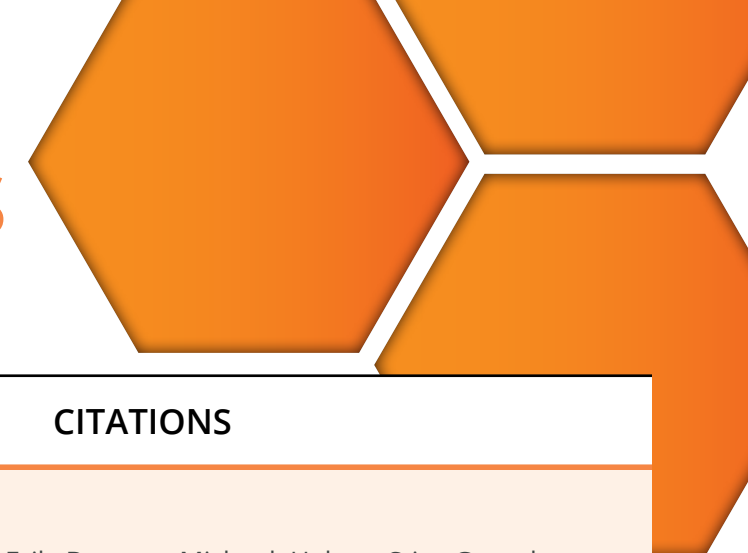
TITLE	WEB LINK	CITATIONS
Energy-Loss Characteristics for EFTEM Imaging with a Liquid Flow Cell	https://www.cambridge.org/core/product/identifier/S1431927611004776/type/journal_article	Klein, K; de Jonge, N; Anderson, I , Energy-Loss Characteristics for EFTEM Imaging with a Liquid Flow Cell, 2011, Microscopy and Microanalysis, 10.1017/S1431927611004776
Rapid and precise scanning helium ion microscope milling of solid-state nanopores for biomolecule detection	https://iopscience.iop.org/article/10.1088/0957-4484/22/28/285310	Yang, Jijin; Ferranti, David C; Stern, Lewis A; Sanford, Colin A; Huang, Jason; Ren, Zheng; Qin, Lu-Chang; Hall, Adam R , Rapid and precise scanning helium ion microscope milling of solid-state nanopores for biomolecule detection, 2011, Nanotechnology, 10.1088/0957-4484/22/28/285310
Synthesis of mesoporous palladium with tunable porosity and demonstration of its thermal stability by in situ heating and environmental transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2013/ta/c2ta00190j	Cappillino, Patrick J.; Hattar, Khalid M.; Clark, Blythe G.; Hartnett, Ryan J.; Stavila, Vitalie; Hekmaty, Michelle A.; Jacobs, Benjamin W.; Robinson, David B. , Synthesis of mesoporous palladium with tunable porosity and demonstration of its thermal stability by in situ heating and environmental transmission electron microscopy, 2012, Journal of Materials Chemistry A, 10.1039/C2TA00190J
In situ TEM Ion Irradiation and Atmospheric Heating of Cladding Materials	https://link.springer.com/article/10.1557/opl.2012.186	Hattar, K.; Rajasekhara, S.; Clark, B. G. , In situ TEM Ion Irradiation and Atmospheric Heating of Cladding Materials, 2012, MRS Online Proceedings Library Archive, 10.1557/opl.2012.186
Stability of Porous Platinum Nanoparticles: Combined In Situ TEM and Theoretical Study	https://doi.org/10.1021/jz3001823	Chang, Shery L. Y.; Barnard, Amanda S.; Dwyer, Christian; Hansen, Thomas W.; Wagner, Jakob B.; Dunin-Borkowski, Rafal E.; Weyland, Matthew; Konishi, Hiromi; Xu, Huifang , Stability of Porous Platinum Nanoparticles: Combined In Situ TEM and Theoretical Study, 2012, The Journal of Physical Chemistry Letters, 10.1021/jz3001823
Carbohydrate-Derived Hydrothermal Carbons: A Thorough Characterization Study	https://doi.org/10.1021/la3024277	Yu, Linghui; Falco, Camillo; Weber, Jens; White, Robin J.; Howe, Jane Y.; Titirici, Maria-Magdalena , Carbohydrate-Derived Hydrothermal Carbons: A Thorough Characterization Study, 2012, Langmuir, 10.1021/la3024277
In situ transmission electron microscopic investigations of reduction-oxidation reactions during densification of nickel nanoparticles	https://www.cambridge.org/core/journals/journal-of-materials-research/article/in-situ-transmission-electron-microscopic-investigations-of-reduction-oxidation-reactions-during-densification-of-nickel-nanoparticles/E88B7D47BD0EDFA1ED86FC333997A58B	Matsuno, Misa; Bonifacio, Cecile S.; Rufner, Jorgen F.; Thron, Andrew M.; Holland, Troy B.; Mukherjee, Amiya K.; Benthem, Klaus van , In situ transmission electron microscopic investigations of reduction-oxidation reactions during densification of nickel nanoparticles, 2012, Journal of Materials Research, 10.1557/jmr.2012.256
Effect of Rhodium Distribution on Thermal Stability of Nanoporous Palladium–Rhodium Powders	https://doi.org/10.1021/cm202688m	Ong, Markus D.; Jacobs, Benjamin W.; Sugar, Joshua D.; Grass, Michael E.; Liu, Zhi; Buffleben, George M.; Clift, W. Miles; Langham, Mary E.; Cappillino, Patrick J.; Robinson, David B. , Effect of Rhodium Distribution on Thermal Stability of Nanoporous Palladium–Rhodium Powders, 2012, Chemistry of Materials, 10.1021/cm202688m
In situ observation of Pt nanoparticles on graphene layers under high temperature using aberration-corrected transmission electron microscopy	https://academic.oup.com/jmicro/article-abstract/61/6/409/1989085?redirectedFrom=fulltext	Hashimoto, Ayako; Takeguchi, Masaki , In situ observation of Pt nanoparticles on graphene layers under high temperature using aberration-corrected transmission electron microscopy, 2012, Microscopy, 10.1093/jmicro/dfs060
Video-frequency scanning transmission electron microscopy of moving gold nanoparticles in liquid	http://www.sciencedirect.com/science/article/pii/S096843281200011X	Ring, Elisabeth A.; de Jonge, Niels , Video-frequency scanning transmission electron microscopy of moving gold nanoparticles in liquid, 2012, Micron, 10.1016/j.micron.2012.01.010
UV-induced photochemical transformations of citrate-capped silver nanoparticle suspensions	https://doi.org/10.1007/s11051-012-1139-3	Gorham, Justin M.; MacCuspie, Robert I.; Klein, Kate L.; Fairbrother, D. Howard; Holbrook, R. David , UV-induced photochemical transformations of citrate-capped silver nanoparticle suspensions, 2012, Journal of Nanoparticle Research, 10.1007/s11051-012-1139-3
The development of affinity capture devices—a nanoscale purification platform for biological in situ transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2012/ra/c2ra01163h	Degen, Katherine; Dukes, Madeline; Tanner, Justin R.; Kelly, Deborah F. , The development of affinity capture devices—a nanoscale purification platform for biological in situ transmission electron microscopy, 2012, RSC Advances, 10.1039/C2RA01163H
L10 Ordering of Ultrasmall FePt Nanoparticles Revealed by TEM In Situ Annealing	https://doi.org/10.1021/jp300037r	Delalande, Michaël; Guinel, Maxime J.-F.; Allard, Lawrence F.; Delattre, Anastasia; Le Bris, Rémy; Samson, Yves; Bayle-Guillemaud, Pascale; Reiss, Peter , L10 Ordering of Ultrasmall FePt Nanoparticles Revealed by TEM In Situ Annealing, 2012, The Journal of Physical Chemistry C, 10.1021/jp300037r

TITLE	WEB LINK	CITATIONS
In situ studies on the shrinkage and expansion of graphene nanopores under electron beam irradiation at temperatures in the range of 400–1200°C	http://www.sciencedirect.com/science/article/pii/S0008622312002151	Lu, Ning; Wang, Jinguo; Floresca, Herman C.; Kim, Moon J. , In situ studies on the shrinkage and expansion of graphene nanopores under electron beam irradiation at temperatures in the range of 400–1200°C, 2012, Carbon, 10.1016/j.carbon.2012.02.078
Reactive sintering: An important component in the combustion of nanocomposite thermites	http://www.sciencedirect.com/science/article/pii/S0010218011002276	Sullivan, K. T.; Piekielek, N. W.; Wu, C.; Chowdhury, S.; Kelly, S. T.; Hufnagel, T. C.; Fezzaa, K.; Zachariah, M. R. , Reactive sintering: An important component in the combustion of nanocomposite thermites, 2012, Combustion and Flame, 10.1016/j.combustflame.2011.07.015
Novel MEMS-Based Gas-Cell/Heating Specimen Holder Provides Advanced Imaging Capabilities for In Situ Reaction Studies	https://www.cambridge.org/core/product/identifier/S1431927612001249/type/journal_article	Allard, Lawrence F.; Overbury, Steven H.; Bigelow, Wilbur C.; Katz, Michael B.; Nackashi, David P.; Damiano, John , Novel MEMS-Based Gas-Cell/Heating Specimen Holder Provides Advanced Imaging Capabilities for In Situ Reaction Studies, 2012, Microscopy and Microanalysis, 10.1017/S1431927612001249
Environmental Transmission Electron Microscopy Study of the Origins of Anomalous Particle Size Distributions in Supported Metal Catalysts	https://pubs.acs.org/doi/10.1021/cs3005117	Benavidez, Angelica D.; Kovarik, Libor; Genc, Arda; Agrawal, Nitin; Larsson, Elin M.; Hansen, Thomas W.; Karim, Ayman M.; Datye, Abhaya K. , Environmental Transmission Electron Microscopy Study of the Origins of Anomalous Particle Size Distributions in Supported Metal Catalysts, 2012, ACS Catalysis, 10.1021/cs3005117
Using a nanopore for single molecule detection and single cell transfection	http://xlink.rsc.org/?DOI=c2an35571j	Nelson, Edward M.; Kurz, Volker; Shim, Jiwook; Timp, Winston; Timp, Gregory , Using a nanopore for single molecule detection and single cell transfection, 2012, The Analyst, 10.1039/c2an35571j
Direct and Transmission Milling of Suspended Silicon Nitride Membranes With a Focused Helium Ion Beam: Direct and transmission milling of suspended silicon nitride	https://onlinelibrary.wiley.com/doi/10.1002/sca.21003	Marshall, Michael M.; Yang, Jijin; Hall, Adam R. , Direct and Transmission Milling of Suspended Silicon Nitride Membranes With a Focused Helium Ion Beam: Direct and transmission milling of suspended silicon nitride, 2012, Scanning, 10.1002/sca.21003
Enhanced shape stability of Pd-Rh core-frame nanocubes at elevated temperature: in situ heating transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2013/cc/c3cc46465b#	Lu, Ning; Wang, Jinguo; Xie, Shuifen; Xia, Younan; Kim, Moon J. , Enhanced shape stability of Pd-Rh core-frame nanocubes at elevated temperature: in situ heating transmission electron microscopy, 2013, Chemical Communications, 10.1039/c3cc46465b
Atomic Resolution Imaging of Grain Boundary Defects in Monolayer Chemical Vapor Deposition-Grown Hexagonal Boron Nitride	https://doi.org/10.1021/ja400637n	Gibb, Ashley L.; Alem, Nasim; Chen, Jian-Hao; Erickson, Kristopher J.; Ciston, Jim; Gautam, Abhay; Linck, Martin; Zettl, Alex , Atomic Resolution Imaging of Grain Boundary Defects in Monolayer Chemical Vapor Deposition-Grown Hexagonal Boron Nitride, 2013, Journal of the American Chemical Society, 10.1021/ja400637n
Multifunctional Properties of Multistage Spark Plasma Sintered HA–BaTiO ₃ -Based Piezobiocomposites for Bone Replacement Applications	https://ceramics.onlinelibrary.wiley.com/doi/abs/10.1111/jace.12566	Dubey, Ashutosh Kumar; Ea, Anumol; Balani, Kantesh; Basu, Bikramjit , Multifunctional Properties of Multistage Spark Plasma Sintered HA–BaTiO ₃ -Based Piezobiocomposites for Bone Replacement Applications, 2013, Journal of the American Ceramic Society, 10.1111/jace.12566
In situ transmission electron microscopy observations of sublimation in silver nanoparticles	https://pubs.acs.org/doi/10.1021/nn402771j	Asoro, Michael A.; Kovar, Desiderio; Ferreira, Paulo J. , In situ transmission electron microscopy observations of sublimation in silver nanoparticles, 2013, ACS nano, 10.1021/nn402771j
Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Pt–Fe Nanoparticles in a KCl Matrix	https://doi.org/10.1021/cm303489z	Chen, Hao; Yu, Yingchao; Xin, Huolin L.; Newton, Kathryn A.; Holtz, Megan E.; Wang, Deli; Muller, David A.; Abruña, Héctor D.; DiSalvo, Francis J. , Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Pt–Fe Nanoparticles in a KCl Matrix, 2013, Chemistry of Materials, 10.1021/cm303489z
Dynamic Evolution of Conducting Nanofilament in Resistive Switching Memories	https://doi.org/10.1021/nl4015638	Chen, Jui-Yuan; Hsin, Cheng-Lun; Huang, Chun-Wei; Chiu, Chung-Hua; Huang, Yu-Ting; Lin, Su-Jien; Wu, Wen-Wei; Chen, Lih-Juann , Dynamic Evolution of Conducting Nanofilament in Resistive Switching Memories, 2013, Nano Letters, 10.1021/nl4015638
Direct observation of carbon nanostructure growth at liquid–solid interfaces	https://pubs.rsc.org/en/content/articlelanding/2014/cc/c3cc46264a	Fei, Lin-feng; Sun, Tie-yu; Lu, Wei; An, Xiao-qiang; Hu, Zhuo-feng; Yu, Jimmy C.; Zheng, Ren-kui; Li, Xiao-min; Chan, Helen L. W.; Wang, Yu , Direct observation of carbon nanostructure growth at liquid–solid interfaces, 2013, Chemical Communications, 10.1039/c3cc46264a
Synthesis of Au–MoS ₂ Nanocomposites: Thermal and Friction-Induced Changes to the Structure	https://doi.org/10.1021/am4034476	Scharf, T. W.; Goeke, R. S.; Kotula, P. G.; Prasad, S. V. , Synthesis of Au–MoS ₂ Nanocomposites: Thermal and Friction-Induced Changes to the Structure, 2013, ACS Applied Materials & Interfaces, 10.1021/am4034476



TITLE	WEB LINK	CITATIONS
Dendritic Gold Nanowire Growth Observed in Liquid with Transmission Electron Microscopy	https://doi.org/10.1021/la401584z	Kraus, Tobias; de Jonge, Niels , Dendritic Gold Nanowire Growth Observed in Liquid with Transmission Electron Microscopy, 2013, Langmuir, 10.1021/la401584z
In-Situ Transmission Electron Microscopy of Liposomes in an Aqueous Environment	https://doi.org/10.1021/la401288g	Hoppe, Sarah M.; Sasaki, Darryl Y.; Kinghorn, Aubrianna N.; Hattar, Khalid , In-Situ Transmission Electron Microscopy of Liposomes in an Aqueous Environment, 2013, Langmuir, 10.1021/la401288g
In Situ Electron Energy-Loss Spectroscopy in Liquids	http://arxiv.org/abs/1212.1501	Holtz, Megan E.; Yu, Yingchao; Gao, Jie; Abruña, Héctor D.; Muller, David A. , In Situ Electron Energy-Loss Spectroscopy in Liquids, 2013, Microscopy and Microanalysis, 10.1017/S1431927613001505
Visualizing nanoparticle mobility in liquid at atomic resolution	https://pubs.rsc.org/en/content/articlelanding/2013/cc/c3cc41136b	Dukes, Madeline J.; Jacobs, Benjamin W.; Morgan, David G.; Hegde, Harshad; Kelly, Deborah F. , Visualizing nanoparticle mobility in liquid at atomic resolution, 2013, Chemical Communications, 10.1039/C3CC41136B
In situ TEM of Biological Assemblies in Liquid	https://www.jove.com/video/50936/in-situ-tem-of-biological-assemblies-in-liquid	Dukes, Madeline J.; Gilmore, Brian L.; Tanner, Justin R.; McDonald, Sarah M.; Kelly, Deborah F. , In situ TEM of Biological Assemblies in Liquid, 2013, JoVE (Journal of Visualized Experiments), 10.3791/50936
Heating induced microstructural changes in graphene/Cu nanocomposites	https://doi.org/10.1088%2F0022-3727%2F46%2F6%2F065309	Solá, F.; Niu, J.; Xia, Z. H. , Heating induced microstructural changes in graphene/Cu nanocomposites, 2013, Journal of Physics D: Applied Physics, 10.1088/0022-3727/46/6/065309
An in situ experimental study of grain growth in a nanocrystalline Fe ₉₁ Ni ₈ Zr ₁ alloy	https://doi.org/10.1007/s10853-012-7002-1	Kotan, Hasan; Darling, Kris A.; Saber, Mostafa; Scattergood, Ronald O.; Koch, Carl C. , An in situ experimental study of grain growth in a nanocrystalline Fe ₉₁ Ni ₈ Zr ₁ alloy, 2013, Journal of Materials Science, 10.1007/s10853-012-7002-1
Strain solitons and topological defects in bilayer graphene	https://www.pnas.org/content/110/28/11256	Alden, Jonathan S.; Tsen, Adam W.; Huang, Pinshane Y.; Hovden, Robert; Brown, Lola; Park, Jiwoong; Muller, David A.; McEuen, Paul L. , Strain solitons and topological defects in bilayer graphene, 2013, Proceedings of the National Academy of Sciences, 10.1073/pnas.1309394110
Mechanistic Insights into a Non-Classical Diffusion Pathway for the Formation of Hollow Intermetallics: A Route to Multicomponent Hollow Structures	https://onlinelibrary.wiley.com/doi/abs/10.1002/ppsc.201300022	Anumol, E. A.; Nethravathi, C.; Ravishankar, N. , Mechanistic Insights into a Non-Classical Diffusion Pathway for the Formation of Hollow Intermetallics: A Route to Multicomponent Hollow Structures, 2013, Particle & Particle Systems Characterization, 10.1002/ppsc.201300022
Molecular Surveillance of Viral Processes Using Silicon Nitride Membranes	http://www.mdpi.com/2072-666X/4/1/90	Gilmore, Brian; Tanner, Justin; McKell, Allison; Boudreaux, Crystal; Dukes, Madeline; McDonald, Sarah; Kelly, Deborah , Molecular Surveillance of Viral Processes Using Silicon Nitride Membranes, 2013, Micromachines, 10.3390/mi4010090
Nanostructural transformations during the reduction of hollow and porous nickel oxide nanoparticles	http://xlink.rsc.org/?DOI=C2NR33005A	Medford, John A.; Johnston-Peck, Aaron C.; Tracy, Joseph B. , Nanostructural transformations during the reduction of hollow and porous nickel oxide nanoparticles, 2013, Nanoscale, 10.1039/C2NR33005A
Catalyst faceting during graphene layer crystallization in the course of carbon nanofiber growth	http://www.sciencedirect.com/science/article/pii/S000862231400685X	Maurice, J. -L.; Pribat, D.; He, Z.; Patriarche, G.; Cojocaru, C. S. , Catalyst faceting during graphene layer crystallization in the course of carbon nanofiber growth, 2014, Carbon, 10.1016/j.carbon.2014.07.047
Nucleation of Graphene and Its Conversion to Single-Walled Carbon Nanotubes	https://doi.org/10.1021/nl501977b	Picher, Matthieu; Lin, Pin Ann; Gomez-Ballesteros, Jose L.; Balbuena, Perla B.; Sharma, Renu , Nucleation of Graphene and Its Conversion to Single-Walled Carbon Nanotubes, 2014, Nano Letters, 10.1021/nl501977b
In-situ high-pressure transmission electron microscopy for Earth and materials sciences	https://pubs.geoscienceworld.org/ammin/article/99/8-9/1521-1527/46168	Wu, J.; Buseck, P. R. , In-situ high-pressure transmission electron microscopy for Earth and materials sciences, 2014, American Mineralogist, 10.2138/am.2014.4857

TITLE	WEB LINK	CITATIONS
In situ environmental transmission electron microscopy study of oxidation of two-dimensional Ti ₃ C ₂ and formation of carbon-supported TiO ₂	https://pubs.rsc.org/en/content/articlelanding/2014/ta/c4ta02583k	Ghassemi, H.; Harlow, W.; Mashtalir, O.; Beidaghi, M.; Lukatskaya, M. R.; Gogotsi, Y.; Taheri, M. L. , In situ environmental transmission electron microscopy study of oxidation of two-dimensional Ti ₃ C ₂ and formation of carbon-supported TiO ₂ , 2014, Journal of Materials Chemistry A, 10.1039/C4TA02583K
Concurrent in situ ion irradiation transmission electron microscope	https://www.mendeley.com/catalogue/4c6114d4-a216-3012-bb1f-49f5e04bd40d/	Hattar, K.; Bufford, D. C.; Buller, D. L. , Concurrent in situ ion irradiation transmission electron microscope, 2014, Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, 10.1016/j.nimb.2014.08.002
Dynamic Observation of Phase Transformation Behaviors in Indium(III) Selenide Nanowire Based Phase Change Memory	https://doi.org/10.1021/nn503576x	Huang, Yu-Ting; Huang, Chun-Wei; Chen, Jui-Yuan; Ting, Yi-Hsin; Lu, Kuo-Chang; Chueh, Yu-Lun; Wu, Wen-Wei , Dynamic Observation of Phase Transformation Behaviors in Indium(III) Selenide Nanowire Based Phase Change Memory, 2014, ACS Nano, 10.1021/nn503576x
Real-time imaging and elemental mapping of AgAu nanoparticle transformations	https://pubs.rsc.org/en/content/articlelanding/2014/nr/c4nr04837g	A. Lewis, E.; A. Slater, T. J.; Prestat, E.; Macedo, A.; O'Brien, P.; C. Camargo, P. H.; J. Haigh, S. , Real-time imaging and elemental mapping of AgAu nanoparticle transformations, 2014, Nanoscale, 10.1039/C4NR04837G
Effect of surface carbon coating on sintering of silver nanoparticles: in situ TEM observations	https://pubs.rsc.org/en/content/articlelanding/2014/cc/c4cc01547a	Asoro, M. A.; Kovar, D.; Ferreira, P. J. , Effect of surface carbon coating on sintering of silver nanoparticles: in situ TEM observations, 2014, Chemical Communications, 10.1039/C4CC01547A
In Situ TEM Observation of a Microcrucible Mechanism of Nanowire Growth	https://www.sciencemag.org/lookup/doi/10.1126/science.1251594	Boston, R.; Schnepf, Z.; Nemoto, Y.; Sakka, Y.; Hall, S. R. , In Situ TEM Observation of a Microcrucible Mechanism of Nanowire Growth, 2014, Science, 10.1126/science.1251594
Nanoparticle Metamorphosis: An in Situ High-Temperature Transmission Electron Microscopy Study of the Structural Evolution of Heterogeneous Au:Fe ₂ O ₃ Nanoparticles	https://doi.org/10.1021/nn501543d	Baumgardner, William J.; Yu, Yingchao; Hovden, Robert; Honrao, Shreyas; Hennig, Richard G.; Abruña, Héctor D.; Muller, David; Hanrath, Tobias , Nanoparticle Metamorphosis: An in Situ High-Temperature Transmission Electron Microscopy Study of the Structural Evolution of Heterogeneous Au:Fe ₂ O ₃ Nanoparticles, 2014, ACS Nano, 10.1021/nn501543d
Chirality-specific growth of single-walled carbon nanotubes on solid alloy catalysts	https://www.nature.com/articles/nature13434	Yang, Feng; Wang, Xiao; Zhang, Daqi; Yang, Juan; Luo, Da; Xu, Ziwei; Wei, Jiake; Wang, Jian-Qiang; Xu, Zhi; Peng, Fei; Li, Xuemei; Li, Ruoming; Li, Yilun; Li, Meihui; Bai, Xuedong; Ding, Feng; Li, Yan , Chirality-specific growth of single-walled carbon nanotubes on solid alloy catalysts, 2014, Nature, 10.1038/nature13434
Novel Heterostructured Ge Nanowires Based on Polytype Transformation	https://doi.org/10.1021/nl502049a	Vincent, Laetitia; Patriarche, Gilles; Hallais, Géraldine; Renard, Charles; Gardès, Cyrille; Troadec, David; Bouchier, Daniel , Novel Heterostructured Ge Nanowires Based on Polytype Transformation, 2014, Nano Letters, 10.1021/nl502049a
Real-time observation of the solid-liquid-vapor dissolution of individual tin(IV) oxide nanowires	https://pubs.acs.org/doi/full/10.1021/nn5007804	Hudak, Bethany M.; Chang, Yao-Jen; Yu, Lei; Li, Guohua; Edwards, Danielle N.; Guiton, Beth S. , Real-time observation of the solid-liquid-vapor dissolution of individual tin(IV) oxide nanowires, 2014, ACS nano, 10.1021/nn5007804
Structure of δ-Alumina: Toward the Atomic Level Understanding of Transition Alumina Phases	https://doi.org/10.1021/jp500051j	Kovarik, Libor; Bowden, Mark; Genc, Arda; Szanyi, János; Peden, Charles H. F.; Kwak, Ja Hun , Structure of δ-Alumina: Toward the Atomic Level Understanding of Transition Alumina Phases, 2014, The Journal of Physical Chemistry C, 10.1021/jp500051j
WO ₃ nano-ribbons: their phase transformation from tungstite (WO ₃ ·H ₂ O) to tungsten oxide (WO ₃)	https://doi.org/10.1007/s10853-014-8304-2	Ahmadi, Majid; Sahoo, Satyaprakash; Younesi, Reza; Gaur, Anand P. S.; Katiyar, Ram S.; Guinel, Maxime J-F, WO ₃ nano-ribbons: their phase transformation from tungstite (WO ₃ ·H ₂ O) to tungsten oxide (WO ₃), 2014, Journal of Materials Science, 10.1007/s10853-014-8304-2
Observation of Sublattice Disorder of the Catalytic Sites in a Complex Mo–V–Nb–Te–O Oxidation Catalyst Using High Temperature STEM Imaging	https://doi.org/10.1007/s11244-014-0278-4	Blom, Douglas A.; Vogt, Thomas; Allard, Larry F.; Buttrey, Douglas J. , Observation of Sublattice Disorder of the Catalytic Sites in a Complex Mo–V–Nb–Te–O Oxidation Catalyst Using High Temperature STEM Imaging, 2014, Topics in Catalysis, 10.1007/s11244-014-0278-4
Investigating Local Degradation and Thermal Stability of Charged Nickel-Based Cathode Materials through Real-Time Electron Microscopy	https://doi.org/10.1021/am503278f	Hwang, Sooyeon; Kim, Seung Min; Bak, Seong-Min; Cho, Byung-Won; Chung, Kyung Yoon; Lee, Jeong Yong; Chang, Wonyoung; Stach, Eric A. , Investigating Local Degradation and Thermal Stability of Charged Nickel-Based Cathode Materials through Real-Time Electron Microscopy, 2014, ACS Applied Materials & Interfaces, 10.1021/am503278f



TITLE	WEB LINK	CITATIONS
Growth Mechanism for Single- and Multi-Layer MoS ₂ Nanocrystals	https://doi.org/10.1021/jp5069279	Hansen, Lars P.; Johnson, Erik; Brorson, Michael; Helveg, Stig, Growth Mechanism for Single- and Multi-Layer MoS ₂ Nanocrystals, 2014, The Journal of Physical Chemistry C, 10.1021/jp5069279
Visualized effect of oxidation on magnetic recording fidelity in pseudo-single-domain magnetite particles	https://www.nature.com/articles/ncomms6154	Almeida, Trevor P.; Kasama, Takeshi; Muxworthy, Adrian R.; Williams, Wyn; Nagy, Lesleis; Hansen, Thomas W.; Brown, Paul D.; Dunin-Borkowski, Rafal E., Visualized effect of oxidation on magnetic recording fidelity in pseudo-single-domain magnetite particles, 2014, Nature Communications, 10.1038/ncomms6154
Understanding catalyst behavior during in situ heating through simultaneous secondary and transmitted electron imaging	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4236855/	Howe, Jane Y; Allard, Lawrence F; Bigelow, Wilbur C; Demers, Hendrix; Overbury, Steven H, Understanding catalyst behavior during in situ heating through simultaneous secondary and transmitted electron imaging, 2014, Nanoscale Research Letters, 10.1186/1556-276X-9-614
Estimating the effective density of engineered nanomaterials for in vitro dosimetry	https://www.nature.com/articles/ncomms4514	DeLoid, Glen; Cohen, Joel M.; Darrah, Tom; Derk, Raymond; Rojanasakul, Liying; Pyrgiotakis, Georgios; Wohlleben, Wendel; Demokritou, Philip, Estimating the effective density of engineered nanomaterials for in vitro dosimetry, 2014, Nature Communications, 10.1038/ncomms4514
In Situ Liquid Cell TEM Study of Morphological Evolution and Degradation of Pt-Fe Nanocatalysts During Potential Cycling	https://doi.org/10.1021/jp506857b	Zhu, Guo-Zhen; Prabhudev, Sagar; Yang, Jie; Gabardo, Christine M.; Botton, Gianluigi A.; Soleymani, Leyla, In Situ Liquid Cell TEM Study of Morphological Evolution and Degradation of Pt-Fe Nanocatalysts During Potential Cycling, 2014, The Journal of Physical Chemistry C, 10.1021/jp506857b
Liquid scanning transmission electron microscopy: Nanoscale imaging in micrometers-thick liquids	http://www.sciencedirect.com/science/article/pii/S163107051300203X	Schuh, Tobias; de Jonge, Niels, Liquid scanning transmission electron microscopy: Nanoscale imaging in micrometers-thick liquids, 2014, Comptes Rendus Physique, 10.1016/j.crhy.2013.11.004
Liquid scanning transmission electron microscopy: imaging protein complexes in their native environment in whole eukaryotic cells	https://academic.oup.com/mam/article-abstract/20/2/346/6932360?redirectedFrom=fulltext	Peckys, Diana B.; de Jonge, Niels, Liquid scanning transmission electron microscopy: imaging protein complexes in their native environment in whole eukaryotic cells, 2014, Microscopy and Microanalysis, 10.1017/S1431927614000099
Initiation and Reaction in Al/Bi ₂ O ₃ Nanothermites: Evidence for the Predominance of Condensed Phase Chemistry	https://doi.org/10.1080/00102202.2014.908858	Piekiel, Nicholas W.; Zhou, Lei; Sullivan, Kyle T.; Chowdhury, Snehaunshu; Egan, Garth C.; Zachariah, Michael R., Initiation and Reaction in Al/Bi ₂ O ₃ Nanothermites: Evidence for the Predominance of Condensed Phase Chemistry, 2014, Combustion Science and Technology, 10.1080/00102202.2014.908858
Direct observation of Pt-terminating carbyne on graphene	http://www.sciencedirect.com/science/article/pii/S0008622314008173	Kano, Emi; Takeguchi, Masaki; Fujita, Jun-ichi; Hashimoto, Ayako, Direct observation of Pt-terminating carbyne on graphene, 2014, Carbon, 10.1016/j.carbon.2014.08.077
Decomposition of amorphous Si ₂ C by thermal annealing	http://www.sciencedirect.com/science/article/pii/S004060901302097X	Gustus, R.; Gruber, W.; Wegewitz, L.; Geckle, U.; Prang, R.; Kübel, C.; Schmidt, H.; Maus-Friedrichs, W., Decomposition of amorphous Si ₂ C by thermal annealing, 2014, Thin Solid Films, 10.1016/j.tsf.2013.12.033
Observing thermomagnetic stability of nonideal magnetite particles: Good paleomagnetic recorders?	https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1002/2014GL061432	Almeida, Trevor P.; Kasama, Takeshi; Muxworthy, Adrian R.; Williams, Wyn; Nagy, Lesleis; DuninBorkowski, Rafal E., Observing thermomagnetic stability of nonideal magnetite particles: Good paleomagnetic recorders?, 2014, Geophysical Research Letters, 10.1002/2014GL061432
In situ imaging of ultra-fast loss of nanostructure in nanoparticle aggregates	https://aip.scitation.org/doi/abs/10.1063/1.4867116	Egan, Garth C.; Sullivan, Kyle T.; LaGrange, Thomas; Reed, Bryan W.; Zachariah, Michael R., In situ imaging of ultra-fast loss of nanostructure in nanoparticle aggregates, 2014, Journal of Applied Physics, 10.1063/1.4867116
Controlled growth of a line defect in graphene and implications for gate-tunable valley filtering	https://link.aps.org/doi/10.1103/PhysRevB.89.121407	Chen, J.-H.; Autès, G.; Alem, N.; Gargiulo, F.; Gautam, A.; Linck, M.; Kisielowski, C.; Yazyev, O. V.; Louie, S. G.; Zettl, A., Controlled growth of a line defect in graphene and implications for gate-tunable valley filtering, 2014, Physical Review B, 10.1103/PhysRevB.89.121407
Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte	https://doi.org/10.1021/nl404577c	Holtz, Megan E.; Yu, Yingchao; Gunceler, Deniz; Gao, Jie; Sundaraman, Ravishankar; Schwarz, Kathleen A.; Arias, Tomás A.; Abruña, Héctor D.; Muller, David A., Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte, 2014, Nano Letters, 10.1021/nl404577c

TITLE	WEB LINK	CITATIONS
Real-time imaging and local elemental analysis of nanostructures in liquids	https://pubs.rsc.org/en/content/articlelanding/2014/cc/c4cc02743d	Lewis, Edward A.; Haigh, Sarah J.; Slater, Thomas J. A.; He, Zheyang; Kulzick, Matthew A.; Burke, M. Grace; Zaluzec, Nestor J. , Real-time imaging and local elemental analysis of nanostructures in liquids, 2014, Chemical Communications, 10.1039/C4CC02743D
Quantitative electrochemical measurements using in situ ec-S/TEM devices	https://pubmed.ncbi.nlm.nih.gov/24618013/	Unocic, Raymond R.; Sacci, Robert L.; Brown, Gilbert M.; Veith, Gabriel M.; Dudney, Nancy J.; More, Karren L.; Walden, Franklin S.; Gardiner, Daniel S.; Damiano, John; Nackashi, David P. , Quantitative electrochemical measurements using in situ ec-S/TEM devices, 2014, Microscopy and Microanalysis, 10.1017/S1431927614000166
An Oligomeric C-RING Nacre Protein Influences Prenucleation Events and Organizes Mineral Nanoparticles	https://doi.org/10.1021/bi5008854	Perovic, Iva; Verch, Andreas; Chang, Eric P.; Rao, Ashit; Cölfen, Helmut; Kröger, Roland; Evans, John Spencer , An Oligomeric C-RING Nacre Protein Influences Prenucleation Events and Organizes Mineral Nanoparticles, 2014, Biochemistry, 10.1021/bi5008854
X-ray energy-dispersive spectrometry during in situ liquid cell studies using an analytical electron microscope	https://academic.oup.com/mam/article-abstract/20/2/323/6932345	Zaluzec, Nestor J.; Burke, M. Grace; Haigh, Sarah J.; Kulzick, Matthew A. , X-ray energy-dispersive spectrometry during in situ liquid cell studies using an analytical electron microscope, 2014, Microscopy and Microanalysis, 10.1017/S1431927614000154
Tuning Electrodeposition Parameters for Tailored Nanoparticle Size, Shape, and Morphology: An In Situ ec-STEM Investigation	https://www.cambridge.org/core/product/identifier/S143192761400926X/type/journal_article	Unocic, Raymond R.; Sacci, Robert L.; Veith, Gabriel M.; Dudney, Nancy J.; More, Karren L. , Tuning Electrodeposition Parameters for Tailored Nanoparticle Size, Shape, and Morphology: An In Situ ec-STEM Investigation, 2014, Microscopy and Microanalysis, 10.1017/S143192761400926X
Improved Microchip Design and Application for In Situ Transmission Electron Microscopy of Macromolecules	https://www.cambridge.org/core/product/identifier/S1431927613013858/type/journal_article	Dukes, Madeline J; Thomas, Rebecca; Damiano, John; Klein, Kate L; Balasubramaniam, Sharavanan; Kayandan, Sanem; Riffle, Judy S; Davis, Richey M; McDonald, Sarah M; Kelly, Deborah F , Improved Microchip Design and Application for In Situ Transmission Electron Microscopy of Macromolecules, 2014, Microscopy and Microanalysis, 10.1017/S1431927613013858
NiO/YSZ Reduction for SOFC/SOEC Studied In Situ by Environmental Transmission Electron Microscopy	https://iopscience.iop.org/article/10.1149/06402.0073ecst	Simonsen, Søren Bredmose; Agersted, Karsten; Hansen, Karin Vels; Jacobsen, Torben; Wagner, Jakob Birkedal; Hansen, Thomas Willum; Kuhn, Luise Theil , NiO/YSZ Reduction for SOFC/SOEC Studied In Situ by Environmental Transmission Electron Microscopy, 2014, ECS Transactions, 10.1149/06402.0073ecst
Equilibrium Cu-Ag nanoalloy structure formation revealed by in situ scanning transmission electron microscopy heating experiments	http://aip.scitation.org/doi/10.1063/1.4866052	Lu, Ping; Chandross, Michael; Boyle, Timothy J.; Clark, Blythe G.; Vianco, Paul , Equilibrium Cu-Ag nanoalloy structure formation revealed by in situ scanning transmission electron microscopy heating experiments, 2014, APL Materials, 10.1063/1.4866052
In situ transmission electron microscopy and scanning transmission electron microscopy studies of sintering of Ag and Pt nanoparticles	https://linkinghub.elsevier.com/retrieve/pii/S1359645414006296	Asoro, M.A.; Ferreira, P.J.; Kovar, D. , In situ transmission electron microscopy and scanning transmission electron microscopy studies of sintering of Ag and Pt nanoparticles, 2014, Acta Materialia, 10.1016/j.actamat.2014.08.028
A Free Matlab Script for Spatial Drift Correction	https://www.cambridge.org/core/product/identifier/S1551929514000790/type/journal_article	Sugar, Joshua D.; Cummings, Aron W.; Jacobs, Benjamin W.; Robinson, David B. , A Free Matlab Script for Spatial Drift Correction, 2014, Microscopy Today, 10.1017/S1551929514000790
Size-dependent surface phase change of lithium iron phosphate during carbon coating	http://www.nature.com/articles/ncomms4415	Wang, Jiajun; Yang, Jinli; Tang, Yongji; Liu, Jian; Zhang, Yong; Liang, Guoxian; Gauthier, Michel; Karen Chen-Wiegart, Yu-chen; Norouzi Banis, Mohammad; Li, Xifei; Li, Ruying; Wang, Jun; Sham, T. K.; Sun, Xueliang , Size-dependent surface phase change of lithium iron phosphate during carbon coating, 2014, Nature Communications, 10.1038/ncomms4415
Correlating Atomic Structure and Transport in Suspended Graphene Nanoribbons	https://pubs.acs.org/doi/10.1021/nl501872x	Qi, Zhengqing John; Rodríguez-Manzo, Julio A.; Botello-Méndez, Andrés R.; Hong, Sung Ju; Stach, Eric A.; Park, Yung Woo; Charlier, Jean-Christophe; Drndić, Marija; Johnson, A. T. Charlie , Correlating Atomic Structure and Transport in Suspended Graphene Nanoribbons, 2014, Nano Letters, 10.1021/nl501872x
Membrane Thickness Dependence of Nanopore Formation with a Focused Helium Ion Beam	http://www.mdpi.com/1424-8220/14/5/8150	Sawafta, Furat; Carlsen, Autumn; Hall, Adam , Membrane Thickness Dependence of Nanopore Formation with a Focused Helium Ion Beam, 2014, Sensors, 10.3390/s140508150

TITLE	WEB LINK	CITATIONS
Electrospray formation and combustion characteristics of iodine-containing Al/CuO nanothermite microparticles	http://www.sciencedirect.com/science/article/pii/S0010218015001169	Wang, Haiyang; DeLisio, Jeffery B.; Jian, Guoqiang; Zhou, Wenbo; Zachariah, Michael R. , Electrospray formation and combustion characteristics of iodine-containing Al/CuO nanothermite microparticles, 2015, Combustion and Flame, 10.1016/j.combustflame.2015.04.005
Intermetallic GaPd ₂ Nanoparticles on SiO ₂ for Low-Pressure CO ₂ Hydrogenation to Methanol: Catalytic Performance and In Situ Characterization	https://doi.org/10.1021/acscatal.5b01271	Fiordaliso, Elisabetta M.; Sharafutdinov, Irek; Carvalho, Hudson W. P.; Grunwaldt, Jan-D.; Hansen, Thomas W.; Chorkendorff, Ib; Wagner, Jakob B.; Damsgaard, Christian D. , Intermetallic GaPd ₂ Nanoparticles on SiO ₂ for Low-Pressure CO ₂ Hydrogenation to Methanol: Catalytic Performance and In Situ Characterization, 2015, ACS Catalysis, 10.1021/acscatal.5b01271
Quantitative analysis for in situ sintering of 3% yttria-stabilized zirconia in the transmission electron microscope	http://www.sciencedirect.com/science/article/pii/S030439911400268X	Majidi, Hasti; Holland, Troy B.; van Benthem, Klaus , Quantitative analysis for in situ sintering of 3% yttria-stabilized zirconia in the transmission electron microscope, 2015, Ultramicroscopy, 10.1016/j.ultramic.2014.12.011
Low voltage transmission electron microscopy of graphene	https://onlinelibrary.wiley.com/doi/10.1002/sml.201401804	Bachmatiuk, Alicja; Zhao, Jiong; Gorantla, Sandeep Madhukar; Martinez, Ignacio Guillermo Gonzalez; Wiedermann, Jerzy; Lee, Changgu; Eckert, Juergen; Rummeli, Mark Hermann , Low voltage transmission electron microscopy of graphene, 2015, Small (Weinheim an Der Bergstrasse, Germany), 10.1002/sml.201401804
Advances in windowed gas cells for in-situ TEM studies	http://www.sciencedirect.com/science/article/pii/S2211285515001111	Wu, Fan; Yao, Nan , Advances in windowed gas cells for in-situ TEM studies, 2015, Nano Energy, 10.1016/j.nanoen.2015.03.015
Dynamic structural evolution of supported palladium–ceria core-shell catalysts revealed by in situ electron microscopy	https://www.nature.com/articles/ncomms8778	Zhang, Shuyi; Chen, Chen; Cargnello, Matteo; Fornasiero, Paolo; Gorte, Raymond J.; Graham, George W.; Pan, Xiaoqing , Dynamic structural evolution of supported palladium–ceria core-shell catalysts revealed by in situ electron microscopy, 2015, Nature Communications, 10.1038/ncomms8778
Improved Thermal Stability and Methane-Oxidation Activity of Pd/Al ₂ O ₃ Catalysts by Atomic Layer Deposition of ZrO ₂	https://doi.org/10.1021/acscatal.5b01348	Onn, Tzia Ming; Zhang, Shuyi; Arroyo-Ramirez, Lisandra; Chung, Yu-Chieh; Graham, George W.; Pan, Xiaoqing; Gorte, Raymond J. , Improved Thermal Stability and Methane-Oxidation Activity of Pd/Al ₂ O ₃ Catalysts by Atomic Layer Deposition of ZrO ₂ , 2015, ACS Catalysis, 10.1021/acscatal.5b01348
Thermal Stability of Gold Nanoparticles Embedded within Metal Oxide Frameworks Fabricated by Hybrid Modifications onto Sacrificial Textile Templates	https://doi.org/10.1021/la504094g	Padbury, Richard P.; Halbur, Jonathan C.; Krommenhoek, Peter J.; Tracy, Joseph B.; Jur, Jesse S. , Thermal Stability of Gold Nanoparticles Embedded within Metal Oxide Frameworks Fabricated by Hybrid Modifications onto Sacrificial Textile Templates, 2015, Langmuir, 10.1021/la504094g
Observing gas-catalyst dynamics at atomic resolution and single-atom sensitivity	http://www.sciencedirect.com/science/article/pii/S096843281400153X	Helveg, S.; Kisielowski, C. F.; Jinschek, J. R.; Specht, P.; Yuan, G.; Frei, H. , Observing gas-catalyst dynamics at atomic resolution and single-atom sensitivity, 2015, Micron, 10.1016/j.micron.2014.07.009
Environmental TEM study of the dynamic nanoscaled morphology of NiO/YSZ during reduction	http://www.sciencedirect.com/science/article/pii/S0926860X14006681	Simonsen, Søren Bredmose; Agersted, Karsten; Hansen, Karin Vels; Jacobsen, Torben; Wagner, Jakob Birkedal; Hansen, Thomas Willum; Kuhn, Luise Theil , Environmental TEM study of the dynamic nanoscaled morphology of NiO/YSZ during reduction, 2015, Applied Catalysis A: General, 10.1016/j.apcata.2014.10.045
Inelastic electron irradiation damage in hexagonal boron nitride	http://www.sciencedirect.com/science/article/pii/S0968432815000153	Cretu, Ovidiu; Lin, Yung-Chang; Suenaga, Kazutomo , Inelastic electron irradiation damage in hexagonal boron nitride, 2015, Micron, 10.1016/j.micron.2015.02.002
Crystallization Pathway for Metastable Hexagonal Close-Packed Gold in Germanium Nanowire Catalysts	https://doi.org/10.1021/acs.cgd.5b00803	Marshall, Ann F.; Thombare, Shruti V.; McIntyre, Paul C. , Crystallization Pathway for Metastable Hexagonal Close-Packed Gold in Germanium Nanowire Catalysts, 2015, Crystal Growth & Design, 10.1021/acs.cgd.5b00803
Electronic Transport of Recrystallized Freestanding Graphene Nanoribbons	https://doi.org/10.1021/nn507452g	Qi, Zhengqing John; Daniels, Colin; Hong, Sung Ju; Park, Yung Woo; Meunier, Vincent; Drndić, Marija; Johnson, A. T. Charlie , Electronic Transport of Recrystallized Freestanding Graphene Nanoribbons, 2015, ACS Nano, 10.1021/nn507452g
Consolidation of Partially Stabilized ZrO ₂ in the Presence of a Noncontacting Electric Field	https://pubmed.ncbi.nlm.nih.gov/26024181/	Majidi, Hasti; van Benthem, Klaus , Consolidation of Partially Stabilized ZrO ₂ in the Presence of a Noncontacting Electric Field, 2015, Physical Review Letters, 10.1103/PhysRevLett.114.195503
Palladium–platinum core-shell icosahedra with substantially enhanced activity and durability towards oxygen reduction	https://www.nature.com/articles/ncomms8594	Wang, Xue; Choi, Sang-Il; Roling, Luke T.; Luo, Ming; Ma, Cheng; Zhang, Lei; Chi, Miaofang; Liu, Jingyue; Xie, Zhaoxiong; Herron, Jeffrey A.; Mavrikakis, Manos; Xia, Younan , Palladium–platinum core-shell icosahedra with substantially enhanced activity and durability towards oxygen reduction, 2015, Nature Communications, 10.1038/ncomms8594

TITLE	WEB LINK	CITATIONS
Applying compressive sensing to TEM video: a substantial frame rate increase on any camera	https://doi.org/10.1186/s40679-015-0009-3	Stevens, Andrew; Kovarik, Libor; Abellan, Patricia; Yuan, Xin; Carin, Lawrence; Browning, Nigel D. , Applying compressive sensing to TEM video: a substantial frame rate increase on any camera, 2015, Advanced Structural and Chemical Imaging, 10.1186/s40679-015-0009-3
Surface Segregation of Fe in Pt-Fe Alloy Nanoparticles: Its Precedence and Effect on the Ordered-Phase Evolution during Thermal Annealing	https://chemistry-europe.onlinelibrary.wiley.com/doi/full/10.1002/cctc.201500380	Prabhudev, Sagar; Bugnet, Matthieu; Zhu, Guo-Zhen; Bock, Christina; Botton, Gianluigi A. , Surface Segregation of Fe in Pt-Fe Alloy Nanoparticles: Its Precedence and Effect on the Ordered-Phase Evolution during Thermal Annealing, 2015, ChemCatChem, 10.1002/cctc.201500380
Thermal Stability of Core-Shell Nanoparticles: A Combined in Situ Study by XPS and TEM	https://doi.org/10.1021/acs.chemmater.5b01862	Bonifacio, Cecile S.; Carenco, Sophie; Wu, Cheng Hao; House, Stephen D.; Bluhm, Hendrik; Yang, Judith C. , Thermal Stability of Core-Shell Nanoparticles: A Combined in Situ Study by XPS and TEM, 2015, Chemistry of Materials, 10.1021/acs.chemmater.5b01862
Unraveling the Origin of Structural Disorder in High Temperature Transition Al ₂ O ₃ : Structure of θ -Al ₂ O ₃	https://doi.org/10.1021/acs.chemmater.5b02523	Kovarik, Libor; Bowden, Mark; Shi, Dachuan; Washton, Nancy M.; Andersen, Amity; Hu, Jian Zhi; Lee, Jaekyoung; Szanyi, János; Kwak, Ja-Hun; Peden, Charles H. F. , Unraveling the Origin of Structural Disorder in High Temperature Transition Al ₂ O ₃ : Structure of θ -Al ₂ O ₃ , 2015, Chemistry of Materials, 10.1021/acs.chemmater.5b02523
Nanoscale size effects in crystallization of metallic glass nanorods	http://www.nature.com/articles/ncomms9157	Sohn, Sungwoo; Jung, Yeonwoong; Xie, Yujun; Osuji, Chinedum; Schroers, Jan; Cha, Judy J. , Nanoscale size effects in crystallization of metallic glass nanorods, 2015, Nature Communications, 10.1038/ncomms9157
Phosphorus-Doped p-n Homo Junction ZnO Nanowires: Growth Kinetics in Liquid and Their Optoelectronic Properties	https://doi.org/10.1021/acs.chemmater.5b01377	Lee, Wei-Che; Chen, Jui-Yuan; Huang, Chun-Wei; Chiu, Chung-Hua; Lin, Ting-Yi; Wu, Wen-Wei , Phosphorus-Doped p-n Homo Junction ZnO Nanowires: Growth Kinetics in Liquid and Their Optoelectronic Properties, 2015, Chemistry of Materials, 10.1021/acs.chemmater.5b01377
Quantitative Description of Crystal Nucleation and Growth from in Situ Liquid Scanning Transmission Electron Microscopy	https://doi.org/10.1021/acsnano.5b03720	Ievlev, Anton V.; Jesse, Stephen; Cochell, Thomas J.; Unocic, Raymond R.; Protopopescu, Vladimir A.; Kalinin, Sergei V. , Quantitative Description of Crystal Nucleation and Growth from in Situ Liquid Scanning Transmission Electron Microscopy, 2015, ACS Nano, 10.1021/acsnano.5b03720
Direct Imaging of the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) by Transmission Electron Microscopy	https://doi.org/10.1021/acsmacrolett.5b00479	Liu, Jinglin; Wei, Bin; Sloppy, Jennifer D.; Ouyang, Liangqi; Ni, Chaoying; Martin, David C. , Direct Imaging of the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) by Transmission Electron Microscopy, 2015, ACS Macro Letters, 10.1021/acsmacrolett.5b00479
Visualizing virus particle mobility in liquid at the nanoscale	https://pubs.rsc.org/en/content/articlelanding/2015/cc/c5cc05744b	Varano, A. Cameron; Rahimi, Amina; Dukes, Madeline J.; Poelzing, Steven; McDonald, Sarah M.; Kelly, Deborah F. , Visualizing virus particle mobility in liquid at the nanoscale, 2015, Chemical Communications, 10.1039/C5CC05744B
Exceptionally Slow Movement of Gold Nanoparticles at a Solid/Liquid Interface Investigated by Scanning Transmission Electron Microscopy	https://doi.org/10.1021/acs.langmuir.5b00150	Verch, Andreas; Pfaff, Marina; de Jonge, Niels , Exceptionally Slow Movement of Gold Nanoparticles at a Solid/Liquid Interface Investigated by Scanning Transmission Electron Microscopy, 2015, Langmuir, 10.1021/acs.langmuir.5b00150
Writing Silica Structures in Liquid with Scanning Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201400913	Put, Marcel W. P. van de; Carcouët, Camille C. M. C.; Bomans, Paul H. H.; Friedrich, Heiner; Jonge, Niels de; Sommerdijk, Nico A. J. M. , Writing Silica Structures in Liquid with Scanning Transmission Electron Microscopy, 2015, Small, https://doi.org/10.1002/sml.201400913
Visualization of film-forming polymer particles with a liquid cell technique in a transmission electron microscope	https://pubs.rsc.org/en/content/articlelanding/2015/an/c5an01067e	Liu, Lili; Liu, Yi; Wu, Wenjun; Miller, Christopher M.; Dickey, Elizabeth C. , Visualization of film-forming polymer particles with a liquid cell technique in a transmission electron microscope, 2015, Analyst, 10.1039/C5AN01067E
Real-time imaging of lead nanoparticles in solution – determination of the growth mechanism	https://pubs.rsc.org/en/content/articlelanding/2015/ra/c5ra18054f	Delach, Diana L.; Dukes, Madeline J.; Varano, A. Cameron; Kelly, Deborah F.; Ili, Albert D. Dukes , Real-time imaging of lead nanoparticles in solution – determination of the growth mechanism, 2015, RSC Advances, 10.1039/C5RA18054F

TITLE	WEB LINK	CITATIONS
Interaction Potentials of Anisotropic Nanocrystals from the Trajectory Sampling of Particle Motion using in Situ Liquid Phase Transmission Electron Microscopy	https://doi.org/10.1021/acscentsci.5b00001	Chen, Qian; Cho, Hoduk; Manthiram, Karthish; Yoshida, Mark; Ye, Xingchen; Alivisatos, A. Paul , Interaction Potentials of Anisotropic Nanocrystals from the Trajectory Sampling of Particle Motion using in Situ Liquid Phase Transmission Electron Microscopy, 2015, ACS Central Science, 10.1021/acscentsci.5b00001
Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing	https://www.nature.com/articles/ncomms9925	Chi, Miaofang; Wang, Chao; Lei, Yinkai; Wang, Guofeng; Li, Dongguo; More, Karren L.; Lupini, Andrew; Allard, Lawrence F.; Markovic, Nenad M.; Stamenkovic, Vojislav R. , Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing, 2015, Nature Communications, 10.1038/ncomms9925
Effect of metal-support interactions in Ni/Al ₂ O ₃ catalysts with low metal loading for methane dry reforming	http://www.sciencedirect.com/science/article/pii/S0926860X15000447	Ewbank, Jessica L.; Kovarik, Libor; Diallo, Fatoumata Z.; Sievers, Carsten , Effect of metal-support interactions in Ni/Al ₂ O ₃ catalysts with low metal loading for methane dry reforming, 2015, Applied Catalysis A: General, 10.1016/j.apcata.2015.01.029
Preparation and properties of PLGA nanofiber membranes reinforced with cellulose nanocrystals	http://www.sciencedirect.com/science/article/pii/S0927776515003276	Mo, Yunfei; Guo, Rui; Liu, Jianghui; Lan, Yong; Zhang, Yi; Xue, Wei; Zhang, Yuanming , Preparation and properties of PLGA nanofiber membranes reinforced with cellulose nanocrystals, 2015, Colloids and Surfaces B: Biointerfaces, 10.1016/j.colsurfb.2015.05.029
Atomic Visualization of the Phase Transition in Highly Strained BiFeO ₃ Thin Films with Excellent Pyroelectric Response	http://www.sciencedirect.com/science/article/pii/S2211285515003250	Chiu, Chung-Hua; Liang, Wen-I; Huang, Chun-Wei; Chen, Jui-Yuan; Liu, Yun-Ya; Li, Jiang-Yu; Hsin, Cheng-Lun; Chu, Ying-Hao; Wu, Wen-Wei , Atomic Visualization of the Phase Transition in Highly Strained BiFeO ₃ Thin Films with Excellent Pyroelectric Response, 2015, Nano Energy, 10.1016/j.nanoen.2015.08.001
Nucleation of fcc Ta when heating thin films	http://www.sciencedirect.com/science/article/pii/S1359646214004102	Janish, Matthew T.; Mook, William M.; Carter, C. Barry , Nucleation of fcc Ta when heating thin films, 2015, Scripta Materialia, 10.1016/j.scriptamat.2014.10.010
Unravelling Kinetic and Thermodynamic Effects on the Growth of Gold Nanoplates by Liquid Transmission Electron Microscopy	https://doi.org/10.1021/acs.nanolett.5b00140	Alloyeau, Damien; Dachraoui, Walid; Javed, Yasir; Belkahl, Hannen; Wang, Guillaume; Lecoq, Hélène; Ammar, Souad; Ersen, Ovidiu; Wisnet, Andreas; Gazeau, Florence; Ricolleau, Christian , Unravelling Kinetic and Thermodynamic Effects on the Growth of Gold Nanoplates by Liquid Transmission Electron Microscopy, 2015, Nano Letters, 10.1021/acs.nanolett.5b00140
Carbon Nanotube Degradation in Macrophages: Live Nanoscale Monitoring and Understanding of Biological Pathway	https://doi.org/10.1021/acsnano.5b03708	Elgrabli, Dan; Dachraoui, Walid; Ménard-Moyon, Cécilia; Liu, Xiao Jie; Bégin, Dominique; Bégin-Colin, Sylvie; Bianco, Alberto; Gazeau, Florence; Alloyeau, Damien , Carbon Nanotube Degradation in Macrophages: Live Nanoscale Monitoring and Understanding of Biological Pathway, 2015, ACS Nano, 10.1021/acsnano.5b03708
Electron beam induced chemistry of gold nanoparticles in saline solution	https://pubs.rsc.org/en/content/articlelanding/2015/cc/c5cc06812f	Hermannsdörfer, J.; Jonge, N. de; Verch, A. , Electron beam induced chemistry of gold nanoparticles in saline solution, 2015, Chemical Communications, 10.1039/C5CC06812F
Observation and Quantification of Nanoscale Processes in Lithium Batteries by Operando Electrochemical (S)TEM	https://doi.org/10.1021/acs.nanolett.5b00175	Mehdi, B. L.; Qian, J.; Nasybulin, E.; Park, C.; Welch, D. A.; Faller, R.; Mehta, H.; Henderson, W. A.; Xu, W.; Wang, C. M.; Evans, J. E.; Liu, J.; Zhang, J.-G.; Mueller, K. T.; Browning, N. D. , Observation and Quantification of Nanoscale Processes in Lithium Batteries by Operando Electrochemical (S) TEM, 2015, Nano Letters, 10.1021/acs.nanolett.5b00175
Real-Time Visualization of Nanoparticles Interacting with Glioblastoma Stem Cells	https://doi.org/10.1021/nl504481k	Pohlmann, Elliot S.; Patel, Kaya; Guo, Sujuan; Dukes, Madeline J.; Sheng, Zhi; Kelly, Deborah F. , Real-Time Visualization of Nanoparticles Interacting with Glioblastoma Stem Cells, 2015, Nano Letters, 10.1021/nl504481k
Nanoscale Imaging of Fundamental Li Battery Chemistry: Solid-Electrolyte Interphase Formation and Preferential Growth of Lithium Metal Nanoclusters	https://doi.org/10.1021/nl5048626	Sacci, Robert L.; Black, Jennifer M.; Balke, Nina; Dudney, Nancy J.; More, Karren L.; Unocic, Raymond R. , Nanoscale Imaging of Fundamental Li Battery Chemistry: Solid-Electrolyte Interphase Formation and Preferential Growth of Lithium Metal Nanoclusters, 2015, Nano Letters, 10.1021/nl5048626
Theory and New Applications of Ex Situ Lift Out	https://www.cambridge.org/core/product/identifier/S1431927615013720/type/journal_article	Giannuzzi, Lucille A.; Yu, Zhiyang; Yin, Denise; Harmer, Martin P.; Xu, Qiang; Smith, Noel S.; Chan, Lisa; Hiller, Jon; Hess, Dustin; Clark, Trevor , Theory and New Applications of Ex Situ Lift Out, 2015, Microscopy and Microanalysis, 10.1017/S1431927615013720
Synthesis of Hollow Nanotubes of Zn ₂ SiO ₄ or SiO ₂ : Mechanistic Understanding and Uranium Adsorption Behavior	https://pubs.acs.org/doi/10.1021/acscami.5b09805	Tripathi, Shalini; Bose, Roopa; Roy, Ahin; Nair, Sajitha; Ravishankar, N. , Synthesis of Hollow Nanotubes of Zn ₂ SiO ₄ or SiO ₂ : Mechanistic Understanding and Uranium Adsorption Behavior, 2015, ACS Applied Materials & Interfaces, 10.1021/acscami.5b09805

TITLE	WEB LINK	CITATIONS
Microscopy of nanoparticulate dispersions	https://onlinelibrary.wiley.com/doi/10.1111/jmi.12290	Brydson, R.; Brown, A.; Hodges, C.; Abellan, P.; Hondow, N. , Microscopy of nanoparticulate dispersions, 2015, Journal of Microscopy, 10.1111/jmi.12290
Recent developments of the in situ wet cell technology for transmission electron microscopies	http://xlink.rsc.org/?DOI=C4NR07209	Chen, Xin; Li, Chang; Cao, Hongling , Recent developments of the in situ wet cell technology for transmission electron microscopies, 2015, Nanoscale, 10.1039/C4NR07209J
Advances in sealed liquid cells for in-situ TEM electrochemical investigation of lithium-ion battery	https://linkinghub.elsevier.com/retrieve/pii/S2211285514002213	Wu, Fan; Yao, Nan , Advances in sealed liquid cells for in-situ TEM electrochemical investigation of lithium-ion battery, 2015, Nano Energy, 10.1016/j.nanoen.2014.11.004
On the role of the gas environment, electron-dose-rate, and sample on the image resolution in transmission electron microscopy	https://doi.org/10.1186/s40679-016-0018-x	Ek, Martin; Jespersen, Sebastian P. F.; Damsgaard, Christian D.; Helveg, Stig , On the role of the gas environment, electron-dose-rate, and sample on the image resolution in transmission electron microscopy, 2016, Advanced Structural and Chemical Imaging, 10.1186/s40679-016-0018-x
Rapid synthesis of hybrids and hollow PdO nanostructures by controlled in situ dissolution of a ZnO nanorod template: insights into the formation mechanism and thermal stability	https://pubs.rsc.org/en/content/articlelanding/2016/nr/c5nr06730h	Kundu, Subhajit; Ravishankar, N. , Rapid synthesis of hybrids and hollow PdO nanostructures by controlled in situ dissolution of a ZnO nanorod template: insights into the formation mechanism and thermal stability, 2016, Nanoscale, 10.1039/C5NR06730H
Visualisation of single atom dynamics in water gas shift reaction for hydrogen generation	https://pubs.rsc.org/en/content/articlelanding/2016/cy/c5cy01154j	Gai, Pratibha L.; Yoshida, Kenta; Ward, Michael R.; Walsh, Michael; Baker, Richard T.; Water, Leon van de; Watson, Mike J.; Boyes, Edward D. , Visualisation of single atom dynamics in water gas shift reaction for hydrogen generation, 2016, Catalysis Science & Technology, 10.1039/C5CY01154J
Mass transport phenomena in copper nanowires at high current density	https://doi.org/10.1007/s12274-016-0998-9	Huang, Yu-Ting; Huang, Chun-Wei; Chen, Jui-Yuan; Ting, Yi-Hsin; Cheng, Shao-Liang; Liao, Chien-Neng; Wu, Wen-Wei , Mass transport phenomena in copper nanowires at high current density, 2016, Nano Research, 10.1007/s12274-016-0998-9
Atomic Resolution in Situ Imaging of a Double-Bilayer Multistep Growth Mode in Gallium Nitride Nanowires	https://doi.org/10.1021/acs.nanolett.5b04650	Gamalski, A. D.; Tersoff, J.; Stach, E. A. , Atomic Resolution in Situ Imaging of a Double-Bilayer Multistep Growth Mode in Gallium Nitride Nanowires, 2016, Nano Letters, 10.1021/acs.nanolett.5b04650
Reversible Transformation of Pt Nanoparticles into Single Atoms inside High-Silica Chabazite Zeolite	https://doi.org/10.1021/jacs.6b10169	Moliner, Manuel; Gabay, Jadeene E.; Kliewer, Chris E.; Carr, Robert T.; Guzman, Javier; Casty, Gary L.; Serna, Pedro; Corma, Avelino , Reversible Transformation of Pt Nanoparticles into Single Atoms inside High-Silica Chabazite Zeolite, 2016, Journal of the American Chemical Society, 10.1021/jacs.6b10169
Correlation of morphology with catalytic performance of CrOx/Ce0.2Zr0.8O2 catalysts for NO oxidation via in-situ STEM	http://www.sciencedirect.com/science/article/pii/S1385894715016666	Cai, Wei; Zhong, Qin; Yu, Yang; Dai, Sheng , Correlation of morphology with catalytic performance of CrOx/Ce0.2Zr0.8O2 catalysts for NO oxidation via in-situ STEM, 2016, Chemical Engineering Journal, 10.1016/j.cej.2015.12.009
Revealing particle growth mechanisms by combining high-surface-area catalysts made with monodisperse particles and electron microscopy conducted at atmospheric pressure	http://www.sciencedirect.com/science/article/pii/S002195171600083X	Zhang, Shuyi; Cargnello, Matteo; Cai, Wei; Murray, Christopher B.; Graham, George W.; Pan, Xiaoqing , Revealing particle growth mechanisms by combining high-surface-area catalysts made with monodisperse particles and electron microscopy conducted at atmospheric pressure, 2016, Journal of Catalysis, 10.1016/j.jcat.2016.02.020
The impact of carbon coating on the synthesis and properties of α -Fe16N2 powders	https://pubs.rsc.org/en/content/articlelanding/2016/cp/c6cp00737f	Bridges, C. A.; Rios, O.; Allard, L. F.; Meyer, H. M.; Huq, A.; Jiang, Y.; Wang, J.-P.; Brady, M. P. , The impact of carbon coating on the synthesis and properties of α -Fe16N2 powders, 2016, Physical chemistry chemical physics: PCCP, 10.1039/c6cp00737f
Formation and Dynamics of Electron-Irradiation-Induced Defects in Hexagonal Boron Nitride at Elevated Temperatures	https://pubs.acs.org/doi/pdf/10.1021/acs.nanolett.7b02143	Pham, Thang; Gibb, Ashley L.; Li, Zhenglu; Gilbert, S. Matt; Song, Chengyu; Louie, Steven G.; Zettl, Alex , Formation and Dynamics of Electron-Irradiation-Induced Defects in Hexagonal Boron Nitride at Elevated Temperatures, 2016, Nano Letters, 10.1021/acs.nanolett.7b03442
Interactions between C and Cu atoms in single-layer graphene: direct observation and modelling	https://pubs.rsc.org/en/content/articlelanding/2016/nr/c5nr05913e#	Kano, Emi; Hashimoto, Ayako; Kaneko, Tomoaki; Tajima, Nobuo; Ohno, Takahisa; Takeguchi, Masaki , Interactions between C and Cu atoms in single-layer graphene: direct observation and modelling, 2016, Nanoscale, 10.1039/c5nr05913e
Real-Time Observation of Reconstruction Dynamics on TiO2(001) Surface under Oxygen via an Environmental Transmission Electron Microscope	https://doi.org/10.1021/acs.nanolett.5b03277	Yuan, Wentao; Wang, Yong; Li, Hengbo; Wu, Hanglong; Zhang, Ze; Selloni, Annabella; Sun, Chenghua , Real-Time Observation of Reconstruction Dynamics on TiO2(001) Surface under Oxygen via an Environmental Transmission Electron Microscope, 2016, Nano Letters, 10.1021/acs.nanolett.5b03277

TITLE	WEB LINK	CITATIONS
Nickel/Platinum Dual Silicide Axial Nanowire Heterostructures with Excellent Photosensor Applications	https://pubmed.ncbi.nlm.nih.gov/26789624/	Wu, Yen-Ting; Huang, Chun-Wei; Chiu, Chung-Hua; Chang, Chia-Fu; Chen, Jui-Yuan; Lin, Ting-Yi; Huang, Yu-Ting; Lu, Kuo-Chang; Yeh, Ping-Hung; Wu, Wen-Wei , Nickel/Platinum Dual Silicide Axial Nanowire Heterostructures with Excellent Photosensor Applications, 2016, Nano Letters, 10.1021/acs.nanolett.5b04309
In Situ Observation on Dislocation-Controlled Sublimation of Mg Nanoparticles	https://doi.org/10.1021/acs.nanolett.5b04439	Yu, Qian; Mao, Min-Min; Li, Qing-Jie; Fu, Xiao-Qian; Tian, He; Li, Ji-Xue; Mao, Scott X.; Zhang, Ze , In Situ Observation on Dislocation-Controlled Sublimation of Mg Nanoparticles, 2016, Nano Letters, 10.1021/acs.nanolett.5b04439
Direct observation of Li diffusion in Li-doped ZnO nanowires	https://doi.org/10.1088/2053-1591/2F5%2F054001	Li, Guohua; Yu, Lei; Hudak, Bethany M.; Chang, Yao-Jen; Baek, Hyeonjun; Sundararajan, Abhishek; Strachan, Douglas R.; Yi, Gyu-Chul; Guiton, Beth S. , Direct observation of Li diffusion in Li-doped ZnO nanowires, 2016, Materials Research Express, 10.1088/2053-1591/3/5/054001
Robust mesoporous silica compacts: multi-scale characterization of microstructural changes related to physical-mechanical properties	https://doi.org/10.1007/s10853-016-9759-0	Maheshwari, Harsh; Roehling, John D.; Turner, Bryce A.; Abdinor, Jamal; Tran-Roehling, Tien B.; Deo, Milind D.; Bartl, Michael H.; Risbud, Subhash H.; van Benthem, Klaus , Robust mesoporous silica compacts: multi-scale characterization of microstructural changes related to physical-mechanical properties, 2016, Journal of Materials Science, 10.1007/s10853-016-9759-0
Observing the evolution of graphene layers at high current density	https://doi.org/10.1007/s12274-016-1237-0	Huang, Chun-Wei; Chen, Jui-Yuan; Chiu, Chung-Hua; Hsin, Cheng-Lun; Tseng, Tseung-Yuen; Wu, Wen-Wei , Observing the evolution of graphene layers at high current density, 2016, Nano Research, 10.1007/s12274-016-1237-0
Dynamical Observation and Detailed Description of Catalysts under Strong Metal-Support Interaction	https://doi.org/10.1021/acs.nanolett.6b01769	Zhang, Shuyi; Plessow, Philipp N.; Willis, Joshua J.; Dai, Sheng; Xu, Mingjie; Graham, George W.; Cargnello, Matteo; Abild-Pedersen, Frank; Pan, Xiaoqing , Dynamical Observation and Detailed Description of Catalysts under Strong Metal-Support Interaction, 2016, Nano Letters, 10.1021/acs.nanolett.6b01769
Determination of the initial oxidation behavior of Zircaloy-4 by in-situ TEM	http://www.sciencedirect.com/science/article/pii/S0022311516300824	Harlow, Wayne; Ghassemi, Hessam; Taheri, Mitra L. , Determination of the initial oxidation behavior of Zircaloy-4 by in-situ TEM, 2016, Journal of Nuclear Materials, 10.1016/j.jnucmat.2016.03.009
Defects do Catalysis: CO Monolayer Oxidation and Oxygen Reduction Reaction on Hollow PtNi/C Nanoparticles	https://doi.org/10.1021/acscatal.6b01106	Dubau, Laetitia; Nelayah, Jaysen; Moldovan, Simona; Ersen, Ovidiu; Bordet, Pierre; Drnec, Jakub; Asset, Tristan; Chattot, Raphaël; Maillard, Frédéric , Defects do Catalysis: CO Monolayer Oxidation and Oxygen Reduction Reaction on Hollow PtNi/C Nanoparticles, 2016, ACS Catalysis, 10.1021/acscatal.6b01106
Fractal growth of platinum electrodeposits revealed by in situ electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2016/nr/c6nr05167g	Wang, Lifeng; Wen, Jianguo; Sheng, Huaping; Miller, Dean J. , Fractal growth of platinum electrodeposits revealed by in situ electron microscopy, 2016, Nanoscale, 10.1039/C6NR05167G
In-Situ Liquid TEM Study on the Degradation Mechanism of Fuel Cell Catalysts	https://www.sae.org/publications/technical-papers/content/2016-01-1192/	Kato, Hisao , In-Situ Liquid TEM Study on the Degradation Mechanism of Fuel Cell Catalysts, 2016, SAE International Journal of Alternative Powertrains, 10.4271/2016-01-1192
Importance and Challenges of Electrochemical in Situ Liquid Cell Electron Microscopy for Energy Conversion Research	https://doi.org/10.1021/acs.accounts.6b00330	Hodnik, Nejc; Dehm, Gerhard; Mayrhofer, Karl J. J. , Importance and Challenges of Electrochemical in Situ Liquid Cell Electron Microscopy for Energy Conversion Research, 2016, Accounts of Chemical Research, 10.1021/acs.accounts.6b00330
1D oriented attachment of calcite nanocrystals: formation of single-crystalline rods through collision	https://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra09452j	Takasaki, Mihiro; Kimura, Yuki; Yamazaki, Tomoya; Oaki, Yuya; Imai, Hiroaki , 1D oriented attachment of calcite nanocrystals: formation of single-crystalline rods through collision, 2016, RSC Advances, 10.1039/C6RA09452J
Preparation and Loading Process of Single Crystalline Samples into a Gas Environmental Cell Holder for In Situ Atomic Resolution Scanning Transmission Electron Microscopic Observation	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/abs/preparation-and-loading-process-of-single-crystalline-samples-into-a-gas-environmental-cell-holder-for-in-situ-atomic-resolution-scanning-transmission-electron-microscopic-observation/C4A0371B31BC03D26CB7751820052D44	Straubinger, Rainer; Beyer, Andreas; Volz, Kerstin , Preparation and Loading Process of Single Crystalline Samples into a Gas Environmental Cell Holder for In Situ Atomic Resolution Scanning Transmission Electron Microscopic Observation, 2016, Microscopy and Microanalysis, 10.1017/S1431927616000593
In-situ-by-Ex-situ: FIB-less Preparation of Bulk Samples on Heating Membranes for Atomic Resolution STEM Imaging	http://www.journals.cambridge.org/abstract_S1431927616004724	Xu, Weizong; Grimley, Everett D.; LeBeau, James M. , In-situ-by-Ex-situ: FIB-less Preparation of Bulk Samples on Heating Membranes for Atomic Resolution STEM Imaging, 2016, Microscopy and Microanalysis, 10.1017/S1431927616004724

TITLE	WEB LINK	CITATIONS
In situ TEM studies of micron-sized all-solid-state fluoride ion batteries: Preparation, prospects, and challenges	https://onlinelibrary.wiley.com/doi/abs/10.1002/jemt.22675	Fawey, Mohammed Hammad; Chakravadhanula, Venkata Sai Kiran; Reddy, Munnangi Anji; Rongeat, Carine; Scherer, Torsten; Hahn, Horst; Fichtner, Maximilian; Kübel, Christian , In situ TEM studies of micron-sized all-solid-state fluoride ion batteries: Preparation, prospects, and challenges, 2016, Microscopy Research and Technique, 10.1002/jemt.22675
Growth of dendritic nanostructures by liquid-cell transmission electron microscopy: a reflection of the electron-irradiation history	https://doi.org/10.1186/s40679-016-0023-0	Ahmad, Nabeel; Le Bouar, Yann; Ricolleau, Christian; Alloyeau, Damien , Growth of dendritic nanostructures by liquid-cell transmission electron microscopy: a reflection of the electron-irradiation history, 2016, Advanced Structural and Chemical Imaging, 10.1186/s40679-016-0023-0
Live Bacterial Physiology Visualized with 5 nm Resolution Using Scanning Transmission Electron Microscopy	https://doi.org/10.1021/acsnano.5b07697	Kennedy, Eamonn; Nelson, Edward M.; Tanaka, Tetsuya; Damiano, John; Timp, Gregory , Live Bacterial Physiology Visualized with 5 nm Resolution Using Scanning Transmission Electron Microscopy, 2016, ACS Nano, 10.1021/acsnano.5b07697
In Situ Electron Microscopy Imaging and Quantitative Structural Modulation of Nanoparticle Superlattices	https://doi.org/10.1021/acsnano.6b05270	Kim, Juyeong; Jones, Matthew R.; Ou, Zihao; Chen, Qian , In Situ Electron Microscopy Imaging and Quantitative Structural Modulation of Nanoparticle Superlattices, 2016, ACS Nano, 10.1021/acsnano.6b05270
Imaging the Hydrated Microbe-Metal Interface Using Nanoscale Spectrum Imaging	https://onlinelibrary.wiley.com/doi/abs/10.1002/ppsc.201600073	Lewis, Edward A.; Downie, Helen; Collins, Richard F.; Prestat, Eric; Lloyd, Jonathan R.; Haigh, Sarah J. , Imaging the Hydrated Microbe-Metal Interface Using Nanoscale Spectrum Imaging, 2016, Particle & Particle Systems Characterization, https://doi.org/10.1002/ppsc.201600073
The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries	https://www.nature.com/articles/srep34267	Mehdi, B. Layla; Stevens, Andrew; Qian, Jiangfeng; Park, Chiwoo; Xu, Wu; Henderson, Wesley A.; Zhang, Ji-Guang; Mueller, Karl T.; Browning, Nigel D. , The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries, 2016, Scientific Reports, 10.1038/srep34267
Sample Preparation Methodologies for In Situ Liquid and Gaseous Cell Analytical Transmission Electron Microscopy of Electropolished Specimens	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/abs/sample-preparation-methodologies-for-in-situ-liquid-and-gaseous-cell-analytical-transmission-electron-microscopy-of-electropolished-specimens/2EF60DDA6421035B91C31E0C13B2B902	Zhong, Xiang Li; Schilling, Sibylle; Zaluzec, Nestor J.; Burke, M. Grace , Sample Preparation Methodologies for In Situ Liquid and Gaseous Cell Analytical Transmission Electron Microscopy of Electropolished Specimens, 2016, Microscopy and Microanalysis, 10.1017/S1431927616011855
Atomistic Insights into the Oriented Attachment of Tunnel-Based Oxide Nanostructures	https://doi.org/10.1021/acsnano.5b05535	Yuan, Yifei; Wood, Stephen M.; He, Kun; Yao, Wentao; Tompsett, David; Lu, Jun; Nie, Anmin; Islam, M. Saiful; Shahbazian-Yassar, Reza , Atomistic Insights into the Oriented Attachment of Tunnel-Based Oxide Nanostructures, 2016, ACS Nano, 10.1021/acsnano.5b05535
Impact of Membrane-Induced Particle Immobilization on Seeded Growth Monitored by In Situ Liquid Scanning Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201502974	Weiner, Rebecca G.; Chen, Dennis P.; Unocic, Raymond R.; Skrabalak, Sara E. , Impact of Membrane-Induced Particle Immobilization on Seeded Growth Monitored by In Situ Liquid Scanning Transmission Electron Microscopy, 2016, Small, https://doi.org/10.1002/sml.201502974
Precise In Situ Modulation of Local Liquid Chemistry via Electron Irradiation in Nanoreactors Based on Graphene Liquid Cells	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201602273	Wang, Canhui; Shokuhfar, Tolou; Klie, Robert F. , Precise In Situ Modulation of Local Liquid Chemistry via Electron Irradiation in Nanoreactors Based on Graphene Liquid Cells, 2016, Advanced Materials, 10.1002/adma.201602273
Direct-write liquid phase transformations with a scanning transmission electron microscope	https://pubs.rsc.org/en/content/articlelanding/2016/nr/c6nr04994j	Unocic, Raymond R.; Lupini, Andrew R.; Borisevich, Albina Y.; Cullen, David A.; Kalinin, Sergei V.; Jesse, Stephen , Direct-write liquid phase transformations with a scanning transmission electron microscope, 2016, Nanoscale, 10.1039/C6NR04994J
Anomalous Growth and Coalescence Dynamics of Hybrid Perovskite Nanoparticles Observed by Liquid-Cell Transmission Electron Microscopy	https://doi.org/10.1021/acsnano.6b04234	Qin, Fuyu; Wang, Zhiwei; Wang, Zhong Lin , Anomalous Growth and Coalescence Dynamics of Hybrid Perovskite Nanoparticles Observed by Liquid-Cell Transmission Electron Microscopy, 2016, ACS Nano, 10.1021/acsnano.6b04234
In Situ Observation of Hematite Nanoparticle Aggregates Using Liquid Cell Transmission Electron Microscopy	https://doi.org/10.1021/acs.est.5b06305	Liu, Juan; Wang, Zhiwei; Sheng, Anxu; Liu, Feng; Qin, Fuyu; Wang, Zhong Lin , In Situ Observation of Hematite Nanoparticle Aggregates Using Liquid Cell Transmission Electron Microscopy, 2016, Environmental Science & Technology, 10.1021/acs.est.5b06305
Observing Growth of Nanostructured ZnO in Liquid	https://doi.org/10.1021/acs.chemmater.6b02040	Hsieh, Ting-Huan; Chen, Jui-Yuan; Huang, Chun-Wei; Wu, Wen-Wei , Observing Growth of Nanostructured ZnO in Liquid, 2016, Chemistry of Materials, 10.1021/acs.chemmater.6b02040
Semiconductor–Metal Nanofloret Hybrid Structures by Self-Processing Synthesis	https://doi.org/10.1021/jacs.5b12667	Hazut, Ori; Waichman, Sharon; Subramani, Thangavel; Sarkar, Debabrata; Dash, Sthitaprajna; Roncal-Herrero, Teresa; Kröger, Roland; Yerushalmi, Roie , Semiconductor–Metal Nanofloret Hybrid Structures by Self-Processing Synthesis, 2016, Journal of the American Chemical Society, 10.1021/jacs.5b12667
Synergistic Biomineralization Phenomena Created by a Combinatorial Nacre Protein Model System	https://doi.org/10.1021/acs.biochem.6b00163	Chang, Eric P.; Roncal-Herrero, Teresa; Morgan, Tamara; Dunn, Katherine E.; Rao, Ashit; Kunitake, Jennie A. M. R.; Lui, Susan; Bilton, Matthew; Estroff, Lara A.; Kröger, Roland; Johnson, Steven; Cölfen, Helmut; Evans, John Spencer , Synergistic Biomineralization Phenomena Created by a Combinatorial Nacre Protein Model System, 2016, Biochemistry, 10.1021/acs.biochem.6b00163
Sublimation of Ag nanocrystals and their wetting behaviors with graphene and carbon nanotubes	http://www.sciencedirect.com/science/article/pii/S0008622316300938	Lian, Ruixue; Yu, Han; He, Longbing; Zhang, Lei; Zhou, Yilong; Bu, Xinyang; Xu, Tao; Sun, Litao , Sublimation of Ag nanocrystals and their wetting behaviors with graphene and carbon nanotubes, 2016, Carbon, 10.1016/j.carbon.2016.01.105
An experimental system combined with a micromachine and double-tilt TEM holder	http://www.sciencedirect.com/science/article/pii/S0167931716303501	Sato, Takaaki; Tochigi, Eita; Mizoguchi, Teruyasu; Ikuhara, Yuichi; Fujita, Hiroyuki , An experimental system combined with a micromachine and double-tilt TEM holder, 2016, Microelectronic Engineering, 10.1016/j.mee.2016.06.018

TITLE	WEB LINK	CITATIONS
Electrochemistry in Liquid Environments: Challenges in the Presence of Accelerated Electrons	https://www.researchgate.net/publication/310841907_Electrochemistry_in_Liquid_Environments_Challenges_in_the_Presence_of_Accelerated_Electrons	Chakravadhanula, Venkata Sai Kiran; Teodoro, Thais Silva; Scherer, Torsten; Garlapati, Suresh Kumar; Kobler, Aaron; Neelisetty, Krishna Kanth; Fawey, Mohammed Hammad; Kuebel, Christian, Electrochemistry in Liquid Environments: Challenges in the Presence of Accelerated Electrons, 2016, EMC Special, -
In Situ Ptychography of Heterogeneous Catalysts using Hard X-Rays: High Resolution Imaging at Ambient Pressure and Elevated Temperature	https://www.cambridge.org/core/product/identifier/S1431927615015573/type/journal_article	Baier, Sina; Damsgaard, Christian D.; Scholz, Maria; Benzi, Federico; Rochet, Amélie; Hoppe, Robert; Scherer, Torsten; Shi, Junjie; Wittstock, Arne; Weinhausen, Britta; Wagner, Jakob B.; Schroer, Christian G.; Grunwaldt, Jan-Dierk, In Situ Ptychography of Heterogeneous Catalysts using Hard X-Rays: High Resolution Imaging at Ambient Pressure and Elevated Temperature, 2016, Microscopy and Microanalysis, 10.1017/S1431927615015573
In-situ studies of the dendritic yttria precursor nanostructures growth dynamics at elevated temperatures using liquid-cell transmission electron microscope	https://onlinelibrary.wiley.com/doi/full/10.1002/9783527808465.EMC2016.6563	Sturm, Saso; Ambrožič, Bojan; Bele, Marjan; Kostevšek, Nina; Zuzec Rozman, Kristina, In-situ studies of the dendritic yttria precursor nanostructures growth dynamics at elevated temperatures using liquid-cell transmission electron microscope, 2016, European Microscopy Congress 2016: Proceedings, -
Influence of gas atmospheres and ceria on the stability of nanoporous gold studied by environmental electron microscopy and in situ ptychography	http://xlink.rsc.org/?DOI=C6RA12853	Baier, Sina; Wittstock, Arne; Damsgaard, Christian D.; Diaz, Ana; Reinhardt, Juliane; Benzi, Federico; Shi, Junjie; Scherer, Torsten; Wang, Di; Kübel, Christian; Schroer, Christian G.; Grunwaldt, Jan-Dierk, Influence of gas atmospheres and ceria on the stability of nanoporous gold studied by environmental electron microscopy and in situ ptychography, 2016, RSC Advances, 10.1039/C6RA12853J
In-situ TEM observation of in-plane silicon nanowires growth via solid-liquid-solid process: reactive wetting of indium droplets on a-Si:H	https://hal.archives-ouvertes.fr/hal-03815681/document	Fan, Zheng; Maurice, Jean-Luc; Florea, Ileana; Guilet, Stéphane; Cambriil, Edmond; Lafosse, Xavier; Couraud, Laurent; Merghem, Kamel; Bouchoule, Sophie; Yu, Linwei; Grabulosa, Roura, In-situ TEM observation of in-plane silicon nanowires growth via solid-liquid-solid process: reactive wetting of indium droplets on a-Si:H, 2016, ArXiv, 10.48550/arXiv.1611.05591
Diphosphine-Protected Au 22 Nanoclusters on Oxide Supports Are Active for Gas-Phase Catalysis without Ligand Removal	https://pubs.acs.org/doi/10.1021/acs.nanolett.6b03221	Wu, Zili; Hu, Guoxiang; Jiang, De-en; Mullins, David R.; Zhang, Qian-Fan; Allard, Lawrence F.; Wang, Lai-Sheng; Overbury, Steven H., Diphosphine-Protected Au 22 Nanoclusters on Oxide Supports Are Active for Gas-Phase Catalysis without Ligand Removal, 2016, Nano Letters, 10.1021/acs.nanolett.6b03221
In-situ real-space imaging of crystal surface reconstruction dynamics via electron microscopy	http://arxiv.org/abs/1606.01224	Xu, Weizong; Bowes, Preston C.; Grimley, Everett D.; Irving, Douglas L.; LeBeau, James M., In-situ real-space imaging of crystal surface reconstruction dynamics via electron microscopy, 2016, Applied Physics Letters, 10.1063/1.4967978
Microwave sintering and in-situ transmission electron microscopy heating study of Li ₁₋₂ (Mn _{0.53} Co _{0.27})O ₂ with improved electrochemical performance	https://linkinghub.elsevier.com/retrieve/pii/S037877531630814X	Wu, Jingjing; Liu, Xialin; Bi, Han; Song, Yuanzhe; Wang, Chao; Cao, Qi; Liu, Zhengwang; Wang, Min; Che, Renchao, Microwave sintering and in-situ transmission electron microscopy heating study of Li ₁₋₂ (Mn _{0.53} Co _{0.27})O ₂ with improved electrochemical performance, 2016, Journal of Power Sources, 10.1016/j.jpowsour.2016.06.102
Direct TEM observations of growth mechanisms of two-dimensional MoS ₂ flakes	http://www.nature.com/articles/ncomms12206	Fei, Linfeng; Lei, Shuijin; Zhang, Wei-Bing; Lu, Wei; Lin, Ziyuan; Lam, Chi Hang; Chai, Yang; Wang, Yu, Direct TEM observations of growth mechanisms of two-dimensional MoS ₂ flakes, 2016, Nature Communications, 10.1038/ncomms12206
Strong Spreading in a Droplet Flow for Low-Dimensional Nanostructure Growth	https://arxiv.org/abs/1611.05591	Fan, Zheng; Maurice, Jean-Luc; Florea, Ileana; Chen, Wanghua; Yu, Linwei; Guilet, Stéphane; Cambriil, Edmond; Lafosse, Xavier; Couraud, Laurent; Merghem, Kamel; Bouchoule, Sophie; Roca i Cabarrocas, Pere, Strong Spreading in a Droplet Flow for Low-Dimensional Nanostructure Growth, 2016, ArXiv, https://doi.org/10.48550/arXiv.1611.05591
Live Cell Electron Microscopy Is Probably Impossible	https://pubs.acs.org/doi/10.1021/acsnano.6b02809	de Jonge, Niels; Peckys, Diana B., Live Cell Electron Microscopy Is Probably Impossible, 2016, ACS Nano, 10.1021/acsnano.6b02809
Dislocation mediated alignment during metal nanoparticle coalescence	https://linkinghub.elsevier.com/retrieve/pii/S1359645416306486	Lange, A.P.; Samanta, A.; Majidi, H.; Mahajan, S.; Ging, J.; Olson, T.Y.; van Benthem, K.; Elhadj, S., Dislocation mediated alignment during metal nanoparticle coalescence, 2016, Acta Materialia, 10.1016/j.actamat.2016.08.061
Atomically engineered ferroic layers yield a room-temperature magnetoelectric multiferroic	http://www.nature.com/articles/nature19343	Mundy, Julia A.; Brooks, Charles M.; Holtz, Megan E.; Moyer, Jarrett A.; Das, Hena; Rébola, Alejandro F.; Heron, John T.; Clarkson, James D.; Disseler, Steven M.; Liu, Zhiqi; Farhan, Alan; Held, Rainer; Hovden, Robert; Padgett, Elliot; Mao, Qingyun; Paik, Hanjong; Misra, Rajiv; Kourkoutis, Lena F.; Arenholz, Elke; Scholl, Andreas; Borchers, Julie A.; Ratcliff, William D.; Ramesh, Ramamoorthy; Fennie, Craig J.; Schiffer, Peter; Muller, David A.; Schlom, Darrell G., Atomically engineered ferroic layers yield a room-temperature magnetoelectric multiferroic, 2016, Nature, 10.1038/nature19343

TITLE	WEB LINK	CITATIONS
Visualizing Macromolecules in Liquid at the Nanoscale	https://www.cambridge.org/core/product/identifier/9781316337455%23CT-bp-17/type/book_part	-
In situ Analytical TEM of Asphaltene Formation and Aggregation from Crude Oil	http://www.journals.cambridge.org/abstract_S1431927616004839	Janssen, Arne; Zaluzec, Nestor J.; Kulzick, Matthew A.; Crosher, Tom; Burke, M.G. , In situ Analytical TEM of Asphaltene Formation and Aggregation from Crude Oil, 2016, Microscopy and Microanalysis, 10.1017/S1431927616004839
Investigating the oxidation mechanism of tantalum nanoparticles at high heating rates	https://aip.scitation.org/doi/abs/10.1063/1.4995574	DeLisio, Jeffery B.; Wang, Xizheng; Wu, Tao; Egan, Garth C.; Jacob, Rohit J.; Zachariah, Michael R. , Investigating the oxidation mechanism of tantalum nanoparticles at high heating rates, 2017, Journal of Applied Physics, 10.1063/1.4995574
Understanding the graphitization and growth of free-standing nanocrystalline graphene using in situ transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2017/nr/c7nr03276e	Kumar, C. N. Shyam; Chakravadhanula, Venkata Sai Kiran; Riaz, Adnan; Dehm, Simone; Wang, Di; Mu, Xiaoke; Flavel, Benjamin; Krupke, Ralph; Kübel, Christian , Understanding the graphitization and growth of free-standing nanocrystalline graphene using in situ transmission electron microscopy, 2017, Nanoscale, 10.1039/C7NR03276E
Mitigating e-beam-induced hydrocarbon deposition on graphene for atomic-scale scanning transmission electron microscopy studies	https://avs.scitation.org/doi/abs/10.1116/1.5003034	Dyck, Ondrej; Kim, Songkil; Kalinin, Sergei V.; Jesse, Stephen , Mitigating e-beam-induced hydrocarbon deposition on graphene for atomic-scale scanning transmission electron microscopy studies, 2017, Journal of Vacuum Science & Technology B, 10.1116/1.5003034
Reduction reactions and densification during in situ TEM heating of iron oxide nanochains	https://aip.scitation.org/doi/10.1063/1.5004092	Bonifacio, Cecile S.; Das, Gautom; Kennedy, Ian M.; van Benthem, Klaus , Reduction reactions and densification during in situ TEM heating of iron oxide nanochains, 2017, Journal of Applied Physics, 10.1063/1.5004092
Evolution of Microstructural Disorder in Annealed Bismuth Telluride Nanowires	https://iopscience.iop.org/article/10.1149/2.0181703jss/meta	Erickson, Kristopher J.; Limmer, Steven J.; Yelton, W. Graham; Rochford, Caitlin; Siegal, Michael P.; Medlin, Douglas L. , Evolution of Microstructural Disorder in Annealed Bismuth Telluride Nanowires, 2017, ECS Journal of Solid State Science and Technology, 10.1149/2.0181703jss
Low temperature carbonization of cellulose nanocrystals for high performance carbon anode of sodium-ion batteries	http://www.sciencedirect.com/science/article/pii/S2211285517300216	Zhu, Hongli; Shen, Fei; Luo, Wei; Zhu, Shuze; Zhao, Minhua; Natarajan, Bharath; Dai, Jiaqi; Zhou, Lihui; Ji, Xiulei; Yassar, Reza S.; Li, Teng; Hu, Liangbing , Low temperature carbonization of cellulose nanocrystals for high performance carbon anode of sodium-ion batteries, 2017, Nano Energy, 10.1016/j.nanoen.2017.01.021
In-situ TEM observation of Multilevel Storage Behavior in low power FeRAM device	http://www.sciencedirect.com/science/article/pii/S2211285517300794	Chiu, Chung-Hua; Huang, Chun-Wei; Hsieh, Ying-Hui; Chen, Jui-Yuan; Chang, Chia-Fu; Chu, Ying-Hao; Wu, Wen-Wei , In-situ TEM observation of Multilevel Storage Behavior in low power FeRAM device, 2017, Nano Energy, 10.1016/j.nanoen.2017.02.008
External-field-induced crystal structure and domain texture in (1-x)Na _{0.5} Bi _{0.5} TiO ₃ -xK _{0.5} Bi _{0.5} TiO ₃ piezoceramics	http://www.sciencedirect.com/science/article/pii/S1359645417300642	Otonicar, M.; Park, J.; Logar, M.; Esteves, G.; Jones, J. L.; Jancar, B. , External-field-induced crystal structure and domain texture in (1-x)Na _{0.5} Bi _{0.5} TiO ₃ -xK _{0.5} Bi _{0.5} TiO ₃ piezoceramics, 2017, Acta Materialia, 10.1016/j.actamat.2017.01.052
Atomic Scale Dynamics of Contact Formation in the Cross-Section of InGaAs Nanowire Channels	https://doi.org/10.1021/acs.nanolett.6b04713	Chen, Renjie; Jungjohann, Katherine L.; Mook, William M.; Nogan, John; Dayeh, Shadi A. , Atomic Scale Dynamics of Contact Formation in the Cross-Section of InGaAs Nanowire Channels, 2017, Nano Letters, 10.1021/acs.nanolett.6b04713
In situ investigation of ordering phase transformations in FePt magnetic nanoparticles	http://www.sciencedirect.com/science/article/pii/S0304399116303667	Wittig, James E.; Bentley, James; Allard, Lawrence F. , In situ investigation of ordering phase transformations in FePt magnetic nanoparticles, 2017, Ultramicroscopy, 10.1016/j.ultramic.2016.11.025
Real-time atomistic observation of structural phase transformations in individual hafnia nanorods	https://www.nature.com/articles/ncomms15316	Hudak, Bethany M.; Depner, Sean W.; Waetzig, Gregory R.; Talapatra, Anjana; Arroyave, Raymundo; Banerjee, Sarbajit; Guiton, Beth S. , Real-time atomistic observation of structural phase transformations in individual hafnia nanorods, 2017, Nature Communications, 10.1038/ncomms15316
Catalytic Nanopatterning of Few-Layer Graphene	https://hal.archives-ouvertes.fr/hal-02182887	Melinte, Georgian; Moldovan, Simona; Hirlimann, Charles; Baaziz, Walid; Bégin-Colin, Sylvie; Pham-Huu, Cuong; Ersen, Ovidiu , Catalytic Nanopatterning of Few-Layer Graphene, 2017, ACS Catalysis, 10.1021/acscatal.7b01777
In Situ Solid-Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis	https://doi.org/10.1021/acs.inorgchem.7b01279	Gouget, Guillaume; Debecker, Damien P.; Kim, Ara; Olivieri, Giorgia; Gallet, Jean-Jacques; Bournel, Fabrice; Thomas, Cyril; Ersen, Ovidiu; Moldovan, Simona; Sanchez, Clément; Carencu, Sophie; Portehault, David , In Situ Solid-Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis, 2017, Inorganic Chemistry, 10.1021/acs.inorgchem.7b01279
Adsorbate-mediated strong metal-support interactions in oxide-supported Rh catalysts	https://www.nature.com/articles/nchem.2607	Matsubu, John C.; Zhang, Shuyi; DeRita, Leo; Marinkovic, Nebojsa S.; Chen, Jingguang G.; Graham, George W.; Pan, Xiaoqing; Christopher, Phillip , Adsorbate-mediated strong metal-support interactions in oxide-supported Rh catalysts, 2017, Nature Chemistry, 10.1038/nchem.2607

TITLE	WEB LINK	CITATIONS
Revealing Surface Elemental Composition and Dynamic Processes Involved in Facet-Dependent Oxidation of Pt ₃ Co Nanoparticles via in Situ Transmission Electron Microscopy	https://doi.org/10.1021/acs.nanolett.7b01325	Dai, Sheng; Hou, Yusheng; Onoue, Masatoshi; Zhang, Shuyi; Gao, Wenpei; Yan, Xingxu; Graham, George W.; Wu, Ruqian; Pan, Xiaoqing , Revealing Surface Elemental Composition and Dynamic Processes Involved in Facet-Dependent Oxidation of Pt ₃ Co Nanoparticles via in Situ Transmission Electron Microscopy, 2017, Nano Letters, 10.1021/acs.nanolett.7b01325
Platinum-Based Nanowires as Active Catalysts toward Oxygen Reduction Reaction: In Situ Observation of Surface-Diffusion-Assisted, Solid-State Oriented Attachment	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201703460	Ma, Yanling; Gao, Wenpei; Shan, Hao; Chen, Wenlong; Shang, Wen; Tao, Peng; Song, Chengyi; Addiego, Chris; Deng, Tao; Pan, Xiaoqing; Wu, Jianbo , Platinum-Based Nanowires as Active Catalysts toward Oxygen Reduction Reaction: In Situ Observation of Surface-Diffusion-Assisted, Solid-State Oriented Attachment, 2017, Advanced Materials, 10.1002/adma.201703460
Quantitative and Atomic-Scale View of CO-Induced Pt Nanoparticle Surface Reconstruction at Saturation Coverage via DFT Calculations Coupled with in Situ TEM and IR	https://doi.org/10.1021/jacs.7b01081	Avanesian, Talin; Dai, Sheng; Kale, Matthew J.; Graham, George W.; Pan, Xiaoqing; Christopher, Phillip , Quantitative and Atomic-Scale View of CO-Induced Pt Nanoparticle Surface Reconstruction at Saturation Coverage via DFT Calculations Coupled with in Situ TEM and IR, 2017, Journal of the American Chemical Society, 10.1021/jacs.7b01081
Integrated In Situ Characterization of a Molten Salt Catalyst Surface: Evidence of Sodium Peroxide and Hydroxyl Radical Formation	https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201704758	Takanabe, Kazuhiro; Khan, Abdulaziz M.; Tang, Yu; Nguyen, Luan; Ziani, Ahmed; Jacobs, Benjamin W.; Elbaz, Ayman M.; Sarathy, S. Mani; Tao, Franklin (Feng) , Integrated In Situ Characterization of a Molten Salt Catalyst Surface: Evidence of Sodium Peroxide and Hydroxyl Radical Formation, 2017, Angewandte Chemie International Edition, 10.1002/anie.201704758
In situ atomic-scale observation of oxygen-driven core-shell formation in Pt ₃ Co nanoparticles	https://www.nature.com/articles/s41467-017-00161-y	Dai, Sheng; You, Yuan; Zhang, Shuyi; Cai, Wei; Xu, Mingjie; Xie, Lin; Wu, Ruqian; Graham, George W.; Pan, Xiaoqing , In situ atomic-scale observation of oxygen-driven core-shell formation in Pt ₃ Co nanoparticles, 2017, Nature Communications, 10.1038/s41467-017-00161-y
High-temperature electron microscopy study of ThO ₂ microspheres sintering	http://www.sciencedirect.com/science/article/pii/S0955221916304630	Nkou Bouala, G. I.; Clavier, N.; L�chelle, J.; Monnier, J.; Ricolleau, Ch.; Dacheux, N.; Podor, R. , High-temperature electron microscopy study of ThO ₂ microspheres sintering, 2017, Journal of the European Ceramic Society, 10.1016/j.jeurceramsoc.2016.08.029
Direct Observation of Current-Induced Motion of a 3D Vortex Domain Wall in Cylindrical Nanowires	https://doi.org/10.1021/acsami.7b03404	Ivanov, Yurii P.; Chuvilin, Andrey; Lopatin, Sergei; Mohammed, Hanan; Kosel, Jurgen , Direct Observation of Current-Induced Motion of a 3D Vortex Domain Wall in Cylindrical Nanowires, 2017, ACS Applied Materials & Interfaces, 10.1021/acsami.7b03404
Direct Observation of Dual-Filament Switching Behaviors in Ta ₂ O ₅ -Based Memristors	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201603116	Chang, Chia-Fu; Chen, Jui-Yuan; Huang, Chun-Wei; Chiu, Chung-Hua; Lin, Ting-Yi; Yeh, Ping-Hung; Wu, Wen-Wei , Direct Observation of Dual-Filament Switching Behaviors in Ta ₂ O ₅ -Based Memristors, 2017, Small, 10.1002/sml.201603116
Gas Phase Synthesis of Multifunctional Fe-Based Nanocubes	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201605328	Vernieres, Jerome; Steinhauer, Stephan; Zhao, Junlei; Chapelle, Audrey; Menini, Philippe; Dufour, Nicolas; Diaz, Rosa E.; Nordlund, Kai; Djurabekova, Flyura; Grammatikopoulos, Panagiotis; Sowwan, Mukhles , Gas Phase Synthesis of Multifunctional Fe-Based Nanocubes, 2017, Advanced Functional Materials, 10.1002/adfm.201605328
Memristors with diffusive dynamics as synaptic emulators for neuromorphic computing	https://www.nature.com/articles/nmat4756	Wang, Zhongrui; Joshi, Saamil; Savel'ev, Sergey E.; Jiang, Hao; Midya, Rivu; Lin, Peng; Hu, Miao; Ge, Ning; Strachan, John Paul; Li, Zhiyong; Wu, Qing; Barnell, Mark; Li, Geng-Lin; Xin, Huolin L.; Williams, R. Stanley; Xia, Qiangfei; Yang, J. Joshua , Memristors with diffusive dynamics as synaptic emulators for neuromorphic computing, 2017, Nature Materials, 10.1038/nmat4756
In situ observation of the thermal stability of black phosphorus	https://doi.org/10.1088%2F2053-1583%2Faa55b2	Lin, Shenghuang; Li, Yanyong; Lu, Wei; Chui, Ying San; Rog�e, Lukas; Bao, Qiaoliang; Lau, Shu Ping , In situ observation of the thermal stability of black phosphorus, 2017, 2D Materials, 10.1088/2053-1583/aa55b2
Opposite effects of Cu and Pt atoms on graphene edges	https://iopscience.iop.org/article/10.7567/APEX.10.025104/meta	Kano, Emi; Hashimoto, Ayako; Takeguchi, Masaki , Opposite effects of Cu and Pt atoms on graphene edges, 2017, Applied Physics Express, 10.7567/APEX.10.025104
Evidencing the structural conversion of hydrothermally synthesized titanate nanorods by in situ electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2017/ta/c6ta09883e	Fei, Linfeng; Lu, Wei; Hu, Yongming; Gao, Guanyin; Yong, Zehui; Sun, Tiyu; Zhou, Naigen; Gu, Haoshuang; Wang, Yu , Evidencing the structural conversion of hydrothermally synthesized titanate nanorods by in situ electron microscopy, 2017, Journal of Materials Chemistry A, 10.1039/C6TA09883E
Understanding the Thermal Stability of Palladium–Platinum Core–Shell Nanocrystals by In Situ Transmission Electron Microscopy and Density Functional Theory	https://doi.org/10.1021/acsnano.6b08692	Vara, Madeline; Roling, Luke T.; Wang, Xue; Elnabawy, Ahmed O.; Hood, Zachary D.; Chi, Miaofang; Mavrikakis, Manos; Xia, Younan , Understanding the Thermal Stability of Palladium–Platinum Core–Shell Nanocrystals by In Situ Transmission Electron Microscopy and Density Functional Theory, 2017, ACS Nano, 10.1021/acsnano.6b08692

TITLE	WEB LINK	CITATIONS
Probing electron beam effects with chemoresistive nanosensors during in situ environmental transmission electron microscopy	https://aip.scitation.org/doi/abs/10.1063/1.4977711	Steinhauer, S.; Wang, Z.; Zhou, Z.; Krainer, J.; Köck, A.; Nordlund, K.; Djurabekova, F.; Grammatikopoulos, P.; Sowwan, M., Probing electron beam effects with chemoresistive nanosensors during in situ environmental transmission electron microscopy, 2017, Applied Physics Letters, 10.1063/1.4977711
Preparation and phase transition of FeOOH nanorods: strain effects on catalytic water oxidation	https://pubs.rsc.org/en/content/articlelanding/2017/nr/c6nr09790a	Park, Gisang; Kim, Yong-Il; Kim, Young Heon; Park, Mira; Jang, Kyu Yeon; Song, Hyunjoon; Nam, Ki Min, Preparation and phase transition of FeOOH nanorods: strain effects on catalytic water oxidation, 2017, Nanoscale, 10.1039/C6NR09790A
In situ chemoresistive sensing in the environmental TEM: probing functional devices and their nanoscale morphology	https://pubs.rsc.org/en/content/articlelanding/2017/nr/c6nr09322a	Steinhauer, Stephan; Vernieres, Jerome; Krainer, Johanna; Köck, Anton; Grammatikopoulos, Panagiotis; Sowwan, Mukhles, In situ chemoresistive sensing in the environmental TEM: probing functional devices and their nanoscale morphology, 2017, Nanoscale, 10.1039/C6NR09322A
In situ observation of the impact of surface oxidation on the crystallization mechanism of GeTe phase-change thin films by scanning transmission electron microscopy	https://aip.scitation.org/doi/10.1063/1.5002637	Berthier, R.; Bernier, N.; Cooper, D.; Sabbione, C.; Hippert, F.; Noé, P., In situ observation of the impact of surface oxidation on the crystallization mechanism of GeTe phase-change thin films by scanning transmission electron microscopy, 2017, Journal of Applied Physics, 10.1063/1.5002637
In Situ Atomic-Scale Observation of the Two-Dimensional Co(OH) ₂ Transition at Atmospheric Pressure	https://doi.org/10.1021/acs.chemmater.7b01291	Shen, Xiaochen; Dai, Sheng; Zhang, Changlin; Zhang, Shuyi; Sharkey, Stephen M.; Graham, George W.; Pan, Xiaoqing; Peng, Zhenmeng, In Situ Atomic-Scale Observation of the Two-Dimensional Co(OH) ₂ Transition at Atmospheric Pressure, 2017, Chemistry of Materials, 10.1021/acs.chemmater.7b01291
In Situ Industrial Bimetallic Catalyst Characterization using Scanning Transmission Electron Microscopy and X-ray Absorption Spectroscopy at One Atmosphere and Elevated Temperature	https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cphc.201700425	Prestat, Eric; Kulzick, Matthew A.; Dietrich, Paul J.; Smith, Mr Matthew; Tien, Mr Eu-Pin; Burke, M. Grace; Haigh, Sarah J.; Zaluzec, Nestor J., In Situ Industrial Bimetallic Catalyst Characterization using Scanning Transmission Electron Microscopy and X-ray Absorption Spectroscopy at One Atmosphere and Elevated Temperature, 2017, Chemphyschem: A European Journal of Chemical Physics and Physical Chemistry, 10.1002/cphc.201700425
In Situ Thermal Annealing Transmission Electron Microscopy (TEM) Investigation of III/V Semiconductor Heterostructures Using a Setup for Safe Usage of Toxic and Pyrophoric Gases	https://academic.oup.com/mam/article-abstract/23/4/751/6896748?redirectedFrom=fulltext	Straubinger, Rainer; Beyer, Andreas; Ochs, Thomas; Stolz, Wolfgang; Volz, Kerstin, In Situ Thermal Annealing Transmission Electron Microscopy (TEM) Investigation of III/V Semiconductor Heterostructures Using a Setup for Safe Usage of Toxic and Pyrophoric Gases, 2017, Microscopy and Microanalysis, 10.1017/S1431927617012351
Role of 2D and 3D defects on the reduction of LaNiO ₃ nanoparticles for catalysis	https://www.nature.com/articles/s41598-017-10703-5	Singh, Sarika; Prestat, Eric; Huang, Liang-Feng; Rondinelli, James M.; Haigh, Sarah J.; Rosen, Brian A., Role of 2D and 3D defects on the reduction of LaNiO ₃ nanoparticles for catalysis, 2017, Scientific Reports, 10.1038/s41598-017-10703-5
Layer-by-Layer Degradation of Methylammonium Lead Tri-iodide Perovskite Microplates	http://www.sciencedirect.com/science/article/pii/S2542435117300302	Fan, Zheng; Xiao, Hai; Wang, Yiliu; Zhao, Zipeng; Lin, Zhaoyang; Cheng, Hung-Chieh; Lee, Sung-Joon; Wang, Gongming; Feng, Ziying; Goddard, William A.; Huang, Yu; Duan, Xiangfeng, Layer-by-Layer Degradation of Methylammonium Lead Tri-iodide Perovskite Microplates, 2017, Joule, 10.1016/j.joule.2017.08.005
The application of in situ analytical transmission electron microscopy to the study of preferential intergranular oxidation in Alloy 600	http://www.sciencedirect.com/science/article/pii/S0304399116303345	Burke, M. G.; Bertali, G.; Prestat, E.; Scenini, F.; Haigh, S. J., The application of in situ analytical transmission electron microscopy to the study of preferential intergranular oxidation in Alloy 600, 2017, Ultramicroscopy, 10.1016/j.ultramic.2016.11.014
In Liquid Observation and Quantification of Nucleation and Growth of Gold Nanostructures Using in Situ Transmission Electron Microscopy	https://doi.org/10.1021/acs.jpcc.6b10400	Yang, Jie; Andrei, Carmen M.; Botton, Gianluigi A.; Soleymani, Leyla, In Liquid Observation and Quantification of Nucleation and Growth of Gold Nanostructures Using in Situ Transmission Electron Microscopy, 2017, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.6b10400
Applying shot boundary detection for automated crystal growth analysis during in situ transmission electron microscope experiments	https://doi.org/10.1186/s40679-016-0034-x	Moeglein, W. A.; Griswold, R.; Mehdi, B. L.; Browning, N. D.; Teuton, J., Applying shot boundary detection for automated crystal growth analysis during in situ transmission electron microscope experiments, 2017, Advanced Structural and Chemical Imaging, 10.1186/s40679-016-0034-x
NiAl Oxidation Reaction Processes Studied In Situ Using MEMS-Based Closed-Cell Gas Reaction Transmission Electron Microscopy	https://link.springer.com/article/10.1007/s11085-016-9676-2	Unocic, Kinga A.; Shin, Dongwon; Unocic, Raymond R.; Allard, Lawrence F., NiAl Oxidation Reaction Processes Studied In Situ Using MEMS-Based Closed-Cell Gas Reaction Transmission Electron Microscopy, 2017, Oxidation of Metals, 10.1007/s11085-016-9676-2
An in situ and ex situ TEM study into the oxidation of titanium (IV) sulphide	https://www.nature.com/articles/s41699-017-0024-4	Long, Edmund; O'Brien, Sean; Lewis, Edward A.; Prestat, Eric; Downing, Clive; Cucinotta, Clotilde S.; Sanvito, Stefano; Haigh, Sarah J.; Nicolosi, Valeria, An in situ and ex situ TEM study into the oxidation of titanium (IV) sulphide, 2017, 2D Materials and Applications, 10.1038/s41699-017-0024-4
In Situ Observation of Rh-CaTiO ₃ Catalysts during Reduction and Oxidation Treatments by Transmission Electron Microscopy	https://doi.org/10.1021/acscatal.6b03604	Dai, Sheng; Zhang, Shuyi; Katz, Michael B.; Graham, George W.; Pan, Xiaoqing, In Situ Observation of Rh-CaTiO ₃ Catalysts during Reduction and Oxidation Treatments by Transmission Electron Microscopy, 2017, ACS Catalysis, 10.1021/acscatal.6b03604

TITLE	WEB LINK	CITATIONS
Exploring the Formation of Symmetric Gold Nanostars by Liquid-Cell Transmission Electron Microscopy	https://doi.org/10.1021/acs.nanolett.7b01013	Ahmad, Nabeel; Wang, Guillaume; Nelayah, Jaysen; Ricolleau, Christian; Alloyeau, Damien , Exploring the Formation of Symmetric Gold Nanostars by Liquid-Cell Transmission Electron Microscopy, 2017, Nano Letters, 10.1021/acs.nanolett.7b01013
Real-time observation of protein aggregates in pharmaceutical formulations using liquid cell electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2017/lc/c6lc01160h	DiMemmo, Lynn M.; Varano, A. Cameron; Haulenbeek, Jonathan; Liang, Yanping; Patel, Kaya; Dukes, Madeline J.; Zheng, Songyan; Hubert, Mario; Piccoli, Steven P.; Kelly, Deborah F. , Real-time observation of protein aggregates in pharmaceutical formulations using liquid cell electron microscopy, 2017, Lab on a Chip, 10.1039/C6LC01160H
Colloidal Covalent Organic Frameworks	https://doi.org/10.1021/acscentsci.6b00331	Smith, Brian J.; Parent, Lucas R.; Overholts, Anna C.; Beaucage, Peter A.; Bisbey, Ryan P.; Chavez, Anton D.; Hwang, Nicky; Park, Chiwoo; Evans, Austin M.; Gianneschi, Nathan C.; Dichtel, William R. , Colloidal Covalent Organic Frameworks, 2017, ACS Central Science, 10.1021/acscentsci.6b00331
Two types of amorphous protein particles facilitate crystal nucleation	https://www.pnas.org/content/114/9/2154	Yamazaki, Tomoya; Kimura, Yuki; Vekilov, Peter G.; Furukawa, Erika; Shirai, Manabu; Matsumoto, Hiroaki; Driessche, Alexander E. S. Van; Tsukamoto, Katsuo , Two types of amorphous protein particles facilitate crystal nucleation, 2017, Proceedings of the National Academy of Sciences, 10.1073/pnas.1606948114
Formation of Au Nanoparticles in Liquid Cell Transmission Electron Microscopy: From a Systematic Study to Engineered Nanostructures	https://doi.org/10.1021/acs.chemmater.7b04421	Zhang, Yucheng; Keller, Debora; Rossell, Marta D.; Erni, Rolf , Formation of Au Nanoparticles in Liquid Cell Transmission Electron Microscopy: From a Systematic Study to Engineered Nanostructures, 2017, Chemistry of Materials, 10.1021/acs.chemmater.7b04421
Anisotropic Shape Changes of Silica Nanoparticles Induced in Liquid with Scanning Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201602466	Zečević, Jovana; Hermansdörfer, Justus; Schuh, Tobias; Jong, Krijn P. de; Jonge, Niels de , Anisotropic Shape Changes of Silica Nanoparticles Induced in Liquid with Scanning Transmission Electron Microscopy, 2017, Small, https://doi.org/10.1002/sml.201602466
Bio-camouflage of anatase nanoparticles explored by in situ high-resolution electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2017/nr/c7nr02239e	Ribeiro, Ana R.; Mukherjee, Arijita; Hu, Xuan; Shafien, Shayan; Ghodsi, Reza; He, Kun; Gemini-Piperni, Sara; Wang, Canhui; Klie, Robert F.; Shokuhfar, Tolou; Shahbazian-Yassar, Reza; Borojevic, Radovan; Rocha, Luis A.; Granjeiro, José M. , Bio-camouflage of anatase nanoparticles explored by in situ high-resolution electron microscopy, 2017, Nanoscale, 10.1039/C7NR02239E
Exploring dynamic surface processes during silicate mineral (wollastonite) dissolution with liquid cell TEM	https://onlinelibrary.wiley.com/doi/abs/10.1111/jmi.12509	Leonard, D. N.; Hellmann, R. , Exploring dynamic surface processes during silicate mineral (wollastonite) dissolution with liquid cell TEM, 2017, Journal of Microscopy, https://doi.org/10.1111/jmi.12509
Evolution analysis of V2O5-nH2O gels for preparation of xerogels having a high specific surface area and their replicas	https://pubs.rsc.org/en/content/articlelanding/2017/ra/c7ra06850f	Ishii, Kanji; Kimura, Yuki; Yamazaki, Tomoya; Oaki, Yuya; Imai, Hiroaki , Evolution analysis of V2O5-nH2O gels for preparation of xerogels having a high specific surface area and their replicas, 2017, RSC Advances, 10.1039/C7RA06850F
Building with ions: towards direct write of platinum nanostructures using in situ liquid cell helium ion microscopy	https://pubs.rsc.org/en/content/articlelanding/2017/nr/c7nr04417h	Ievlev, Anton V.; Jakowski, Jacek; Burch, Matthew J.; Iberi, Vighter; Hysmith, Holland; Joy, David C.; Sumpter, Bobby G.; Belianinov, Alex; Unocic, Raymond R.; Ovchinnikova, Olga S. , Building with ions: towards direct write of platinum nanostructures using in situ liquid cell helium ion microscopy, 2017, Nanoscale, 10.1039/C7NR04417H
The Use of Graphene and Its Derivatives for Liquid-Phase Transmission Electron Microscopy of Radiation-Sensitive Specimens	https://doi.org/10.1021/acs.nanolett.6b04383	Cho, Hoduk; Jones, Matthew R.; Nguyen, Son C.; Hauwiller, Matthew R.; Zettl, Alex; Alivisatos, A. Paul , The Use of Graphene and Its Derivatives for Liquid-Phase Transmission Electron Microscopy of Radiation-Sensitive Specimens, 2017, Nano Letters, 10.1021/acs.nanolett.6b04383
In Situ Observation of Au Nanostructure Evolution in Liquid Cell TEM	https://doi.org/10.1021/acs.jpcc.7b07956	Chen, Ying-Chen; Chen, Jui-Yuan; Wu, Wen-Wei , In Situ Observation of Au Nanostructure Evolution in Liquid Cell TEM, 2017, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.7b07956
Giant Radiolytic Dissolution Rates of Aqueous Ceria Observed in Situ by Liquid-Cell TEM	https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/cphc.201601398	Asghar, Muhammad Sajid Ali; Inkson, Beverley J.; Möbus, Günter , Giant Radiolytic Dissolution Rates of Aqueous Ceria Observed in Situ by Liquid-Cell TEM, 2017, ChemPhysChem, https://doi.org/10.1002/cphc.201601398
Stability of a Bifunctional Cu-Based Core@Zeolite Shell Catalyst for Dimethyl Ether Synthesis Under Redox Conditions Studied by Environmental Transmission Electron Microscopy and In Situ X-Ray Ptychography	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/stability-of-a-bifunctional-cubased-corezeolite-shell-catalyst-for-dimethyl-ether-synthesis-under-redox-conditions-studied-by-environmental-transmission-electron-microscopy-and-in-situ-xray-ptychography/B5465D4543914026ACD97505FDB75D6B	Baier, Sina; Damsgaard, Christian D.; Klumpp, Michael; Reinhardt, Juliane; Sheppard, Thomas; Balogh, Zoltan; Kasama, Takeshi; Benzi, Federico; Wagner, Jakob B.; Schwioger, Wilhelm; Schroer, Christian G.; Grunwaldt, Jan-Dierk , Stability of a Bifunctional Cu-Based Core@Zeolite Shell Catalyst for Dimethyl Ether Synthesis Under Redox Conditions Studied by Environmental Transmission Electron Microscopy and In Situ X-Ray Ptychography, 2017, Microscopy and Microanalysis, 10.1017/S1431927617000332

TITLE	WEB LINK	CITATIONS
Multislice simulations for in-situ HRTEM studies of nanostructured magnesium hydride at ambient hydrogen pressure	http://www.sciencedirect.com/science/article/pii/S0304399117300529	Surrey, Alexander; Schultz, Ludwig; Rellinghaus, Bernd , Multislice simulations for in-situ HRTEM studies of nanostructured magnesium hydride at ambient hydrogen pressure, 2017, Ultramicroscopy, 10.1016/j.ultramic.2017.01.017
Structural evolution during calcination and sintering of a (La 0.6 Sr 0.4) 0.99 CoO 3- δ nanofiber prepared by electrospinning	https://iopscience.iop.org/article/10.1088/1361-6528/aa73a6	Simonsen, S B; Shao, J; Zhang, W , Structural evolution during calcination and sintering of a (La 0.6 Sr 0.4) 0.99 CoO 3- δ nanofiber prepared by electrospinning, 2017, Nanotechnology, 10.1088/1361-6528/aa73a6
Practical Aspects of Electrochemical Corrosion Measurements During In Situ Analytical Transmission Electron Microscopy (TEM) of Austenitic Stainless Steel in Aqueous Media	https://www.cambridge.org/core/product/identifier/S1431927617012314/type/journal_article	Schilling, Sibylle; Janssen, Arne; Zaluzec, Nestor J.; Burke, M. Grace , Practical Aspects of Electrochemical Corrosion Measurements During In Situ Analytical Transmission Electron Microscopy (TEM) of Austenitic Stainless Steel in Aqueous Media, 2017, Microscopy and Microanalysis, 10.1017/S1431927617012314
Surface Energy and Surface Stability of Ag Nanocrystals at Elevated Temperatures and Their Dominance in Sublimation-Induced Shape Evolution	https://onlinelibrary.wiley.com/doi/10.1002/sml.201700743	He, Long-Bing; Zhang, Lei; Tan, Xiao-Dong; Tang, Lu-Ping; Xu, Tao; Zhou, Yi-Long; Ren, Zhan-Yong; Wang, Yun; Teng, Chun-Yu; Sun, Li-Tao; Nie, Jian-Feng , Surface Energy and Surface Stability of Ag Nanocrystals at Elevated Temperatures and Their Dominance in Sublimation-Induced Shape Evolution, 2017, Small, 10.1002/sml.201700743
In-situ study of the dewetting behavior of Au/Ni bilayer films supported by a SiO ₂ /Si substrate	https://linkinghub.elsevier.com/retrieve/pii/S135964541730681X	Cen, Xi; Thron, Andrew M.; van Benthem, Klaus , In-situ study of the dewetting behavior of Au/Ni bilayer films supported by a SiO ₂ /Si substrate, 2017, Acta Materialia, 10.1016/j.actamat.2017.08.027
In Situ TEM Investigation of the Electrochemical Behavior in CNTs/MnO ₂ -Based Energy Storage Devices	https://pubs.acs.org/doi/10.1021/acs.analchem.7b00958	Tsai, Tsung-Chun; Huang, Guan-Min; Huang, Chun-Wei; Chen, Jui-Yuan; Yang, Chih-Chieh; Tseng, Tseung-Yuen; Wu, Wen-Wei , In Situ TEM Investigation of the Electrochemical Behavior in CNTs/MnO ₂ -Based Energy Storage Devices, 2017, Analytical Chemistry, 10.1021/acs.analchem.7b00958
Phase and Facet Control of Molybdenum Carbide Nanosheet Observed by In Situ TEM	https://onlinelibrary.wiley.com/doi/10.1002/sml.201700051	Lin, Ziyuan; Cai, Lejuan; Lu, Wei; Chai, Yang , Phase and Facet Control of Molybdenum Carbide Nanosheet Observed by In Situ TEM, 2017, Small, 10.1002/sml.201700051
A Discovery of Strong Metal-Support Bonding in Nanoengineered Au-Fe ₃ O ₄ Dumbbell-like Nanoparticles by in Situ Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/acs.nanolett.7b00827	Han, Chang Wan; Choksi, Tej; Milligan, Cory; Majumdar, Paulami; Manto, Michael; Cui, Yanran; Sang, Xiahan; Unocic, Raymond R.; Zemlyanov, Dmitry; Wang, Chao; Ribeiro, Fabio H.; Greeley, Jeffrey; Ortalan, Volkan , A Discovery of Strong Metal-Support Bonding in Nanoengineered Au-Fe ₃ O ₄ Dumbbell-like Nanoparticles by in Situ Transmission Electron Microscopy, 2017, Nano Letters, 10.1021/acs.nanolett.7b00827
Tuning the Electrocatalytic Oxygen Reduction Reaction Activity and Stability of Shape-Controlled Pt-Ni Nanoparticles by Thermal Annealing – Elucidating the Surface Atomic Structural and Compositional Changes	https://pubs.acs.org/doi/10.1021/jacs.7b06846	Beermann, Vera; Gocyla, Martin; Kühl, Stefanie; Padgett, Elliot; Schmies, Henrike; Goerlin, Mikaela; Erini, Nina; Shviro, Meital; Heggen, Marc; Dunin-Borkowski, Rafal E.; Muller, David A.; Strasser, Peter , Tuning the Electrocatalytic Oxygen Reduction Reaction Activity and Stability of Shape-Controlled Pt-Ni Nanoparticles by Thermal Annealing – Elucidating the Surface Atomic Structural and Compositional Changes, 2017, Journal of the American Chemical Society, 10.1021/jacs.7b06846
Defects and Surface Structural Stability of MoTe ₂ Under Vacuum Annealing	https://pubs.acs.org/doi/10.1021/acsnano.7b04984	Zhu, Hui; Wang, Qingxiao; Cheng, Lanxia; Addou, Rafik; Kim, Jiyoung; Kim, Moon J.; Wallace, Robert M. , Defects and Surface Structural Stability of MoTe ₂ Under Vacuum Annealing, 2017, ACS Nano, 10.1021/acsnano.7b04984
Coarsening-resistant Ag nanoparticles stabilized on amorphous TiOx nanoparticles	http://link.springer.com/10.1007/s11051-017-3981-9	Gammage, Michael; Celio, Hugo; Becker, Michael F.; Keto, John W.; Kovar, Desiderio , Coarsening-resistant Ag nanoparticles stabilized on amorphous TiOx nanoparticles, 2017, Journal of Nanoparticle Research, 10.1007/s11051-017-3981-9
In situ TEM observations of microstructural characteristics of lead zirconate titanate piezoelectric ceramic during heating to 1000 °C	https://linkinghub.elsevier.com/retrieve/pii/S027288421731920X	Okayasu, Mitsuhiro; Ogawa, Tsukasa; Sasaki, Yoshikazu , In situ TEM observations of microstructural characteristics of lead zirconate titanate piezoelectric ceramic during heating to 1000 °C, 2017, Ceramics International, 10.1016/j.ceramint.2017.09.001
Recordings and Analysis of Atomic Ledge and Dislocation Movements in InGaAs to Nickelide Nanowire Phase Transformation	https://onlinelibrary.wiley.com/doi/10.1002/sml.201604117	Chen, Renjie; Dayeh, Shadi A. , Recordings and Analysis of Atomic Ledge and Dislocation Movements in InGaAs to Nickelide Nanowire Phase Transformation, 2017, Small, 10.1002/sml.201604117
Vanadia-Based Catalysts for the Sulfur Dioxide Oxidation Studied In Situ by Transmission Electron Microscopy and Raman Spectroscopy	https://pubs.acs.org/doi/10.1021/acs.jpcc.6b10711	Cavalca, F.; Beato, P.; Hyltoft, J.; Christensen, K.; Helveg, S. , Vanadia-Based Catalysts for the Sulfur Dioxide Oxidation Studied In Situ by Transmission Electron Microscopy and Raman Spectroscopy, 2017, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.6b10711
Dynamic observation of reversible lithium storage phenomena in hybrid supercapacitor devices	https://linkinghub.elsevier.com/retrieve/pii/S2211285517306080	Huang, Guan-Min; Tsai, Tsung-Chun; Huang, Chun-Wei; Kumar, Nagesh; Tseng, Tseung-Yuen; Wu, Wen-Wei , Dynamic observation of reversible lithium storage phenomena in hybrid supercapacitor devices, 2017, Nano Energy, 10.1016/j.nanoen.2017.10.002

TITLE	WEB LINK	CITATIONS
Ceria-Water-Reactions Studied by Liquid Cell TEM	https://iopscience.iop.org/article/10.1088/1742-6596/902/1/012004	Asghar, Muhammad Sajid Ali; Inkson, Beverley; Möbus, Günter , Ceria-Water-Reactions Studied by Liquid Cell TEM, 2017, Journal of Physics: Conference Series, 10.1088/1742-6596/902/1/012004
Thermal Oxidation of Size-Selected Pd Nanoparticles Supported on CuO Nanowires: The Role of the CuO-Pd Interface	https://pubs.acs.org/doi/10.1021/acs.chemmater.7b02242	Steinhauer, Stephan; Zhao, Junlei; Singh, Vidyadhar; Pavludis, Theodore; Kioseoglou, Joseph; Nordlund, Kai; Djurabekova, Flyura; Grammatikopoulos, Panagiotis; Sowwan, Mukhles , Thermal Oxidation of Size-Selected Pd Nanoparticles Supported on CuO Nanowires: The Role of the CuO-Pd Interface, 2017, Chemistry of Materials, 10.1021/acs.chemmater.7b02242
Gene Expression in Electron-Beam-Irradiated Bacteria in Reply to "Live Cell Electron Microscopy Is Probably Impossible"	https://pubs.acs.org/doi/10.1021/acsnano.6b06616	Kennedy, Eamonn; Nelson, Edward M.; Damiano, John; Timp, Gregory , Gene Expression in Electron-Beam-Irradiated Bacteria in Reply to "Live Cell Electron Microscopy Is Probably Impossible", 2017, ACS Nano, 10.1021/acsnano.6b06616
Dynamics of Symmetry-Breaking Stacking Boundaries in Bilayer MoS ₂	https://pubs.acs.org/doi/10.1021/acs.jpcc.7b08398	Yan, Aiming; Ong, Chin Shen; Qiu, Diana Y.; Ophus, Colin; Ciston, Jim; Merino, Christian; Louie, Steven G.; Zettl, Alex , Dynamics of Symmetry-Breaking Stacking Boundaries in Bilayer MoS ₂ , 2017, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.7b08398
Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite	https://linkinghub.elsevier.com/retrieve/pii/S245192941730236X	Chen, Yuming; Li, Xiaoyan; Park, Kyusung; Lu, Wei; Wang, Chao; Xue, Weijiang; Yang, Fei; Zhou, Jiang; Suo, Liumin; Lin, Tianquan; Huang, Haitao; Li, Ju; Goodenough, John B. , Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite, 2017, Chem, 10.1016/j.chempr.2017.05.021
The Dynamics of Nickelidation for Self-Aligned Contacts to InGaAs Channels	https://iopscience.iop.org/article/10.1149/08001.0053ecst	Chen, Renjie; Dai, Xing; Jungjohann, Katherine L; Mook, William Moyer; Nogan, John; Soci, Cesare; Dayeh, Shadi , The Dynamics of Nickelidation for Self-Aligned Contacts to InGaAs Channels, 2017, ECS Transactions, 10.1149/08001.0053ecst
Visualizing atomic-scale redox dynamics in vanadium oxide-based catalysts	http://www.nature.com/articles/s41467-017-00385-y	Ek, Martin; Ramasse, Quentin M.; Arnarson, Logi; Georg Moses, Poul; Helveg, Stig , Visualizing atomic-scale redox dynamics in vanadium oxide-based catalysts, 2017, Nature Communications, 10.1038/s41467-017-00385-y
Cation-Eutectic Transition via Sublattice Melting in CuInP ₂ S ₆ /In ₄ /P ₂ S ₆ van der Waals Layered Crystals	https://pubs.acs.org/doi/10.1021/acsnano.7b02695	Susner, Michael A.; Chyasnachyus, Marius; Poretzky, Alexander A.; He, Qian; Conner, Benjamin S.; Ren, Yang; Cullen, David A.; Ganesh, Panchapakesan; Shin, Dongwon; Demir, Hakan; McMurray, Jacob W.; Borisevich, Albina Y.; Maksymovych, Petro; McGuire, Michael A. , Cation-Eutectic Transition via Sublattice Melting in CuInP ₂ S ₆ /In ₄ /P ₂ S ₆ van der Waals Layered Crystals, 2017, ACS Nano, 10.1021/acsnano.7b02695
Transmission electron microscopy with atomic resolution under atmospheric pressures	http://link.springer.com/10.1557/mrc.2017.125	Dai, Sheng; Gao, Wenpei; Zhang, Shuyi; Graham, George W.; Pan, Xiaoqing , Transmission electron microscopy with atomic resolution under atmospheric pressures, 2017, MRS Communications, 10.1557/mrc.2017.125
Understanding materials challenges for rechargeable ion batteries with in situ transmission electron microscopy	http://www.nature.com/articles/ncomms15806	Yuan, Yifei; Amine, Khalil; Lu, Jun; Shahbazian-Yassar, Reza , Understanding materials challenges for rechargeable ion batteries with in situ transmission electron microscopy, 2017, Nature Communications, 10.1038/ncomms15806
Visualization of Colloidal Nanocrystal Formation and Electrode-Electrolyte Interfaces in Liquids Using TEM	https://pubs.acs.org/doi/10.1021/acs.accounts.7b00161	Zeng, Zhiyuan; Zheng, Wenjing; Zheng, Haimei , Visualization of Colloidal Nanocrystal Formation and Electrode-Electrolyte Interfaces in Liquids Using TEM, 2017, Accounts of Chemical Research, 10.1021/acs.accounts.7b00161
Simultaneous Structural and Electrical Analysis of Vanadium Dioxide Using In Situ TEM	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/simultaneous-structural-and-electrical-analysis-of-vanadium-dioxide-using-in-situ-tem/6AACD7F820AFE4A271F2649DED1A5E53	Ghassemi, Hessam; Jacobs, Ben; Asayesh-Ardakani, Hasti; Yao, Wentao; Giannuzzi, Lucille A.; Shahbazian-Yassar, Reza , Simultaneous Structural and Electrical Analysis of Vanadium Dioxide Using In Situ TEM, 2017, Microscopy and Microanalysis, 10.1017/S1431927617009023
Microstructural and thermal property evolution of reaction bonded silicon carbide (RBSC)	http://www.sciencedirect.com/science/article/pii/S0925838818320589	Zhang, Yuying; Hsu, Chun-Yen; Aubuchon, Steven; Karandikar, Prashant; Ni, Chaoying , Microstructural and thermal property evolution of reaction bonded silicon carbide (RBSC), 2018, Journal of Alloys and Compounds, 10.1016/j.jallcom.2018.05.321
Investigation of the growth and in situ heating transmission electron microscopy analysis of Ag ₂ S-catalyzed ZnS nanowires	http://www.sciencedirect.com/science/article/pii/S0169433217336322	Kim, Jung Han; Kim, Jong Gu; Song, Junghyun; Bae, Tae-Sung; Kim, Kyoun-Hyun; Lee, Young-Seak; Pang, Yoonsoo; Oh, Kyu Hwan; Chung, Hee-Suk , Investigation of the growth and in situ heating transmission electron microscopy analysis of Ag ₂ S-catalyzed ZnS nanowires, 2018, Applied Surface Science, 10.1016/j.apsusc.2017.12.045
Topotactic Growth of Edge-Terminated MoS ₂ from MoO ₂ Nanocrystals	https://doi.org/10.1021/acsnano.8b00125	Dahl-Petersen, Christian; Šarić, Manuel; Brorson, Michael; Moses, Poul Georg; Rossmeis, Jan; Lauritsen, Jeppe Vang; Helveg, Stig , Topotactic Growth of Edge-Terminated MoS ₂ from MoO ₂ Nanocrystals, 2018, ACS Nano, 10.1021/acsnano.8b00125

TITLE	WEB LINK	CITATIONS
Direct Observation of Inner-Layer Inward Contractions of Multiwalled Boron Nitride Nanotubes upon in Situ Heating	https://www.mdpi.com/2079-4991/8/2/86	Li, Zhongwen; Li, Zi-An; Sun, Shuaishuai; Zheng, Dingguo; Wang, Hong; Tian, Huanfang; Yang, Huaixin; Bai, Xuedong; Li, Jianqi , Direct Observation of Inner-Layer Inward Contractions of Multiwalled Boron Nitride Nanotubes upon in Situ Heating, 2018, Nanomaterials, 10.3390/nano8020086
From Atoms to Functional Nanomaterials: Structural Modifications as Observed Using Aberration-Corrected STEM	https://www.cambridge.org/core/journals/microscopy-today/article/from-atoms-to-functional-nanomaterials-structural-modifications-as-observed-using-aberrationcorrected-stem/FA4B4AAAFAC8BF490C174B9D61EC73888	Sanchez, S. I.; Allard, L. F.; Schaal, M. T.; Tonnesen, S. M.; Le, Y.; Bradley, S. A.; Bogdan, P. L.; Gajda, G. J. , From Atoms to Functional Nanomaterials: Structural Modifications as Observed Using Aberration-Corrected STEM, 2018, Microscopy Today, 10.1017/S1551929518000469
Boosting hot electron flux and catalytic activity at metal-oxide interfaces of PtCo bimetallic nanoparticles	https://www.nature.com/articles/s41467-018-04713-8	Lee, Hyosun; Lim, Juhung; Lee, Changhwan; Back, Seoin; An, Kwangjin; Shin, Jae Won; Ryoo, Ryong; Jung, Yousung; Park, Jeong Young , Boosting hot electron flux and catalytic activity at metal-oxide interfaces of PtCo bimetallic nanoparticles, 2018, Nature Communications, 10.1038/s41467-018-04713-8
Non-volatile and volatile memory behaviour in oxygenated amorphous carbon electrochemical metallisation devices	https://aip.scitation.org/doi/abs/10.1063/1.5029402	Murdoch, B. J.; Raeber, T. J.; Barlow, A. J.; McCulloch, D. G.; Partridge, J. G. , Non-volatile and volatile memory behaviour in oxygenated amorphous carbon electrochemical metallisation devices, 2018, Applied Physics Letters, 10.1063/1.5029402
Highly Deformable and Mobile Palladium Nanocrystals as Efficient Carbon Scavengers	http://arxiv.org/abs/1802.00207	Lu, Peng-Han; Xie, De-Gang; Liu, Bo-Yu; Ai, Fei; Zhang, Zhao-Rui; Jin, Ming-Shang; Zhang, Xiao Feng; Ma, Evan; Li, Ju; Shan, Zhi-Wei , Highly Deformable and Mobile Palladium Nanocrystals as Efficient Carbon Scavengers, 2018, ArXiv, 10.48550/arXiv.1802.00207
Ion beam heating of kinetically constrained nanomaterials	http://www.sciencedirect.com/science/article/pii/S0304399117302280	Cen, Xi; van Benthem, Klaus , Ion beam heating of kinetically constrained nanomaterials, 2018, Ultramicroscopy, 10.1016/j.ultramic.2017.12.005
Comparison of the observed size-dependent melting point of CdSe nanocrystals to theoretical predictions	http://www.eurjchem.com/index.php/eurjchem/article/view/1676	lii, Albert Demaine Dukes; Pitts, Christopher Dylan; Kapingidza, Anyway Brenda; Gardner, David Eric; Layland, Ralph Charles , Comparison of the observed size-dependent melting point of CdSe nanocrystals to theoretical predictions, 2018, European Journal of Chemistry, 10.5155/eurjchem.9.1.39-43.1676
Thermal behavior of Pd@SiO ₂ nanostructures in various gas environments: a combined 3D and in situ TEM approach	https://pubs.rsc.org/en/content/articlelanding/2018/nr/c8nr06951d	Baaziz, Walid; Bahri, Mounib; Gay, Anne Sophie; Chaumonnot, Alexandra; Uzio, Denis; Valette, Sébastien; Hirlimann, Charles; Ersen, Ovidiu , Thermal behavior of Pd@SiO ₂ nanostructures in various gas environments: a combined 3D and in situ TEM approach, 2018, Nanoscale, 10.1039/C8NR06951D
In situ Atmospheric Transmission Electron Microscopy of Catalytic Nanomaterials	https://www.cambridge.org/core/journals/mrs-advances/article/in-situ-atmospheric-transmission-electron-microscopy-of-catalytic-nanomaterials/71F8D0135EF96CD595956DBD2422D116	Dai, Sheng; Gao, Wenpei; Graham, George W.; Pan, Xiaoping , In situ Atmospheric Transmission Electron Microscopy of Catalytic Nanomaterials, 2018, MRS Advances, 10.1557/adv.2018.435
In situ edge engineering in two-dimensional transition metal dichalcogenides	https://www.nature.com/articles/s41467-018-04435-x	Sang, Xiahuan; Li, Xufan; Zhao, Wen; Dong, Jichen; Rouleau, Christopher M.; Geohagan, David B.; Ding, Feng; Xiao, Kai; Unocic, Raymond R. , In situ edge engineering in two-dimensional transition metal dichalcogenides, 2018, Nature Communications, 10.1038/s41467-018-04435-x
Highly Stretchable and Reliable, Transparent and Conductive Entangled Graphene Mesh Networks	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201704626	Han, Jaehyun; Lee, Jun-Young; Lee, Jihye; Yeo, Jong-Souk , Highly Stretchable and Reliable, Transparent and Conductive Entangled Graphene Mesh Networks, 2018, Advanced Materials, 10.1002/adma.201704626
An optimized sample preparation approach for atomic resolution in situ studies of thin films	https://onlinelibrary.wiley.com/doi/abs/10.1002/jemt.23130	Moatti, Adele; Sachan, Ritesh; Prater, John; Narayan, Jagdish , An optimized sample preparation approach for atomic resolution in situ studies of thin films, 2018, Microscopy Research and Technique, 10.1002/jemt.23130
A Novel Domain-Confining Growth Strategy for In Situ Controllable Fabrication of Individual Hollow Nanostructures	https://onlinelibrary.wiley.com/doi/abs/10.1002/adv.201700213	Tang, Luping; He, Longbing; Zhang, Lei; Yu, Kaihao; Xu, Tao; Zhang, Qiubo; Dong, Hui; Zhu, Chao; Sun, Litao , A Novel Domain-Confining Growth Strategy for In Situ Controllable Fabrication of Individual Hollow Nanostructures, 2018, Advanced Science, 10.1002/adv.201700213
Atomistic evolution during the phase transition on a metastable single NaYF ₄ :Yb,Er upconversion nanoparticle	https://www.nature.com/articles/s41598-018-20702-9	Pin, Min Wook; Park, Eun Jin; Choi, Suji; Kim, Yong Il; Jeon, Chang Hoon; Ha, Tai Hwan; Kim, Young Heon , Atomistic evolution during the phase transition on a metastable single NaYF ₄ :Yb,Er upconversion nanoparticle, 2018, Scientific Reports, 10.1038/s41598-018-20702-9
Investigating the thermal stability of irradiation-induced damage in a zirconium alloy with novel in situ techniques	http://www.sciencedirect.com/science/article/pii/S135964541731042X	Topping, M.; Ungár, T.; Race, C. P.; Harte, A.; Garner, A.; Baxter, F.; Dumbill, S.; Frankel, P.; Preuss, M. , Investigating the thermal stability of irradiation-induced damage in a zirconium alloy with novel in situ techniques, 2018, Acta Materialia, 10.1016/j.actamat.2017.11.051
Understanding the Stability of Pt-Based Nanocages under Thermal Stress Using In Situ Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/cnma.201700298	Vara, Madeline; Wang, Xue; Howe, Jane; Chi, Miaofang; Xia, Younan , Understanding the Stability of Pt-Based Nanocages under Thermal Stress Using In Situ Electron Microscopy, 2018, ChemNanoMat, 10.1002/cnma.201700298
In situ atomic-scale observation of monolayer graphene growth from SiC	https://doi.org/10.1007/s12274-017-1911-x	Yu, Kaihao; Zhao, Wen; Wu, Xing; Zhuang, Jianing; Hu, Xiaohui; Zhang, Qiubo; Sun, Jun; Xu, Tao; Chai, Yang; Ding, Feng; Sun, Litao , In situ atomic-scale observation of monolayer graphene growth from SiC, 2018, Nano Research, 10.1007/s12274-017-1911-x

TITLE	WEB LINK	CITATIONS
In situ atomistic insight into the growth mechanisms of single layer 2D transition metal carbides	https://www.nature.com/articles/s41467-018-04610-0	Sang, Xiahan; Xie, Yu; Yilmaz, Dundar E.; Lotfi, Roghayeh; Alhabeb, Mohamed; Ostadhossein, Alireza; Anasori, Babak; Sun, Weiwei; Li, Xufan; Xiao, Kai; Kent, Paul R. C.; van Duin, Adri C. T.; Gogotsi, Yury; Unocic, Raymond R. , In situ atomistic insight into the growth mechanisms of single layer 2D transition metal carbides, 2018, Nature Communications, 10.1038/s41467-018-04610-0
In Situ Atomic-Scale Observation of Surface-Tension-Induced Structural Transformation of Ag-NiPx Core-Shell Nanocrystals	https://doi.org/10.1021/acsnano.8b03106	Huang, Xing; Liu, Zhongqiang; Millet, Marie-Mathilde; Dong, Jichen; Plodine, Milivoj; Ding, Feng; Schlögl, Robert; Willinger, Marc-Georg , In Situ Atomic-Scale Observation of Surface-Tension-Induced Structural Transformation of Ag-NiPx Core-Shell Nanocrystals, 2018, ACS Nano, 10.1021/acsnano.8b03106
Atomic number dependence of Z contrast in scanning transmission electron microscopy	https://www.nature.com/articles/s41598-018-30941-5	Yamashita, Shunsuke; Kikkawa, Jun; Yanagisawa, Keiichi; Nagai, Takuro; Ishizuka, Kazuo; Kimoto, Koji , Atomic number dependence of Z contrast in scanning transmission electron microscopy, 2018, Scientific Reports, 10.1038/s41598-018-30941-5
Nanovoids in dense hydroxyapatite ceramics after electric field assisted sintering	https://doi.org/10.1080/17436753.2018.1452662	Yun, Jondo; Qin, Wei; Benthem, Klaus van; Thron, Andrew M.; Kim, Sukyoung; Han, Young-Hwan , Nanovoids in dense hydroxyapatite ceramics after electric field assisted sintering, 2018, Advances in Applied Ceramics, 10.1080/17436753.2018.1452662
Shell-Induced Ostwald Ripening: Simultaneous Structure, Composition, and Morphology Transformations during the Creation of Hollow Iron Oxide Nanocapsules	https://doi.org/10.1021/acsnano.8b02946	Yu, Lei; Han, Ruixin; Sang, Xiahan; Liu, Jue; Thomas, Melonie P.; Hudak, Bethany M.; Patel, Amita; Page, Katharine; Guiton, Beth S. , Shell-Induced Ostwald Ripening: Simultaneous Structure, Composition, and Morphology Transformations during the Creation of Hollow Iron Oxide Nanocapsules, 2018, ACS Nano, 10.1021/acsnano.8b02946
Turning a native or corroded Mg alloy surface into an anti-corrosion coating in excited CO ₂	https://www.nature.com/articles/s41467-018-06433-5	Wang, Yuecun; Liu, Boyu; Zhao, Xin'ai; Zhang, Xionghu; Miao, Yucong; Yang, Nan; Yang, Bo; Zhang, Liqiang; Kuang, Wenjun; Li, Ju; Ma, Evan; Shan, Zhiwei , Turning a native or corroded Mg alloy surface into an anti-corrosion coating in excited CO ₂ , 2018, Nature Communications, 10.1038/s41467-018-06433-5
Atomic Step Flow on a Nanofacet	https://link.aps.org/doi/10.1103/PhysRevLett.121.166101	Harmand, Jean-Christophe; Patriarche, Gilles; Glas, Frank; Panciera, Federico; Florea, Ileana; Maurice, Jean-Luc; Travers, Laurent; Ollivier, Yannick , Atomic Step Flow on a Nanofacet, 2018, Physical Review Letters, 10.1103/PhysRevLett.121.166101
Predictive multiphase evolution in Al-containing high-entropy alloys	https://www.nature.com/articles/s41467-018-06757-2	Santodonato, L. J.; Liaw, P. K.; Unocic, R. R.; Bei, H.; Morris, J. R. , Predictive multiphase evolution in Al-containing high-entropy alloys, 2018, Nature Communications, 10.1038/s41467-018-06757-2
Evolution of Glassy Carbon Microstructure: In Situ Transmission Electron Microscopy of the Pyrolysis Process	https://www.nature.com/articles/s41598-018-34644-9	Sharma, Swati; Shyam Kumar, C. N.; Korvink, Jan G.; Kübel, Christian , Evolution of Glassy Carbon Microstructure: In Situ Transmission Electron Microscopy of the Pyrolysis Process, 2018, Scientific Reports, 10.1038/s41598-018-34644-9
In situ observation of nanoparticle formation in nickel-based mechanical alloyed powders	https://doi.org/10.1007/s10853-018-2761-y	Wang, Man; Han, Heung Nam; Chung, Hee-Suk; Chun, Young-Bum; Jang, Jinsung , In situ observation of nanoparticle formation in nickel-based mechanical alloyed powders, 2018, Journal of Materials Science, 10.1007/s10853-018-2761-y
Observing Solid-State Formation of Oriented Porous Functional Oxide Nanowire Heterostructures by in Situ TEM	https://pubs.acs.org/doi/pdf/10.1021/acs.nanolett.8b03021	Ho, Jo-Hsuan; Ting, Yi-Hsin; Chen, Jui-Yuan; Huang, Chun-Wei; Tsai, Tsung-Chun; Lin, Ting-Yi; Huang, Chih-Yang; Wu, Wen-Wei , Observing Solid-State Formation of Oriented Porous Functional Oxide Nanowire Heterostructures by in Situ TEM, 2018, Nano Letters, 10.1021/acs.nanolett.8b03021
Heating-Induced Transformations of Atmospheric Particles: Environmental Transmission Electron Microscopy Study	https://doi.org/10.1021/acs.analchem.8b01410	Veghte, Daniel P.; China, Swarup; Weis, Johannes; Lin, Peng; Hinks, Mallory L.; Kovarik, Libor; Nizkorodov, Sergey A.; Gilles, Mary K.; Laskin, Alexander , Heating-Induced Transformations of Atmospheric Particles: Environmental Transmission Electron Microscopy Study, 2018, Analytical Chemistry, 10.1021/acs.analchem.8b01410
Direct Measurement of the Surface Energy of Bimetallic Nanoparticles: Evidence of Vegard's Rule-like Dependence	https://link.aps.org/doi/10.1103/PhysRevLett.120.025901	Chmielewski, Adrian; Nelayah, Jaysen; Amara, Hakim; Creuze, Jérôme; Alloiseau, Damien; Wang, Guillaume; Ricolleau, Christian , Direct Measurement of the Surface Energy of Bimetallic Nanoparticles: Evidence of Vegard's Rule-like Dependence, 2018, Physical Review Letters, 10.1103/PhysRevLett.120.025901
In situ insight into the unconventional ruthenium catalyzed growth of carbon nanostructures	https://pubs.rsc.org/en/content/articlelanding/2018/nr/c8nr01227j	Bahri, M.; Dembélé, K.; Sassoie, C.; Debecker, D. P.; Moldovan, S.; Gay, A. S.; Hirlimann, Ch; Sanchez, C.; Ersen, O. , In situ insight into the unconventional ruthenium catalyzed growth of carbon nanostructures, 2018, Nanoscale, 10.1039/C8NR01227J
Thermally Introduced Bismuth Clustering in Ga(P,Bi) Layers under Group V Stabilised Conditions Investigated by Atomic Resolution In Situ (S)TEM	https://www.nature.com/articles/s41598-018-27286-4	Straubinger, R.; Widemann, M.; Belz, J.; Nattermann, L.; Beyer, A.; Volz, K. , Thermally Introduced Bismuth Clustering in Ga(P,Bi) Layers under Group V Stabilised Conditions Investigated by Atomic Resolution In Situ (S)TEM, 2018, Scientific Reports, 10.1038/s41598-018-27286-4

TITLE	WEB LINK	CITATIONS
Insight by In Situ Gas Electron Microscopy on the Thermal Behaviour and Surface Reactivity of Cobalt Nanoparticles	https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/cctc.201800854	Dembélé, Kassioyé; Bahri, Mounib; Melinte, Georgian; Hirlimann, Charles; Berliet, Adrien; Maury, Sylvie; Gay, Anne-Sophie; Ersen, Ovidiu , Insight by In Situ Gas Electron Microscopy on the Thermal Behaviour and Surface Reactivity of Cobalt Nanoparticles, 2018, ChemCatChem, 10.1002/cctc.201800854
Thermometry with Subnanometer Resolution in the Electron Microscope Using the Principle of Detailed Balancing	https://doi.org/10.1021/acs.nanolett.8b01791	Lagos, Maureen J.; Batson, Philip E. , Thermometry with Subnanometer Resolution in the Electron Microscope Using the Principle of Detailed Balancing, 2018, Nano Letters, 10.1021/acs.nanolett.8b01791
Temperature Measurement by a Nanoscale Electron Probe Using Energy Gain and Loss Spectroscopy	https://link.aps.org/doi/10.1103/PhysRevLett.120.095901	Idrobo, Juan Carlos; Lupini, Andrew R.; Feng, Tianli; Unocic, Raymond R.; Walden, Franklin S.; Gardiner, Daniel S.; Lovejoy, Tracy C.; Dellby, Niklas; Pantelides, Sokrates T.; Krivanek, Ondrej L. , Temperature Measurement by a Nanoscale Electron Probe Using Energy Gain and Loss Spectroscopy, 2018, Physical Review Letters, 10.1103/PhysRevLett.120.095901
Reactivity and structural evolution of urchin-like Co nanostructures under controlled environments	https://onlinelibrary.wiley.com/doi/abs/10.1111/jmi.12656	Dembélé, K.; Moldovan, S.; Hirlimann, Ch; Harmel, J.; Soulantica, K.; Serp, P.; Chaudret, B.; Gay, A.-S.; Maury, S.; Berliet, A.; Fecant, A.; Ersen, O. , Reactivity and structural evolution of urchin-like Co nanostructures under controlled environments, 2018, Journal of Microscopy, 10.1111/jmi.12656
Observation of Resistive Switching Behavior in Crossbar Core-Shell Ni/NiO Nanowires Memristor	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201703153	Ting, Yi-Hsin; Chen, Jui-Yuan; Huang, Chun-Wei; Huang, Ting-Kai; Hsieh, Cheng-Yu; Wu, Wen-Wei , Observation of Resistive Switching Behavior in Crossbar Core-Shell Ni/NiO Nanowires Memristor, 2018, Small, 10.1002/sml.201703153
Analytical and in situ Applications Using Aberration Corrected Scanning Transmission Electron Microscope	https://www.jstage.jst.go.jp/article/ejsnt/16/0/16_286/article	Ohnishi, Ichiro; Suzuki, Toshihiro; Miyatake, Kouji; Jimbo, Yu; Iwasawa, Yorinobu; Morita, Masaki; Sasaki, Takeo; Sawada, Hidetaka; Okunishi, Eiji , Analytical and in situ Applications Using Aberration Corrected Scanning Transmission Electron Microscope, 2018, e-Journal of Surface Science and Nanotechnology, 10.1380/ejsnt.2018.286
Influence of Cetyltrimethylammonium Bromide on Gold Nanocrystal Formation Studied by In Situ Liquid Cell Scanning Transmission Electron Microscopy	https://doi.org/10.1021/acs.jpcc.7b06383	Canepa, Silvia A.; Sneed, Brian T.; Sun, Hongyu; Unocic, Raymond R.; Mølhave, Kristian , Influence of Cetyltrimethylammonium Bromide on Gold Nanocrystal Formation Studied by In Situ Liquid Cell Scanning Transmission Electron Microscopy, 2018, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.7b06383
Comparing ex vivo and in vitro translocation of silver nanoparticles and ions through human nasal epithelium	http://www.sciencedirect.com/science/article/pii/S014296121830259X	Falconer, Jonathan L.; Alt, Jeremiah A.; Grainger, David W. , Comparing ex vivo and in vitro translocation of silver nanoparticles and ions through human nasal epithelium, 2018, Biomaterials, 10.1016/j.biomaterials.2018.04.013
Direct in Situ Observation and Analysis of the Formation of Palladium Nanocrystals with High-Index Facets	https://doi.org/10.1021/acs.nanolett.8b02953	Gao, Wenpei; Hou, Yusheng; Hood, Zachary D.; Wang, Xue; More, Karren; Wu, Ruqian; Xia, Younan; Pan, Xiaoping; Chi, Miaofang , Direct in Situ Observation and Analysis of the Formation of Palladium Nanocrystals with High-Index Facets, 2018, Nano Letters, 10.1021/acs.nanolett.8b02953
Operando liquid cell electron microscopy of discharge and charge kinetics in lithium-oxygen batteries	https://www.osti.gov/pages/biblio/1461336-operando-liquid-cell-electron-microscopy-discharge-charge-kinetics-lithium-oxygen-batteries	He, Kun; Bi, Xuanxuan; Yuan, Yifei; Foroozan, Tara; Song, Boao; Amine, Khalil (ORCID:0000000192063719); Lu, Jun (ORCID:0000000308588577); Shahbazian-Yassar, Reza , Operando liquid cell electron microscopy of discharge and charge kinetics in lithium-oxygen batteries, 2018, Nano Energy, 10.1016/j.nanoen.2018.04.046
In Situ Transmission Electron Microscopy Explores a New Nanoscale Pathway for Direct Gypsum Formation in Aqueous Solution	https://doi.org/10.1021/acsnm.8b00739	He, Kun; Nie, Anmin; Yuan, Yifei; Ghodsi, Seyed Mohammadreza; Song, Boao; Firlar, Emre; Lu, Jun; Lu, Yu-peng; Shokuhfar, Tolou; Megaridis, Constantine M.; Shahbazian-Yassar, Reza , In Situ Transmission Electron Microscopy Explores a New Nanoscale Pathway for Direct Gypsum Formation in Aqueous Solution, 2018, ACS Applied Nano Materials, 10.1021/acsnm.8b00739
In Situ Electron Diffraction Tomography Using a Liquid-Electrochemical Transmission Electron Microscopy Cell for Crystal Structure Determination of Cathode Materials for Li-Ion batteries	https://doi.org/10.1021/acs.nanolett.8b02436	Karakulina, Olesia M.; Demortière, Arnaud; Dachraoui, Walid; Abakumov, Artem M.; Hadermann, Joke , In Situ Electron Diffraction Tomography Using a Liquid-Electrochemical Transmission Electron Microscopy Cell for Crystal Structure Determination of Cathode Materials for Li-Ion batteries, 2018, Nano Letters, 10.1021/acs.nanolett.8b02436
Liquid Cell Transmission Electron Microscopy and the Impact of Confinement on the Precipitation from Supersaturated Solutions	https://www.mdpi.com/2075-163X/8/1/21	Kröger, Roland; Verch, Andreas , Liquid Cell Transmission Electron Microscopy and the Impact of Confinement on the Precipitation from Supersaturated Solutions, 2018, Minerals, 10.3390/min8010021
Operando Monitoring of the Solution-Mediated Discharge and Charge Processes in a Na-O ₂ Battery Using Liquid-Electrochemical Transmission Electron Microscopy	https://doi.org/10.1021/acs.nanolett.7b04937	Lutz, Lukas; Dachraoui, Walid; Demortière, Arnaud; Johnson, Lee R.; Bruce, Peter G.; Grimaud, Alexis; Tarascon, Jean-Marie , Operando Monitoring of the Solution-Mediated Discharge and Charge Processes in a Na-O ₂ Battery Using Liquid-Electrochemical Transmission Electron Microscopy, 2018, Nano Letters, 10.1021/acs.nanolett.7b04937
Nanoscale kinetics of asymmetrical corrosion in core-shell nanoparticles	https://www.nature.com/articles/s41467-018-03372-z	Shan, Hao; Gao, Wenpei; Xiong, Yalin; Shi, Fenglei; Yan, Yucong; Ma, Yanling; Shang, Wen; Tao, Peng; Song, Chengyi; Deng, Tao; Zhang, Hui; Yang, Deren; Pan, Xiaoping; Wu, Jianbo , Nanoscale kinetics of asymmetrical corrosion in core-shell nanoparticles, 2018, Nature Communications, 10.1038/s41467-018-03372-z

TITLE	WEB LINK	CITATIONS
Quantifying the Nucleation and Growth Kinetics of Electron Beam Nanochemistry with Liquid Cell Scanning Transmission Electron Microscopy	https://doi.org/10.1021/acs.chemmater.8b03050	Wang, Mei; Park, Chiwoo; Woehl, Taylor J. , Quantifying the Nucleation and Growth Kinetics of Electron Beam Nanochemistry with Liquid Cell Scanning Transmission Electron Microscopy, 2018, Chemistry of Materials, 10.1021/acs.chemmater.8b03050
Biom mineralization of calcium phosphate revealed by in situ liquid-phase electron microscopy	https://www.nature.com/articles/s42004-018-0081-4	Wang, Xiaoyue; Yang, Jie; Andrei, Carmen M.; Soleymani, Leyla; Grandfield, Kathryn , Biom mineralization of calcium phosphate revealed by in situ liquid-phase electron microscopy, 2018, Communications Chemistry, 10.1038/s42004-018-0081-4
In situ study of nucleation and growth dynamics of Au nanoparticles on MoS ₂ nanoflakes	https://pubs.rsc.org/en/content/articlelanding/2018/nr/c8nr03519a	Song, Boao; He, Kun; Yuan, Yifei; Sharifi-Asl, Soroosh; Cheng, Meng; Lu, Jun; Saidi, Wissam A.; Shahbazian-Yassar, Reza , In situ study of nucleation and growth dynamics of Au nanoparticles on MoS ₂ nanoflakes, 2018, Nanoscale, 10.1039/C8NR03519A
Monitoring the dynamics of cell-derived extracellular vesicles at the nanoscale by liquid-cell transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2018/nr/c7nr07576f	Piffoux, Max; Ahmad, Nabeel; Nelayah, Jaysen; Wilhelm, Claire; Silva, Amanda; Gazeau, Florence; Alloyeau, Damien , Monitoring the dynamics of cell-derived extracellular vesicles at the nanoscale by liquid-cell transmission electron microscopy, 2018, Nanoscale, 10.1039/C7NR07576F
Hydrodynamic assembly of two-dimensional layered double hydroxide nanostructures	https://www.nature.com/articles/s41467-018-07395-4	Jose, Nicholas A.; Zeng, Hua Chun; Lapkin, Alexei A. , Hydrodynamic assembly of two-dimensional layered double hydroxide nanostructures, 2018, Nature Communications, 10.1038/s41467-018-07395-4
Influence of Structural Defects on Biom mineralized ZnS Nanoparticle Dissolution: An in-Situ Electron Microscopy Study	https://doi.org/10.1021/acs.est.7b04343	Eskelsen, Jeremy R.; Xu, Jie; Chiu, Michelle; Moon, Ji-Won; Wilkins, Branford; Graham, David E.; Gu, Baohua; Pierce, Eric M. , Influence of Structural Defects on Biom mineralized ZnS Nanoparticle Dissolution: An in-Situ Electron Microscopy Study, 2018, Environmental Science & Technology, 10.1021/acs.est.7b04343
In situ liquid cell crystallization and imaging of thiamethoxam by helium ion microscopy	https://avs.scitation.org/doi/10.1116/1.5040849	Belianinov, Alex; Pawlicki, Alison; Burch, Matt; Kim, Songkil; Ievlev, Anton; Fowler, Jeff; Ovchinnikova, Olga , In situ liquid cell crystallization and imaging of thiamethoxam by helium ion microscopy, 2018, Journal of Vacuum Science & Technology B, 10.1116/1.5040849
In-situ observation of radiation physics and chemistry of nanostructured cerium oxide in water	https://doi.org/10.1088/2053-1591/aae634	Asghar, Muhammad Sajid Ali; Inkson, Beverley; Seal, Sudipta; Molinari, Marco; Sayle, Dean; Möbus, Günter , In-situ observation of radiation physics and chemistry of nanostructured cerium oxide in water, 2018, Materials Research Express, 10.1088/2053-1591/aae634
Driving reversible redox reactions at solid-liquid interfaces with the electron beam of a transmission electron microscope: REVERSIBLE REDOX REACTIONS AT SOLID-LIQUID INTERFACES	https://doi.wiley.com/10.1111/jmi.12568	Ahmad, Nabeel; Wang, Guillaume; Nelayah, Jaysen; Ricolleau, Christian; Alloyeau, Damien , Driving reversible redox reactions at solid-liquid interfaces with the electron beam of a transmission electron microscope: REVERSIBLE REDOX REACTIONS AT SOLID-LIQUID INTERFACES, 2018, Journal of Microscopy, 10.1111/jmi.12568
“On demand” triggered crystallization of CaCO ₃ from solute precursor species stabilized by the water-in-oil microemulsion	https://pubs.rsc.org/en/content/articlelanding/2018/cp/c8cp00540k	Stawski, Tomasz M.; Roncal-Herrero, Teresa; Fernandez-Martinez, Alejandro; Matamoros-Veloz, Adriana; Kröger, Roland; Benning, Liane G. , “On demand” triggered crystallization of CaCO ₃ from solute precursor species stabilized by the water-in-oil microemulsion, 2018, Physical Chemistry Chemical Physics, 10.1039/C8CP00540K
Revealing conducting filament evolution in low power and high reliability Fe ₃ O ₄ /Ta ₂ O ₅ bilayer RRAM	https://linkinghub.elsevier.com/retrieve/pii/S2211285518306736	Chang, Chia-Fu; Chen, Jui-Yuan; Huang, Guan-Min; Lin, Ting-Yi; Tai, Kuo-Lun; Huang, Chih-Yang; Yeh, Ping-Hung; Wu, Wen-Wei , Revealing conducting filament evolution in low power and high reliability Fe ₃ O ₄ /Ta ₂ O ₅ bilayer RRAM, 2018, Nano Energy, 10.1016/j.nanoen.2018.09.029
Observation of Solution Samples by Transmission Electron Microscope	https://www.hitachi-hightech.com/file/global/pdf/sinews/si_report/110202.pdf	Kimura, Yuki , Observation of Solution Samples by Transmission Electron Microscope, 2018, Scientific Instrument News, -
Deconvolution of octahedral Pt ₃ Ni nanoparticle growth pathway from in situ characterizations	http://www.nature.com/articles/s41467-018-06900-z	Shen, Xiaochen; Zhang, Changlin; Zhang, Shuyi; Dai, Sheng; Zhang, Guanghui; Ge, Mingyuan; Pan, Yanbo; Sharkey, Stephen M.; Graham, George W.; Hunt, Adrian; Waluyo, Iradwikanari; Miller, Jeffrey T.; Pan, Xiaoqing; Peng, Zhenmeng , Deconvolution of octahedral Pt ₃ Ni nanoparticle growth pathway from in situ characterizations, 2018, Nature Communications, 10.1038/s41467-018-06900-z
Combining In-Situ Transmission Electron Microscopy and Infrared Spectroscopy for Understanding Dynamic and Atomic-Scale Features of Supported Metal Catalysts	https://pubs.acs.org/doi/10.1021/acs.jpcc.8b03959	Resasco, Joaquin; Dai, Sheng; Graham, George; Pan, Xiaoqing; Christopher, Phillip , Combining In-Situ Transmission Electron Microscopy and Infrared Spectroscopy for Understanding Dynamic and Atomic-Scale Features of Supported Metal Catalysts, 2018, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.8b03959
In Situ TEM Observations of Corrosion in Nanocrystalline Fe Thin Films	https://onlinelibrary.wiley.com/doi/10.1002/9781119423829.ch29	Gross, David; Kacher, Josh; Key, Jordan; Hattar, Khalid; Robertson, Ian M. , In Situ TEM Observations of Corrosion in Nanocrystalline Fe Thin Films, 2018, Ceramic Transactions Series, 10.1002/9781119423829.ch29
Solid-State Diffusional Behaviors of Functional Metal Oxides at Atomic Scale	https://onlinelibrary.wiley.com/doi/epdf/10.1002/sml.201702877	Chen, Jiu-Yuan; Huang, Chun-Wei; Wu, Wen-Wei , Solid-State Diffusional Behaviors of Functional Metal Oxides at Atomic Scale, 2018, Small, https://doi.org/10.1002/sml.201702877

TITLE	WEB LINK	CITATIONS
Boron ignition and combustion with doped δ -Bi ₂ O ₃ : Bond energy/oxygen vacancy relationships	https://linkinghub.elsevier.com/retrieve/pii/S0010218018303390	Wang, Xizheng; Wu, Tao; Wang, Haiyang; DeLisio, Jeffery B.; Yang, Yong; Zachariah, Michael R. , Boron ignition and combustion with doped δ -Bi ₂ O ₃ : Bond energy/oxygen vacancy relationships, 2018, Combustion and Flame, 10.1016/j.combustflame.2018.07.015
Ignition of Nanoscale Titanium/Potassium Perchlorate Pyrotechnic Powder: Reaction Mechanism Study	https://pubs.acs.org/doi/10.1021/acs.jpcc.8b03164	Rehwooldt, Miles C.; Yang, Yong; Wang, Haiyang; Holdren, Scott; Zachariah, Michael R. , Ignition of Nanoscale Titanium/Potassium Perchlorate Pyrotechnic Powder: Reaction Mechanism Study, 2018, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.8b03164
Step edge structures on the anatase TiO ₂ (001) surface studied by atomic-resolution TEM and STM	http://xlink.rsc.org/?DOI=C7FD00222J	Ek, M.; Beinik, I.; Bruix, A.; Wendt, S.; Lauritsen, J. V.; Helveg, S. , Step edge structures on the anatase TiO ₂ (001) surface studied by atomic-resolution TEM and STM, 2018, Faraday Discussions, 10.1039/C7FD00222J
Thermoresponsive Gel Embedded with Adipose Stem-Cell-Derived Extracellular Vesicles Promotes Esophageal Fistula Healing in a Thermo-Actuated Delivery Strategy	https://pubs.acs.org/doi/10.1021/acsnano.8b00117	Silva, Amanda K. A.; Perretta, Silvana; Perrod, Guillaume; Pidal, Laetitia; Lindner, Véronique; Carn, Florent; Lemieux, Shony; Alloeyau, Damien; Boucenna, Imane; Menasché, Philippe; Dallemagne, Bernard; Gazeau, Florence; Wilhelm, Claire; Cellier, Christophe; Clément, Olivier; Rahmi, Gabriel , Thermoresponsive Gel Embedded with Adipose Stem-Cell-Derived Extracellular Vesicles Promotes Esophageal Fistula Healing in a Thermo-Actuated Delivery Strategy, 2018, ACS Nano, 10.1021/acsnano.8b00117
Structural study on PVA assisted self-assembled 3D hierarchical iron (hydr) oxides	http://xlink.rsc.org/?DOI=C8CE00075A	Kong, Yan; Zhuang, Yuan; Yu, Jianwei; Han, Zhiyong; Shi, Baoyou , Structural study on PVA assisted self-assembled 3D hierarchical iron (hydr) oxides, 2018, CrystEngComm, 10.1039/C8CE00075A
Nanocrystalline graphene at high temperatures: insight into nanoscale processes	http://xlink.rsc.org/?DOI=C9NA00055K	Kumar, C. N. Shyam; Konrad, Manuel; Chakravadhanula, Venkata Sai Kiran; Dehm, Simone; Wang, Di; Wenzel, Wolfgang; Krupke, Ralph; Kübel, Christian , Nanocrystalline graphene at high temperatures: insight into nanoscale processes, 2019, Nanoscale Advances, 10.1039/C9NA00055K
Formation of gold nanoparticles in a free-standing ionic liquid triggered by heat and electron irradiation	http://www.sciencedirect.com/science/article/pii/S0968432818302993	Keller, Debora; Henninen, Trond R.; Erni, Rolf , Formation of gold nanoparticles in a free-standing ionic liquid triggered by heat and electron irradiation, 2019, Micron, 10.1016/j.micron.2018.10.008
In Situ Nanostructural Analysis of Volatile Threshold Switching and NonVolatile Bipolar Resistive Switching in MixedPhased a VO _x Asymmetric Crossbars	https://onlinelibrary.wiley.com/doi/abs/10.1002/aelm.201900605	Nirantar, Shruti; Mayes, Edwin; Rahman, Md. Ataur; Ahmed, Taimur; Taha, Mohammad; Bhaskaran, Madhu; Walia, Sumeet; Sriram, Sharath , In Situ Nanostructural Analysis of Volatile Threshold Switching and NonVolatile Bipolar Resistive Switching in MixedPhased a VO _x Asymmetric Crossbars, 2019, Advanced Electronic Materials, 10.1002/aelm.201900605
Oxidation-Induced Atom Diffusion and Surface Restructuring in Faceted Ternary Pt–Cu–Ni Nanoparticles	https://doi.org/10.1021/acs.chemmater.8b05199	Shen, Xiaochen; Dai, Sheng; Zhang, Shuyi; Lu, Zheng; Zhang, Changlin; Graham, George W.; Lei, Yu; Pan, Xiaoqing; Peng, Zhenmeng , Oxidation-Induced Atom Diffusion and Surface Restructuring in Faceted Ternary Pt–Cu–Ni Nanoparticles, 2019, Chemistry of Materials, 10.1021/acs.chemmater.8b05199
Bimetallic Phosphide (Ni,Cu) ₂ P Nanoparticles by Inward Phosphorus Migration and Outward Copper Migration	https://doi.org/10.1021/acs.chemmater.9b01505	Nguyen, Anh-Minh; Bahri, Mounib; Dreyfuss, Sébastien; Moldovan, Simona; Miche, Antoine; Méthivier, Christophe; Ersen, Ovidiu; Mézailles, Nicolas; Carencu, Sophie , Bimetallic Phosphide (Ni,Cu) ₂ P Nanoparticles by Inward Phosphorus Migration and Outward Copper Migration, 2019, Chemistry of Materials, 10.1021/acs.chemmater.9b01505
Ultra-stable 4H-gold nanowires up to 800 °C in a vacuum	http://xlink.rsc.org/?DOI=C9TA01306G	Wang, Qi; Zhao, Zhi Liang; Cai, Chao; Li, Hui; Gu, Meng , Ultra-stable 4H-gold nanowires up to 800 °C in a vacuum, 2019, Journal of Materials Chemistry A, 10.1039/C9TA01306G
Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales	http://www.pnas.org/lookup/doi/10.1073/pnas.1815643116	Xiong, Yin; Yang, Yao; Joress, Howie; Padgett, Elliot; Gupta, Unmukt; Yarlagadda, Venkata; Agyeman-Budu, David N.; Huang, Xin; Moylan, Thomas E.; Zeng, Rui; Kongkanand, Anusorn; Escobedo, Fernando A.; Brock, Joel D.; DiSalvo, Francis J.; Muller, David A.; Abruña, Héctor D. , Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales, 2019, Proceedings of the National Academy of Sciences, 10.1073/pnas.1815643116
Anisotropic atomistic evolution during the sublimation of polar InAs nanowires	http://xlink.rsc.org/?DOI=C8NR10193K	Choi, Suji; Lee, Jeonghwan; Pin, Minwook; Kwon, Ji-Hwan; Kim, In; Yeom, Min Sun; Kim, Chung Soo; Lee, Ho Seong; Ahn, Sang Jung; Yi, Seong-Hoon; Kim, Young Heon , Anisotropic atomistic evolution during the sublimation of polar InAs nanowires, 2019, Nanoscale, 10.1039/C8NR10193K
Influence of gas environment and heating on atomic structures of platinum nanoparticle catalysts for proton-exchange membrane fuel cells	https://doi.org/10.1088/1361-6528/aafe1e	Yoshida, Kenta; Zhang, Xudong; Shimada, Yusuke; Nagai, Yasuyoshi; Hiroyama, Tomoki; Tanaka, Nobuo; Lari, Leonardo; Ward, Michael R.; Boyes, Edward D.; Gai, Pratibha L. , Influence of gas environment and heating on atomic structures of platinum nanoparticle catalysts for proton-exchange membrane fuel cells, 2019, Nanotechnology, 10.1088/1361-6528/aafe1e
ZnO-Templated Synthesis and Metal-Insulator Transition of VO ₂ Nanostructures	https://pubs.acs.org/doi/10.1021/acs.chemmater.8b05231	Li, Xuefei; Schaak, Raymond E. , ZnO-Templated Synthesis and Metal-Insulator Transition of VO ₂ Nanostructures, 2019, Chemistry of Materials, 10.1021/acs.chemmater.8b05231
Novel Route from a Wurtzite to a Rock-Salt Structure in CoO Nanocrystals: In Situ Transmission Electron Microscopy Study	https://pubs.acs.org/doi/10.1021/acs.jpcc.9b01548	Jang, Kyu Yeon; Ahn, Sang Jung; Kwon, Ji-Hwan; Nam, Ki Min; Kim, Young Heon , Novel Route from a Wurtzite to a Rock-Salt Structure in CoO Nanocrystals: In Situ Transmission Electron Microscopy Study, 2019, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.9b01548

TITLE	WEB LINK	CITATIONS
Grain growth mechanisms in ultrafine-grained steel: an electron backscatter diffraction and in situ TEM study	http://link.springer.com/10.1007/s10853-019-03611-8	Ahmels, Laura; Kashiwar, Ankush; Scherer, Torsten; Kübel, Christian; Bruder, Enrico , Grain growth mechanisms in ultrafine-grained steel: an electron backscatter diffraction and in situ TEM study, 2019, Journal of Materials Science, 10.1007/s10853-019-03611-8
Importance of point defect reactions for the atomic-scale roughness of III-V nanowire sidewalls	https://iopscience.iop.org/article/10.1088/1361-6528/ab1a4e	Díaz Álvarez, Adrian; Peric, Nemanja; Franchina Vergel, Nathali Alexandra; Nys, Jean-Philippe; Berthe, Maxime; Patriarche, Gilles; Harmand, Jean-Christophe; Caroff, Philippe; Plissard, Sébastien; Ebert, Philipp; Xu, Tao; Grandidier, Bruno , Importance of point defect reactions for the atomic-scale roughness of III-V nanowire sidewalls, 2019, Nanotechnology, 10.1088/1361-6528/ab1a4e
Multi-scale Convolutional Neural Networks for Inverse Problems	http://arxiv.org/abs/1810.12183	Wang, Feng; Eljarrat, Alberto; Müller, Johannes; Henninen, Trond; Rolf, Erni; Koch, Christoph , Multi-scale Convolutional Neural Networks for Inverse Problems, 2019, ArXiv, 10.1038/s41598-020-62484-z
The ultrathin limit of improper ferroelectricity	http://www.nature.com/articles/s41467-019-13474-x	Nordlander, J.; Campanini, M.; Rossell, M. D.; Erni, R.; Meier, Q. N.; Cano, A.; Spaldin, N. A.; Fiebig, M.; Trassin, M. , The ultrathin limit of improper ferroelectricity, 2019, Nature Communications, 10.1038/s41467-019-13474-x
Observable Two-Step Nucleation Mechanism in Solid-State Formation of Tungsten Carbide	https://doi.org/10.1021/acsnano.8b07864	Fei, Linfeng; Gan, Xianglai; Ng, Sheung Mei; Wang, Hui; Xu, Ming; Lu, Wei; Zhou, Yanchun; Leung, Chi Wah; Mak, Chee-Leung; Wang, Yu , Observable Two-Step Nucleation Mechanism in Solid-State Formation of Tungsten Carbide, 2019, ACS Nano, 10.1021/acsnano.8b07864
In Situ Study of Particle Precipitation in Metal-Doped CeO ₂ during Thermal Treatment and Ion Irradiation for Emulation of Irradiating Fuels	https://doi.org/10.1021/acs.jpcc.8b11027	Jiang, Weilin; Conroy, Michele A.; Kruska, Karen; Olszta, Matthew J.; Droubay, Timothy C.; Schwantes, Jon M.; Taylor, Caitlin A.; Price, Patrick M.; Hattar, Khalid; Devanathan, Ram , In Situ Study of Particle Precipitation in Metal-Doped CeO ₂ during Thermal Treatment and Ion Irradiation for Emulation of Irradiating Fuels, 2019, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.8b11027
Novel Interface in CuAg Nanostructure Induced by Size Effect	https://pubs.acs.org/doi/10.1021/acs.jpcclett.9b00484	Tang, Luping; Wu, Wei; He, Longbing; Yu, Kaihao; Xu, Tao; Zhang, Qiubo; Zhang, Lei; Sun, Litao , Novel Interface in CuAg Nanostructure Induced by Size Effect, 2019, The Journal of Physical Chemistry Letters, 10.1021/acs.jpcclett.9b00484
Ru Octahedral Nanocrystals with a Face-Centered Cubic Structure, {111} Facets, Thermal Stability up to 400 °C, and Enhanced Catalytic Activity	https://pubs.acs.org/doi/10.1021/jacs.9b01640	Zhao, Ming; Chen, Zitao; Lyu, Zhiheng; Hood, Zachary D.; Xie, Minghao; Vara, Madeline; Chi, Miaofang; Xia, Younan , Ru Octahedral Nanocrystals with a Face-Centered Cubic Structure, {111} Facets, Thermal Stability up to 400 °C, and Enhanced Catalytic Activity, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b01640
Study of Crystallization and Coalescence of Nanocrystals in Amorphous Glass at High Temperature	https://pubs.acs.org/doi/10.1021/acs.inorgchem.9b01491	Wang, Ting; Lu, Wei; Xu, Xuhui; Qiu, Jianbei; Yu, Siu Fung , Study of Crystallization and Coalescence of Nanocrystals in Amorphous Glass at High Temperature, 2019, Inorganic Chemistry, 10.1021/acs.inorgchem.9b01491
Nanoparticle Reshaping and Ion Migration in Nanocomposite Ultrafast Ionic Actuators: The Converse Piezo-Electro-Kinetic Effect	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201902941	Chiolerio, Alessandro; Perrone, Denis; Roppolo, Ignazio; Rizza, Giancarlo; Risplendi, Francesca; Stassi, Stefano; Laurenti, Marco; Rajan, Krishna; Chiappone, Annalisa; Bocchini, Sergio; Cicero, Giancarlo; Pandolfi, Paolo; Bejtka, Katarzyna; Coulon, PierreEugène; Ricciardi, Carlo; Pirri, Candido Fabrizio , Nanoparticle Reshaping and Ion Migration in Nanocomposite Ultrafast Ionic Actuators: The Converse Piezo-Electro-Kinetic Effect, 2019, Advanced Functional Materials, 10.1002/adfm.201902941
In Situ Observation of Crystalline Silicon Growth from SiO ₂ at Atomic Scale	https://spj.sciencemag.org/research/2019/3289247/	Yu, Kaihao; Xu, Tao; Wu, Xing; Wang, Wen; Zhang, Hui; Zhang, Qiubo; Tang, Luping; Sun, Litao , In Situ Observation of Crystalline Silicon Growth from SiO ₂ at Atomic Scale, 2019, Research, 10.34133/2019/3289247
Atomic Insight into ThermolysisDriven Growth of 2D MoS ₂	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201902149	Sang, Xiahan; Li, Xufan; Puzetzy, Alexander A.; Geohegan, David B.; Xiao, Kai; Unocic, Raymond R. , Atomic Insight into ThermolysisDriven Growth of 2D MoS ₂ , 2019, Advanced Functional Materials, 10.1002/adfm.201902149
High temperature shockwave stabilized single atoms	http://www.nature.com/articles/s41565-019-0518-7	Yao, Yonggang; Huang, Zhennan; Xie, Pengfei; Wu, Lianping; Ma, Lu; Li, Tangyuan; Pang, Zhenqian; Jiao, Miaolun; Liang, Zhiqiang; Gao, Jinlong; He, Yang; Kline, Dylan Jacob; Zachariah, Michael R.; Wang, Chongmin; Lu, Jun; Wu, Tianpin; Li, Teng; Wang, Chao; Shahbazian-Yassar, Reza; Hu, Liangbing , High temperature shockwave stabilized single atoms, 2019, Nature Nanotechnology, 10.1038/s41565-019-0518-7
An Environmental Transmission Electron Microscopy Study of the Stability of the TiO ₂ (1 × 4) Reconstructed (001) Surface	https://doi.org/10.1021/acs.jpcc.9b04590	Fang, Ke; Li, Guanxing; Ou, Yang; Yuan, Wentao; Yang, Hangsheng; Zhang, Ze; Wang, Yong , An Environmental Transmission Electron Microscopy Study of the Stability of the TiO ₂ (1 × 4) Reconstructed (001) Surface, 2019, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.9b04590
Dissolution Behavior of Isolated and Aggregated Hematite Particles Revealed by in Situ Liquid Cell Transmission Electron Microscopy	https://doi.org/10.1021/acs.est.8b05922	Li, Xiaoxu; Qin, Fuyu; Chen, Xuanyu; Sheng, Anxu; Wang, Zhiwei; Liu, Juan , Dissolution Behavior of Isolated and Aggregated Hematite Particles Revealed by in Situ Liquid Cell Transmission Electron Microscopy, 2019, Environmental Science & Technology, 10.1021/acs.est.8b05922

TITLE	WEB LINK	CITATIONS
Direct Observation of Early Stages of Growth of Multilayered DNA-Templated Au-Pd-Au Core-Shell Nanoparticles in Liquid Phase	https://www.frontiersin.org/articles/10.3389/fbioe.2019.00019/full	Bhattarai, Nabraj; Prozorov, Tanya , Direct Observation of Early Stages of Growth of Multilayered DNA-Templated Au-Pd-Au Core-Shell Nanoparticles in Liquid Phase, 2019, Frontiers in Bioengineering and Biotechnology, 10.3389/fbioe.2019.00019
Toward 3D imaging of corrosion at the nanoscale: Cross-sectional analysis of in-situ oxidized TEM samples	http://www.sciencedirect.com/science/article/pii/S0968432818302828	Harlow, Wayne; Taheri, Mitra L. , Toward 3D imaging of corrosion at the nanoscale: Cross-sectional analysis of in-situ oxidized TEM samples, 2019, Micron, 10.1016/j.micron.2019.02.008
Structural evolution of atomically dispersed Pt catalysts dictates reactivity	https://www.nature.com/articles/s41563-019-0349-9	DeRita, Leo; Resasco, Joaquin; Dai, Sheng; Boubnov, Alexey; Thang, Ho Viet; Hoffman, Adam S.; Ro, Insoo; Graham, George W.; Bare, Simon R.; Pacchioni, Gianfranco; Pan, Xiaoqing; Christopher, Phillip , Structural evolution of atomically dispersed Pt catalysts dictates reactivity, 2019, Nature Materials, 10.1038/s41563-019-0349-9
Morphological and compositional changes of MFe ₂ O ₄ @Co ₃ O ₄ (M = Ni, Zn) core-shell nanoparticles after mild reduction	http://www.sciencedirect.com/science/article/pii/S1044580318328262	Govender, Alisa; Olivier, Ezra J.; Carleschi, Emanuela; Prestat, Eric; Haigh, Sarah J.; van Rensburg, Hendrik; Doyle, Bryan P.; Barnard, Werner; Forbes, Roy P.; Neethling, Johannes H.; van Steen, Eric , Morphological and compositional changes of MFe ₂ O ₄ @Co ₃ O ₄ (M = Ni, Zn) core-shell nanoparticles after mild reduction, 2019, Materials Characterization, 10.1016/j.matchar.2019.109806
In situ Scanning Transmission Electron Microscopy with Atomic Resolution under Atmospheric Pressure	https://www.cambridge.org/core/journals/microscopy-today/article/in-situ-scanning-transmission-electron-microscopy-with-atomic-resolution-under-atmospheric-pressure/55D8A0C1194DACD2E1D7685406CE2193	Dai, Sheng; Zhang, Shuyi; Graham, George W.; Pan, Xiaoqing , In situ Scanning Transmission Electron Microscopy with Atomic Resolution under Atmospheric Pressure, 2019, Microscopy Today, 10.1017/S1551929519000439
Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces	https://doi.org/10.1007/s11051-019-4658-3	Bergamaschini, Roberto; Rosen, Brian A.; Montalenti, Francesco; Colin, Jérôme , Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces, 2019, Journal of Nanoparticle Research, 10.1007/s11051-019-4658-3
Atomic-Level Observation of Electrochemical Platinum Dissolution and Redeposition	https://doi.org/10.1021/acs.nanolett.9b02382	Nagashima, Shinya; Ikai, Toshihiro; Sasaki, Yuki; Kawasaki, Tadahiro; Hatanaka, Tatsuya; Kato, Hisao; Kishita, Keisuke , Atomic-Level Observation of Electrochemical Platinum Dissolution and Redeposition, 2019, Nano Letters, 10.1021/acs.nanolett.9b02382
Current Density Distribution in Electrochemical Cells with Small Cell Heights and Coplanar Thin Electrodes as Used in ec-S/TEM Cell Geometries	https://iopscience.iop.org/article/10.1149/2.0211904jes/meta	Stricker, Elizabeth A.; Ke, Xinyou; Wainright, Jesse S.; Unocic, Raymond R.; Savinell, Robert F. , Current Density Distribution in Electrochemical Cells with Small Cell Heights and Coplanar Thin Electrodes as Used in ec-S/TEM Cell Geometries, 2019, Journal of The Electrochemical Society, 10.1149/2.0211904jes
Direct Observation of Redox Mediator-Assisted Solution-Phase Discharging of Li-O ₂ Battery by Liquid-Phase Transmission Electron Microscopy	https://doi.org/10.1021/jacs.9b02332	Lee, Donghoon; Park, Hyeokjun; Ko, Youngmin; Park, Hayoung; Hyeon, Taeghwan; Kang, Kisuk; Park, Jungwon , Direct Observation of Redox Mediator-Assisted Solution-Phase Discharging of Li-O ₂ Battery by Liquid-Phase Transmission Electron Microscopy, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b02332
Dynamics of gold nanoparticle clusters observed with liquid-phase electron microscopy	http://www.sciencedirect.com/science/article/pii/S0968432818303457	Cepeda-Pérez, Elisa; de Jonge, Niels , Dynamics of gold nanoparticle clusters observed with liquid-phase electron microscopy, 2019, Micron, 10.1016/j.micron.2018.11.006
Impact of pH on the stability, dissolution and aggregation kinetics of silver nanoparticles	http://www.sciencedirect.com/science/article/pii/S0045653518319830	Fernando, Ishara; Zhou, Yan , Impact of pH on the stability, dissolution and aggregation kinetics of silver nanoparticles, 2019, Chemosphere, 10.1016/j.chemosphere.2018.10.122
Dynamic Optimization and Non-linear Model Predictive Control to Achieve Targeted Particle Morphologies	https://onlinelibrary.wiley.com/doi/abs/10.1002/cite.201800118	Gerlinger, Wolfgang; Asua, José Maria; Chaloupka, Tomáš; Faust, Johannes M. M.; Gjertsen, Fredrik; Hamzehlou, Shaghayegh; Hauger, Svein Olav; Jahns, Ekkehard; Joy, Preet J.; Kosek, Juraj; Lapkin, Alexei; Leiza, Jose Ramon; Mhamdi, Adel; Mitsos, Alexander; Naeem, Omar; Rajabalinia, Noushin; Singstad, Peter; Suberu, John , Dynamic Optimization and Non-linear Model Predictive Control to Achieve Targeted Particle Morphologies, 2019, Chemie Ingenieur Technik, 10.1002/cite.201800118
Structural analysis of single nanoparticles in liquid by low-dose STEM nanodiffraction	http://www.sciencedirect.com/science/article/pii/S0968432818302920	Khelifa, Abdelali; Byun, Caroline; Nelayah, Jaysen; Wang, Guillaume; Ricolleau, Christian; Alloyeau, Damien , Structural analysis of single nanoparticles in liquid by low-dose STEM nanodiffraction, 2019, Micron, 10.1016/j.micron.2018.09.008
In Situ Analysis of Growth Behaviors of Cu ₂ O Nanocubes in Liquid Cell Transmission Electron Microscopy	https://doi.org/10.1021/acs.analchem.9b01192	Lin, Ya-Hsuan; Chen, Jui-Yuan; Chen, Fu-Chun; Kuo, Ming-Yu; Hsu, Yung-Jung; Wu, Wen-Wei , In Situ Analysis of Growth Behaviors of Cu ₂ O Nanocubes in Liquid Cell Transmission Electron Microscopy, 2019, Analytical Chemistry, 10.1021/acs.analchem.9b01192

TITLE	WEB LINK	CITATIONS
Nanoscale Imaging and Stabilization of Silica Nanospheres in Liquid Phase Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/ppsc.201800374	Meijerink, Mark J.; Spiga, Cristiano; Hansen, Thomas W.; Damsgaard, Christian D.; Jong, Krijn P. de; Zečević, Jovana, Nanoscale Imaging and Stabilization of Silica Nanospheres in Liquid Phase Transmission Electron Microscopy, 2019, Particle & Particle Systems Characterization, 10.1002/ppsc.201800374
On Biomineralization: Enzymes Switch on Mesocrystal Assembly	https://doi.org/10.1021/acscentsci.8b00853	Rao, Ashit; Roncal-Herrero, Teresa; Schmid, Elina; Drechsler, Markus; Scheffner, Martin; Gebauer, Denis; Kröger, Roland; Cölfen, Helmut, On Biomineralization: Enzymes Switch on Mesocrystal Assembly, 2019, ACS Central Science, 10.1021/acscentsci.8b00853
Synthesis of complex rare earth nanostructures using in situ liquid cell transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2019/na/c9na00197b	Taylor, Caitlin A.; Nenoff, Tina M.; Pratt, Sarah H.; Hattar, Khalid, Synthesis of complex rare earth nanostructures using in situ liquid cell transmission electron microscopy, 2019, Nanoscale Advances, 10.1039/C9NA00197B
Template-Assisted in Situ Synthesis of Ag@Au Bimetallic Nanostructures Employing Liquid-Phase Transmission Electron Microscopy	https://doi.org/10.1021/acsnano.9b06614	Ahmad, Nabeel; Bon, Marta; Passerone, Daniele; Erni, Rolf, Template-Assisted in Situ Synthesis of Ag@Au Bimetallic Nanostructures Employing Liquid-Phase Transmission Electron Microscopy, 2019, ACS Nano, 10.1021/acsnano.9b06614
Controlling the radical-induced redox chemistry inside a liquid-cell TEM	https://pubs.rsc.org/en/content/articlelanding/2019/sc/c9sc02227a	Ambrožič, Bojan; Prašnikar, Anže; Hodnik, Nejc; Kostevšek, Nina; Likozar, Blaž; Rožman, Kristina Žužek; Šturm, Sašo, Controlling the radical-induced redox chemistry inside a liquid-cell TEM, 2019, Chemical Science, 10.1039/C9SC02227A
Real-time imaging of activation and degradation of carbon supported octahedral Pt–Ni alloy fuel cell catalysts at the nanoscale using in situ electrochemical liquid cell STEM	https://pubs.rsc.org/en/content/articlelanding/2019/ee/c9ee01185d	Beermann, Vera; Holtz, Megan E.; Padgett, Elliot; Araujo, Jorge Ferreira de; Muller, David A.; Strasser, Peter, Real-time imaging of activation and degradation of carbon supported octahedral Pt–Ni alloy fuel cell catalysts at the nanoscale using in situ electrochemical liquid cell STEM, 2019, Energy & Environmental Science, 10.1039/C9EE01185D
In situ TEM observation of Au–Cu ₂ O core–shell growth in liquids	https://pubs.rsc.org/en/content/articlelanding/2019/nr/c9nr00972h	Chen, Fu-Chun; Chen, Jui-Yuan; Lin, Ya-Hsuan; Kuo, Ming-Yu; Hsu, Yung-Jung; Wu, Wen-Wei, In situ TEM observation of Au–Cu ₂ O core–shell growth in liquids, 2019, Nanoscale, 10.1039/C9NR00972H
Attachment of iron oxide nanoparticles to carbon nanofibers studied by in-situ liquid phase transmission electron microscopy	http://www.sciencedirect.com/science/article/pii/S0968432818302981	Krans, Nynke A.; Ahmad, N.; Alloyeau, D.; de Jong, K. P.; Zečević, J., Attachment of iron oxide nanoparticles to carbon nanofibers studied by in-situ liquid phase transmission electron microscopy, 2019, Micron, 10.1016/j.micron.2018.10.009
Time-Resolved Observations of Liquid–Liquid Phase Separation at the Nanoscale Using in Situ Liquid Transmission Electron Microscopy	https://doi.org/10.1021/jacs.9b03083	Le Ferrand, Hortense; Duchamp, Martial; Gabryelczyk, Bartosz; Cai, Hao; Miserez, Ali, Time-Resolved Observations of Liquid–Liquid Phase Separation at the Nanoscale Using in Situ Liquid Transmission Electron Microscopy, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b03083
Assessment of oxide nanoparticle stability in liquid phase transmission electron microscopy	https://doi.org/10.1007/s12274-019-2419-3	Meijerink, Mark J.; de Jong, Krijn P.; Zečević, Jovana, Assessment of oxide nanoparticle stability in liquid phase transmission electron microscopy, 2019, Nano Research, 10.1007/s12274-019-2419-3
Morphological and Structural Evolution of Co ₃ O ₄ Nanoparticles Revealed by in Situ Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation	https://doi.org/10.1021/acsnano.9b04745	Ortiz Peña, Nathaly; Ihiwakrim, Dris; Han, Madeleine; Lassalle-Kaiser, Benedikt; Carencio, Sophie; Sanchez, Clément; Laberty-Robert, Christel; Portehault, David; Ersen, Ovidiu, Morphological and Structural Evolution of Co ₃ O ₄ Nanoparticles Revealed by in Situ Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation, 2019, ACS Nano, 10.1021/acsnano.9b04745
In Situ Observations of Shell Growth and Oxidative Etching Behaviors of Pd Nanoparticles in Solutions by Liquid Cell Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201900050	Su, Ting; Wang, Zhong Lin; Wang, Zhiwei, In Situ Observations of Shell Growth and Oxidative Etching Behaviors of Pd Nanoparticles in Solutions by Liquid Cell Transmission Electron Microscopy, 2019, Small, 10.1002/sml.201900050
Redox-Sensitive Facet Dependency in Etching of Ceria Nanocrystals Directly Observed by Liquid Cell TEM	https://doi.org/10.1021/jacs.9b09508	Sung, Jongbaek; Choi, Back Kyu; Kim, Byunghoon; Kim, Byung Hyo; Kim, Joodeok; Lee, Donghoon; Kim, Sungin; Kang, Kisuk; Hyeon, Taeghwan; Park, Jungwon, Redox-Sensitive Facet Dependency in Etching of Ceria Nanocrystals Directly Observed by Liquid Cell TEM, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b09508
Elucidating the Growth of Metal–Organic Nanotubes Combining Isorecticular Synthesis with Liquid-Cell Transmission Electron Microscopy	https://doi.org/10.1021/jacs.9b04586	Vailonis, Kristina M.; Gnanasekaran, Karthikeyan; Powers, Xian B.; Gianneschi, Nathan C.; Jenkins, David M., Elucidating the Growth of Metal–Organic Nanotubes Combining Isorecticular Synthesis with Liquid-Cell Transmission Electron Microscopy, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b04586
Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition	https://doi.org/10.1021/acs.langmuir.8b02846	Yang, Jie; Andrei, Carmen M.; Chan, Yuting; Mehdi, B. Layla; Browning, Nigel D.; Botton, Gianluigi A.; Soleymani, Leyla, Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition, 2019, Langmuir, 10.1021/acs.langmuir.8b02846
In Situ Observation of Dynamic Galvanic Replacement Reactions in Twinned Metallic Nanowires by Liquid Cell Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201910379	Zhuang, Chunqiang; Qi, Heyang; Cheng, Xing; Chen, Ge; Gao, Chunlang; Wang, Lihua; Sun, Shaorui; Zou, Jin; Han, Xiaodong, In Situ Observation of Dynamic Galvanic Replacement Reactions in Twinned Metallic Nanowires by Liquid Cell Transmission Electron Microscopy, 2019, Angewandte Chemie International Edition, 10.1002/anie.201910379

TITLE	WEB LINK	CITATIONS
Controlling dissolution of PbTe nanoparticles in organic solvents during liquid cell transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2019/nr/c9nr04646a	Bhattarai, Nabraj; Woodall, Danielle L.; Boercker, Janice E.; Tischler, Joseph G.; Brintlinger, Todd H. , Controlling dissolution of PbTe nanoparticles in organic solvents during liquid cell transmission electron microscopy, 2019, Nanoscale, 10.1039/C9NR04646A
Conjugated Block Copolymers as Model Systems to Examine Mechanisms of Charge Generation in Donor-Acceptor Materials	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201804858	Aplan, Melissa P.; Grieco, Christopher; Lee, Youngmin; Munro, Jason M.; Lee, Wonho; Gray, Jennifer L.; Seibers, Zach D.; Kuei, Brooke; Litofsky, Joshua H.; Kilbey, S. Michael; Wang, Qing; Dabo, Ismaila; Asbury, John B.; Gomez, Enrique D. , Conjugated Block Copolymers as Model Systems to Examine Mechanisms of Charge Generation in Donor-Acceptor Materials, 2019, Advanced Functional Materials, https://doi.org/10.1002/adfm.201804858
Insights into thermal annealing of highly-active PtCu ₃ /C Oxygen Reduction Reaction electrocatalyst: An in-situ heating transmission Electron microscopy study	https://linkinghub.elsevier.com/retrieve/pii/S2211285519305993	Gatalo, Matija; Ruiz-Zepeda, Francisco; Hodnik, Nejc; Dražić, Goran; Bele, Marjan; Gaberšček, Miran , Insights into thermal annealing of highly-active PtCu ₃ /C Oxygen Reduction Reaction electrocatalyst: An in-situ heating transmission Electron microscopy study, 2019, Nano Energy, 10.1016/j.nanoen.2019.103892
Current-induced restructuring in bent silver nanowires	https://pubs.rsc.org/en/content/articlelanding/2019/nr/c8nr08551j	Batra, Nitin M.; Syed, Ahad; Costa, Pedro M. F. J. , Current-induced restructuring in bent silver nanowires, 2019, Nanoscale, 10.1039/C8NR08551J
Pre-stressing aluminum nanoparticles as a strategy to enhance reactivity of nanothermite composites	https://linkinghub.elsevier.com/retrieve/pii/S0010218019301269	Jacob, Rohit J.; Hill, Kevin J.; Yang, Yong; Pantoya, Michelle L.; Zachariah, Michael R. , Pre-stressing aluminum nanoparticles as a strategy to enhance reactivity of nanothermite composites, 2019, Combustion and Flame, 10.1016/j.combustflame.2019.03.024
Electron Beam Effects on Oxide Thin Films—Structure and Electrical Property Correlations	https://www.cambridge.org/core/product/identifier/S1431927619000175/type/journal_article	Neelisetty, Krishna Kanth; Mu, Xiaoke; Gutsch, Sebastian; Vahl, Alexander; Molinari, Alan; von Seggern, Falk; Hansen, Mirko; Scherer, Torsten; Zacharias, Margit; Kienle, Lorenz; Chakravadhanula, VS Kiran; Kübel, Christian , Electron Beam Effects on Oxide Thin Films—Structure and Electrical Property Correlations, 2019, Microscopy and Microanalysis, 10.1017/S1431927619000175
Characteristics and Processing of Hydrogen-Treated Copper Powders for EB-PBF Additive Manufacturing	https://www.mdpi.com/2076-3417/9/19/3993	Ledford, Christopher; Rock, Christopher; Carriere, Paul; Frigola, Pedro; Gamzina, Diana; Horn, Timothy , Characteristics and Processing of Hydrogen-Treated Copper Powders for EB-PBF Additive Manufacturing, 2019, Applied Sciences, 10.3390/app9193993
Chemical and Morphological Origins of Improved Ion Conductivity in Perfluoro Ionene Chain Extended Ionomers	https://pubs.acs.org/doi/10.1021/jacs.9b05322	Su, Gregory M.; Cordova, Isvar A.; Yandrasits, Michael A.; Lindell, Matthew; Feng, Jun; Wang, Cheng; Kusoglu, Ahmet , Chemical and Morphological Origins of Improved Ion Conductivity in Perfluoro Ionene Chain Extended Ionomers, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b05322
In situ characterization of kinetics and mass transport of PbSe nanowire growth via LS and VLS mechanisms	http://xlink.rsc.org/?DOI=C9NR01200A	Song, Miao; Lee, Jaewon; Wang, Bin; Legg, Benjamin A.; Hu, Shenyang; Chun, Jaehun; Li, Dongsheng , In situ characterization of kinetics and mass transport of PbSe nanowire growth via LS and VLS mechanisms, 2019, Nanoscale, 10.1039/C9NR01200A
Unexpected Strong Thermally Induced Phonon Energy Shift for Mapping Local Temperature	https://pubs.acs.org/doi/10.1021/acs.nanolett.9b03307	Yan, Xingxu; Liu, Chengyan; Gadre, Chaitanya A.; Dai, Sheng; Gu, Lei; Yu, Kehang; Aoki, Toshihiro; Wu, Ruqian; Pan, Xiaoqing , Unexpected Strong Thermally Induced Phonon Energy Shift for Mapping Local Temperature, 2019, Nano Letters, 10.1021/acs.nanolett.9b03307
Supercluster-coupled crystal growth in metallic glass forming liquids	http://www.nature.com/articles/s41467-019-08898-4	Xie, Yujun; Sohn, Sungwoo; Wang, Minglei; Xin, Huolin; Jung, Yeonwoong; Shattuck, Mark D.; O'Hern, Corey S.; Schroers, Jan; Cha, Judy J. , Supercluster-coupled crystal growth in metallic glass forming liquids, 2019, Nature Communications, 10.1038/s41467-019-08898-4
Structural Evolutions of Vertically Aligned Two-Dimensional MoS ₂ Layers Revealed by in Situ Heating Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/acs.jpcc.9b06899	Wang, Mengjing; Kim, Jung Han; Han, Sang Sub; Je, Minyeong; Gil, Jaeyoung; Noh, Chanwoo; Ko, Tae-Jun; Lee, Kyu Seung; Son, Dong Ick; Bae, Tae-Sung; Ryu, Hyeon Ih; Oh, Kyu Hwan; Jung, Younjoon; Choi, Heechae; Chung, Hee-Suk; Jung, Yeonwoong , Structural Evolutions of Vertically Aligned Two-Dimensional MoS ₂ Layers Revealed by in Situ Heating Transmission Electron Microscopy, 2019, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.9b06899
In Situ High-Cycle Fatigue Reveals Importance of Grain Boundary Structure in Nanocrystalline Cu-Zr	http://link.springer.com/10.1007/s11837-019-03361-7	Schuler, Jennifer D.; Barr, Christopher M.; Heckman, Nathan M.; Copeland, Guild; Boyce, Brad L.; Hattar, Khalid; Rupert, Timothy J. , In Situ High-Cycle Fatigue Reveals Importance of Grain Boundary Structure in Nanocrystalline Cu-Zr, 2019, JOM, 10.1007/s11837-019-03361-7
Hunter-Gatherers Harvested and Heated Microbial Biogenic Iron Oxides to Produce Rock Art Pigment	http://www.nature.com/articles/s41598-019-53564-w	MacDonald, Brandi Lee; Stalla, David; He, Xiaoqing; Rahemtulla, Farid; Emerson, David; Dube, Paul A.; Maschmann, Matthew R.; Klesner, Catherine E.; White, Tommi A. , Hunter-Gatherers Harvested and Heated Microbial Biogenic Iron Oxides to Produce Rock Art Pigment, 2019, Scientific Reports, 10.1038/s41598-019-53564-w



TITLE	WEB LINK	CITATIONS
Dislocation-driven SnTe surface defects during chemical vapor deposition growth	https://linkinghub.elsevier.com/retrieve/pii/S0022369717314336	Liu, Pengzi; Xie, Yujun; Miller, Eric; Ebine, Yuta; Kumaravadeivel, Piranavan; Sohn, Sungwoo; Cha, Judy J. , Dislocation-driven SnTe surface defects during chemical vapor deposition growth, 2019, Journal of Physics and Chemistry of Solids, 10.1016/j.jpccs.2017.12.016
Atomic Scale Stability of Tungsten–Cobalt Intermetallic Nanocrystals in Reactive Environment at High Temperature	https://pubs.acs.org/doi/10.1021/jacs.9b00473	Yang, Feng; Zhao, Haofei; Wang, Xiaowei; Liu, Xu; Liu, Qidong; Liu, Xiyan; Jin, Chuanhong; Wang, Rongming; Li, Yan , Atomic Scale Stability of Tungsten–Cobalt Intermetallic Nanocrystals in Reactive Environment at High Temperature, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b00473
Reshaping Dynamics of Gold Nanoparticles under H ₂ and O ₂ at Atmospheric Pressure	https://pubs.acs.org/doi/10.1021/acsnano.8b08530	Chmielewski, Adrian; Meng, Jun; Zhu, Beien; Gao, Yi; Guesmi, Hazar; Prunier, Hélène; Alloyeau, Damien; Wang, Guillaume; Louis, Catherine; Delannoy, Laurent; Afanasiev, Pavel; Ricolleau, Christian; Nelayah, Jaysen , Reshaping Dynamics of Gold Nanoparticles under H ₂ and O ₂ at Atmospheric Pressure, 2019, ACS Nano, 10.1021/acsnano.8b08530
Design and understanding of dendritic mixed-metal hydroxide nanosheets@N-doped carbon nanotube array electrode for high-performance asymmetric supercapacitors	https://linkinghub.elsevier.com/retrieve/pii/S2405829718303325	Zhang, Qiaobao; Liu, Zaichun; Zhao, Bote; Cheng, Yong; Zhang, Lei; Wu, Hong-Hui; Wang, Ming-Sheng; Dai, Shuge; Zhang, Kaili; Ding, Dong; Wu, Yuping; Liu, Meilin , Design and understanding of dendritic mixed-metal hydroxide nanosheets@N-doped carbon nanotube array electrode for high-performance asymmetric supercapacitors, 2019, Energy Storage Materials, 10.1016/j.ensm.2018.06.026
Heterointerface-Driven Band Alignment Engineering and its Impact on MacroPerformance in Semiconductor Multilayer Nanostructures	https://onlinelibrary.wiley.com/doi/10.1002/sml.201900837	Cai, Chenyuan; Zhao, Yunhao; Xie, Shengwen; Zhao, Xuebing; Zhang, Yu; Xu, Yingqiang; Liang, Chongyun; Niu, Zhichuan; Shi, Yi; Li, Yuesheng; Che, Renchao , Heterointerface-Driven Band Alignment Engineering and its Impact on MacroPerformance in Semiconductor Multilayer Nanostructures, 2019, Small, 10.1002/sml.201900837
Growth Dynamics of Gallium Nanodroplets Driven by Thermally Activated Surface Diffusion	https://pubs.acs.org/doi/10.1021/acs.jpcclett.9b01563	Baraissov, Zhaslan; Panciera, Federico; Travers, Laurent; Harmand, Jean-Christophe; Mirsaidov, Utkur , Growth Dynamics of Gallium Nanodroplets Driven by Thermally Activated Surface Diffusion, 2019, The Journal of Physical Chemistry Letters, 10.1021/acs.jpcclett.9b01563
Control of electron tunnelling by fine band engineering of semiconductor potential barriers	http://xlink.rsc.org/?DOI=C9NR03268A	Zhao, Yunhao; Cai, Chenyuan; Zhang, Yi; Zhao, Xuebing; Xu, Yingqiang; Liang, Chongyun; Niu, Zhichuan; Shi, Yi; Che, Renchao , Control of electron tunnelling by fine band engineering of semiconductor potential barriers, 2019, Nanoscale, 10.1039/C9NR03268A
Epitaxial stabilization versus interdiffusion: synthetic routes to metastable cubic HfO ₂ and HfV ₂ O ₇ from the core–shell arrangement of precursors	http://xlink.rsc.org/?DOI=C9NR07316G	Fleer, Nathan A.; Thomas, Melonie P.; Andrews, Justin L.; Waetzig, Gregory R.; Gonzalez, Oscar; Liu, Guan-Wen; Guiton, Beth S.; Banerjee, Sarbajit , Epitaxial stabilization versus interdiffusion: synthetic routes to metastable cubic HfO ₂ and HfV ₂ O ₇ from the core–shell arrangement of precursors, 2019, Nanoscale, 10.1039/C9NR07316G
Structural Intergrowth in δ-Al ₂ O ₃	https://pubs.acs.org/doi/10.1021/acs.jpcc.8b10135	Kovarik, Libor; Bowden, Mark; Shi, Dachuan; Szanyi, Janos; Peden, Charles H. F. , Structural Intergrowth in δ-Al ₂ O ₃ , 2019, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.8b10135
Cryo-EM-On-a-Chip: Custom-Designed Substrates for the 3D Analysis of Macromolecules	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6534443/	Alden, Nick A.; Varano, A. Cameron; Dearnaley, William J.; Solares, Maria J.; Luqiu, William Y.; Liang, Yanping; Sheng, Zhi; McDonald, Sarah M.; Damiano, John; McConnell, Jennifer; Dukes, Madeline J.; Kelly, Deborah F. , Cryo-EM-On-a-Chip: Custom-Designed Substrates for the 3D Analysis of Macromolecules, 2019, Small (Weinheim an der Bergstrasse, Germany), 10.1002/sml.201900918
Thermal Effect and Rayleigh Instability of Ultrathin 4H Hexagonal Gold Nanoribbons	https://linkinghub.elsevier.com/retrieve/pii/S2590238519302735	Li, Peifeng; Han, Ying; Zhou, Xiao; Fan, Zhanxi; Xu, Shang; Cao, Ke; Meng, Fanling; Gao, Libo; Song, Jun; Zhang, Hua; Lu, Yang , Thermal Effect and Rayleigh Instability of Ultrathin 4H Hexagonal Gold Nanoribbons, 2020, Matter, 10.1016/j.matt.2019.10.003
Sintering of cobalt during FTS: Insights from industrial and model systems	http://www.sciencedirect.com/science/article/pii/S0920586118309088	Moodley, Denzil; Claeys, Michael; van Steen, Eric; van Helden, Pieter; Kistamurthy, Dushen; Weststrate, Kees-Jan; Niemantsverdriet, Hans; Saib, Abdool; Erasmus, Willem; van de Loosdrecht, Jan , Sintering of cobalt during FTS: Insights from industrial and model systems, 2020, Catalysis Today, 10.1016/j.cattod.2019.03.059
Atomic Scale Insight into the Formation, Size, and Location of Platinum Nanoparticles Supported on γ-Alumina	https://doi.org/10.1021/acscatal.0c00042	Batista, Ana T. F.; Baaziz, Walid; Taleb, Anne-Lise; Chaniot, Johan; Moreaud, Maxime; Legens, Christèle; Aguilar-Tapia, Antonio; Proux, Olivier; Hazemann, Jean-Louis; Diehl, Fabrice; Chizallet, Céline; Gay, Anne-Sophie; Ersen, Ovidiu; Raybaud, Pascal , Atomic Scale Insight into the Formation, Size, and Location of Platinum Nanoparticles Supported on γ-Alumina, 2020, ACS Catalysis, 10.1021/acscatal.0c00042
Nanoscale temperature measurement during temperature controlled in situ TEM using Al plasmon nanothermometry	http://www.sciencedirect.com/science/article/pii/S0304399119300932	Chmielewski, A.; Ricolleau, C.; Alloyeau, D.; Wang, G.; Nelayah, J. , Nanoscale temperature measurement during temperature controlled in situ TEM using Al plasmon nanothermometry, 2020, Ultramicroscopy, 10.1016/j.ultramic.2019.112881
Dynamic observation on the functional metal oxide conversion behaviors in Fe ₃ O ₄ /ZnO heterostructures	https://linkinghub.elsevier.com/retrieve/pii/S1359646219306281	Huang, Chih-Yang; Tai, Kuo-Lun; Huang, Chun-Wei; Tseng, Yi-Tang; Lo, Hung-Yang; Wu, Wen-Wei , Dynamic observation on the functional metal oxide conversion behaviors in Fe ₃ O ₄ /ZnO heterostructures, 2020, Scripta Materialia, 10.1016/j.scriptamat.2019.10.035

TITLE	WEB LINK	CITATIONS
Phase Selection in Self-catalyzed GaAs Nanowires	https://pubs.acs.org/doi/10.1021/acs.nanolett.9b04808	Pancieria, Federico; Baraissov, Zhaslan; Patriarche, Gilles; Dubrovskii, Vladimir G.; Glas, Frank; Travers, Laurent; Mirsaidov, Utkur; Harmand, Jean-Christophe, Phase Selection in Self-catalyzed GaAs Nanowires, 2020, Nano Letters, 10.1021/acs.nanolett.9b04808
The Structure of Subnm Platinum Clusters at Elevated Temperatures	https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201911068	Henninen, Trond R.; Bon, Marta; Wang, Feng; Passerone, Daniele; Erni, Rolf, The Structure of Subnm Platinum Clusters at Elevated Temperatures, 2020, Angewandte Chemie International Edition, 10.1002/anie.201911068
Probing local order in multiferroics by transmission electron microscopy	http://www.degruyter.com/view/j/psr.2020.5.issue-2/psr-2019-0068/psr-2019-0068.xml	Campanini, Marco; Erni, Rolf; Rossell, Marta D., Probing local order in multiferroics by transmission electron microscopy, 2020, Physical Sciences Reviews, 10.1515/psr-2019-0068
In situ observations of thermally induced phase transformations in iron sulfide nanoparticles	https://linkinghub.elsevier.com/retrieve/pii/S2590049820300047	Moehring, N.K.; Fort, M.J.; McBride, J.R.; Kato, M.; Macdonald, J.E.; Kidambi, P.R., In situ observations of thermally induced phase transformations in iron sulfide nanoparticles, 2020, Materials Today Advances, 10.1016/j.mtadv.2020.100057
Controlling Nanoscale Thermal Expansion of Monolayer Transition Metal Dichalcogenides by Alloy Engineering	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201905892	Hu, Xuan; Hemmat, Zahra; Majidi, Leily; Cavin, John; Mishra, Rohan; SalehiKhojin, Amin; Ogut, Serdar; Klie, Robert F., Controlling Nanoscale Thermal Expansion of Monolayer Transition Metal Dichalcogenides by Alloy Engineering, 2020, Small, 10.1002/sml.201905892
Pyroelectric power generation from the waste heat of automotive exhaust gas	http://xlink.rsc.org/?DOI=C9SE00283A	Kim, Juyoung; Yamanaka, Satoru; Murayama, Ichiro; Katou, Takanori; Sakamoto, Tomokazu; Kawasaki, Takuro; Fukuda, Tatsuo; Sekino, Tohru; Nakayama, Tadachika; Takeda, Masatoshi; Baba, Masaaki; Tanaka, Hirohisa; Aizawa, Kazuya; Hashimoto, Hideki; Kim, Yoonho, Pyroelectric power generation from the waste heat of automotive exhaust gas, 2020, Sustainable Energy & Fuels, 10.1039/C9SE00283A
AtomicScale Fabrication of InPlane Heterojunctions of FewLayer MoS 2 via In Situ Scanning Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201905516	Tai, KuoLun; Huang, ChunWei; Cai, RenFong; Huang, GuanMin; Tseng, YiTang; Chen, Jun; Wu, WenWei, AtomicScale Fabrication of InPlane Heterojunctions of FewLayer MoS 2 via In Situ Scanning Transmission Electron Microscopy, 2020, Small, 10.1002/sml.201905516
Phase transformation at controlled locations in nanowires by in situ electron irradiation	http://link.springer.com/10.1007/s12274-020-2711-2	Zhang, Hongtao; Wang, Wen; Xu, Tao; Xu, Feng; Sun, Litao, Phase transformation at controlled locations in nanowires by in situ electron irradiation, 2020, Nano Research, 10.1007/s12274-020-2711-2
Configurable Resistive Response in BaTiO 3 Ferroelectric Memristors via Electron Beam Radiation	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201907541	Molinari, Alan; Witte, Ralf; Neelisetty, Krishna Kanth; Gorji, Saleh; Kübel, Christian; Münch, Ingo; Wöhler, Franziska; Hahn, Lothar; Hengsbach, Stefan; Bade, Klaus; Hahn, Horst; Kruk, Robert, Configurable Resistive Response in BaTiO 3 Ferroelectric Memristors via Electron Beam Radiation, 2020, Advanced Materials, 10.1002/adma.201907541
Ni5Ga3 catalysts for CO2 reduction to methanol: Exploring the role of Ga surface oxidation/reduction on catalytic activity	https://linkinghub.elsevier.com/retrieve/pii/S0926337319311154	Gallo, Alessandro; Snider, Jonathan L.; Sokaras, Dimosthenis; Nordlund, Dennis; Kroll, Thomas; Ogasawara, Hirohito; Kovarik, Libor; Duyar, Melis S.; Jaramillo, Thomas F., Ni5Ga3 catalysts for CO2 reduction to methanol: Exploring the role of Ga surface oxidation/reduction on catalytic activity, 2020, Applied Catalysis B: Environmental, 10.1016/j.apcatb.2019.118369
Assessment of Pressure and Density of Confined Water in Graphene Liquid Cells	https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.201901727	Ghods, Seyed Mohammadreza; SharifiAsl, Seyyed Soroosh; Rehak, Pavel; Král, Petr; Megaridis, Constantine M.; ShahbazianYassar, Reza; Shokuhfar, Tolou, Assessment of Pressure and Density of Confined Water in Graphene Liquid Cells, 2020, Advanced Materials Interfaces, 10.1002/admi.201901727
In situ formation of 1D nanostructures from ceria nanoparticle dispersions by liquid cell TEM irradiation	https://doi.org/10.1007/s10853-019-04140-0	Asghar, M. S. A.; Inkson, B. J.; Möbus, G., In situ formation of 1D nanostructures from ceria nanoparticle dispersions by liquid cell TEM irradiation, 2020, Journal of Materials Science, 10.1007/s10853-019-04140-0
Direct Microscopic Proof of the Fermi Level Pinning Gas-Sensing Mechanism: The Case of Platinum-Loaded WO3	https://doi.org/10.1021/acs.jpcllett.9b03114	Staerz, Anna; Bahri, Mounib; Geyik, Ugur; Brinkmann, Helena; Weimar, Udo; Ersen, Ovidiu; Barsan, Nicolae, Direct Microscopic Proof of the Fermi Level Pinning Gas-Sensing Mechanism: The Case of Platinum-Loaded WO3, 2020, The Journal of Physical Chemistry Letters, 10.1021/acs.jpcllett.9b03114
In-situ transmission electron microscopy investigation of the influence of hydrogen on the oxidation mechanisms of fine grained magnesium	http://www.sciencedirect.com/science/article/pii/S0254058420303059	Sauvage, X.; Moldovan, S.; Cuvilly, F.; Bahri, M.; Grosdidier, T., In-situ transmission electron microscopy investigation of the influence of hydrogen on the oxidation mechanisms of fine grained magnesium, 2020, Materials Chemistry and Physics, 10.1016/j.matchemphys.2020.122928
In-situ TEM Electrical Characterization of void formation and growth along Cu interconnect Via: FIB based sample preparation method	https://doi.org/10.31399/asm.cp.istfa2020p0290	Barda, Hagit; Geppert, Irina; Raz, Avraham; Berthier, Rémy, In-situ TEM Electrical Characterization of void formation and growth along Cu interconnect Via: FIB based sample preparation method, 2020, ISTFA Proceedings, https://doi.org/10.31399/asm.cp.istfa2020p0290
Role of oxygen on chemical segregation in uncapped Ge2Sb2Te5 thin films on silicon nitride	https://iopscience.iop.org/article/10.1149/2162-8777/ab9a19	Tripathi, Shalini; Kotula, Paul; Singh, Manish; Ghosh, Chanchal; Bakan, Gokhan; Silva, Helena; Carter, C. Barry, Role of oxygen on chemical segregation in uncapped Ge2Sb2Te5 thin films on silicon nitride, 2020, ECS Journal of Solid State Science and Technology, 10.1149/2162-8777/ab9a19

TITLE	WEB LINK	CITATIONS
The role of the interface in controlling the epitaxial relationship between orthorhombic LaInO_3 and cubic BaSnO_3	http://arxiv.org/abs/2008.09433	Zupancic, Martina; Aggoune, Wahib; Markurt, Toni; Kim, Youjung; Kim, Young Mo; Char, Kookrin; Draxl, Claudia; Albrecht, Martin, The role of the interface in controlling the epitaxial relationship between orthorhombic LaInO_3 and cubic BaSnO_3 , 2020, ArXiv, 10.48550/arXiv.2008.09433
Method of Ga removal from a specimen on a microelectromechanical system-based chip for in-situ transmission electron microscopy	https://doi.org/10.1186/s42649-020-00043-6	Kwon, Yena; An, Byeong-Seon; Shin, Yeon-Ju; Yang, Cheol-Woong, Method of Ga removal from a specimen on a microelectromechanical system-based chip for in-situ transmission electron microscopy, 2020, Applied Microscopy, 10.1186/s42649-020-00043-6
Exsolution of Catalytically Active Iridium Nanoparticles from Strontium Titanate	https://doi.org/10.1021/acsami.0c08928	Call, Eleonora; Kerherve, Gwilherm; Naufal, Faris; Kousi, Kalliopi; Neagu, Dragos; Papaioannou, Evangelos I.; Thomas, Melonie P.; Guiton, Beth S.; Metcalfe, Ian S.; Irvine, John T. S.; Payne, David J., Exsolution of Catalytically Active Iridium Nanoparticles from Strontium Titanate, 2020, ACS Applied Materials & Interfaces, 10.1021/acsami.0c08928
Scalable and precise synthesis of two-dimensional metal organic framework nanosheets in a high shear annular microreactor	http://www.sciencedirect.com/science/article/pii/S1385894720301248	Jose, Nicholas A.; Zeng, Hua Chun; Lapkin, Alexei A., Scalable and precise synthesis of two-dimensional metal organic framework nanosheets in a high shear annular microreactor, 2020, Chemical Engineering Journal, 10.1016/j.cej.2020.124133
Current-Density-Dependent Electroplating in Ca Electrolytes: From Globules to Dendrites	https://doi.org/10.1021/acsenergylett.0c01153	Pu, Shengda D.; Gong, Chen; Gao, Xiangwen; Ning, Ziyang; Yang, Sixie; Marie, John-Joseph; Liu, Boyang; House, Robert A.; Hartley, Gareth O.; Luo, Jun; Bruce, Peter G.; Robertson, Alex W., Current-Density-Dependent Electroplating in Ca Electrolytes: From Globules to Dendrites, 2020, ACS Energy Letters, 10.1021/acsenergylett.0c01153
Imaging how thermal capillary waves and anisotropic interfacial stiffness shape nanoparticle supracrystals	http://www.nature.com/articles/s41467-020-18363-2	Ou, Zihao; Yao, Lehan; An, Hyosung; Shen, Bonan; Chen, Qian, Imaging how thermal capillary waves and anisotropic interfacial stiffness shape nanoparticle supracrystals, 2020, Nature Communications, 10.1038/s41467-020-18363-2
Growth of Supported Gold Nanoparticles in Aqueous Phase Studied by in Situ Transmission Electron Microscopy	https://doi.org/10.1021/acs.jpcc.9b10237	Meijerink, Mark J.; de Jong, Krijn P.; Zečević, Jovana, Growth of Supported Gold Nanoparticles in Aqueous Phase Studied by in Situ Transmission Electron Microscopy, 2020, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.9b10237
In Situ Oxidation Studies of High-Entropy Alloy Nanoparticles	https://pubs.acs.org/doi/10.1021/acsnano.0c05250	Song, Boao; Yang, Yong; Rabbani, Muztoba; Yang, Timothy T.; He, Kun; Hu, Xiaobing; Yuan, Yifei; Ghildiyal, Pankaj; Dravid, Vinayak P.; Zachariah, Michael R.; Saidi, Wissam A.; Liu, Yuzi; Shahbazian-Yassar, Reza, In Situ Oxidation Studies of High-Entropy Alloy Nanoparticles, 2020, ACS Nano, 10.1021/acsnano.0c05250
In situ TEM study of crystallization and chemical changes in an oxidized uncapped $\text{Ge}_2\text{Sb}_2\text{Te}_5$ film	https://aip.scitation.org/doi/full/10.1063/5.0023761	Singh, Manish Kumar; Ghosh, Chanchal; Miller, Benjamin; Kotula, Paul G.; Tripathi, Shalini; Watt, John; Bakan, Gokhan; Silva, Helena; Carter, C. Barry, In situ TEM study of crystallization and chemical changes in an oxidized uncapped $\text{Ge}_2\text{Sb}_2\text{Te}_5$ film, 2020, Journal of Applied Physics, 10.1063/5.0023761
Room-temperature application of VO ₂ microstructures on rigid and flexible substrates based on synthesis of crystalline VO ₂ solution	https://pubs.rsc.org/en/content/articlelanding/2020/ma/d0ma00338g	Taha, Mohammad; H. Mayes, Edwin L.; R. Field, Matthew; Sun, Miao; Singh, Mandeep; Zou, Wenyue, Room-temperature application of VO ₂ microstructures on rigid and flexible substrates based on synthesis of crystalline VO ₂ solution, 2020, Materials Advances, 10.1039/D0MA00338G
In situ observation of the dynamics in the middle stage of spinodal decomposition of a silicate glass via scanning transmission electron microscopy	http://www.sciencedirect.com/science/article/pii/S1359645420307308	Nakazawa, K.; Amma, S.; Mizoguchi, T., In situ observation of the dynamics in the middle stage of spinodal decomposition of a silicate glass via scanning transmission electron microscopy, 2020, Acta Materialia, 10.1016/j.actamat.2020.09.036
Double shadow masking sample preparation method for in-situ TEM characterization	https://onlinelibrary.wiley.com/doi/abs/10.1002/nano.202000063	Alphonse, Carmel Mary Esther; Garlapati, Mohan Muralikrishna; Hilke, Sven; Wilde, Gerhard, Double shadow masking sample preparation method for in-situ TEM characterization, 2020, Nano Select, 10.1002/nano.202000063
In Situ Observation of Nucleation and Crystallization of a Single Nanoparticle in Transparent Media	https://doi.org/10.1021/acs.jpcc.0c03402	Wang, Ting; Lu, Wei; Yang, Qihua; Li, Sai; Yu, Xue; Qiu, Jianbei; Xu, Xuhui; Yu, Siu Fung, In Situ Observation of Nucleation and Crystallization of a Single Nanoparticle in Transparent Media, 2020, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.0c03402
Catalytic synergy on PtNi bimetal catalysts driven by interfacial intermediate structure	https://doi.org/10.1021/acscatal.0c02467	Kim, Taek-Seung; Kim, Jeongjin; Song, Hee Chan; Kim, Daeho; Jeong, Beomgyun; Lee, Jouhahn; Shin, Jae Won; Ryoo, Ryong; Park, Jeong Young, Catalytic synergy on PtNi bimetal catalysts driven by interfacial intermediate structure, 2020, ACS Catalysis, 10.1021/acscatal.0c02467
Introducing and Controlling Water Vapor in Closed-Cell In Situ Electron Microscopy Gas Reactions	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/abs/introducing-and-controlling-water-vapor-in-closedcell-in-situ-electron-microscopy-gas-reactions/51C2F813D9803452A7B556AB720FFDBA	Unocic, Kinga A.; Walden, Franklin S.; Marthe, Nelson L.; Datye, Abhaya K.; Bigelow, Wilbur C.; Allard, Lawrence F., Introducing and Controlling Water Vapor in Closed-Cell In Situ Electron Microscopy Gas Reactions, 2020, Microscopy and Microanalysis, https://doi.org/10.1017/S1431927620000185
Real-Space Imaging of the Ordered Small Molecule Orientations in Porous Frameworks by Electron Microscopy	http://arxiv.org/abs/2001.09588	Shen, Boyuan; Chen, Xiao; Cai, Dali; Xiong, Hao; Jin, Shifeng; Liu, Xin; Han, Yu; Wei, Fei, Real-Space Imaging of the Ordered Small Molecule Orientations in Porous Frameworks by Electron Microscopy, 2020, ArXiv, 10.48550/arXiv.2001.09588

TITLE	WEB LINK	CITATIONS
Mechanism of Heat-Induced Fusion of Silver Nanowires	http://www.nature.com/articles/s41598-020-66304-2	Kim, Chang-Lae; Lee, Joon-Young; Shin, Dong-Gap; Yeo, Jong-Souk; Kim, Dae-Eun , Mechanism of Heat-Induced Fusion of Silver Nanowires, 2020, Scientific Reports, 10.1038/s41598-020-66304-2
Atomic Scale Mechanisms Underlying Thermal Reshaping of Anisotropic Gold Nanocrystals Revealed by in Situ Electron Microscopy	https://doi.org/10.1021/acs.jpcc.0c04281	Cho, Hoduk; Shin, Jae Won; Ryoo, Ryong , Atomic Scale Mechanisms Underlying Thermal Reshaping of Anisotropic Gold Nanocrystals Revealed by in Situ Electron Microscopy, 2020, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.0c04281
In Situ Interfacial Sublimation of Zn ₂ GeO ₄ Nanowire for Atomic-Scale Manufacturing	https://doi.org/10.1021/acsnano.0c00740	Luo, Chen; Li, Jiefang; Yang, Xin; Wu, Xing; Zhong, Siyu; Wang, Chaolun; Sun, Litao , In Situ Interfacial Sublimation of Zn ₂ GeO ₄ Nanowire for Atomic-Scale Manufacturing, 2020, ACS Applied Nano Materials, 10.1021/acsnano.0c00740
Quasicrystalline phase-change memory	https://www.nature.com/articles/s41598-020-70662-2	Lee, Eun-Sung; Yoo, Joung E.; Yoon, Du S.; Kim, Sung D.; Kim, Yongjoo; Hwang, Soobin; Kim, Dasol; Jeong, Hyeong-Chai; Kim, Won T.; Chang, Hye J.; Suh, Hoyoung; Ko, Dae-Hong; Cho, Choonghee; Choi, Yongjoon; Kim, Do H.; Cho, Mann-Ho , Quasicrystalline phase-change memory, 2020, Scientific Reports, 10.1038/s41598-020-70662-2
Understanding the role of interface in advanced semiconductor nanostructure and its interplay with wave function overlap	https://doi.org/10.1007/s12274-020-2764-2	Cai, Chenyuan; Zhao, Yunhao; Chang, Faran; Zhao, Xuebing; Yang, Liting; Liang, Chongyun; Wang, Guowei; Niu, Zhichuan; Shi, Yi; Liu, Xianhu; Li, Yuesheng; Che, Renchao , Understanding the role of interface in advanced semiconductor nanostructure and its interplay with wave function overlap, 2020, Nano Research, 10.1007/s12274-020-2764-2
In Situ Monitoring of the Seeding and Growth of Silver Metal–Organic Nanotubes by Liquid-Cell Transmission Electron Microscopy	https://doi.org/10.1021/acsnano.0c03209	Gnanasekaran, Karthikeyan; Vailonis, Kristina M.; Jenkins, David M.; Gianneschi, Nathan C. , In Situ Monitoring of the Seeding and Growth of Silver Metal–Organic Nanotubes by Liquid-Cell Transmission Electron Microscopy, 2020, ACS Nano, 10.1021/acsnano.0c03209
Observation of the interactions of silver nanoparticles (AgNPs) mediated by acid in the aquatic matrices using in-situ liquid cell transmission electron microscopy	http://www.sciencedirect.com/science/article/pii/S0003267019315582	Fernando, Ishara; Tay, Yee Yan; Karunasekera, Hasith; Zhou, Yan , Observation of the interactions of silver nanoparticles (AgNPs) mediated by acid in the aquatic matrices using in-situ liquid cell transmission electron microscopy, 2020, Analytica Chimica Acta, 10.1016/j.aca.2019.12.072
Understanding solution processing of inorganic materials using cryo-EM	https://www.osapublishing.org/ome/abstract.cfm?uri=ome-10-1-119	Dutta, Nikita S.; Dutta, Nikita S.; Shao, Paul; Gong, Kai; Gong, Kai; White, Claire E.; White, Claire E.; Yao, Nan; Arnold, Craig B.; Arnold, Craig B. , Understanding solution processing of inorganic materials using cryo-EM, 2020, Optical Materials Express, 10.1364/OME.10.000119
Unveiling the Dynamical Assembly of Magnetic Nanocrystal Zig-Zag Chains via In Situ TEM Imaging in Liquid	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.201907419	Arciniegas, Milena P.; Castelli, Andrea; Brescia, Rosaria; Serantes, David; Ruta, Sergiu; Hovorka, Ondrej; Satoh, Akira; Chantrell, Roy; Pellegrino, Teresa , Unveiling the Dynamical Assembly of Magnetic Nanocrystal Zig-Zag Chains via In Situ TEM Imaging in Liquid, 2020, Small, 10.1002/sml.201907419
Improved measurement of electric fields by nanobeam precession electron diffraction	https://aip.scitation.org/doi/abs/10.1063/5.0006969	Bruas, L.; Boureau, V.; Conlan, A. P.; Martinie, S.; Rouviere, J.-L.; Cooper, D. , Improved measurement of electric fields by nanobeam precession electron diffraction, 2020, Journal of Applied Physics, 10.1063/5.0006969
Dynamic Observation of Electromigration in High Density Electroplated Nanotwinned Copper through in-Situ TEM	https://iopscience.iop.org/article/10.1149/09701.0145ecst/meta	Shen, Fang-Chun; Huang, Chih-Yang; Wu, Wen-Wei , Dynamic Observation of Electromigration in High Density Electroplated Nanotwinned Copper through in-Situ TEM, 2020, ECS Transactions, 10.1149/09701.0145ecst
Real-Time In Situ Observations Reveal a Double Role for Ascorbic Acid in the Anisotropic Growth of Silver on Gold	https://doi.org/10.1021/acs.jpcl.0c00121	Aliyah, Kinanti; Lyu, Jieli; Goldmann, Claire; Bizien, Thomas; Hamon, Cyrille; Alloyeau, Damien; Constantin, Doru , Real-Time In Situ Observations Reveal a Double Role for Ascorbic Acid in the Anisotropic Growth of Silver on Gold, 2020, The Journal of Physical Chemistry Letters, 10.1021/acs.jpcl.0c00121
Electron microscopy of nanoparticle superlattice formation at a solid-liquid interface in nonpolar liquids	https://advances.sciencemag.org/content/6/20/eaba1404	Cepeda-Perez, E.; Doblaz, D.; Kraus, T.; Jonge, N. de , Electron microscopy of nanoparticle superlattice formation at a solid-liquid interface in nonpolar liquids, 2020, Science Advances, 10.1126/sciadv.aba1404
In situ monitoring of exopolymer-dependent Mn mineralization on bacterial surfaces	https://advances.sciencemag.org/content/6/27/eaaz3125	Couason, Thais; Alloyeau, Damien; Ménez, Bénédicte; Guyot, François; Ghigo, Jean-Marc; Gélabert, Alexandre , In situ monitoring of exopolymer-dependent Mn mineralization on bacterial surfaces, 2020, Science Advances, 10.1126/sciadv.aaz3125
Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy	https://advances.sciencemag.org/content/6/47/eaaz7524	He, Kun; Sawczyk, Michal; Liu, Cong; Yuan, Yifei; Song, Boao; Deivanayagam, Ram; Nie, Anmin; Hu, Xiaobing; Dravid, Vinayak P.; Lu, Jun; Sukotjo, Cortino; Lu, Yu-peng; Král, Petr; Shokuhfar, Tolou; Shahbazian-Yassar, Reza , Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy, 2020, Science Advances, 10.1126/sciadv.aaz7524
Degradation Mechanisms of Supported Pt Nanocatalysts in Proton Exchange Membrane Fuel Cells: An Operando Study through Liquid Cell Transmission Electron Microscopy	https://doi.org/10.1021/acsaem.9b02000	Impagnatiello, Andrea; Cerqueira, Carolina Ferreira; Coulon, Pierre-Eugène; Morin, Arnaud; Escribano, Sylvie; Guetaz, Laure; Clochard, Marie-Claude; Rizza, Giancarlo , Degradation Mechanisms of Supported Pt Nanocatalysts in Proton Exchange Membrane Fuel Cells: An Operando Study through Liquid Cell Transmission Electron Microscopy, 2020, ACS Applied Energy Materials, 10.1021/acsaem.9b02000

TITLE	WEB LINK	CITATIONS
Investigating local oxidation processes in Fe thin films in a water vapor environment by in situ liquid cell TEM	http://www.sciencedirect.com/science/article/pii/S0304399119300750	Key, Jordan W.; Zhu, Shixiang; Rouleau, Christopher M.; Unocic, Raymond R.; Xie, Yao; Kacher, Josh , Investigating local oxidation processes in Fe thin films in a water vapor environment by in situ liquid cell TEM, 2020, Ultramicroscopy, 10.1016/j.ultramic.2019.112842
Selective shortening of gold nanorods: when surface functionalization dictates the reactivity of nanostructures	https://pubs.rsc.org/en/content/articlelanding/2020/nr/d0nr06326f	Khelifa, Abdelali; Meng, Jun; Byun, Caroline; Wang, Guillaume; Nelayah, Jaysen; Ricolleau, Christian; Amara, Hakim; Guesmi, Hazar; Alloyeau, Damien , Selective shortening of gold nanorods: when surface functionalization dictates the reactivity of nanostructures, 2020, Nanoscale, 10.1039/D0NR06326F
Liquid-Flowing Graphene Chip-Based High-Resolution Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202005468	Koo, Kunmo; Park, Jungjae; Ji, Sanghyeon; Toleukhanova, Saltanat; Yuk, Jong Min , Liquid-Flowing Graphene Chip-Based High-Resolution Electron Microscopy, 2020, Advanced Materials, https://doi.org/10.1002/adma.202005468
Time-Resolved Observation of Evolution of Amyloid- β Oligomer with Temporary Salt Crystals	https://doi.org/10.1021/acs.jpcllett.0c01487	Nakajima, Kichitaro; Yamazaki, Tomoya; Kimura, Yuki; So, Masatomo; Goto, Yui; Ogi, Hirotsugu , Time-Resolved Observation of Evolution of Amyloid- β Oligomer with Temporary Salt Crystals, 2020, The Journal of Physical Chemistry Letters, 10.1021/acs.jpcllett.0c01487
Kinetic pathways of crystallization at the nanoscale	https://www.nature.com/articles/s41563-019-0514-1	Ou, Zihao; Wang, Ziwei; Luo, Binbin; Luijten, Erik; Chen, Qian , Kinetic pathways of crystallization at the nanoscale, 2020, Nature Materials, 10.1038/s41563-019-0514-1
Strain-Induced Corrosion Kinetics at Nanoscale Are Revealed in Liquid: Enabling Control of Corrosion Dynamics of Electrocatalysis	http://www.sciencedirect.com/science/article/pii/S2451929420302539	Shi, Fenglei; Gao, Wenpei; Shan, Hao; Li, Fan; Xiong, Yalin; Peng, Jiaheng; Xiang, Qian; Chen, Wenlong; Tao, Peng; Song, Chengyi; Shang, Wen; Deng, Tao; Zhu, Hong; Zhang, Hui; Yang, Deren; Pan, Xiaoqing; Wu, Jianbo , Strain-Induced Corrosion Kinetics at Nanoscale Are Revealed in Liquid: Enabling Control of Corrosion Dynamics of Electrocatalysis, 2020, Chem, 10.1016/j.chempr.2020.06.004
A Universal Nano-capillary Based Method of Catalyst Immobilization for Liquid-Cell Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201916419	Tarnev, Tsvetan; Cychy, Steffen; Andronescu, Corina; Muhler, Martin; Schuhmann, Wolfgang; Chen, Yen-Ting , A Universal Nano-capillary Based Method of Catalyst Immobilization for Liquid-Cell Transmission Electron Microscopy, 2020, Angewandte Chemie International Edition, 10.1002/anie.201916419
High mobility of lattice molecules and defects during the early stage of protein crystallization	https://pubs.rsc.org/en/content/articlelanding/2020/sm/c9sm02382h	Yamazaki, Tomoya; Driessche, Alexander E. S. Van; Kimura, Yuki , High mobility of lattice molecules and defects during the early stage of protein crystallization, 2020, Soft Matter, 10.1039/C9SM02382H
Self-assembly of colloidal polymers from two-patch silica nanoparticles	https://doi.org/10.1007/s12274-020-3024-1	Li, Weiya; Liu, Bin; Hubert, Céline; Perro, Adeline; Duguet, Etienne; Ravaine, Serge , Self-assembly of colloidal polymers from two-patch silica nanoparticles, 2020, Nano Research, 10.1007/s12274-020-3024-1
Visualizing single atom dynamics in heterogeneous catalysis using analytical in situ environmental scanning transmission electron microscopy	https://royalsocietypublishing.org/doi/full/10.1098/rsta.2019.0605	Boyes, Edward D.; LaGrow, Alec P.; Ward, Michael R.; Martin, Thomas E.; Gai, Pratibha L. , Visualizing single atom dynamics in heterogeneous catalysis using analytical in situ environmental scanning transmission electron microscopy, 2020, Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 10.1098/rsta.2019.0605
Molecular-Level Insight into Correlation between Surface Defects and Stability of Methylammonium Lead Halide Perovskite Under Controlled Humidity	https://onlinelibrary.wiley.com/doi/abs/10.1002/smt.202000834	Kazemi, Mohammad Ali Akhavan; Raval, Parth; Cherednicheko, Kirill; Chotard, Jean-Noel; Krishna, Anurag; Demortiere, Arnaud; Reddy, G. N. Manjunatha; Sauvage, Frédéric , Molecular-Level Insight into Correlation between Surface Defects and Stability of Methylammonium Lead Halide Perovskite Under Controlled Humidity, 2020, Small Methods, https://doi.org/10.1002/smt.202000834
Dynamic observation of Joule heating-induced structural and domain transformation in smart shape-memory alloy	http://www.sciencedirect.com/science/article/pii/S1359645420300203	Karim, Abdul; Guan, Chaoshuai; Chen, Bin; Li, Yong; Zhang, Junwei; Zhu, Liu; Deng, Xia; Hu, Yang; Bi, Kaiqi; Li, Hongli; Peng, Yong; Li, Lingwei , Dynamic observation of Joule heating-induced structural and domain transformation in smart shape-memory alloy, 2020, Acta Materialia, 10.1016/j.actamat.2020.01.006
Coarsening- and creep resistance of precipitation-strengthened Al-Mg-Zr alloys processed by selective laser melting	https://linkinghub.elsevier.com/retrieve/pii/S1359645420301002	Griffiths, S.; Croteau, J.R.; Rossell, M.D.; Erni, R.; De Luca, A.; Vo, N.Q.; Dunand, D.C.; Leinenbach, C. , Coarsening- and creep resistance of precipitation-strengthened Al-Mg-Zr alloys processed by selective laser melting, 2020, Acta Materialia, 10.1016/j.actamat.2020.02.008
Observing topotactic phase transformation and resistive switching behaviors in low power SrCoOx memristor	https://linkinghub.elsevier.com/retrieve/pii/S2211285520302408	Lo, Hung-Yang; Yang, Chih-Yu; Huang, Guan-Ming; Huang, Chih-Yang; Chen, Jui-Yuan; Huang, Chun-Wei; Chu, Ying-Hao; Wu, Wen-Wei , Observing topotactic phase transformation and resistive switching behaviors in low power SrCoOx memristor, 2020, Nano Energy, 10.1016/j.nanoen.2020.104683
In situ atomic scale investigation of Li7La3Zr2O12-based Li+-conducting solid electrolyte during calcination growth	https://linkinghub.elsevier.com/retrieve/pii/S2211285520301828	Huang, Chih-Yang; Tseng, Yi-Tang; Lo, Hung-Yang; Chang, Jeng-Kuei; Wu, Wen-Wei , In situ atomic scale investigation of Li7La3Zr2O12-based Li+-conducting solid electrolyte during calcination growth, 2020, Nano Energy, 10.1016/j.nanoen.2020.104625

TITLE	WEB LINK	CITATIONS
Transformation of aromatic structure of vitrinite with different coal ranks by HRTEM in situ heating	https://linkinghub.elsevier.com/retrieve/pii/S0016236119316631	Wang, Shaoqing; Chen, Hao; Zhang, Xiaomei , Transformation of aromatic structure of vitrinite with different coal ranks by HRTEM in situ heating, 2020, Fuel, 10.1016/j.fuel.2019.116309
Electron force-induced dislocations annihilation and regeneration of a superalloy through electrical in-situ transmission electron microscopy observations	https://linkinghub.elsevier.com/retrieve/pii/S1005030219302713	Zhang, Xin; Li, Hongwei; Zhan, Mei; Zheng, Zebang; Gao, Jia; Shao, Guangda , Electron force-induced dislocations annihilation and regeneration of a superalloy through electrical in-situ transmission electron microscopy observations, 2020, Journal of Materials Science & Technology, 10.1016/j.jmst.2019.08.008
In situ TEM observation of the heat-induced degradation of single- and triple-cation planar perovskite solar cells	http://www.sciencedirect.com/science/article/pii/S2211285520307424	Seo, You-Hyun; Kim, Jun Hee; Kim, Do-Hyung; Chung, Hee-Suk; Na, Seok-In , In situ TEM observation of the heat-induced degradation of single- and triple-cation planar perovskite solar cells, 2020, Nano Energy, 10.1016/j.nanoen.2020.105164
Nanowire Facilitated Transfer of Sensitive TEM Samples in a FIB	http://www.sciencedirect.com/science/article/pii/S0304399120302266	Gorji, Saleh; Kashiwar, Ankush; Mantha, Lakshmi S.; Kruk, Robert; Witte, Ralf; Marek, Peter; Hahn, Horst; Kübel, Christian; Scherer, Torsten , Nanowire Facilitated Transfer of Sensitive TEM Samples in a FIB, 2020, Ultramicroscopy, 10.1016/j.ultramic.2020.113075
Photodegradation Protection in 2D In-Plane Heterostructures Revealed by Hyperspectral Nanoimaging: the Role of Nano-Interface 2D Alloys	http://arxiv.org/abs/2005.11361	Fali, Alireza; Zhang, Tianyi; Terry, Jason Patrick; Kahn, Ethan; Fujisawa, Kazunori; Koirala, Sandhaya; Ghafouri, Yassamin; Song, Wenshen; Yang, Li; Terrones, Mauricio; Abate, Yohannes , Photodegradation Protection in 2D In-Plane Heterostructures Revealed by Hyperspectral Nanoimaging: the Role of Nano-Interface 2D Alloys, 2020, ArXiv, 10.48550/arXiv.2005.11361
First results from in situ transmission electron microscopy studies of all-solid-state fluoride ion batteries	http://www.sciencedirect.com/science/article/pii/S0378775320305863	Fawey, Mohammed Hammad; Chakravadhanula, Venkata Sai Kiran; Munnangi, Anji Reddy; Rongeat, Carine; Hahn, Horst; Fichtner, Maximilian; Kübel, Christian , First results from in situ transmission electron microscopy studies of all-solid-state fluoride ion batteries, 2020, Journal of Power Sources, 10.1016/j.jpowsour.2020.228283
Unveiling the gas-dependent sintering behavior of Au-TiO ₂ catalysts via environmental transmission electron microscopy	http://www.sciencedirect.com/science/article/pii/S0021951720301664	Li, Guanxing; Fang, Ke; Chen, Yuzhuo; Ou, Yang; Mao, Shanjun; Yuan, Wentao; Wang, Yong; Yang, Hangsheng; Zhang, Ze; Wang, Yong , Unveiling the gas-dependent sintering behavior of Au-TiO ₂ catalysts via environmental transmission electron microscopy, 2020, Journal of Catalysis, 10.1016/j.jcat.2020.05.003
In Situ Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level	https://doi.org/10.1021/acsami.0c16685	Pokle, Anuj; Ahmed, Shamil; Schweidler, Simon; Bianchini, Matteo; Brezesinski, Torsten; Beyer, Andreas; Janek, Jürgen; Volz, Kerstin , In Situ Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level, 2020, ACS Applied Materials & Interfaces, 10.1021/acsami.0c16685
Analysis of Sn Behavior During Ni/GeSn Solid-State Reaction by Correlated X-ray Diffraction, Atomic Force Microscopy, and Ex-situ/In-situ Transmission Electron Microscopy	https://iopscience.iop.org/article/10.1149/09805.0365ecst/meta	Quintero, Andrea; Gergaud, Patrice; Hartmann, Jean-Michel; Delaye, Vincent; Bernier, Nicolas; Cooper, David; Saghi, Zineb; Reboud, Vincent; Cassan, Eric; Rodriguez, Philippe , Analysis of Sn Behavior During Ni/GeSn Solid-State Reaction by Correlated X-ray Diffraction, Atomic Force Microscopy, and Ex-situ/In-situ Transmission Electron Microscopy, 2020, ECS Transactions, 10.1149/09805.0365ecst
Probing Thermoresponsive Polymerization-Induced Self-Assembly with Variable-Temperature Liquid-Cell Transmission Electron Microscopy	http://www.sciencedirect.com/science/article/pii/S2590238520306664	Scheutz, Georg M.; Touve, Mollie A.; Carlini, Andrea S.; Garrison, John B.; Gnanasekaran, Karthikeyan; Sumerlin, Brent S.; Gianneschi, Nathan C. , Probing Thermoresponsive Polymerization-Induced Self-Assembly with Variable-Temperature Liquid-Cell Transmission Electron Microscopy, 2020, Matter, 10.1016/j.matt.2020.11.017
Atomic Spatial and Temporal Imaging of Local Structures and Light Elements inside Zeolite Frameworks	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.201906103	Shen, Boyuan; Chen, Xiao; Cai, Dali; Xiong, Hao; Liu, Xin; Meng, Changgong; Han, Yu; Wei, Fei , Atomic Spatial and Temporal Imaging of Local Structures and Light Elements inside Zeolite Frameworks, 2020, Advanced Materials, 10.1002/adma.201906103
The emergence of electrical analysis in electron microscopy	https://pubmed.ncbi.nlm.nih.gov/25015145/	Moldovan, Dr Grigore , The emergence of electrical analysis in electron microscopy, 2020, Electron and Ion Microscopy, 10.1007/978-1-4939-1050-2_7
Direct Quantification of Heat Generation Due to Inelastic Scattering of Electrons Using a Nanocalorimeter	https://onlinelibrary.wiley.com/doi/abs/10.1002/adv.202002876	Park, Joonsuk; Bae, Kiho; Kim, Taeho Roy; Perez, Christopher; Sood, Aditya; Asheghi, Mehdi; Goodson, Kenneth E.; Park, Woosung , Direct Quantification of Heat Generation Due to Inelastic Scattering of Electrons Using a Nanocalorimeter, 2020, Advanced Science, https://doi.org/10.1002/adv.202002876

TITLE	WEB LINK	CITATIONS
Unravelling the room-temperature atomic structure and growth kinetics of lithium metal	https://www.nature.com/articles/s41467-020-19206-w	Liang, Chao; Zhang, Xun; Xia, Shuixin; Wang, Zeyu; Wu, Jiayi; Yuan, Biao; Luo, Xin; Liu, Weijian; Liu, Wei; Yu, Yi, Unravelling the room-temperature atomic structure and growth kinetics of lithium metal, 2020, Nature Communications, 10.1038/s41467-020-19206-w
Deep-Injection Floating-Catalyst Chemical Vapor Deposition to Continuously Synthesize Carbon Nanotubes with High Aspect Ratio and High Crystallinity	https://linkinghub.elsevier.com/retrieve/pii/S0008622320311441	Lee, Sung-Hyun; Park, Junbeom; Park, Ji Hong; Lee, Dong-Myeong; Lee, Anna; Moon, Sook Young; Lee, Sei Young; Jeong, Hyeon Su; Kim, Seung Min, Deep-Injection Floating-Catalyst Chemical Vapor Deposition to Continuously Synthesize Carbon Nanotubes with High Aspect Ratio and High Crystallinity, 2020, Carbon, 10.1016/j.carbon.2020.11.065
In Situ Thermal-Stage Fitted-STEM Characterization of Spherical-Shaped Co/MoS ₂ Nanoparticles for Conversion of Heavy Crude Oils	https://www.mdpi.com/2073-4344/10/11/1239	Ramos, Manuel; Galindo-Hernández, Félix; Torres, Brenda; Domínguez-Esquivel, José Manuel; Heilmaier, Martin, In Situ Thermal-Stage Fitted-STEM Characterization of Spherical-Shaped Co/MoS ₂ Nanoparticles for Conversion of Heavy Crude Oils, 2020, Catalysts, 10.3390/catal10111239
Microstructural Evolution in Self-catalyzed GaAs Nanowires during In-situ TEM Study	https://iopscience.iop.org/article/10.1088/1361-6528/abd437	Gang, Geun Won; Lee, Jong Hoon; Kim, Su Yeon; Jeong, Taehyeon; Kim, Kyung Bin; Nguyen, Men Thi Hong; Kim, Yu Ra; Ahn, Sang Jung; Kim, Chung Soo; Kim, Young Heon, Microstructural Evolution in Self-catalyzed GaAs Nanowires during In-situ TEM Study, 2020, Nanotechnology, 10.1088/1361-6528/abd437
Interferometric 4D-STEM for Lattice Distortion and Stacking Sequence Measurements of Few-layer Two-dimensional Materials	https://arxiv.org/abs/2012.02822v1	Zachman, Michael J; Madsen, Jacob; Zhang, Xiang; Ajayan, Pulickel M; Susi, Toma, Interferometric 4D-STEM for Lattice Distortion and Stacking Sequence Measurements of Few-layer Two-dimensional Materials, 2020, Small, https://doi.org/10.1002/sml.202100388
Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports	https://www.nature.com/articles/s41467-020-20084-5	Huang, Zhennan; Yao, Yonggang; Pang, Zhenqian; Yuan, Yifei; Li, Tangyuan; He, Kun; Hu, Xiaobing; Cheng, Jian; Yao, Wentao; Liu, Yuzi; Nie, Anmin; Sharifi-Asl, Soroosh; Cheng, Meng; Song, Boao; Amine, Khalil; Lu, Jun; Li, Teng; Hu, Liangbing; Shahbazian-Yassar, Reza, Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports, 2020, Nature Communications, 10.1038/s41467-020-20084-5
Atomic-scale structure and chemical sensing application of ultrasmall size-selected Pt nanoparticles supported on SnO ₂	https://pubs.rsc.org/en/content/articlelanding/2020/ma/d0ma00244e	Steinhauer, Stephan; Lackner, Eva; Sosada-Ludwikowska, Florentyna; Singh, Vidyadhar; Krainer, Johanna; Wimmer-Teubenbacher, Robert; Grammatikopoulos, Panagiotis; Köck, Anton; Sowwan, Mukhles, Atomic-scale structure and chemical sensing application of ultrasmall size-selected Pt nanoparticles supported on SnO ₂ , 2020, Materials Advances, 10.1039/D0MA00244E
Quo Vadis Micro-Electro-Mechanical Systems for the Study of Heterogeneous Catalysts Inside the Electron Microscope?	http://link.springer.com/10.1007/s11244-020-01398-6	Boniface, Maxime; Plodinec, Milivoj; Schlögl, Robert; Lunkenbein, Thomas, Quo Vadis Micro-Electro-Mechanical Systems for the Study of Heterogeneous Catalysts Inside the Electron Microscope?, 2020, Topics in Catalysis, 10.1007/s11244-020-01398-6
Aerosol synthesis of thermally stable porous noble metals and alloys by using bi-functional templates	http://xlink.rsc.org/?DOI=C9MH01408J	Odziomek, Mateusz; Bahri, Mounib; Boissiere, Cedric; Sanchez, Clement; Lassalle-Kaiser, Benedikt; Zitolo, Andrea; Ersen, Ovidiu; Nowak, Sophie; Tard, Cedric; Giraud, Marion; Faustini, Marco; Peron, Jennifer, Aerosol synthesis of thermally stable porous noble metals and alloys by using bi-functional templates, 2020, Materials Horizons, 10.1039/C9MH01408J
Operando Control of Skyrmion Density in a Lorentz Transmission Electron Microscope with Current Pulses	http://arxiv.org/abs/2006.16780	Park, Albert M.; Chen, Zhen; Zhang, Xiyue S.; Zhu, Lijun; Muller, David A.; Fuchs, Gregory D., Operando Control of Skyrmion Density in a Lorentz Transmission Electron Microscope with Current Pulses, 2020, ArXiv, 10.1063/5.0020373
New Insights into Water Treatment Materials with Chemically Sensitive Soft and Tender X-rays	https://www.tandfonline.com/doi/full/10.1080/08940886.2020.1784695	Su, Gregory M.; Cordova, Isvar A.; Wang, Cheng, New Insights into Water Treatment Materials with Chemically Sensitive Soft and Tender X-rays, 2020, Synchrotron Radiation News, 10.1080/08940886.2020.1784695
In Situ Ni ²⁺ Stain for Liposome Imaging by Liquid-Cell Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/acs.nanolett.0c00898	Gnanasekaran, Karthikeyan; Chang, HanByul; Smeets, Paul J. M.; Korpanty, Joanna; Geiger, Franz M.; Gianneschi, Nathan C., In Situ Ni ²⁺ Stain for Liposome Imaging by Liquid-Cell Transmission Electron Microscopy, 2020, Nano Letters, 10.1021/acs.nanolett.0c00898
In-situ Transmission Electron Microscope Techniques for Heterogeneous Catalysis	https://chemistry-europe-onlinelibrary-wiley-com.proxy.library.uu.nl/doi/pdf/10.1002/cctc.201902285	He, Bowen; Zhang, Yixiao; Liu, Xi; Chen, Liwei, In-situ Transmission Electron Microscope Techniques for Heterogeneous Catalysis, 2020, ChemCatChem, 10.1002/cctc.201902285
Revealing high temperature stability of platinum nanocatalysts deposited on graphene oxide by in-situ TEM	https://linkinghub.elsevier.com/retrieve/pii/S104458032032177X	Ying, Zhehan; Diao, Jianguo; Wang, Shi; Cai, Xiangbin; Cai, Yuan; Liu, Hongyang; Wang, Ning, Revealing high temperature stability of platinum nanocatalysts deposited on graphene oxide by in-situ TEM, 2020, Materials Characterization, 10.1016/j.matchar.2020.110706
Chemical segregation in Ge ₂ Sb ₂ Te ₅ thin films during in-situ heating	https://arxiv.org/abs/2001.08100	Tripathi, Shalini; Kotula, P. G.; Singh, Manish; Ghosh, Chanchal; Bakan, Gokhan; Silva, Helena; Carter, C. Barry, Chemical segregation in Ge ₂ Sb ₂ Te ₅ thin films during in-situ heating, 2020, ArXiv, https://doi.org/10.48550/arXiv.2001.08100

TITLE	WEB LINK	CITATIONS
Atomic mechanisms of gold nanoparticle growth in ionic liquids studied by in situ scanning transmission electron microscopy	http://xlink.rsc.org/?DOI=D0NR06541B	Keller, Debora; Henninen, Trond R.; Erni, Rolf, Atomic mechanisms of gold nanoparticle growth in ionic liquids studied by in situ scanning transmission electron microscopy, 2020, Nanoscale, 10.1039/D0NR06541B
Statistical learning of governing equations of dynamics from in-situ electron microscopy imaging data	https://linkinghub.elsevier.com/retrieve/pii/S0264127520305074	Li, Xin; Dyck, Ondrej; Unocic, Raymond R.; Ilev, Anton V.; Jesse, Stephen; Kalinin, Sergei V., Statistical learning of governing equations of dynamics from in-situ electron microscopy imaging data, 2020, Materials & Design, 10.1016/j.matdes.2020.108973
In situ TEM investigation of electron beam-induced ultrafast chemical lithiation for charging	http://xlink.rsc.org/?DOI=C9TA09988C	Huang, Guan-Min; Huang, Chun-Wei; Kumar, Nagesh; Huang, Chih-Yang; Tseng, Tseung-Yuen; Wu, Wen-Wei, In situ TEM investigation of electron beam-induced ultrafast chemical lithiation for charging, 2020, Journal of Materials Chemistry A, 10.1039/C9TA09988C
Graphene-Sealed Flow Cells for In Situ Transmission Electron Microscopy of Liquid Samples	https://pubs.acs.org/doi/10.1021/acsnano.0c00431	Dunn, Gabriel; Adiga, Vivekananda P.; Pham, Thang; Bryant, Christopher; Horton-Bailey, Donez J.; Belling, Jason N.; LaFrance, Ben; Jackson, Jonathan A.; Barzegar, Hamid Reza; Yuk, Jong Min; Aloni, Shaul; Crommie, Michael F.; Zettl, Alex, Graphene-Sealed Flow Cells for In Situ Transmission Electron Microscopy of Liquid Samples, 2020, ACS Nano, 10.1021/acsnano.0c00431
Direct matter disassembly via electron beam control: electron-beam-mediated catalytic etching of graphene by nanoparticles	https://iopscience.iop.org/article/10.1088/1361-6528/ab7ef8	Dyck, Ondrej; Lingerfelt, David; Kim, Songkil; Jesse, Stephen; Kalinin, Sergei V., Direct matter disassembly via electron beam control: electron-beam-mediated catalytic etching of graphene by nanoparticles, 2020, Nanotechnology, 10.1088/1361-6528/ab7ef8
Electrical conduction and field emission of a single-crystalline GdB ₄₄ Si ₂ nanowire	http://xlink.rsc.org/?DOI=D0NR04707D	Tang, Shuai; Tang, Jie; Chiu, Ta-Wei; Yuan, Jinshi; Tang, Dai-Ming; Mitome, Masanori; Uesugi, Fumihiko; Nemoto, Yoshihiro; Takeguchi, Masaki; Qin, Lu-Chang, Electrical conduction and field emission of a single-crystalline GdB ₄₄ Si ₂ nanowire, 2020, Nanoscale, 10.1039/D0NR04707D
Insight on thermal stability of magnetite magnetosomes: implications for the fossil record and biotechnology	http://www.nature.com/articles/s41598-020-63531-5	Cypriano, Jefferson; Bahri, Mounib; Dembelé, Kassioyé; Baaziz, Walid; Leão, Pedro; Bazylinski, Dennis A.; Abreu, Fernanda; Ersen, Ovidiu; Farina, Marcos; Werckmann, Jacques, Insight on thermal stability of magnetite magnetosomes: implications for the fossil record and biotechnology, 2020, Scientific Reports, 10.1038/s41598-020-63531-5
Assembly of Pt Nanoparticles on Graphitized Carbon Nanofibers as Hierarchically Structured Electrodes	https://pubs.acs.org/doi/10.1021/acsnm.0c01945	Hodnik, Nejc; Romano, Luigi; Jovanovič, Primož; Ruiz-Zepeda, Francisco; Bele, Marjan; Fabbri, Filippo; Persano, Luana; Camoseo, Andrea; Pisignano, Dario, Assembly of Pt Nanoparticles on Graphitized Carbon Nanofibers as Hierarchically Structured Electrodes, 2020, ACS Applied Nano Materials, 10.1021/acsnm.0c01945
Mobility and versatility of the liquid bismuth promoter in the working iron catalysts for light olefin synthesis from syngas	http://xlink.rsc.org/?DOI=D0SC01600D	Gu, Bang; Peron, Deizi V.; Barrios, Alan J.; Bahri, Mounib; Ersen, Ovidiu; Vorokhta, Mykhailo; Šmíd, Břetislav; Banerjee, Dipanjan; Virginie, Mirella; Marceau, Eric; Wojcieszak, Robert; Ordonsky, Vitaly V.; Khodakov, Andrei Y., Mobility and versatility of the liquid bismuth promoter in the working iron catalysts for light olefin synthesis from syngas, 2020, Chemical Science, 10.1039/D0SC01600D
Size and Crystal Orientation-Dependent Thermal Behaviors of ZnO Nanobelts	https://pubs.acs.org/doi/10.1021/acs.jpcc.0c09571	Song, Ningning; Chen, Ruoxi; Yang, Yingchao; Li, Xiaodong, Size and Crystal Orientation-Dependent Thermal Behaviors of ZnO Nanobelts, 2020, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.0c09571
High-Mobility In ₂ O ₃ :H Electrodes for Four-Terminal Perovskite/CuInSe ₂ Tandem Solar Cells	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7315637/	Jiang, Yan; Feurer, Thomas; Carron, Romain; Sevilla, Galo Torres; Moser, Thierry; Pisoni, Stefano; Erni, Rolf; Rossell, Marta D; Ochoa, Mario; Hertwig, Ramis; Tiwari, Ayodhya N; Fu, Fan, High-Mobility In ₂ O ₃ :H Electrodes for Four-Terminal Perovskite/CuInSe ₂ Tandem Solar Cells, 2020, ACS Nano, 10.1021/acsnano.0c03265
Liquid phase electron microscopy of biological specimens	http://link.springer.com/10.1557/mrs.2020.225	Peckys, Diana B.; Macías-Sánchez, Elena; de Jonge, Niels, Liquid phase electron microscopy of biological specimens, 2020, MRS Bulletin, 10.1557/mrs.2020.225
LiquidPhase Electron Microscopy for Soft Matter Science and Biology	https://onlinelibrary.wiley.com/doi/10.1002/adma.202001582	Wu, Hanglong; Friedrich, Heiner; Patterson, Joseph P.; Sommerdijk, Nico A. J. M.; Jonge, Niels, LiquidPhase Electron Microscopy for Soft Matter Science and Biology, 2020, Advanced Materials, 10.1002/adma.202001582
Probing electrochemical surface/interfacial reactions with liquid cell transmission electron microscopy: a challenge or an opportunity?	http://www.sciencedirect.com/science/article/pii/S2451910320301010	Prabhudev, Sagar; Guay, Daniel, Probing electrochemical surface/interfacial reactions with liquid cell transmission electron microscopy: a challenge or an opportunity?, 2020, Current Opinion in Electrochemistry, 10.1016/j.coelec.2020.05.001
Liquid cell transmission electron microscopy and its applications	https://royalsocietypublishing.org/doi/10.1098/rsos.191204	Pu, Shengda; Gong, Chen; Robertson, Alex W., Liquid cell transmission electron microscopy and its applications, 2020, Royal Society Open Science, 10.1098/rsos.191204
In situ electron microscopy analysis of electrochemical Zn deposition onto an electrode	http://www.sciencedirect.com/science/article/pii/S0378775320311356	Sasaki, Yuki; Yoshida, Kaname; Kawasaki, Tadahiro; Kuwabara, Akihide; Ukyo, Yoshio; Ikuhara, Yuichi, In situ electron microscopy analysis of electrochemical Zn deposition onto an electrode, 2021, Journal of Power Sources, 10.1016/j.jpowsour.2020.228831
Mechanistic Insights into Nanobubble Merging Studied Using In Situ Liquid-Phase Electron Microscopy	https://doi.org/10.1021/acs.langmuir.0c03208	Nag, Sarthak; Tomo, Yoko; Takahashi, Koji; Kohno, Masamichi, Mechanistic Insights into Nanobubble Merging Studied Using In Situ Liquid-Phase Electron Microscopy, 2021, Langmuir, 10.1021/acs.langmuir.0c03208

TITLE	WEB LINK	CITATIONS
Accessing local electron-beam induced temperature changes during in situ liquid-phase transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2021/na/d0na01027h	Fritsch, Birk; Hutzler, Andreas; Wu, Mingjian; Khadvianazar, Saba; Vogl, Lilian; Jank, Michael P. M.; März, Martin; Spiecker, Erdmann, Accessing local electron-beam induced temperature changes during in situ liquid-phase transmission electron microscopy, 2021, Nanoscale Advances, 10.1039/D0NA01027H
Visualizing Electron Beam-Capping Ligand Reactions for Controlled Nanoparticle Imaging with Liquid Phase Transmission Electron Microscopy	https://chemrxiv.org/engage/chemrxiv/article-details/60c73cc09abda2727df8b5d8	Dissanayake, Thilini Umesha; Wang, Mei; Woehl, Taylor, Visualizing Electron Beam-Capping Ligand Reactions for Controlled Nanoparticle Imaging with Liquid Phase Transmission Electron Microscopy, 2021, ArXiv, 10.26434/chemrxiv.14770797.v1
Detection of Pb ²⁺ traces in dispersion of Cs ₄ PbBr ₆ nanocrystals by in situ liquid cell transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2021/nr/d0nr08584g	Dang, Zhiya; Manna, Liberato; Baranov, Dmitry, Detection of Pb ²⁺ traces in dispersion of Cs ₄ PbBr ₆ nanocrystals by in situ liquid cell transmission electron microscopy, 2021, Nanoscale, 10.1039/D0NR08584G
Morphology and mechanism of highly selective Cu(II) oxide nanosheet catalysts for carbon dioxide electroreduction	http://www.nature.com/articles/s41467-021-20961-7	Wang, Xingli; Klingan, Katharina; Klingenhof, Malte; Möller, Tim; Ferreira de Araújo, Jorge; Martens, Isaac; Bagger, Alexander; Jiang, Shan; Rossmesl, Jan; Dau, Holger; Strasser, Peter, Morphology and mechanism of highly selective Cu(II) oxide nanosheet catalysts for carbon dioxide electroreduction, 2021, Nature Communications, 10.1038/s41467-021-20961-7
Label-free characterization of organic nanocarriers reveals persistent single molecule cores for hydrocarbon sequestration	https://www.nature.com/articles/s41467-021-23382-8	McAfee, Terry; Ferron, Thomas; Cordova, Isvar A.; Pickett, Phillip D.; McCormick, Charles L.; Wang, Cheng; Collins, Brian A., Label-free characterization of organic nanocarriers reveals persistent single molecule cores for hydrocarbon sequestration, 2021, Nature Communications, 10.1038/s41467-021-23382-8
Revealing the Role of Fluoride-Rich Battery Electrode Interphases by Operando Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/abs/10.1002/aenm.202003118	Gong, Chen; Pu, Shengda D.; Gao, Xiangwen; Yang, Sixie; Liu, Junliang; Ning, Ziyang; Rees, Gregory J.; Capone, Isaac; Pi, Liquan; Liu, Boyang; Hartley, Gareth O.; Fawdon, Jack; Luo, Jun; Pasta, Mauro; Grovenor, Chris R. M.; Bruce, Peter G.; Robertson, Alex W., Revealing the Role of Fluoride-Rich Battery Electrode Interphases by Operando Transmission Electron Microscopy, 2021, Advanced Energy Materials, https://doi.org/10.1002/aenm.202003118
A polymer controlled nucleation route towards the generalized growth of organic-inorganic perovskite single crystals	https://www.nature.com/articles/s41467-021-22193-1	Ma, Lin; Yan, Zhengguang; Zhou, Xiaoyuan; Pi, Yiqun; Du, Yiping; Huang, Jie; Wang, Kaiwen; Wu, Ke; Zhuang, Chunqiang; Han, Xiaodong, A polymer controlled nucleation route towards the generalized growth of organic-inorganic perovskite single crystals, 2021, Nature Communications, 10.1038/s41467-021-22193-1
In-situ water-immersion experiments on amorphous silicates in the MgO-SiO ₂ system: implications for the onset of aqueous alteration in primitive meteorites	http://www.sciencedirect.com/science/article/pii/S0016703720306578	Igami, Yohei; Tsuchiyama, Akira; Yamazaki, Tomoya; Matsumoto, Megumi; Kimura, Yuki, In-situ water-immersion experiments on amorphous silicates in the MgO-SiO ₂ system: implications for the onset of aqueous alteration in primitive meteorites, 2021, Geochimica et Cosmochimica Acta, 10.1016/j.gca.2020.10.023
Observing Growth and Crystallization of Au@ZnO Core-Shell Nanoparticles by In Situ Liquid Cell Transmission Electron Microscopy: Implications for Photocatalysis and Gas-Sensing Applications	https://doi.org/10.1021/acsanm.0c02919	Tsai, Shin-Bei; Chen, Jui-Yuan; Huang, Chih-Yang; Hou, Szu-Yu; Wu, Wen-Wei, Observing Growth and Crystallization of Au@ZnO Core-Shell Nanoparticles by In Situ Liquid Cell Transmission Electron Microscopy: Implications for Photocatalysis and Gas-Sensing Applications, 2021, ACS Applied Nano Materials, 10.1021/acsanm.0c02919
Iron-silica interaction during reduction of precipitated silica-promoted iron oxides using in situ XRD and TEM	https://www.sciencedirect.com/science/article/pii/S0926860X21000454	Coombes, M. J.; Olivier, E. J.; Prestat, E.; Haigh, S. J.; du Plessis, E.; Neethling, J. H., Iron-silica interaction during reduction of precipitated silica-promoted iron oxides using in situ XRD and TEM, 2021, Applied Catalysis A: General, 10.1016/j.apcata.2021.118031
An in situ investigation of the thermal decomposition of metal-organic framework NH ₂ -MIL-125 (Ti)	https://linkinghub.elsevier.com/retrieve/pii/S1387181121000834	Hussain, Mian Zahid; Bahri, Mounib; Heinz, Werner R.; Jia, Quanli; Ersen, Ovidiu; Kratky, Tim; Fischer, Roland A.; Zhu, Yanqiu; Xia, Yongde, An in situ investigation of the thermal decomposition of metal-organic framework NH ₂ -MIL-125 (Ti), 2021, Microporous and Mesoporous Materials, 10.1016/j.micromeso.2021.110957
In-situ Transmission Electron Microscope Investigation of Atomic-scale Titanium Silicide Monolayer Superlattice	http://www.sciencedirect.com/science/article/pii/S1359646220306874	Lu, Hsin-Mei; Huang, Chih-Yang; Huang, Guan-Ming; Lu, Kuo-Chang; Wu, Wen-Wei, In-situ Transmission Electron Microscope Investigation of Atomic-scale Titanium Silicide Monolayer Superlattice, 2021, Scripta Materialia, 10.1016/j.scriptamat.2020.10.029
Two-step assembly kinetics of gold nanoparticles	https://pubs.rsc.org/en/content/articlelanding/2021/tc/d0tc05076h	Lyu, Jieli; Alloyeau, Damien; Hamon, Cyrille; Constantin, Doru, Two-step assembly kinetics of gold nanoparticles, 2021, Journal of Materials Chemistry C, 10.1039/D0TC05076H
Protein-induced metamorphosis of unilamellar lipid vesicles to multilamellar hybrid vesicles	http://www.sciencedirect.com/science/article/pii/S0168365921000134	Koo, Bon Il; Kim, Inhye; Yang, Moon Young; Jo, Sung Duk; Koo, Kunmo; Shin, Seo Yeon; Park, Kyung Mok; Yuk, Jong Min; Lee, Eunji; Nam, Yoon Sung, Protein-induced metamorphosis of unilamellar lipid vesicles to multilamellar hybrid vesicles, 2021, Journal of Controlled Release, 10.1016/j.jconrel.2021.01.004
In Situ Probing the Kinetics of Gold Nanoparticle Thermal Sintering in Liquids: Implications for Ink-Jet Printing	https://doi.org/10.1021/acsanm.0c03133	Zhang, Xiuli; Liu, Weiyang; Li, Hailong; Xia, Shuixin; Tsung, Chia-Kuang; Liu, Hao; Liu, Wei; Yu, Yi, In Situ Probing the Kinetics of Gold Nanoparticle Thermal Sintering in Liquids: Implications for Ink-Jet Printing, 2021, ACS Applied Nano Materials, 10.1021/acsanm.0c03133

TITLE	WEB LINK	CITATIONS
A room temperature polar ferromagnetic metal	https://arxiv.org/abs/2106.00833	Zhang, Hongrui; Shao, Yu-Tsun; Chen, Rui; Chen, Xiang; Susarla, Sandhya; Reichenadter, Jonathan T; Caretta, Lucas; Huang, Xiaoxi; Settineri, Nicholas S; Chen, Zhen; Zhou, Jingcheng; Bourret-Courchesne, Edith; Ercius, Peter; Yao, Jie; Neaton, Jeffrey B; Muller, David A; Birgeneau, Robert J; Ramesh, Ramamoorthy , A room temperature polar ferromagnetic metal, 2021, Condensed Matter Material Science, 10.48550/arXiv.2106.00833
Imaging Secondary Electron Emission from a Single Atomic Layer	https://onlinelibrary.wiley.com/doi/abs/10.1002/smt.202000950	Dyck, Ondrej; Swett, Jacob L.; Lupini, Andrew R.; Mol, Jan A.; Jesse, Stephen , Imaging Secondary Electron Emission from a Single Atomic Layer, 2021, Small Methods, https://doi.org/10.1002/smt.202000950
On the formation of α -alumina single crystal platelets through eggshell membrane bio-templating	https://www.sciencedirect.com/science/article/pii/S1359646220308381	Sabu, Ummen; Kumar, C N Shyam; Logesh, G; Rashad, Mohammed; Melinte, Georgian; Joy, Anand; Kübel, Christian; Balasubramanian, M , On the formation of α -alumina single crystal platelets through eggshell membrane bio-templating, 2021, Scripta Materialia, 10.1016/j.scriptamat.2020.113716
Automated plasmon peak fitting derived temperature mapping in a scanning transmission electron microscope	https://aip.scitation.org/doi/full/10.1063/5.0039864	Barker, Anthony; Sapkota, Bibash; Oviedo, Juan Pablo; Klie, Robert , Automated plasmon peak fitting derived temperature mapping in a scanning transmission electron microscope, 2021, AIP Advances, 10.1063/5.0039864
Aromatic cluster and graphite-like structure distinguished by HRTEM in thermally altered coal and their genesis	https://www.sciencedirect.com/science/article/pii/S0016236121002490	Chen, Hao; Wang, Shaoqing; Tang, Yuegang; Zeng, Fangui; Schobert, Harold H.; Zhang, Xiaomei , Aromatic cluster and graphite-like structure distinguished by HRTEM in thermally altered coal and their genesis, 2021, Fuel, 10.1016/j.fuel.2021.120373
Probing potential energy landscapes via electron-beam-induced single atom dynamics	http://www.sciencedirect.com/science/article/pii/S1359645420309332	Dyck, O.; Ziatdinov, M.; Jesse, S.; Bao, F.; Nobakht, A. Yousefzadi; Maksov, A.; Sumpster, B. G.; Archibald, R.; Law, K. J. H.; Kalinin, S. V. , Probing potential energy landscapes via electron-beam-induced single atom dynamics, 2021, Acta Materialia, 10.1016/j.actamat.2020.116508
Catalysts by pyrolysis: Direct observation of chemical and morphological transformations leading to transition metal-nitrogen-carbon materials	https://www.sciencedirect.com/science/article/pii/S136970212100050X	Huang, Ying; Chen, Yechuan; Xu, Mingjie; Asset, Tristan; Tieu, Peter; Gili, Albert; Kulkarni, Devashish; De Andrade, Vincent; De Carlo, Francesco; Barnard, Harold S.; Doran, Andrew; Parkinson, Dilworth Y.; Pan, Xiaoping; Atanassov, Plamen; Zhenyuk, Iryna V. , Catalysts by pyrolysis: Direct observation of chemical and morphological transformations leading to transition metal-nitrogen-carbon materials, 2021, Materials Today, 10.1016/j.mattod.2021.02.006
Self-similar mesocrystals form via interface-driven nucleation and assembly	https://www.nature.com/articles/s41586-021-03300-0	Zhu, Guomin; Sushko, Maria L.; Loring, John S.; Legg, Benjamin A.; Song, Miao; Soltis, Jennifer A.; Huang, Xiaopeng; Rosso, Kevin M.; De Yoreo, James J. , Self-similar mesocrystals form via interface-driven nucleation and assembly, 2021, Nature, 10.1038/s41586-021-03300-0
Controlling radiolysis chemistry on the nanoscale in liquid cell scanning transmission electron microscopy	https://pubs.rsc.org/en/content/articlelanding/2021/cp/d0cp06369j	Lee, Juhan; Nicholls, Daniel; Browning, Nigel D.; Mehdi, B. Layla , Controlling radiolysis chemistry on the nanoscale in liquid cell scanning transmission electron microscopy, 2021, Physical Chemistry Chemical Physics, 10.1039/D0CP06369J
Influence of Sr deficiency on structural and electrical properties of SrTiO ₃ thin films grown by metal-organic vapor phase epitaxy	https://www.nature.com/articles/s41598-021-87007-2	Baki, Aykut; Stöver, Julian; Schulz, Tobias; Markurt, Toni; Amari, Houari; Richter, Carsten; Martin, Jens; Irmscher, Klaus; Albrecht, Martin; Schwarzkopf, Jutta , Influence of Sr deficiency on structural and electrical properties of SrTiO ₃ thin films grown by metal-organic vapor phase epitaxy, 2021, Scientific Reports, 10.1038/s41598-021-87007-2
Detection of nucleotides in hydrated ssDNA via 2D h-BN nanopore with ionic-liquid/salt-water interface	https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/abs/10.1002/elps.202000356	Lee, Jung Soo; Oviedo, Juan Pablo; Bandara, Yapa Mudiyansele; Nuwan Dhananjaya Yapa; Peng, Xin; Xia, Longsheng; Wang, Qingxiao; Garcia, Kevin; Wang, Jinguo; Kim, Min Jun; Kim, Moon Jae , Detection of nucleotides in hydrated ssDNA via 2D h-BN nanopore with ionic-liquid/salt-water interface, 2021, ELECTROPHORESIS, https://doi.org/10.1002/elps.202000356
Electron beam induced current microscopy of silicon p-n junctions in a scanning transmission electron microscope	https://aip.scitation.org/doi/10.1063/5.0040243	Conlan, Aidan P.; Moldovan, Grigore; Bruas, Lucas; Monroy, Eva; Cooper, David , Electron beam induced current microscopy of silicon p-n junctions in a scanning transmission electron microscope, 2021, Journal of Applied Physics, 10.1063/5.0040243
A NIST facility for resonant soft x-ray scattering measuring nano-scale soft matter structure at NSLS-II	https://doi.org/10.1088/1361-648x/abdfbb	Gann, Eliot; Crofts, Thomas; Holland, Glenn; Beaucage, Peter; McAfee, Terry; Kline, R. Joseph; Collins, Brian A.; McNeill, Christopher R.; Fischer, Daniel A.; DeLongchamp, Dean M. , A NIST facility for resonant soft x-ray scattering measuring nano-scale soft matter structure at NSLS-II, 2021, Journal of Physics: Condensed Matter, 10.1088/1361-648x/abdfbb
MEMS-based in situ electron-microscopy investigation of rapid solidification and heat treatment on eutectic Al-Cu	http://arxiv.org/abs/2101.02935	Dumitraschkewitz, Phillip; Tunes, Matheus A.; Quick, Cameron R.; Coradini, Diego Santa Rosa; Kremmer, Thomas M.; Ramasamy, Parthiban; Uggowitzer, Peter J.; Pogatscher, Stefan , MEMS-based in situ electron-microscopy investigation of rapid solidification and heat treatment on eutectic Al-Cu, 2021, ArXiv, 10.1016/j.actamat.2022.118225
In Situ TEM Study of Rh Particle Sintering for Three-Way Catalysts in High Temperatures	https://www.mdpi.com/2073-4344/11/1/19	Nakayama, Hiroki; Nagata, Makoto; Abe, Hideki; Shimizu, Yukihiko , In Situ TEM Study of Rh Particle Sintering for Three-Way Catalysts in High Temperatures, 2021, Catalysts, 10.3390/catal11010019
Atomic-scale silicidation of low resistivity Ni-Si system through in-situ TEM investigation	http://www.sciencedirect.com/science/article/pii/S0169433220328865	Hou, An-Yuan; Ting, Yi-Hsin; Tai, Kuo-Lun; Huang, Chih-Yang; Lu, Kuo-Chang; Wu, Wen-Wei , Atomic-scale silicidation of low resistivity Ni-Si system through in-situ TEM investigation, 2021, Applied Surface Science, 10.1016/j.apsusc.2020.148129
Improved mechanical properties of V-microalloyed dual phase steel by enhancing martensite deformability	http://www.sciencedirect.com/science/article/pii/S1005030220308860	Zhang, Jingbin; Sun, Yinrui; Ji, Zhijie; Luo, Haiwen; Liu, Feng , Improved mechanical properties of V-microalloyed dual phase steel by enhancing martensite deformability, 2021, Journal of Materials Science & Technology, 10.1016/j.jmst.2020.10.022

TITLE	WEB LINK	CITATIONS
Imaging real-time amorphization of hybrid perovskite solar cells under electrical biasing	https://doi.org/10.1021/acsenergylett.1c01707	Kim, Min-cheol; Ahn, Namyoung; Cheng, Diyi; Xu, Mingjie; Pan, Xiaoqing; Jun, Suk; Luo, Yanqi; Fenning, David P.; Tan, Darren H S; Zhang, Minghao; Ham, So-Yeon; Jeong, Kiwan; Choi, Mansoo; Meng, Ying Shirley, Imaging real-time amorphization of hybrid perovskite solar cells under electrical biasing, 2021, ACS Energy Letters, https://doi.org/10.1021/acsenergylett.1c01707
Nanoelectromechanical modulation of a strongly-coupled plasmonic dimer	https://www.nature.com/articles/s41467-020-20273-2	Song, Jung-Hwan; Raza, Søren; van de Groep, Jorik; Kang, Ju-Hyung; Li, Qitong; Kik, Pieter G.; Brongersma, Mark L., Nanoelectromechanical modulation of a strongly-coupled plasmonic dimer, 2021, Nature Communications, 10.1038/s41467-020-20273-2
Step-By-Step Atomic Insights into Structural Reordering from 2D to 3D MoS ₂	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.202008395	Inani, Heena; Shin, Dong Hoon; Madsen, Jacob; Jeong, Hyunjeong; Kwon, Min Hee; McEvoy, Niall; Susi, Toma; Mangler, Clemens; Lee, Sang Wook; Mustonen, Kimmo; Kotakoski, Jani, Step-By-Step Atomic Insights into Structural Reordering from 2D to 3D MoS ₂ , 2021, Advanced Functional Materials, https://doi.org/10.1002/adfm.202008395
In Situ Study of the Wet Chemical Etching of SiO ₂ and Nanoparticle@SiO ₂ Core-Shell Nanospheres	https://doi.org/10.1021/acsnm.0c02771	Grau-Carbonell, Albert; Sadighikia, Sina; Welling, Tom A. J.; van Dijk-Moes, Relinde J. A.; Kotni, Ramakrishna; Bransen, Maarten; van Blaaderen, Alfons; van Huis, Marijn A., In Situ Study of the Wet Chemical Etching of SiO ₂ and Nanoparticle@SiO ₂ Core-Shell Nanospheres, 2021, ACS Applied Nano Materials, 10.1021/acsnm.0c02771
Operando Methods in Electrocatalysis	https://doi.org/10.1021/acscatal.0c04789	Yang, Yao; Xiong, Yin; Zeng, Rui; Lu, Xinyao; Krumov, Mihail; Huang, Xin; Xu, Weixuan; Wang, Hongsen; DiSalvo, Francis J.; Brock, Joel. D.; Muller, David A.; Abruña, Héctor D., Operando Methods in Electrocatalysis, 2021, ACS Catalysis, 10.1021/acscatal.0c04789
Nanoprobes to investigate nonspecific interactions in lipid bilayers: from defect-mediated adhesion to membrane disruption	https://pubs.rsc.org/en/content/articlelanding/2021/na/d1na00360g	Razza, Nicolò; D. Lavino, Alessio; Fadda, Giulia; Lairez, Didier; Impagnatiello, Andrea; Marchisio, Daniele; Sangermano, Marco; Rizza, Giancarlo, Nanoprobes to investigate nonspecific interactions in lipid bilayers: from defect-mediated adhesion to membrane disruption, 2021, Nanoscale Advances, 10.1039/D1NA00360G
Understanding the Dynamics of Molecular Water Oxidation Catalysts with Liquid-Phase Transmission Electron Microscopy: The Case of Vitamin B12	https://doi.org/10.1021/acssuschemeng.1c03539	Abdi, Zahra; Balaghi, S. Esmail; Sologubenko, Alla S.; Willinger, Marc-Georg; Vandichel, Matthias; Shen, Jian-Ren; Allakhverdiev, Suleyman I.; Patzke, Greta R.; Najafpour, Mohammad Mahdi, Understanding the Dynamics of Molecular Water Oxidation Catalysts with Liquid-Phase Transmission Electron Microscopy: The Case of Vitamin B12, 2021, ACS Sustainable Chemistry & Engineering, 10.1021/acssuschemeng.1c03539
Direct Observation of Liquid-to-Solid Phase Transformations during the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) (PEDOT) by Liquid-Phase Transmission Electron Microscopy (LPTM)	https://doi.org/10.1021/acs.macromol.1c00404	Subramanian, Vivek; Martin, David C., Direct Observation of Liquid-to-Solid Phase Transformations during the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) (PEDOT) by Liquid-Phase Transmission Electron Microscopy (LPTM), 2021, Macromolecules, 10.1021/acs.macromol.1c00404
Probing morphology and chemistry in complex soft materials with in situ resonant soft x-ray scattering	https://doi.org/10.1088/1361-648x/ac0194	Zhong, Wenkai; Liu, Feng; Wang, Cheng, Probing morphology and chemistry in complex soft materials with in situ resonant soft x-ray scattering, 2021, Journal of Physics: Condensed Matter, 10.1088/1361-648x/ac0194
Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202102514	Khelfa, Abdelali; Nelayah, Jaysen; Amara, Hakim; Wang, Guillaume; Ricolleau, Christian; Alloyeau, Damien, Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution, 2021, Advanced Materials, 10.1002/adma.202102514
Direct Observation of Oxygen Evolution and Surface Restructuring on Mn ₂ O ₃ Nanocatalysts Using In Situ and Ex Situ Transmission Electron Microscopy Nano Letters	https://pubs.acs.org/doi/10.1021/acs.nanolett.1c02378?goto=articleMetrics&ref=pdf	Zhao, Guangming; Yao, Yunduo; Lu, Wei; Guo, Xuyun; Tricoli, Antonio; Zhu, Ye, Direct Observation of Oxygen Evolution and Surface Restructuring on Mn ₂ O ₃ Nanocatalysts Using In Situ and Ex Situ Transmission Electron Microscopy Nano Letters, 2021, Nano Letters, 10.1021/acs.nanolett.1c02378
Revealing Reactions between the Electron Beam and Nanoparticle Capping Ligands with Correlative Fluorescence and Liquid-Phase Electron Microscopy	https://doi.org/10.1021/acsnano.1c01957	Dissanayake, Thilini U.; Wang, Mei; Woehl, Taylor J., Revealing Reactions between the Electron Beam and Nanoparticle Capping Ligands with Correlative Fluorescence and Liquid-Phase Electron Microscopy, 2021, ACS Applied Materials & Interfaces, 10.1021/acsnano.1c01957
Interferometric 4DSTEM for Lattice Distortion and Interlayer Spacing Measurements of Bilayer and Trilayer 2D Materials	https://onlinelibrary.wiley.com/doi/10.1002/sml.202100388	Zachman, Michael J.; Madsen, Jacob; Zhang, Xiang; Ajayan, Pulickel M.; Susi, Toma; Chi, Miaofang, Interferometric 4DSTEM for Lattice Distortion and Interlayer Spacing Measurements of Bilayer and Trilayer 2D Materials, 2021, Small, 10.1002/sml.202100388
Two-dimensional ferroelasticity in van der Waals β'-In ₂ Se ₃	http://www.nature.com/articles/s41467-021-23882-7	Xu, Chao; Mao, Jianfeng; Guo, Xuyun; Yan, Shanru; Chen, Yancong; Lo, Tsz Wing; Chen, Changsheng; Lei, Danyuan; Luo, Xin; Hao, Jianhua; Zheng, Changxi; Zhu, Ye, Two-dimensional ferroelasticity in van der Waals β'-In ₂ Se ₃ , 2021, Nature Communications, 10.1038/s41467-021-23882-7
Anisotropic Angstrom-Wide Conductive Channels in Black Phosphorus by Top-down Cu Intercalation	https://pubs.acs.org/doi/10.1021/acs.nanolett.1c00915	Lee, Suk Woo; Qiu, Lu; Yoon, Jong Chan; Kim, Yohan; Li, Da; Oh, Inseon; Lee, Gil-Ho; Yoo, Jung-Woo; Shin, Hyung-Joon; Ding, Feng; Lee, Zonghoon, Anisotropic Angstrom-Wide Conductive Channels in Black Phosphorus by Top-down Cu Intercalation, 2021, Nano Letters, 10.1021/acs.nanolett.1c00915
Atomic-scale investigation of Na ₃ V ₂ (PO ₄) ₃ formation process in chemical infiltration via in situ transmission electron microscope for solid-state sodium batteries	https://linkinghub.elsevier.com/retrieve/pii/S2211285521004006	Yu, Tzu-Hsuan; Huang, Chih-Yang; Wu, Min-Ci; Chen, Yen-Jung; Lan, Tu; Tsai, Chih-Long; Chang, Jeng-Kuei; Eichel, Rüdiger-A.; Wu, Wen-Wei, Atomic-scale investigation of Na ₃ V ₂ (PO ₄) ₃ formation process in chemical infiltration via in situ transmission electron microscope for solid-state sodium batteries, 2021, Nano Energy, 10.1016/j.nanoen.2021.106144
Focused Ion Beam Sample Preparation for In Situ Thermal and Electrical Transmission Electron Microscopy	https://www.cambridge.org/core/product/identifier/S1431927621012022/type/journal_article	Radić, Dražen; Peterlechner, Martin; Bracht, Hartmut, Focused Ion Beam Sample Preparation for In Situ Thermal and Electrical Transmission Electron Microscopy, 2021, Microscopy and Microanalysis, 10.1017/S1431927621012022

TITLE	WEB LINK	CITATIONS
Direct Visualization of the Earliest Stages of Crystallization	https://www.cambridge.org/core/product/identifier/S1431927621000441/type/journal_article	Singh, Manish Kumar; Ghosh, Chanchal; Miller, Benjamin; Carter, C. Barry , Direct Visualization of the Earliest Stages of Crystallization, 2021, Microscopy and Microanalysis, 10.1017/S1431927621000441
Development of a gas environmental heating specimen holder system using differential pumping	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfab019/6287306	Hashimoto, Ayako; Han, Yutain; Akimoto, Hajime; Hozumi, Ryo; Takeguchi, Masaki , Development of a gas environmental heating specimen holder system using differential pumping, 2021, Microscopy, 10.1093/jmicro/dfab019
An in-situ assessment of post-synthesis thermal annealing of platinum nanoparticles supported on graphene	https://linkinghub.elsevier.com/retrieve/pii/S0921510721003305	Palanisamy, Tamilarasan; Alazmi, Amira; Batra, Nitin M.; Costa, Pedro M.F.J. , An in-situ assessment of post-synthesis thermal annealing of platinum nanoparticles supported on graphene, 2021, Materials Science and Engineering: B, 10.1016/j.mseb.2021.115370
In situ atomic-scale studies of thermal stability and surface reconstruction of ZnO nanowires based Pd nanocatalysts	https://linkinghub.elsevier.com/retrieve/pii/S0264127521005013	Ying, Zhehan; Diao, Jiangyong; Wang, Shi; Cai, Xiangbin; Cai, Yuan; Liu, Hongyang; Wang, Ning , In situ atomic-scale studies of thermal stability and surface reconstruction of ZnO nanowires based Pd nanocatalysts, 2021, Materials & Design, 10.1016/j.matdes.2021.109947
Kinetically Controlled Synthesis of Rhodium Nanocrystals with Different Shapes and a Comparison Study of Their Thermal and Catalytic Properties	https://pubs.acs.org/doi/10.1021/jacs.1c02734	Zhao, Ming; Chen, Zitao; Shi, Yifeng; Hood, Zachary D.; Lyu, Zhiheng; Xie, Minghao; Chi, Miaofang; Xia, Younan , Kinetically Controlled Synthesis of Rhodium Nanocrystals with Different Shapes and a Comparison Study of Their Thermal and Catalytic Properties, 2021, Journal of the American Chemical Society, 10.1021/jacs.1c02734
In situ liquid cell transmission electron microscopy guiding the design of large-sized cocatalysts coupled with ultra-small photocatalysts for highly efficient energy harvesting	http://xlink.rsc.org/?DOI=D1TA02975D	Gao, Chunlang; Zhuang, Chunqiang; Li, Yuanli; Qi, Heyang; Chen, Ge; Sun, Zaicheng; Zou, Jin; Han, Xiaodong , In situ liquid cell transmission electron microscopy guiding the design of large-sized cocatalysts coupled with ultra-small photocatalysts for highly efficient energy harvesting, 2021, Journal of Materials Chemistry A, 10.1039/D1TA02975D
Insights into the nucleation, grain growth and phase transformation behaviours of sputtered metastable β -W films	https://linkinghub.elsevier.com/retrieve/pii/S1005030221002838	Chen, Shuqun; Wang, Jinshu; Wu, Ronghai; Wang, Zheng; Li, Yangzhong; Lu, Yiwen; Zhou, Wenyuan; Hu, Peng; Li, Hongyi , Insights into the nucleation, grain growth and phase transformation behaviours of sputtered metastable β -W films, 2021, Journal of Materials Science & Technology, 10.1016/j.jmst.2021.02.027
In situ observation of the solid solution-induced sublimation of CuAg Janus nanoparticles	https://linkinghub.elsevier.com/retrieve/pii/S0925838821015772	Tang, Luping; Wu, Wei; He, Longbing; Xu, Tao; Dong, Hui; Zhang, Lei; Shi, Lei; Sun, Litao , In situ observation of the solid solution-induced sublimation of CuAg Janus nanoparticles, 2021, Journal of Alloys and Compounds, 10.1016/j.jallcom.2021.160168
Direct View on the Origin of High Li ⁺ Transfer Impedance in AllSolidState Battery	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202103971	Yang, Liting; Li, Xiao; Pei, Ke; You, Wenbin; Liu, Xianhu; Xia, Hui; Wang, Yonggang; Che, Renchao , Direct View on the Origin of High Li ⁺ Transfer Impedance in AllSolidState Battery, 2021, Advanced Functional Materials, 10.1002/adfm.202103971
Disordered interfaces enable high temperature thermal stability and strength in a nanocrystalline aluminum alloy	https://linkinghub.elsevier.com/retrieve/pii/S1359645421003530	Balbus, Glenn H.; Kappacher, Johann; Sprouster, David J.; Wang, Fulin; Shin, Jungho; Eggeler, Yolita M.; Rupert, Timothy J.; Trelewicz, Jason R.; Kiener, Daniel; Maier-Kiener, Verena; Gianola, Daniel S. , Disordered interfaces enable high temperature thermal stability and strength in a nanocrystalline aluminum alloy, 2021, Acta Materialia, 10.1016/j.actamat.2021.116973
Accelerated decomposition of Bi ₂ S ₃ nanorods in water under an electron beam: a liquid phase transmission electron microscopy study	https://doi.org/10.1088/1361-6528/abe150	Kim, Su Yeon; Kim, Ji Hyeon; Jeong, Taehyeon; Kim, Kyung Bin; Kim, Hyung Joong; Nam, Ki Min; Ahn, Sang Jung; Kwon, Ji Hwan; Kim, Young Heon , Accelerated decomposition of Bi ₂ S ₃ nanorods in water under an electron beam: a liquid phase transmission electron microscopy study, 2021, Nanotechnology, 10.1088/1361-6528/abe150
Anomalous nanoparticle surface diffusion in LCTEM is revealed by deep learning-assisted analysis	https://www.pnas.org/content/118/10/e2017616118	Jamali, Vida; Hargus, Cory; Ben-Moshe, Assaf; Aghazadeh, Amirali; Ha, Hyun Dong; Mandadapu, Kranthi K.; Alivisatos, A. Paul , Anomalous nanoparticle surface diffusion in LCTEM is revealed by deep learning-assisted analysis, 2021, Proceedings of the National Academy of Sciences, 10.1073/pnas.2017616118
Ultra-small size gelatin nanogel as a blood brain barrier impermeable contrast agent for magnetic resonance imaging	https://www.sciencedirect.com/science/article/pii/S1742706121001021	Kimura, Atsushi; Jo, Jun-ichiro; Yoshida, Fumiya; Hong, Zhang; Tabata, Yasuhiko; Sumiyoshi, Akira; Taguchi, Mitsumasa; Aoki, Ichio , Ultra-small size gelatin nanogel as a blood brain barrier impermeable contrast agent for magnetic resonance imaging, 2021, Acta Biomaterialia, 10.1016/j.actbio.2021.02.016
High-Resolution Imaging of Human Viruses in Liquid Droplets	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202103221	Jonaid, G. M.; Dearnaley, William J.; Casasanta, Michael A.; Kaylor, Liam; Berry, Samantha; Dukes, Madeline J.; Spilman, Michael S.; Gray, Jennifer L.; Kelly, Deborah F. , High-Resolution Imaging of Human Viruses in Liquid Droplets, 2021, Advanced Materials, 10.1002/adma.202103221
Radiolysis-Induced Crystallization of Sodium Chloride in Acetone by Electron Beam Irradiation	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/abs/radiolysis-induced-crystallization-of-sodium-chloride-in-acetone-by-electron-beam-irradiation/77287828D8575909EBA1DC87CE6F9784	Yamazaki, Tomoya; Kimura, Yuki , Radiolysis-Induced Crystallization of Sodium Chloride in Acetone by Electron Beam Irradiation, 2021, Microscopy and Microanalysis, 10.1017/S1431927621000179
In Situ Atomic-Scale TEM Observation of Ag Nanoparticle-Mediated Coalescence in Liquids	http://www.sciencedirect.com/science/article/pii/S0169433221001331	Hou, Szu-Yu; Huang, Chih-Yang; Tsai, Shin-Bei; Chen, Jui-Yuan; Wu, Wen-Wei , In Situ Atomic-Scale TEM Observation of Ag Nanoparticle-Mediated Coalescence in Liquids, 2021, Applied Surface Science, 10.1016/j.apsusc.2021.149057
Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles	https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.202001874	He, Jing; Shi, Fenglei; Wu, Jianbo; Ye, Jian , Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles, 2021, Advanced Materials Interfaces, https://doi.org/10.1002/admi.202001874

TITLE	WEB LINK	CITATIONS
Atomistic insights into the nucleation and growth of platinum on palladium nanocrystals	https://www.nature.com/articles/s41467-021-23290-x	Gao, Wenpei; Elnabawy, Ahmed O.; Hood, Zachary D.; Shi, Yifeng; Wang, Xue; Roling, Luke T.; Pan, Xiaoqing; Mavrikakis, Manos; Xia, Younan; Chi, Miaofang, Atomistic insights into the nucleation and growth of platinum on palladium nanocrystals, 2021, Nature Communications, 10.1038/s41467-021-23290-x
In situ STEM study on the morphological evolution of copper-based nanoparticles during high-temperature redox reactions	https://pubs.rsc.org/en/content/articlelanding/2021/nr/d1nr01648b	Sharna, Sharmin; Bahri, Mounib; Bouillet, Corinne; Rouchon, Virgile; Lambert, Arnold; Gay, Anne-Sophie; Chiche, David; Ersen, Ovidiu, In situ STEM study on the morphological evolution of copper-based nanoparticles during high-temperature redox reactions, 2021, Nanoscale, https://doi.org/10.1039/D1NR01648B
Thermoresponsive polymer assemblies via variable temperature liquid-phase transmission electron microscopy and small angle X-ray scattering	https://www.nature.com/articles/s41467-021-26773-z	Korpanty, Joanna; Parent, Lucas R.; Hampu, Nicholas; Weigand, Steven; Gianneschi, Nathan C., Thermoresponsive polymer assemblies via variable temperature liquid-phase transmission electron microscopy and small angle X-ray scattering, 2021, Nature Communications, 10.1038/s41467-021-26773-z
Pitfalls in Electrochemical Liquid Cell Transmission Electron Microscopy for Dendrite Observation	https://onlinelibrary.wiley.com/doi/abs/10.1002/aeer.202100160	Zhang, Xiuli; Liu, Weiyan; Chen, Zhaoxi; Huang, Yifan; Liu, Wei; Yu, Yi, Pitfalls in Electrochemical Liquid Cell Transmission Electron Microscopy for Dendrite Observation, 2021, Advanced Energy and Sustainability Research, 10.1002/aeer.202100160
Assembly of Two-Dimensional Metal Organic Framework Superstructures via Solvent-Mediated Oriented Attachment	https://doi.org/10.1021/acs.jpcc.1c06699	Jose, Nicholas A.; Varghese, Jithin John; Mushrif, Samir H.; Zeng, Hua Chun; Lapkin, Alexei A., Assembly of Two-Dimensional Metal Organic Framework Superstructures via Solvent-Mediated Oriented Attachment, 2021, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.1c06699
Dipeptide Nanostructure Assembly and Dynamics via in Situ Liquid-Phase Electron Microscopy	https://doi.org/10.1021/acsnano.1c06130	Gnanasekaran, Karthikeyan; Korpanty, Joanna; Berger, Or; Hampu, Nicholas; Halperin-Sternfeld, Michal; Cohen-Gerassi, Dana; Adler-Abramovich, Lih; Gianneschi, Nathan C., Dipeptide Nanostructure Assembly and Dynamics via in Situ Liquid-Phase Electron Microscopy, 2021, ACS Nano, 10.1021/acsnano.1c06130
The five shades of oleylamine in a morphological transition of cobalt nanospheres to nanorods	https://pubs.rsc.org/en/content/articlelanding/2021/nr/d1nr01502h	Moisset, Arthur; Sodreau, Alexandre; Vivien, Anthony; Salzemann, Caroline; Andrezza, Pascal; Giorgio, Suzanne; Petit, Marc; Petit, Christophe, The five shades of oleylamine in a morphological transition of cobalt nanospheres to nanorods, 2021, Nanoscale, 10.1039/D1NR01502H
On-Chip Electrochemical Analysis Combined with Liquid-Phase Electron Microscopy of Zinc Deposition/Dissolution	https://doi.org/10.1149/1945-7111/ac39e0	Sasaki, Yuki; Yoshida, Kaname; Kuwabara, Akihide; Ikuhara, Yuichi, On-Chip Electrochemical Analysis Combined with Liquid-Phase Electron Microscopy of Zinc Deposition/Dissolution, 2021, Journal of The Electrochemical Society, 10.1149/1945-7111/ac39e0
Direct observation of the moment of nucleation from a solution by TEM	https://doi.org/10.1093/jmicro/dfab046	Kimura, Yuki, Direct observation of the moment of nucleation from a solution by TEM, 2021, Microscopy, 10.1093/jmicro/dfab046
Revealing Size Dependent Structural Transitions in Supported Gold Nanoparticles in Hydrogen at Atmospheric Pressure	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.202104571	Nassereddine, Abdallah; Wang, Qing; Loffreda, David; Ricolleau, Christian; Alloyeau, Damien; Louis, Catherine; Delannoy, Laurent; Nelayah, Jaysen; Guesmi, Hazar, Revealing Size Dependent Structural Transitions in Supported Gold Nanoparticles in Hydrogen at Atmospheric Pressure, 2021, Small, 10.1002/sml.202104571
In-Situ Transmission Electron Microscopy Observation of Germanium Growth on Freestanding Graphene: Unfolding Mechanism of 3D Crystal Growth During Van der Waals Epitaxy	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.202101890	Diallo, Thierno Mamoudou; Aziziyan, Mohammad Reza; Arvinte, Roxana; Harmand, Jean-Christophe; Patriarche, Gilles; Renard, Charles; Fafard, Simon; Arès, Richard; Boucherif, Abderraouf, In-Situ Transmission Electron Microscopy Observation of Germanium Growth on Freestanding Graphene: Unfolding Mechanism of 3D Crystal Growth During Van der Waals Epitaxy, 2021, Small, 10.1002/sml.202101890
Atomistic Imaging of Competition between Surface Diffusion and Phase Transition during the Intermetallic Formation of Faceted Particles	https://doi.org/10.1021/acsnano.0c10775	Li, Fan; Zong, Yuan; Ma, Yanling; Wang, Mingxu; Shang, Wen; Tao, Peng; Song, Chengyi; Deng, Tao; Zhu, Hong; Wu, Jianbo, Atomistic Imaging of Competition between Surface Diffusion and Phase Transition during the Intermetallic Formation of Faceted Particles, 2021, ACS Nano, 10.1021/acsnano.0c10775
Control of oxidation behavior in high vacuum transmission electron microscopy	https://www.sciencedirect.com/science/article/pii/S104458032032341X	Kwon, Yena; An, Byeong-Seon; Moon, Ji-Yun; Lee, Jae-Hyun; Yoo, Hyunjae; Whang, Dongmok; Yang, Cheol-Woong, Control of oxidation behavior in high vacuum transmission electron microscopy, 2021, Materials Characterization, 10.1016/j.matchar.2020.110870
Formation of arsenic clusters in InAs nanowires with an Al ₂ O ₃ shell	https://pubs.rsc.org/en/content/articlelanding/2021/ra/d0ra06505f	Kim, In; Choi, Suji; Kwon, Ji-Hwan; Jung Ahn, Sang; Sun Yeom, Min; Seong Lee, Ho; Yi, Seong-Hoon; Heon Kim, Young, Formation of arsenic clusters in InAs nanowires with an Al ₂ O ₃ shell, 2021, RSC Advances, 10.1039/D0RA06505F
Negative Thermal Expansion HfV ₂ O ₇ Nanostructures for Alleviation of Thermal Stress in Nanocomposite Coatings	https://doi.org/10.1021/acscami.1c10867	Liu, Guan-Wen; Zhang, Yuwei; Thomas, Melonie P.; Ullah, Ahamed; Pharr, Matt; Guiton, Beth S.; Banerjee, Sarbajit, Negative Thermal Expansion HfV ₂ O ₇ Nanostructures for Alleviation of Thermal Stress in Nanocomposite Coatings, 2021, ACS Applied Materials & Interfaces, 10.1021/acscami.1c10867
Towards a library of atomically dispersed catalysts	https://www.sciencedirect.com/science/article/pii/S0264127521006353	Cai, Xiangbin; Chen, Xiaowen; Ying, Zhehan; Wang, Shi; Chen, Yong; Cai, Yuan; Long, Gen; Liu, Hongyang; Wang, Ning, Towards a library of atomically dispersed catalysts, 2021, Materials & Design, 10.1016/j.matdes.2021.110080
Liquid-Assisted Vapor-Solid-Solid Silicon Nanowire Growth Mechanism Revealed by In Situ TEM When Using Cu-Sn Bimetallic Catalysts	https://doi.org/10.1021/acs.jpcc.1c05402	Ngo, Éric; Wang, Weixi; Bulkin, Pavel; Florea, Ileana; Foldyna, Martin; Roca i Cabarrocas, Pere; Maurice, Jean-Luc, Liquid-Assisted Vapor-Solid-Solid Silicon Nanowire Growth Mechanism Revealed by In Situ TEM When Using Cu-Sn Bimetallic Catalysts, 2021, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.1c05402

TITLE	WEB LINK	CITATIONS
In situ TEM observations of void movement in Ag nanowires affecting the electrical properties under biasing	https://pubs.rsc.org/en/content/articlelanding/2021/cc/d1cc03300j	Hsueh, Yu-Hsiang; Ranjan, Ashok; Lyu, Lian-Ming; Hsiao, Kai-Yuan; Lu, Ming-Yen, In situ TEM observations of void movement in Ag nanowires affecting the electrical properties under biasing, 2021, Chemical Communications, 10.1039/D1CC03300J
A Fast and Implantation-Free Sample Production Method for Large Scale Electron-Transparent Metallic Samples Destined for MEMS-Based In Situ S/TEM Experiments	https://www.mdpi.com/1996-1944/14/5/1085	Tunes, Matheus A.; Quick, Cameron R.; Stemper, Lukas; Coradini, Diego S. R.; Grasserbauer, Jakob; Dumitraschkewitz, Phillip; Kremmer, Thomas M.; Pogatscher, Stefan, A Fast and Implantation-Free Sample Production Method for Large Scale Electron-Transparent Metallic Samples Destined for MEMS-Based In Situ S/TEM Experiments, 2021, Materials, 10.3390/ma14051085
Thermodynamic patterns during in-situ heating of InAs nanowires encapsulated in Al ₂ O ₃ shells	https://doi.org/10.1088/1361-6528/ac2d4b	Yang, Hyun Ju; Choi, Suji; Kim, Jong Hoon; Kim, In; Ahn, Sang Jung; Lee, Ho Seong; Yi, Seong-Hoon; Kim, Young Heon, Thermodynamic patterns during in-situ heating of InAs nanowires encapsulated in Al ₂ O ₃ shells, 2021, Nanotechnology, 10.1088/1361-6528/ac2d4b
Experimental observation of carousel-like phason flips in the decagonal quasicrystal Al ₆₀ Cr ₂₀ Fe ₁₀ Si ₁₀	https://journals.iucr.org/a/issues/2021/05/00/ug5027/	He, Z.; Maurice, J.-L.; Ma, H.; Wang, Y.; Li, H.; Zhang, T.; Ma, X.; Steurer, W., Experimental observation of carousel-like phason flips in the decagonal quasicrystal Al ₆₀ Cr ₂₀ Fe ₁₀ Si ₁₀ , 2021, Acta Crystallographica Section A: Foundations and Advances, 10.1107/S2053273321007518
Grain boundary segregation induced precipitation in a non equiatomic nanocrystalline CoCuFeMnNi compositionally complex alloy	https://www.sciencedirect.com/science/article/pii/S1359645421006613	Mantha, Lakshmi Sravani; MacDonald, Benjamin. E.; Mu, Xiaoke; Mazilkin, Andrey; Ivanisenko, Julia; Hahn, Horst; Lavernia, E. J.; Katnagallu, Shyam; Kübel, Christian, Grain boundary segregation induced precipitation in a non equiatomic nanocrystalline CoCuFeMnNi compositionally complex alloy, 2021, Acta Materialia, 10.1016/j.actamat.2021.117281
Monitoring Electrical Biasing of Pb(Zr _{0.2} Ti _{0.8})O ₃ Ferroelectric Thin Films In Situ by DPC-STEM Imaging	https://www.mdpi.com/1996-1944/14/16/4749	Vogel, Alexander; Sarott, Martin F.; Campanini, Marco; Trassin, Morgan; Rossell, Marta D., Monitoring Electrical Biasing of Pb(Zr _{0.2} Ti _{0.8})O ₃ Ferroelectric Thin Films In Situ by DPC-STEM Imaging, 2021, Materials, 10.3390/ma14164749
Thermal stability, ripening dynamics and coalescing microstructures of reduced graphene oxide-based platinum nanocatalysts: An in-situ TEM study	https://www.sciencedirect.com/science/article/pii/S0925963521004532	Ying, Zhehan; Diao, Jiangyong; Wang, Shi; Cai, Xiangbin; Cai, Yuan; Liu, Hongyang; Wang, Ning, Thermal stability, ripening dynamics and coalescing microstructures of reduced graphene oxide-based platinum nanocatalysts: An in-situ TEM study, 2021, Diamond and Related Materials, 10.1016/j.diamond.2021.108690
Operando Electron Microscopy Study of Cobalt-based Fischer-Tropsch Nanocatalysts	https://onlinelibrary.wiley.com/doi/abs/10.1002/cctc.202001074	Dembélé, Kassioyé; Bahri, Mounib; Hirlimann, Charles; Moldovan, Simona; Berliet, Adrien; Maury, Sylvie; Gay, Anne-Sophie; Ersen, Ovidiu, Operando Electron Microscopy Study of Cobalt-based Fischer-Tropsch Nanocatalysts, 2021, ChemCatChem, 10.1002/cctc.202001074
High temporal-resolution scanning transmission electron microscopy using sparse-serpentine scan pathways	https://www.nature.com/articles/s41598-021-02052-1	Ortega, Eduardo; Nicholls, Daniel; Browning, Nigel D.; de Jonge, Niels, High temporal-resolution scanning transmission electron microscopy using sparse-serpentine scan pathways, 2021, Scientific Reports, 10.1038/s41598-021-02052-1
Visualizing Ligand-Mediated Bimetallic Nanocrystal Formation Pathways with in Situ Liquid-Phase Transmission Electron Microscopy Synthesis	https://pubs.acs.org/doi/pdf/10.1021/acsnano.0c07131	Wang, Mei; Leff, Asher C.; Li, Yue; Woehl, Taylor J., Visualizing Ligand-Mediated Bimetallic Nanocrystal Formation Pathways with in Situ Liquid-Phase Transmission Electron Microscopy Synthesis, 2021, ACS Nano, 10.1021/acsnano.0c07131
Dynamic interplay between interfacial nanobubbles: oversaturation promotes anisotropic depinning and bubble coalescence	https://pubs.rsc.org/en/content/articlelanding/2021/cp/d1cp03451k	Nag, Sarthak; Tomo, Yoko; Teshima, Hideaki; Takahashi, Koji; Kohno, Masamichi, Dynamic interplay between interfacial nanobubbles: oversaturation promotes anisotropic depinning and bubble coalescence, 2021, Physical Chemistry Chemical Physics, 10.1039/D1CP03451K
Dynamic restructuring of supported metal nanoparticles and its implications for structure insensitive catalysis	https://www.nature.com/articles/s41467-021-27474-3	Vogt, Charlotte; Meirer, Florian; Monai, Matteo; Groeneveld, Esther; Ferri, Davide; van Santen, Rutger A.; Nachtegaal, Maarten; Unocic, Raymond R.; Frenkel, Anatoly I.; Weckhuysen, Bert M., Dynamic restructuring of supported metal nanoparticles and its implications for structure insensitive catalysis, 2021, Nature Communications, 10.1038/s41467-021-27474-3
Galvanic Transformation Dynamics in Heterostructured Nanoparticles	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.202105866	Du, Jingshan S.; He, Kun; Xu, Yaobin; Wahl, Carolin B.; Xu, David D.; Dravid, Vinayak P.; Mirkin, Chad A., Galvanic Transformation Dynamics in Heterostructured Nanoparticles, 2021, Advanced Functional Materials, 10.1002/adfm.202105866
Role of Metal Vacancies in the Mechanism of Thermal Degradation of InGaN Quantum Wells	https://pubs.acs.org/doi/abs/10.1021/acsnano.0c21293	Smalc-Koziorowska, Julita; Grzanka, Ewa; Lackowski, Artur; Hrytsak, Roman; Grabowski, Mikolaj; Grzanka, Szymon; Kret, Slawomir; Czernecki, Robert; Turksi, Henryk; Marona, Lucja; Markurt, Toni; Schulz, Tobias; Albrecht, Martin; Leszczynski, Mike, Role of Metal Vacancies in the Mechanism of Thermal Degradation of InGaN Quantum Wells, 2021, ACS Applied Materials & Interfaces, https://doi.org/10.1021/acsnano.0c21293
Unconventional Grain Growth Suppression in Oxygen-Rich Metal Oxide Nanoribbons	https://www.science.org/doi/10.1126/sciadv.abh2012	Jin Han, Hyeuk; Lee, Gyu Rac; Xie, Yujun; Hynek, David, J.; Cho, Eugene, N.; Kim, Yeon Sik; Cha, Judy, J., Unconventional Grain Growth Suppression in Oxygen-Rich Metal Oxide Nanoribbons, 2021, Science Advances, https://www.doi.org/10.1126/sciadv.abh2012
Practical Aspects of Performing Quantitative EELS Measurements of Gas Compositions in Closed-Cell Gas Reaction S/TEM	https://www.cambridge.org/core/product/identifier/S1431927621003160/type/journal_article	Unocic, Kinga; Griffin, Michael; Schaidle, Joshua; Habas, Susan; Walden, Franklin; Unocic, Raymond; Allard, Lawrence, Practical Aspects of Performing Quantitative EELS Measurements of Gas Compositions in Closed-Cell Gas Reaction S/TEM, 2021, Microscopy and Microanalysis, 10.1017/S1431927621003160
Understanding Cu-Alumina Interactions in Redox Conditions for Chemical Looping Combustion (CLC) Application – A Multi-scale Correlative Electron and X-Ray Microscopy Study	https://www.cambridge.org/core/product/identifier/S1431927621013283/type/journal_article	Sharna, Sharmin; Lambert, Arnold; Rouchon, Virgile; Legens, Christèle; Taleb, Anne-Lise; Stanescu, Stefan; Chiche, David; Gay, Anne-Sophie; Ersen, Ovidiu, Understanding Cu-Alumina Interactions in Redox Conditions for Chemical Looping Combustion (CLC) Application – A Multi-scale Correlative Electron and X-Ray Microscopy Study, 2021, Microscopy and Microanalysis, 10.1017/S1431927621013283

TITLE	WEB LINK	CITATIONS
Probing the Formation of Lithium Metal in an Inert Atmosphere by Big Data-Driven In Situ Electron Microscopy	https://pubs.acs.org/doi/10.1021/acsaem.1c01321	Luo, Xin; Liu, Weiyan; Wang, Zeyu; Liang, Chao; He, Xuming; Yu, Yi , Probing the Formation of Lithium Metal in an Inert Atmosphere by Big Data-Driven In Situ Electron Microscopy, 2021, ACS Applied Energy Materials, 10.1021/acsaem.1c01321
Is There Really a Size effect on the Surface Energy of Nanoparticles?	https://hal.science/hal-03310351/document	Amara, Hakim; Nelayah, Jaysen; Creuze, Jérôme; Chmielewski, Adrian; Alloyeau, Damien; Ricolleau, Christian; Legrand, Bernard , Is There Really a Size effect on the Surface Energy of Nanoparticles?, 2021, Hall open archives, 10.13140/RG.2.2.26218.85446
Identification of Nanoscale Processes Associated with the Disorder-to-Order Transformation of Carbon-Supported Alloy Nanoparticles	https://pubs.acs.org/doi/10.1021/acsmaterialsau.1c00063	Ashberry, Hannah M.; Zhan, Xun; Skrabalak, Sara E. , Identification of Nanoscale Processes Associated with the Disorder-to-Order Transformation of Carbon-Supported Alloy Nanoparticles, 2021, ACS Materials Au, 10.1021/acsmaterialsau.1c00063
In Situ Liquid Electrochemical TEM Investigation of LiMn 1.5 Ni 0.5 O 4 Thin Film Cathode for MicroBattery Applications	https://onlinelibrary.wiley.com/doi/10.1002/smt.202100891	Bhatia, Ankush; Cretu, Sorina; Hallot, Maxime; Folastre, Nicolas; Berthe, Maxime; Troadec, David; Roussel, Pascal; PereiraRamos, JeanPierre; BaddourHadjean, Rita; Lethien, Christophe; Demortière, Arnaud , In Situ Liquid Electrochemical TEM Investigation of LiMn 1.5 Ni 0.5 O 4 Thin Film Cathode for MicroBattery Applications, 2021, Small Methods, 10.1002/smt.202100891
Stabilization of Metal Single Atoms on Carbon and TiO 2 Supports for CO 2 Hydrogenation: The Importance of Regulating Charge Transfer	https://onlinelibrary.wiley.com/doi/10.1002/admi.202001777	RiveraCárcamo, Camila; Scarfiello, Canio; García, Ana B.; Tison, Yann; Martinez, Hervé; Baaziz, Walid; Ersen, Ovidiu; Le Berre, Carole; Serp, Philippe , Stabilization of Metal Single Atoms on Carbon and TiO 2 Supports for CO 2 Hydrogenation: The Importance of Regulating Charge Transfer, 2021, Advanced Materials Interfaces, 10.1002/admi.202001777
Nanoscale oxidation behavior of carbon fibers revealed with in situ gas cell STEM	https://linkinghub.elsevier.com/retrieve/pii/S1359646221001007	Cochell, Thomas J.; Unocic, Raymond R.; Graña-Otero, José; Martin, Alexandre , Nanoscale oxidation behavior of carbon fibers revealed with in situ gas cell STEM, 2021, Scripta Materialia, 10.1016/j.scriptamat.2021.113820
Anisotropic growth of Pt on Pd nanocube promotes direct synthesis of hydrogen peroxide	https://linkinghub.elsevier.com/retrieve/pii/S0169433221011077	Kim, Min-Cheol; Han, Geun-Ho; Xiao, Xiangyun; Song, Joseph; Hong, Jaeyoung; Jung, Euiyoung; Kim, Hong-Kyu; Ahn, Jae-Pyoung; Han, Sang Soo; Lee, Kwan-Young; Yu, Taekyung , Anisotropic growth of Pt on Pd nanocube promotes direct synthesis of hydrogen peroxide, 2021, Applied Surface Science, 10.1016/j.apsusc.2021.150031
Directly Probing the Local Coordination, Charge State, and Stability of Single Atom Catalysts by Advanced Electron Microscopy: A Review	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.202006482	Tieu, Peter; Yan, Xingxu; Xu, Mingjie; Christopher, Phillip; Pan, Xiaoqing , Directly Probing the Local Coordination, Charge State, and Stability of Single Atom Catalysts by Advanced Electron Microscopy: A Review, 2021, Small, 10.1002/sml.202006482
Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy	https://www.jove.com/t/62225/studying-effects-temperature-on-nucleation-growth-nanoparticles	Khelfa, Abdelali; Nelayah, Jaysen; Wang, Guillaume; Ricolleau, Christian; Alloyeau, Damien , Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy, 2021, Journal of Visualized Experiments, 10.3791/62225
In Situ Transmission Electron Microscopy Investigation of Melting/Evaporation Kinetics in Anisotropic Gold Nanoparticles	https://www.mdpi.com/1996-1944/14/23/7332	Liu, Yunjie; Yuan, Huanhuan; Wang, Hui; Wang, Zhiwei , In Situ Transmission Electron Microscopy Investigation of Melting/Evaporation Kinetics in Anisotropic Gold Nanoparticles, 2021, Materials, https://doi.org/10.3390/ma14237332
Atomic-Scale Investigation of Electromigration with Different Directions of Electron Flow into High-Density Nanotwinned Copper through In Situ HRTEM	https://linkinghub.elsevier.com/retrieve/pii/S1359645421006303	Shen, Fang-Chun; Huang, Chih-Yang; Lo, Hung-Yang; Hsu, Wei-You; Wang, Chien-Hua; Chen, Chih; Wu, Wen-Wei , Atomic-Scale Investigation of Electromigration with Different Directions of Electron Flow into High-Density Nanotwinned Copper through In Situ HRTEM, 2021, Acta Materialia, 10.1016/j.actamat.2021.117250
In-situ FE-SEM observation of the growth behaviors of Fe particles at magmatic temperatures	https://linkinghub.elsevier.com/retrieve/pii/S0022024821000191	Mujin, Mayumi; Nakamura, Michihiko; Matsumoto, Megumi , In-situ FE-SEM observation of the growth behaviors of Fe particles at magmatic temperatures, 2021, Journal of Crystal Growth, 10.1016/j.jcrysgro.2021.126043
In Situ Analytical Techniques for the Investigation of Material Stability and Interface Dynamics in Electrocatalytic and Photoelectrochemical Applications	https://onlinelibrary.wiley.com/doi/10.1002/smt.202100322	Pishgar, Sahar; Gulati, Saumya; Strain, Jacob M.; Liang, Ying; Mulvehill, Matthew C.; Spurgeon, Joshua M. , In Situ Analytical Techniques for the Investigation of Material Stability and Interface Dynamics in Electrocatalytic and Photoelectrochemical Applications, 2021, Small Methods, 10.1002/smt.202100322
Uncovering the Structure and Stability of Thermoelectric La 3- x Te 4 -Ni Composites Using High-Resolution and In Situ TEM	https://pubs.acs.org/doi/10.1021/acsjpc.1c05317	Thomas, Melonie P.; Ullah, Ahamed; Cheikh, Dean; Thisera, Ayanthi; De Alwis Goonatileke, Manisha; Bux, Sabah; Guiton, Beth S. , Uncovering the Structure and Stability of Thermoelectric La 3- x Te 4 -Ni Composites Using High-Resolution and In Situ TEM, 2021, The Journal of Physical Chemistry C, 10.1021/acsjpc.1c05317
Structure Matters– Direct In-situ Observation of Cluster Nucleation at Atomic Scale in a Liquid Phase	https://onlinelibrary.wiley.com/doi/epdf/10.1002/cnma.202000503	Henninen, Trond, R.; Keller, Debora; Erni, Rolf , Structure Matters– Direct In-situ Observation of Cluster Nucleation at Atomic Scale in a Liquid Phase, 2021, ChemNanoMat, https://doi.org/10.1002/cnma.202000503
A multiscale in situ high temperature high resolution transmission electron microscopy study of ThO 2 sintering	http://xlink.rsc.org/?DOI=D1NR00956G	Podor, R.; Trillaud, V.; Nkou Bouala, G. I.; Dacheux, N.; Ricolleau, C.; Clavier, N. , A multiscale in situ high temperature high resolution transmission electron microscopy study of ThO 2 sintering, 2021, Nanoscale, 10.1039/D1NR00956G
Structural Analysis and Performance in a DualMechanism Conductive Filament Memristor	https://onlinelibrary.wiley.com/doi/10.1002/aelm.202100605	Tsai, ShuChin; Lo, HongYang; Huang, ChihYang; Wu, MinCi; Tseng, YiTang; Shen, FangChun; Ho, AnYuan; Chen, JuiYuan; Wu, WenWei , Structural Analysis and Performance in a DualMechanism Conductive Filament Memristor, 2021, Advanced Electronic Materials, 10.1002/aelm.202100605

TITLE	WEB LINK	CITATIONS
In situ observation of the crystal structure transition of Pt–Sn intermetallic nanoparticles during deactivation and regeneration	https://pubs.rsc.org/en/content/articlelanding/2021/cc/d1cc01181b#	Zhang, Ze-Qi; Pei, Yu-Chen; Xiao, Ming-Jun; Hu, Guowen; Huang, Zhi-Peng; Song, Tao; Wang, Qiang; Huang, Wen-Yu; Peng, Yong; Zhang, Hao-Li , In situ observation of the crystal structure transition of Pt–Sn intermetallic nanoparticles during deactivation and regeneration, 2021, Chemical Communications, 10.1039/D1CC01181B
Thickness Dependence of Proton-Exchange-Membrane Properties	https://iopscience.iop.org/article/10.1149/1945-7111/ac2973	Luo, Xiaoyan; Lau, Grace; Tesfaye, Meron; Arthurs, Claire R.; Cordova, Isvar; Wang, Cheng; Yandrasits, Michael; Kusoglu, Ahmet , Thickness Dependence of Proton-Exchange-Membrane Properties, 2021, Journal of The Electrochemical Society, 10.1149/1945-7111/ac2973
Room temperature synthesized solid solution AuFe nanoparticles and their transformation into Au/Fe Janus nanocrystals	http://xlink.rsc.org/?DOI=D1NR00383F	Efremova, Maria V.; Spasova, Marina; Heidelmann, Markus; Grebennikov, Ivan S.; Li, Zi-An; Garanina, Anastasiia S.; Tcareva, Iana O.; Savchenko, Alexander G.; Farle, Michael; Klyachko, Natalia L.; Majouga, Alexander G.; Wiedwald, Ulf , Room temperature synthesized solid solution AuFe nanoparticles and their transformation into Au/Fe Janus nanocrystals, 2021, Nanoscale, 10.1039/D1NR00383F
The electric double layer effect and its strong suppression at Li+ solid electrolyte/hydrogenated diamond interfaces	https://www.nature.com/articles/s42004-021-00554-7	Tsuchiya, Takashi; Takayanagi, Makoto; Mitsuishi, Kazutaka; Imura, Masataka; Ueda, Shigenori; Koide, Yasuo; Higuchi, Tohru; Terabe, Kazuya , The electric double layer effect and its strong suppression at Li+ solid electrolyte/hydrogenated diamond interfaces, 2021, Communications Chemistry, 10.1038/s42004-021-00554-7
Towards laser printing of magnetocaloric structures by inducing a magnetic phase transition in iron-rhodium nanoparticles	https://www.nature.com/articles/s41598-021-92760-5	Nadarajah, Ruksan; Landers, Joachim; Salamon, Soma; Koch, David; Tahir, Shabbir; Doñate-Buendía, Carlos; Zingsem, Benjamin; Dunin-Borkowski, Rafal E.; Donner, Wolfgang; Farle, Michael; Wende, Heiko; Gökce, Bilal , Towards laser printing of magnetocaloric structures by inducing a magnetic phase transition in iron-rhodium nanoparticles, 2021, Scientific Reports, 10.1038/s41598-021-92760-5
Understanding Symmetry Breaking at the Single-Particle Level via the Growth of Tetrahedron-Shaped Nanocrystals from Higher-Symmetry Precursors	https://pubs.acs.org/doi/10.1021/acsnano.1c04056	Sun, Muhua; Cheng, Zhihua; Chen, Weiyin; Jones, Matthew , Understanding Symmetry Breaking at the Single-Particle Level via the Growth of Tetrahedron-Shaped Nanocrystals from Higher-Symmetry Precursors, 2021, ACS Nano, 10.1021/acsnano.1c04056
Template-free synthesis of a yolk–shell Co ₃ O ₄ /nitrogen-doped carbon microstructure for excellent lithium ion storage	https://pubs.rsc.org/en/content/articlelanding/2021/ta/d1ta07221h	Xiao, Ming-Jun; Zhang, Hong; Ma, Bo; Zhang, Ze-Qi; Li, Xiang-Yang; Xiao, Qi; Wang, Qiang; Peng, Yong; Zhang, Hao-Li , Template-free synthesis of a yolk–shell Co ₃ O ₄ /nitrogen-doped carbon microstructure for excellent lithium ion storage, 2021, Journal of Materials Chemistry A, 10.1039/D1TA07221H
Giant hardening response in AlMgZn(Cu) alloys	https://linkinghub.elsevier.com/retrieve/pii/S1359645420310545	Stemper, Lukas; Tunes, Matheus A.; Dumitraschkewitz, Phillip; Mendez-Martin, Francisca; Tosone, Ramona; Marchand, Daniel; Curtin, William A.; Uggowitzer, Peter J.; Pogatscher, Stefan , Giant hardening response in AlMgZn(Cu) alloys, 2021, Acta Materialia, 10.1016/j.actamat.2020.116617
Mechanistic Understanding of Formation of Ultrathin Single-Crystalline Pt Nanowires	https://pubs.acs.org/doi/10.1021/acs.jpcc.1c08582	Samantaray, Debadarshini; Gayen, Meghabarna; Roy, Ahin; Bellare, Pavithra; Ravishankar, Narayanan , Mechanistic Understanding of Formation of Ultrathin Single-Crystalline Pt Nanowires, 2021, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.1c08582
Probing the beam-induced heating effect inside a transmission electron microscope by nanoparticle labels	https://ietresearch.onlinelibrary.wiley.com/doi/epdf/10.1049/mna2.12049	Zhang, Lei; He, Longbing; Yang, Yufeng; Hong, Hua; Tang, Luping; Sun, Litao , Probing the beam-induced heating effect inside a transmission electron microscope by nanoparticle labels, 2021, Micro & Nano Letters, https://www.doi.org/10.1049/mna2.12049
Atomic scale symmetry and polar nanoclusters in the paraelectric phase of ferroelectric materials	http://www.nature.com/articles/s41467-021-23600-3	Bencan, Andreja; Oveisi, Emad; Hashemizadeh, Sina; Veerapandian, Vignaswaran K.; Hoshina, Takuya; Rojac, Tadej; Deluca, Marco; Drazic, Goran; Damjanovic, Dragan , Atomic scale symmetry and polar nanoclusters in the paraelectric phase of ferroelectric materials, 2021, Nature Communications, 10.1038/s41467-021-23600-3
Mechanistic Understanding of Water Oxidation in the Presence of a Copper Complex by In Situ Electrochemical Liquid Transmission Electron Microscopy	https://doi.org/10.1021/acscami.1c00243	Balaghi, S. Esmael; Mehrabani, Somayeh; Mousazade, Younes; Bagheri, Robabeh; Sologubenko, Alla S.; Song, Zhenlun; Patzke, Greta R.; Najafpour, Mohammad Mahdi , Mechanistic Understanding of Water Oxidation in the Presence of a Copper Complex by In Situ Electrochemical Liquid Transmission Electron Microscopy, 2021, ACS Applied Materials & Interfaces, 10.1021/acscami.1c00243
Engineered Nanomaterials' Fate Assessment in Biological Matrices: Recent Milestones in Electron Microscopy	https://doi.org/10.1021/acssuschemeng.1c00782	Ye, Yuqing; Cota-Ruiz, Keni; Cantu, Jesus M.; Valdés, Carolina; Gardea-Torresdey, Jorge L. , Engineered Nanomaterials' Fate Assessment in Biological Matrices: Recent Milestones in Electron Microscopy, 2021, ACS Sustainable Chemistry & Engineering, 10.1021/acssuschemeng.1c00782
Thermal near-field tuning of silicon Mie nanoparticles	https://www.degruyter.com/document/doi/10.1515/nanoph-2021-0424/html	Assadillayev, Artyom; Hinamoto, Tatsuki; Fujii, Minoru; Sugimoto, Hiroshi; Raza, Søren , Thermal near-field tuning of silicon Mie nanoparticles, 2021, Nanophotonics, 10.1515/nanoph-2021-0424
Controlling hydrocarbon transport and electron beam induced deposition on single layer graphene: Toward atomic scale synthesis in the scanning transmission electron microscope	https://onlinelibrary.wiley.com/doi/abs/10.1002/nano.202100188	Dyck, Ondrej; Lupini, Andrew R.; Rack, Philip D.; Fowlkes, Jason; Jesse, Stephen , Controlling hydrocarbon transport and electron beam induced deposition on single layer graphene: Toward atomic scale synthesis in the scanning transmission electron microscope, 2022, Nano Select, 10.1002/nano.202100188
Combining in-situ TEM observations and theoretical calculation for revealing the thermal stability of CeO ₂ nanoflowers	https://doi.org/10.1007/s12274-021-3659-6	Zhu, Mingyun; Yin, Kuibo; Wen, Yifeng; Song, Shugui; Xiong, Yuwei; Dai, Yunqian; Sun, Litao , Combining in-situ TEM observations and theoretical calculation for revealing the thermal stability of CeO ₂ nanoflowers, 2022, Nano Research, 10.1007/s12274-021-3659-6
In situ atomic-scale observation of the conversion behavior in a Cu–Zn alloy for twinnability enhancement	https://www.sciencedirect.com/science/article/pii/S0169433221026490	Wu, Yu-Lien; Huang, Chih-Yang; Lo, Hung-Yang; Shen, Fang-Chun; Ho, An-Yuan; Tseng, Yi-Tang; Yasuhara, Akira; Wu, Wen-Wei , In situ atomic-scale observation of the conversion behavior in a Cu–Zn alloy for twinnability enhancement, 2022, Applied Surface Science, 10.1016/j.apsusc.2021.151602

TITLE	WEB LINK	CITATIONS
Automated Tools to Advance High-Resolution Imaging in Liquid	https://www.cambridge.org/core/journals/microscopy-and-microanalysis/article/automated-tools-to-advance-high-resolution-imaging-in-liquid/C9634C358F1897D01CF62B983A4B5706	Jonaid, G. M.; Casasanta, Michael A.; Dearnaley, William J.; Berry, Samantha; Kaylor, Liam; Dressel-Dukes, Madeline J.; Spilman, Michael S.; Gray, Jennifer L.; Kelly, Deborah F., Automated Tools to Advance High-Resolution Imaging in Liquid, 2022, Microscopy and Microanalysis, 10.1017/S1431927621013921
Liquid Processing of Bismuth-Silica Nanoparticle/Aluminum Matrix Nanocomposites for Heat Storage Applications	https://pubs.acs.org/doi/10.1021/acsanm.1c03534	Ma, Binghua; Baaziz, Walid; Mazerolles, Léo; Ersen, Ovidiu; Sahut, Bernard; Sanchez, Clément; Delalande, Stéphane; Portehault, David, Liquid Processing of Bismuth-Silica Nanoparticle/Aluminum Matrix Nanocomposites for Heat Storage Applications, 2022, ACS Applied Nano Materials, 10.1021/acsanm.1c03534
Disconnection-Mediated Twin/Twin-Junction Migration in FCC metals	https://arxiv.org/abs/2201.04190	Xu, Mingjie; Chen, Kongtao; Cao, Fan; Estrada, Leonardo Velasco; Kaufman, Thomas, M.; Ye, Fan; Hahn, Horst; Han, Jian; Srolovitz, David, J.; Pan, Xiaoqing, Disconnection-Mediated Twin/Twin-Junction Migration in FCC metals, 2022, Material Science, 10.48550/arXiv.2201.04190
In situ TEM Characterization of Phase Transformations and Kirkendall Void Formation During Annealing of a Cu-Au-Sn-Cu Diffusion Bonding Joint	https://link.springer.com/10.1007/s11664-021-09390-w	Cornet, L.; Yedra, L.; Hépré, É.; Aubin, V.; Schmitt, J.-H.; Giorgi, M.-L., In situ TEM Characterization of Phase Transformations and Kirkendall Void Formation During Annealing of a Cu-Au-Sn-Cu Diffusion Bonding Joint, 2022, Journal of Electronic Materials, 10.1007/s11664-021-09390-w
Doping Control of Magnetic Anisotropy for Stable Antiskyrmion Formation in Schreibersite (Fe,Ni) 3 P with S 4 symmetry	https://onlinelibrary.wiley.com/doi/10.1002/adma.202108770	Karube, Kosuke; Peng, Licong; Masell, Jan; Hemmida, Mamoun; Nidda, HansAlbrecht Krug; Kézsmárki, István; Yu, Xiuzhen; Tokura, Yoshinori; Taguchi, Yasujiro, Doping Control of Magnetic Anisotropy for Stable Antiskyrmion Formation in Schreibersite (Fe,Ni) 3 P with S 4 symmetry, 2022, Advanced Materials, 10.1002/adma.202108770
Investigating thermal stability of metallic and non-metallic nanoparticles using novel graphene oxide-based transmission electron microscopy heating-membrane	https://iopscience.iop.org/article/10.1088/1361-6528/ac547c	Batra, Nitin M.; Mahalingam, Dinesh; Daggali, Pradeep; Nunes, Suzana; Costa, Pedro M. F. J., Investigating thermal stability of metallic and non-metallic nanoparticles using novel graphene oxide-based transmission electron microscopy heating-membrane, 2022, Nanotechnology, 10.1088/1361-6528/ac547c
Sacrificial W Facilitates Self-Reconstruction with Abundant Active Sites for Water Oxidation	https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.202107249	Fan, Ke; Zou, Haiyuan; Ding, Yunxuan; Aditya Dharanipragada, N.V.R; Fan, Lizhou; Ken Inge, A.; Duan, Lele; Zhang, Biaobiao; Sun, Licheng, Sacrificial W Facilitates Self-Reconstruction with Abundant Active Sites for Water Oxidation, 2022, Small, 10.1002/sml.202107249
Liquid-cell transmission electron microscopy for imaging of thermosensitive recombinant polymers	https://linkinghub.elsevier.com/retrieve/pii/S0168365922000931	Isaacson, Kyle J.; Van Devener, Brian R.; Steinhoff, Douglas B.; Jensen, M. Martin; Cappello, Joseph; Ghandehari, Hamidreza, Liquid-cell transmission electron microscopy for imaging of thermosensitive recombinant polymers, 2022, Journal of Controlled Release, 10.1016/j.jconrel.2022.02.019
Operando electrochemical TEM, ex-situ SEM and atomistic modeling studies of MnS dissolution and its role in triggering pitting corrosion in 304L stainless steel	https://linkinghub.elsevier.com/retrieve/pii/S0010938X22001020	Kovalov, Danyil; Taylor, Christopher D.; Heinrich, Helge; Kelly, Robert G., Operando electrochemical TEM, ex-situ SEM and atomistic modeling studies of MnS dissolution and its role in triggering pitting corrosion in 304L stainless steel, 2022, Corrosion Science, 10.1016/j.corsci.2022.110184
In situ TEM investigation of indium oxide/titanium oxide nanowire heterostructures growth through solid state reactions	https://linkinghub.elsevier.com/retrieve/pii/S1044580322001140	Chang, Jing-Han; Tseng, Yi-Tang; Ho, An-Yuan; Lo, Hung-Yang; Huang, Chih-Yang; Tsai, Shu-Chin; Yu, Tzu-Hsuan; Wu, Yu-Lien; Yen, Hsi-Kai; Yeh, Ping-Hung; Lu, Kuo-Chang; Wu, Wen-Wei, In situ TEM investigation of indium oxide/titanium oxide nanowire heterostructures growth through solid state reactions, 2022, Materials Characterization, 10.1016/j.matchar.2022.111832
In-situ STEM study on thermally induced phase transformation of magnetic (Nd _{0.75} Ce _{0.25}) ₂ Fe ₁₄ B ribbons	https://linkinghub.elsevier.com/retrieve/pii/S0264127522001460	Zhu, Xiangyu; Oh Jung, Byung; Wang, Qingxiao; Hu, Yaoqiao; Choi, Myungshin; Song, Sunyong; Namkung, Seok; Kang, Namseok; Shin, Hui-Youn; Joo, Minho; Kim, M.J., In-situ STEM study on thermally induced phase transformation of magnetic (Nd _{0.75} Ce _{0.25}) ₂ Fe ₁₄ B ribbons, 2022, Materials & Design, 10.1016/j.matdes.2022.110525
The influence of aspartic acid on calcium carbonate nucleation and growth revealed by in situ liquid phase TEM	http://xlink.rsc.org/?DOI=D2CE00117A	Longuinho, Mariana M.; Ramnarain, Vinavadini; Ortiz Peña, Nathaly; Ihiawakrim, Dris; Soria-Martinez, Rubén; Farina, Marcos; Ersen, Ovidiu; Rossi, André L., The influence of aspartic acid on calcium carbonate nucleation and growth revealed by in situ liquid phase TEM, 2022, CrystEngComm, 10.1039/D2CE00117A
Nanoscale Faceting and Ligand Shell Structure Dominate the Self-Assembly of Non-Polar Nanoparticles into Superlattices	https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202109093	Bo, Arixin; Liu, Yawei; Kuttich, Björn; Kraus, Tobias; Widmer-Cooper, Asaph; De Jonge, Niels, Nanoscale Faceting and Ligand Shell Structure Dominate the Self-Assembly of Non-Polar Nanoparticles into Superlattices, 2022, Advanced Materials, 10.1002/adma.202109093
Controlling the Shrinkage of 3D Hot Spot Droplets as a Microreactor for Quantitative SERS Detection of Anticancer Drugs in Serum Using a Handheld Raman Spectrometer	https://pubs.acs.org/doi/10.1021/acs.analchem.2c00071	Zhou, Guoliang; Li, Pan; Ge, Meihong; Wang, Junping; Chen, Siyu; Nie, Yuman; Wang, Yaoxiang; Qin, Miao; Huang, Guangyao; Lin, Dongyue; Wang, Hongzhi; Yang, Liangbao, Controlling the Shrinkage of 3D Hot Spot Droplets as a Microreactor for Quantitative SERS Detection of Anticancer Drugs in Serum Using a Handheld Raman Spectrometer, 2022, Analytical Chemistry, 10.1021/acs.analchem.2c00071
Effect of salinity on the microscopic interaction and sedimentation behavior of halloysite clay	https://www.researchsquare.com/article/rs-1421994/v1	Noh, Namgyu; Kwon, Yeong-Man; Dae, Kyun Seong; Cho, Gye-Chun; Chang, Ilhan; Yuk, Jong Min, Effect of salinity on the microscopic interaction and sedimentation behavior of halloysite clay, 2022, Research Square, 10.21203/rs.3.rs-1421994/v1
Thermal Evolution of C-Fe-Bi Nanocomposite System: From Nanoparticle Formation to Heterogeneous Graphitization Stage	https://www.cambridge.org/core/product/identifier/S1431927622000241/type/journal_article	Rusu, Mihai M.; Vulpoi, Adriana; Maurin, Isabelle; Cotet, Liviu C.; Pop, Lucian C.; Fort, Carmen I.; Baia, Monica; Baia, Lucian; Florea, Ileana, Thermal Evolution of C-Fe-Bi Nanocomposite System: From Nanoparticle Formation to Heterogeneous Graphitization Stage, 2022, Microscopy and Microanalysis, 10.1017/S1431927622000241
Organic solution-phase transmission electron microscopy of copolymer nanoassembly morphology and dynamics	https://linkinghub.elsevier.com/retrieve/pii/S266638642200039X	Korpanty, Joanna; Gnanasekaran, Karthikeyan; Venkatramani, Cadapakam; Zang, Nanzhi; Gianneschi, Nathan C., Organic solution-phase transmission electron microscopy of copolymer nanoassembly morphology and dynamics, 2022, Cell Reports Physical Science, 10.1016/j.xcrp.2022.100772

TITLE	WEB LINK	CITATIONS
Catalysts by pyrolysis: Direct observation of transformations during re-pyrolysis of transition metal-nitrogen-carbon materials leading to state-of-the-art platinum group metal-free electrocatalyst	https://linkinghub.elsevier.com/retrieve/pii/S1369702122000165	Chen, Yechuan; Huang, Ying; Xu, Mingjie; Asset, Tristan; Yan, Xingxu; Artyushkova, Kateryna; Kodali, Mounika; Murphy, Eamonn; Ly, Alvin; Pan, Xiaoqing; Zenyuk, Iryna V.; Atanassov, Plamen, Catalysts by pyrolysis: Direct observation of transformations during re-pyrolysis of transition metal-nitrogen-carbon materials leading to state-of-the-art platinum group metal-free electrocatalyst, 2022, Materials Today, 10.1016/j.matod.2022.01.016
In-Situ Investigation on Melting Characteristics of 1d SnCu Alloy Nanosolder	https://www.ssrn.com/abstract=4020109	Zhang, Xuan; Zhang, Wei; Peng, Yong, In-Situ Investigation on Melting Characteristics of 1d SnCu Alloy Nanosolder, 2022, SSRN Electronic Journal, 10.2139/ssrn.4020109
Insight on precipitate evolution during additive manufacturing of stainless steels via in-situ heating-cooling experiments in a transmission electron microscope	https://linkinghub.elsevier.com/retrieve/pii/S2589152922000540	Ben Haj Slama, Meriem; Yedra, Lluís; Heripre, Eva; Upadhyay, Manas V., Insight on precipitate evolution during additive manufacturing of stainless steels via in-situ heating-cooling experiments in a transmission electron microscope, 2022, Materialia, 10.1016/j.mtl.2022.101368
Possible embryo and precursor of crystalline nuclei of calcium carbonate observed by LC-TEM	http://pubs.rsc.org/en/Content/ArticleLanding/2022/FD/D1FD00125F	Kimura, Yuki; Katsuno, Hiroyasu; Yamazaki, Tomoya, Possible embryo and precursor of crystalline nuclei of calcium carbonate observed by LC-TEM, 2022, Faraday Discussions, 10.1039/D1FD00125F
Indirect measurement of the carbon adatom migration barrier on graphene	http://arxiv.org/abs/2202.04485	Postl, Andreas; Hilgert, Pit Pascal Patrick; Markevich, Alexander; Madsen, Jacob; Mustonen, Kimmo; Kotakoski, Jani; Susi, Toma, Indirect measurement of the carbon adatom migration barrier on graphene, 2022, ArXiv, 10.48550/arXiv.2202.04485
In Situ Atomic-Scale Observation of Monolayer MoS ₂ Devices under High-Voltage Biasing via Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/epdf/10.1002/sml.202106411	Tseng, Y.-T.; Lu, L.-S.; Shen, F.-C.; Wang, C.-H.; Sung, H.-Y.; Chang, W.-H.; Wu, W.-W., In Situ Atomic-Scale Observation of Monolayer MoS ₂ Devices under High-Voltage Biasing via Transmission Electron Microscopy, 2022, Small, 10.1002/sml.202106411
Correlating the dispersion of Li@Mn ₆ superstructure units with the oxygen activation in Li-rich layered cathode	https://www.sciencedirect.com/science/article/pii/S240582972100578X	Li, Yiwei; Xu, Shenyang; Zhao, Wenguang; Chen, Zhefeng; Chen, Zhaoxi; Li, Shunning; Hu, Jiangtao; Cao, Bo; Li, Jianyuan; Zheng, Shisheng; Chen, Ziwei; Zhang, Taolue; Zhang, Mingjian; Pan, Feng, Correlating the dispersion of Li@Mn ₆ superstructure units with the oxygen activation in Li-rich layered cathode, 2022, Energy Storage Materials, 10.1016/j.ensm.2021.12.003
Understanding the Impact of Wall Thickness on Thermal Stability of Silver-Gold Nanocages	https://pubs.acs.org/doi/10.1021/acs.jpcc.2c01433	Shao, Shikuan; Zhu, Xiangyu; Ten, Victoria; Kim, Moon J.; Xia, Xiaohu, Understanding the Impact of Wall Thickness on Thermal Stability of Silver-Gold Nanocages, 2022, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.2c01433
Imine Synthesis by Benzylamine Self-Coupling Catalyzed by Cerium-Doped MnO ₂ under Mild Conditions	https://pubs.acs.org/doi/10.1021/acs.iecr.2c00311	Wu, Chen; Bu, Jun; Wang, Wenbin; Shen, Haidong; Cao, Yueling; Zhang, Hepeng, Imine Synthesis by Benzylamine Self-Coupling Catalyzed by Cerium-Doped MnO ₂ under Mild Conditions, 2022, Ind. Eng. Chem. Res., 10.1021/acs.iecr.2c00311
Vaporization-Controlled Energy Release Mechanisms Underlying the Exceptional Reactivity of Magnesium Nanoparticles	https://pubs.acs.org/doi/10.1021/acsami.1c22685	Ghildiyal, Pankaj; Biswas, Prithwish; Herrera, Steven; Xu, Feiyu; Alibay, Zaira; Wang, Yujie; Wang, Haiyang; Abbaschian, Reza; Zachariah, Michael R., Vaporization-Controlled Energy Release Mechanisms Underlying the Exceptional Reactivity of Magnesium Nanoparticles, 2022, ACS Applied Materials & Interfaces, 10.1021/acsami.1c22685
A single-Pt-atom-on-Ru-nanoparticle electrocatalyst for CO-resilient methanol oxidation	https://www.nature.com/articles/s41929-022-00756-9	Poerwoprajitno, Agus R.; Gloag, Lucy; Watt, John; Cheong, Soshan; Tan, Xin; Lei, Han; Tahini, Hassan A.; Henson, Aaron; Subhash, Bijil; Bedford, Nicholas M.; Miller, Benjamin K.; O'Mara, Peter B.; Benedetti, Tania M.; Huber, Dale L.; Zhang, Wenhua; Smith, Sean C.; Gooding, J. Justin; Schuhmann, Wolfgang; Tilley, Richard D., A single-Pt-atom-on-Ru-nanoparticle electrocatalyst for CO-resilient methanol oxidation, 2022, Nature Catalysis, 10.1038/s41929-022-00756-9
In situ imaging of the sorption-induced subcell topological flexibility of a rigid zeolite framework	https://www.science.org/doi/10.1126/science.abn7667	Xiong, Hao; Liu, Zhiqiang; Chen, Xiao; Wang, Huiqiu; Qian, Weizhong; Zhang, Chenxi; Zheng, Anmin; Wei, Fei, In situ imaging of the sorption-induced subcell topological flexibility of a rigid zeolite framework, 2022, Science, 10.1126/science.abn7667
Progress in In Situ Research on Dynamic Surface Reconstruction of Electrocatalysts for Oxygen Evolution Reaction	https://onlinelibrary.wiley.com/doi/abs/10.1002/aesr.202200036	Shen, Wei; Yin, Jie; Jin, Jing; Hu, Yang; Hou, Yichao; Xiao, Jintao; Zhao, Yong-Qing; Xi, Pinxian, Progress in In Situ Research on Dynamic Surface Reconstruction of Electrocatalysts for Oxygen Evolution Reaction, 2022, Advanced Energy and Sustainability Research, 10.1002/aesr.202200036
Operando Resonant Soft X-ray Scattering Studies of Chemical Environment and Interparticle Dynamics of Cu Nanocatalysts for CO ₂ Electroreduction	https://pubs.acs.org/doi/10.1021/jacs.2c03662	Yang, Yao; Roh, Inwhan; Louisa, Sheena; Chen, Chubai; Jin, Jianbo; Yu, Sunmoon; Salmeron, Miquel B.; Wang, Cheng; Yang, Peidong, Operando Resonant Soft X-ray Scattering Studies of Chemical Environment and Interparticle Dynamics of Cu Nanocatalysts for CO ₂ Electroreduction, 2022, Journal of the American Chemical Society, 10.1021/jacs.2c03662
Decoupled alpha and beta relaxation kinetics in a thermally cycled bulk Pd ₄₀ Ni ₄₀ P ₂₀ glass	https://linkinghub.elsevier.com/retrieve/pii/S0925838822017777	Stringe, Mark; Spangenberg, Katharina; da Silva Pinto, Manoel Wilker; Peterlechner, Martin; Wilde, Gerhard, Decoupled alpha and beta relaxation kinetics in a thermally cycled bulk Pd ₄₀ Ni ₄₀ P ₂₀ glass, 2022, Journal of Alloys and Compounds, 10.1016/j.jallcom.2022.165386
In-situ characterization of porcine fibroblasts in response to silver ions by Raman spectroscopy and liquid scanning transmission electron microscopy	https://linkinghub.elsevier.com/retrieve/pii/S0039914022003186	Zhao, Yuanfeng; Zhang, Wei; Van Devener, Brian; Bunch, Thomas D.; Zhou, Anhong; Isom, S. Clay, In-situ characterization of porcine fibroblasts in response to silver ions by Raman spectroscopy and liquid scanning transmission electron microscopy, 2022, Talanta, 10.1016/j.talanta.2022.123522
Design and fabrication of an electrochemical chip for liquid-phase transmission electron microscopy	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfac023/6580073	Sasaki, Yuki; Mizushima, Ayako; Mita, Yoshio; Yoshida, Kaname; Kuwabara, Akihide; Ikuhara, Yuichi, Design and fabrication of an electrochemical chip for liquid-phase transmission electron microscopy, 2022, Microscopy, 10.1093/jmicro/dfac023

TITLE	WEB LINK	CITATIONS
Layer-by-layer growth of bilayer graphene single-crystals enabled by self-transmitting catalytic activity	https://arxiv.org/abs/2205.01468	Zhang, Zhihong; Zhou, Linwei; Chen, Zhaoxi; Jaroš, Antonín; Kolíbal, Miroslav; Zhang, Quanzhen; Yan, Changlin; Qiao, Ruixi; Zhang, Qing; Zhang, Teng; Wei, Wei; Cui, Yi; Qiao, Jingsi; Liu, Liwei; Yang, Haitao; Cheng, Zhihai; Wang, Yeliang; Wang, Enge; Liu, Zhi; Gao, Hong-Jun; Liu, Kaihui; Wang, Zhu-Jun; Ji, Wei , Layer-by-layer growth of bilayer graphene single-crystals enabled by self-transmitting catalytic activity, 2022, ArXiv, https://doi.org/10.48550/arXiv.2205.01468
Dispersibility, Stability, and Size Distribution of Au and Pt Nanoparticles on the Surface of Collapsed Multi-Walled Carbon Nanotubes	https://journals.jps.jp/doi/10.7566/JPSJ.91.064801	Sasaki, Daiya; Kohno, Hideo , Dispersibility, Stability, and Size Distribution of Au and Pt Nanoparticles on the Surface of Collapsed Multi-Walled Carbon Nanotubes, 2022, Journal of the Physical Society of Japan, 10.7566/JPSJ.91.064801
Feasibility of control of particle assembly by dielectrophoresis in liquid-cell transmission electron microscopy	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfac021/6572748?login=true	Yamazaki, Tomoya; Niinomi, Hiromasa; Kimura, Yuki , Feasibility of control of particle assembly by dielectrophoresis in liquid-cell transmission electron microscopy, 2022, Microscopy, https://doi.org/10.1093/jmicro/dfac021
Metal Monolayers on Command: Underpotential Deposition at Nanocrystal Surfaces: A Quantitative Operando Electrochemical Transmission Electron Microscopy Study	https://pubs.acs.org/doi/10.1021/acsenerylett.2c00209	Yang, Yao; Shao, Yu-Tsun; DiSalvo, Francis J.; Muller, David A.; Abruña, Héctor D. , Metal Monolayers on Command: Underpotential Deposition at Nanocrystal Surfaces: A Quantitative Operando Electrochemical Transmission Electron Microscopy Study, 2022, ACS Energy Letters, 10.1021/acsenerylett.2c00209
Polymer-Mediated Particle Coarsening within Hollow Silica Shell Nanoreactors	https://pubs.acs.org/doi/10.1021/acs.chemmater.2c00510	Jibril, Liban; Cheng, Matthew; Wahl, Carolin B.; Dravid, Vinayak P.; Mirkin, Chad A. , Polymer-Mediated Particle Coarsening within Hollow Silica Shell Nanoreactors, 2022, Chemistry of Materials, 10.1021/acs.chemmater.2c00510
Observing resistive switching behaviors in single Ta2O5 nanotube-based memristive devices	https://linkinghub.elsevier.com/retrieve/pii/S2588842022000402	Liu, C.-J.; Lo, H.-Y.; Hou, A.-Y.; Chen, J.-Y.; Wang, C.-H.; Huang, C.-W.; Wu, W.-W. , Observing resistive switching behaviors in single Ta2O5 nanotube-based memristive devices, 2022, Materials Today Nano, 10.1016/j.mtnano.2022.100212
The Role of Stacking Faults on the Atom Migration in Ag Nanowire Under Biasing	https://www.ssrn.com/abstract=4144041	Hsueh, Yu-Hsiang; Ranjan, Ashok; Lyu, Lian-Ming; Hsiao, Kai-Yuan; Chang, Yu-Cheng; Lu, Ming-Pei; Lu, Ming-Yen , The Role of Stacking Faults on the Atom Migration in Ag Nanowire Under Biasing, 2022, SSRN Electronic Journal, 10.2139/ssrn.4144041
Liquid-Cell Transmission Electron Microscopy Observation of Two-Step Collapse Dynamics of Silicon Nanopillars on Evaporation of Propan-2-ol: Implications for Semiconductor Integration Density	https://pubs.acs.org/doi/10.1021/acsnm.2c01744	Sasaki, Yuta; Yamazaki, Tomoya; Kimura, Yuki , Liquid-Cell Transmission Electron Microscopy Observation of Two-Step Collapse Dynamics of Silicon Nanopillars on Evaporation of Propan-2-ol: Implications for Semiconductor Integration Density, 2022, ACS Applied Nano Materials, 10.1021/acsnm.2c01744
Dynamically observing the formation of MOFs-driven Co/N-doped carbon nanocomposites by in-situ transmission electron microscope and their application as high-efficient microwave absorbent	https://link.springer.com/10.1007/s12274-022-4390-7	Zhou, You; Deng, Xia; Xing, Hongna; Zhao, Hongyang; Liu, Yibo; Guo, Lisong; Feng, Juan; Feng, Wei; Zong, Yan; Zhu, Xiuhong; Li, Xinghua; Peng, Yong; Zheng, Xinliang , Dynamically observing the formation of MOFs-driven Co/N-doped carbon nanocomposites by in-situ transmission electron microscope and their application as high-efficient microwave absorbent, 2022, Nano Research, 10.1007/s12274-022-4390-7
Aerosol Jet Printing as a Versatile Sample Preparation Method for Operando Electrochemical TEM Microdevices	https://onlinelibrary.wiley.com/doi/10.1002/admi.202200530	Morzy, Jędrzej K.; Sartor, Aileen; Dose, Wesley M.; Ou, Canlin; KarNarayan, Sohini; De Volder, Michael F. L.; Ducati, Caterina , Aerosol Jet Printing as a Versatile Sample Preparation Method for Operando Electrochemical TEM Microdevices, 2022, Advanced Materials Interfaces, 10.1002/admi.202200530
In Situ Electron Microscopy Study of the Dynamics of Liquid Flow in Confined Cells	https://pubs.acs.org/doi/10.1021/acsnm.2c05494	Zhang, Xiuli; Zhai, Wenbo; Fan, Li; Kim, Franklin; Yu, Yi , In Situ Electron Microscopy Study of the Dynamics of Liquid Flow in Confined Cells, 2022, ACS Applied Materials & Interfaces, 10.1021/acsnm.2c05494
Galvanic Restructuring of Exsolved Nanoparticles for Plasmonic and Electrocatalytic Energy Conversion	https://onlinelibrary.wiley.com/doi/10.1002/sml.202201106	Kang, Xiaolan; Reinertsen, Vilde Mari; Both, Kevin Gregor; Galeckas, Augustinas; Aarholt, Thomas; Prytz, Øystein; Norby, Truls; Neagu, Dragos; Chatzidakis, Athanasios , Galvanic Restructuring of Exsolved Nanoparticles for Plasmonic and Electrocatalytic Energy Conversion, 2022, Small, 10.1002/sml.202201106
Reliable electrochemical setup for in situ observations with an atmospheric SEM	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfac028/6605833	Yoshida, Kaname; Sasaki, Yuki; Kuwabara, Akihide; Ikuhara, Yuichi , Reliable electrochemical setup for in situ observations with an atmospheric SEM, 2022, Microscopy, 10.1093/jmicro/dfac028
Tailoring electron beams with high-frequency self-assembled magnetic charged particle micro optics	https://www.nature.com/articles/s41467-022-30703-y	Huber, R.; Kern, F.; Karnaushenko, D. D.; Eisner, E.; Lepucki, P.; Thampi, A.; Mirhajivarzaneh, A.; Becker, C.; Kang, T.; Baunack, S.; Büchner, B.; Karnaushenko, D.; Schmidt, O. G.; Lubk, A. , Tailoring electron beams with high-frequency self-assembled magnetic charged particle micro optics, 2022, Nature Communications, 10.1038/s41467-022-30703-y
Sub-Nanometer Electron Beam Phase Patterning in 2D Materials	https://onlinelibrary.wiley.com/doi/full/10.1002/advs.202200702	Zheng, Fangyuan; Guo, Deping; Huang, Lingli; Wong, Lok Wing; Chen, Xin; Wang, Cong; Cai, Yuan; Wang, Ning; Lee, Chun-Sing; Lau, Shu Ping; Ly, Thuc Hue; Ji, Wei; Zhao, Jiong , Sub-Nanometer Electron Beam Phase Patterning in 2D Materials, 2022, Advanced Science, 10.1002/advs.202200702
Sugar-derived Isotropic Nanoscale Polycrystalline Graphite Capable of Considerable Plastic Deformation	https://onlinelibrary.wiley.com/doi/10.1002/adma.202200363	Sun, Boqian; Chen, Daming; Cheng, Yuan; Fei, Weidong; Jiang, Danyu; Tang, Sufang; Zhao, Guangdong; Song, Juntao; Hou, Chenlin; Zhang, Wenzheng; Wu, Shiqi; Yang, Yu; Tan, Mingyi; Zhang, Jie; Wei, Daqing; Guo, Chaowei; Zhang, Wei; Dong, Shun; Du, Shanyi; Han, Jiecai; Luo, Jian; Zhang, Xinghong , Sugar-derived Isotropic Nanoscale Polycrystalline Graphite Capable of Considerable Plastic Deformation, 2022, Advanced Science, https://doi.org/10.1002/adma.202200363

TITLE	WEB LINK	CITATIONS
Atomic-Scale Investigation of the Lattice-Asymmetry-Driven Anisotropic Sublimation in GaN	https://onlinelibrary.wiley.com/doi/epdf/10.1002/advs.202106028	Sheng, Shanshan; Wang, Tao; Liu, Shangfeng; Liu, Fang; Sheng, Bowen; Yuan, Ye; Li, Duo; Chen, Zhaoying; Tao, Renchun; Chen, Ling; Zhang, Baoqing; Yang, Jiajia; Wang, Ping; Wang, Ding; Sun, Xiaoxiao; Zhang, Jingmin; Xu, Jun; Ge, Weikun; Shen, Bo; Wang, Xinqiang, Atomic-Scale Investigation of the Lattice-Asymmetry-Driven Anisotropic Sublimation in GaN, 2022, Advanced Science, 10.1002/advs.202106028
Improving photocatalytic hydrogen production via ultrafine-grained precipitates formed nearby surface defects of NiFe-LDH nanosheets	https://linkinghub.elsevier.com/retrieve/pii/S1385894722027905	Gao, Chunlang; Li, Yuanli; Zhang, Zhenghan; Li, Weiming; Zhong, Jiaying; Zhang, Hang; Zhang, Yihong; Deng, Lichun; Sun, Zaicheng; Chen, Ge; Zhang, Hui; Wang, Lihua; Zhuang, Chunqiang; Han, Xiaodong, Improving photocatalytic hydrogen production via ultrafine-grained precipitates formed nearby surface defects of NiFe-LDH nanosheets, 2022, Chemical Engineering Journal, 10.1016/j.cej.2022.137301
Radiolysis-Driven Evolution of Gold Nanostructures – Model Verification by Scale Bridging In Situ Liquid-Phase Transmission Electron Microscopy and X-Ray Diffraction	https://onlinelibrary.wiley.com/doi/epdf/10.1002/advs.202202803	Fritsch, Birk; zech, T. S.; Bruns, Mark, P.; Körner, Andreas; Khadivianazar, Saba; Wu, Mingjian; Talebi, Neda Zargar; Virtanen, Sannakaisa; Unruh, Tobias; Jank, Michael P. M.; Spiecker, Erdmann; Hutzler, Andreas, Radiolysis-Driven Evolution of Gold Nanostructures – Model Verification by Scale Bridging In Situ Liquid-Phase Transmission Electron Microscopy and X-Ray Diffraction, 2022, Advanced Science, 10.1002/advs.202202803
In Situ Visualization on Surface Oxidative Corrosion with Free Radicals: Black Phosphorus Nanoflake as an Example	https://pubs.acs.org/doi/10.1021/acs.est.1c06567	Li, Meirong; Mao, Chengliang; Ling, Lan, In Situ Visualization on Surface Oxidative Corrosion with Free Radicals: Black Phosphorus Nanoflake as an Example, 2022, Environmental Science & Technology, 10.1021/acs.est.1c06567
Challenges and Opportunities in Understanding Proton Exchange Membrane Fuel Cell Materials Degradation Using In Situ Electrochemical Liquid Cell Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202105188	Soleymani, Amir Peyman; Parent, Lucas R.; Jankovic, Jasna, Challenges and Opportunities in Understanding Proton Exchange Membrane Fuel Cell Materials Degradation Using In Situ Electrochemical Liquid Cell Transmission Electron Microscopy, 2022, Advanced Functional Materials, 10.1002/adfm.202105188
Cu segregation in Au-Cu nanoparticles exposed to hydrogen atmospheric pressure: how is fcc symmetry maintained?	https://pubs.rsc.org/en/content/articlelanding/2022/fd/d2fd00130f	Wang, Qing; Nassereddine, Abdallah; Loffreda, David; Ricolleau, Christian; Alloyeau, Damien; Louis, Catherine; Delannoy, Laurent; Nelayah, Jaysen; Guesmi, Hazar, Cu segregation in Au-Cu nanoparticles exposed to hydrogen atmospheric pressure: how is fcc symmetry maintained?, 2022, Faraday Discussions, 10.1039/D2FD00130F
Real-time, On-Microscope Automated Quantification of Features in Microcopy Experiments Using Machine Learning and Edge Computing	https://www.cambridge.org/core/product/identifier/S1431927622007929/type/journal_article	Field, Kevin G.; Patki, Priyam; Sharaf, Nasir; Sun, Kai; Hawkins, Laura; Lynch, Matthew; Jacobs, Ryan; Morgan, Dane D.; He, Lingfeng; Field, Christopher R., Real-time, On-Microscope Automated Quantification of Features in Microcopy Experiments Using Machine Learning and Edge Computing, 2022, Microscopy and Microanalysis, 10.1017/S1431927622007929
Atomic imaging of zeolite-confined single molecules by electron microscopy	https://www.nature.com/articles/s41586-022-04876-x	Shen, Boyuan; Wang, Huiqiu; Xiong, Hao; Chen, Xiao; Bosch, Eric G. T.; Lazić, Ivan; Qian, Weizhong; Wei, Fei, Atomic imaging of zeolite-confined single molecules by electron microscopy, 2022, Nature, 10.1038/s41586-022-04876-x
Frequency-controlled electrophoretic mobility of a particle within a porous, hollow shell	https://linkinghub.elsevier.com/retrieve/pii/S0021979722012723	Welling, Tom A.J.; Grau-Carbonell, Albert; Watanabe, Kanako; Nagao, Daisuke; de Graaf, Joost; van Huis, Marijn A.; van Blaaderen, Alfons, Frequency-controlled electrophoretic mobility of a particle within a porous, hollow shell, 2022, Journal of Colloid and Interface Science, 10.1016/j.jcis.2022.07.091
Real-Time Monitoring of the Dehydrogenation Behavior of a Mg ₂ FeH ₆ -MgH ₂ Composite by In Situ Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/epdf/10.1002/adfm.202204147	Kim, Juyoung; Fadonougbo, Julien O.; Bae, Jee-Hwan; Cho, Min Kyung; Hong, Jaeyoung; Cho, Young Whan; Roh, Jong Wook; Kim, Gyeng Ho; Han, Jun Hyun; Lee, Young-Su; Cho, Jung Young; Lee, Kyu Hyoung; Suh, Jin-Yoo; Chun, Dong, Won, Real-Time Monitoring of the Dehydrogenation Behavior of a Mg ₂ FeH ₆ -MgH ₂ Composite by In Situ Transmission Electron Microscopy, 2022, Advanced Functional Materials, 10.1002/adfm.202204147
Liquid-EM goes viral – visualizing structure and dynamics	https://linkinghub.elsevier.com/retrieve/pii/S0959440X22001051	Kelly, Deborah F.; DiCecco, Liza-Anastasia; Jonaid, G.M.; Dearnaley, William J.; Spilman, Michael S.; Gray, Jennifer L.; Dressel-Dukes, Madeline J., Liquid-EM goes viral – visualizing structure and dynamics, 2022, Current Opinion in Structural Biology, 10.1016/j.sbi.2022.102426
Multimetastability effect on the intermediate stage of phase separation in BaO- SiO ₂ glass	https://link.aps.org/doi/10.1103/PhysRevResearch.4.033052	Nakazawa, Katsuaki; Tsukada, Yuhki; Amma, Shin-ichi; Mitsuishi, Kazutaka; Shibata, Kiyou; Mizoguchi, Teruyasu, Multimetastability effect on the intermediate stage of phase separation in BaO- SiO ₂ glass, 2022, Physical Review Research, 10.1103/PhysRevResearch.4.033052
Electron Irradiation Enhanced Precipitation in a Mg-6 Wt.% Sn Alloy in Tem	https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4164506	Wang, Feng; Kitaguchi, Hiroto; Chiu, Yu-lung, Electron Irradiation Enhanced Precipitation in a Mg-6 Wt.% Sn Alloy in Tem, 2022, SSRN Electronic Journal, 10.1016/j.matchar.2022.112345
Phase change in GeTe/Sb ₂ Te ₃ superlattices: formation of the vacancy-ordered metastable cubic structure via Ge migration	https://linkinghub.elsevier.com/retrieve/pii/S0169433222018098	Woo Lee, Chang; Oh, Jin-Su; Park, Sun-Ho; Wook Lim, Hyeon; Sol Kim, Da; Cho, Kyu-Jin; Yang, Cheol-Woong; Kwon, Young-Kyun; Cho, Mann-Ho, Phase change in GeTe/Sb ₂ Te ₃ superlattices: formation of the vacancy-ordered metastable cubic structure via Ge migration, 2022, Applied Surface Science, 10.1016/j.apsusc.2022.154274
Atomically dispersed iron sites with a nitrogen-carbon coating as highly active and durable oxygen reduction catalysts for fuel cells	https://www.nature.com/articles/s41560-022-01062-1	Liu, Shengwen; Li, Chenzhao; Zachman, Michael J.; Zeng, Yachao; Yu, Haoran; Li, Boyang; Wang, Maoyu; Braaten, Jonathan; Liu, Jiawei; Meyer, Harry M.; Lucero, Marcos; Kropf, A. Jeremy; Alp, E. Ercan; Gong, Qing; Shi, Qirong; Feng, Zhenxing; Xu, Hui; Wang, Guofeng; Myers, Deborah J.; Xie, Jian; Cullen, David A.; Litster, Shawn; Wu, Gang, Atomically dispersed iron sites with a nitrogen-carbon coating as highly active and durable oxygen reduction catalysts for fuel cells, 2022, Nature Energy, 10.1038/s41560-022-01062-1
Live Visualization of the Nucleation and Growth of Needle-Like Hydroxyapatite Crystals in Solution by In Situ TEM	https://pubs.acs.org/doi/10.1021/acs.cgd.2c00296	Dalmônico, Gisele M. L.; Ihiawakrim, Dris; Ortiz, Nathaly; Barreto Junior, Amaro Gomes; Curitiba Marcellos, Caio Felipe; Farina, Marcos; Ersen, Ovidiu; Rossi, Andre L., Live Visualization of the Nucleation and Growth of Needle-Like Hydroxyapatite Crystals in Solution by In Situ TEM, 2022, Crystal Growth & Design, 10.1021/acs.cgd.2c00296

TITLE	WEB LINK	CITATIONS
Nanoscale mapping of point defects with 4D-STEM	https://www.researchsquare.com/article/rs-1743810/v1	Minor, Andrew; Mills, Sean; Zeltmann, Steven; Ercius, Peter; Kohnert, Aaron; Uberuaga, Blas, Nanoscale mapping of point defects with 4D-STEM, 2022, Research Square, 10.21203/rs.3.rs-1743810/v1
High-Resolution Imaging of Human Cancer Proteins Using Microprocessor Materials	https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/cbic.202200310	Solares, Maria J.; Jonaid, G.M.; Luqui, William Y.; Berry, Samantha; Khadela, Janki; Liang, Yanping; Evans, Madison C.; Pridham, Kevin J.; Dearnaley, William J.; Sheng, Zhi; Kelly, Deborah F., High-Resolution Imaging of Human Cancer Proteins Using Microprocessor Materials, 2022, ChemBioChem, 10.1002/cbic.202200310
Dividing distribution of Ni nanoparticles on the surfaces of collapsed multi-walled carbon nanotubes at the edges	https://iopscience.iop.org/article/10.35848/1882-0786/ac7c55	Inoue, Yuki; Kohno, Hideo, Dividing distribution of Ni nanoparticles on the surfaces of collapsed multi-walled carbon nanotubes at the edges, 2022, Applied Physics Express, 10.35848/1882-0786/ac7c55
Mechanism and Control of Saponite Synthesis from a Self-Assembling Nanocrystalline Precursor	https://pubs.acs.org/doi/10.1021/acs.langmuir.2c00425	Blukis, Roberts; Schindler, Maria; Couasnon, Thaïs; Benning, Liane G., Mechanism and Control of Saponite Synthesis from a Self-Assembling Nanocrystalline Precursor, 2022, Langmuir, 10.1021/acs.langmuir.2c00425
AXON Dose: A Solution for Measuring and Managing Electron Dose in the TEM	https://www.cambridge.org/core/product/identifier/S1551929522000840/type/journal_article	Damiano, John; Walden, Stamp; Franks, Alan; Marusak, Kate; Larson, Ben; Coy, Mike; Nackashi, David, AXON Dose: A Solution for Measuring and Managing Electron Dose in the TEM, 2022, Microscopy Today, 10.1017/S1551929522000840
Multistep Crystallization of Dynamic Nanoparticle Superlattices in Nonaqueous Solutions	https://pubs.acs.org/doi/10.1021/jacs.2c06535	Zhong, Yaxu; Allen, Vincent R.; Chen, Jun; Wang, Yi; Ye, Xingchen, Multistep Crystallization of Dynamic Nanoparticle Superlattices in Nonaqueous Solutions, 2022, Journal of the American Chemical Society, 10.1021/jacs.2c06535
In situ liquid transmission electron microscopy reveals self-assembly-driven nucleation in radiolytic synthesis of iron oxide nanoparticles in organic media	http://xlink.rsc.org/?DOI=D2NR01511K	Ortiz Peña, Nathaly; Ihiawakrim, Dris; Crețu, Sorina; Cotin, Geoffrey; Kiefer, Céline; Begin-Colin, Sylvie; Sanchez, Clément; Portehault, David; Ersen, Ovidiu, In situ liquid transmission electron microscopy reveals self-assembly-driven nucleation in radiolytic synthesis of iron oxide nanoparticles in organic media, 2022, Nanoscale, 10.1039/D2NR01511K
Monitoring of CaCO ₃ Nanoscale Structuration through Real-Time Liquid Phase Transmission Electron Microscopy and Hyperpolarized NMR	https://pubs.acs.org/doi/10.1021/jacs.2c05731	Ramnarain, Vinavadini; Georges, Tristan; Ortiz Peña, Nathaly; Ihiawakrim, Dris; Longuinho, Mariana; Bulou, Hervé; Gervais, Christel; Sanchez, Clément; Azais, Thierry; Ersen, Ovidiu, Monitoring of CaCO ₃ Nanoscale Structuration through Real-Time Liquid Phase Transmission Electron Microscopy and Hyperpolarized NMR, 2022, Journal of the American Chemical Society, 10.1021/jacs.2c05731
Elucidating Cathodic Corrosion Mechanisms with Operando Electrochemical Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/jacs.2c05989	Yang, Yao; Shao, Yu-Tsun; Lu, Xinyao; Yang, Yan; Ko, Hsin-Yu; Jr, Robert A DiStasio; DiSalvo, Francis J; Muller, David A; Abruña, Héctor D, Elucidating Cathodic Corrosion Mechanisms with Operando Electrochemical Transmission Electron Microscopy, 2022, Journal of the American Chemical Society, 10.1021/jacs.2c05989
Extraction-Dominated Temperature Degradation of Population Inversion in Terahertz Quantum Cascade Lasers	https://onlinelibrary.wiley.com/doi/epdf/10.1002/sml.202106943	Wu, Yuyang; Zhang, Jinchuan; Zhao, Yunhao; Liang, Chongyun; Liu, Fenqi; Shi, Yi; Che, Renchao, Extraction-Dominated Temperature Degradation of Population Inversion in Terahertz Quantum Cascade Lasers, 2022, Small, https://doi.org/10.1002/sml.202106943
The effects of nano-silica on early-age hydration reactions of nano Portland cement	https://linkinghub.elsevier.com/retrieve/pii/S0958946522002918	Dong, Peng; Allahverdi, Ali; Andrei, Carmen M.; Bassim, Nabil D., The effects of nano-silica on early-age hydration reactions of nano Portland cement, 2022, Cement and Concrete Composites, 10.1016/j.cemconcomp.2022.104698
Atomically Sharp, Closed Bilayer Phosphorene Edges by Self-Passivation	https://pubs.acs.org/doi/10.1021/acsnano.2c05014	Lee, Sol; Lee, Yangjin; Ding, Li Ping; Lee, Kihyun; Ding, Feng; Kim, Kwanyo, Atomically Sharp, Closed Bilayer Phosphorene Edges by Self-Passivation, 2022, ACS Nano, 10.1021/acsnano.2c05014
Moisture-Induced Non-Equilibrium Phase Segregation in Triple Cation Mixed Halide Perovskite Monitored by In Situ Characterization Techniques and Solid-State NMR	https://onlinelibrary.wiley.com/doi/epdf/10.1002/eem2.12335	Kazemi, Mohammad Ali Akhavan; Folastre, Nicolas; Raval, Parth; Sliwa, Michel; Nsanzimana, Jean Marie Vianney; Golonu, Sema; Demortiere, Arnaud; Rousset, Jean; Lafon, Olivier; Delevoye, Laurent; Manjunatha Reddy, G.N.; Sauvage, Frédéric, Moisture-Induced Non-Equilibrium Phase Segregation in Triple Cation Mixed Halide Perovskite Monitored by In Situ Characterization Techniques and Solid-State NMR, 2022, Energy & Environmental Materials, https://www.doi.org/10.1002/eem2.12335
Thermal Stability of Quasi-1D NbS ₃ Nanoribbons and Their Transformation to 2D NbS ₂ : Insights from In Situ Electron Microscopy and Spectroscopy	https://pubs.acs.org/doi/10.1021/acs.chemmater.1c03411	Formo, Eric V.; Hachtel, Jordan A.; Ghafouri, Yassamin; Bloodgood, Matthew A.; Salguero, Tina T., Thermal Stability of Quasi-1D NbS ₃ Nanoribbons and Their Transformation to 2D NbS ₂ : Insights from In Situ Electron Microscopy and Spectroscopy, 2022, Chemistry of Materials, 10.1021/acs.chemmater.1c03411
Quantitative Characterization of the Thermally Driven Alloying State in Ternary Ir-Pd-Ru Nanoparticles	https://pubs.acs.org/doi/10.1021/acsnano.1c10414	Tran, Xuan Quy; Aso, Kohei; Yamamoto, Tomokazu; Yang, Wenhui; Kono, Yoshiki; Kusada, Kohei; Wu, Dongshuang; Kitagawa, Hiroshi; Matsumura, Syo, Quantitative Characterization of the Thermally Driven Alloying State in Ternary Ir-Pd-Ru Nanoparticles, 2022, ACS Nano, 10.1021/acsnano.1c10414
Direct Observation of Emulsion Morphology, Dynamics, and Demulsification	https://pubs.acs.org/doi/10.1021/acsnano.2c00199	Vratsanos, Maria A.; Gianneschi, Nathan C., Direct Observation of Emulsion Morphology, Dynamics, and Demulsification, 2022, ACS Nano, 10.1021/acsnano.2c00199
Formation and Control of Zero-Field Antiskyrmions in Confining Geometries	https://onlinelibrary.wiley.com/doi/pdf/10.1002/adv.202202950	Peng, Licong; Lakoubovskii, Konstantine, V.; Karube, Kosuke; Taguchi, Yasujiro; Tokura, Yoshinori; Yu, Xiuzhen, Formation and Control of Zero-Field Antiskyrmions in Confining Geometries, 2022, Advanced Science, https://www.doi.org/10.1002/adv.202202950

TITLE	WEB LINK	CITATIONS
In-situ electron loss spectroscopy reveals surface dehydrogenation of hydrated ceria nanoparticles at elevated temperatures	https://linkinghub.elsevier.com/retrieve/pii/S002236972200378X	Thøgersen, Annett; Sun, Xinwei; Jensen, Ingvild Thue; Prytz, Øystein; Norby, Truls , In-situ electron loss spectroscopy reveals surface dehydrogenation of hydrated ceria nanoparticles at elevated temperatures, 2022, Journal of Physics and Chemistry of Solids, 10.1016/j.jpics.2022.110955
Observation of H ₂ Evolution and Electrolyte Diffusion on MoS ₂ Monolayer by in situ Liquidphase Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/10.1002/adma.202206066	Kim, Jihoon; Park, Anseong; Kim, Joodeok; Kwak, Seung Jae; Lee, Jae Yoon; Lee, Donghoon; Kim, Sebin; Choi, Back Kyu; Kim, Sungin; Kwag, Jimin; Kim, Younhwa; Jeon, Sungho; Lee, Won Chul; Hyeon, Taeghwan; Lee, ChulHo; Lee, Won Bo; Park, Jungwon , Observation of H ₂ Evolution and Electrolyte Diffusion on MoS ₂ Monolayer by in situ Liquidphase Transmission Electron Microscopy, 2022, Advanced Materials, 10.1002/adma.202206066
Thermodynamically Driven Synthetic Optimization for Cation-Disordered Rock Salt Cathodes	https://onlinelibrary-wiley-com.proxy.library.uu.nl/doi/pdf/10.1002/aenm.202103923	Cai, Zijian; Zhang, Ya-Qian; Lun, Zhengyan; Ouyang, Bin; Gallington, Leighanne, C.; Sun, Yingzhi; Hau, Han-Ming; Chen, Yu; Scott, Mary C.; Ceder, Gerbrand , Thermodynamically Driven Synthetic Optimization for Cation-Disordered Rock Salt Cathodes, 2022, Advanced Energy Materials, 10.1002/aenm.202103923
Microstructure and Electrical Conductivity of Electrospun Titanium Oxynitride Carbon Composite Nanofibers	https://www.mdpi.com/2079-4991/12/13/2177	Koderman Podboršek, Gorazd; Zupančič, Špela; Kaufman, Rok; Surca, Angelja Kjara; Marsel, Aleš; Pavličič, Andraž; Hodnik, Nejc; Dražič, Goran; Bele, Marjan , Microstructure and Electrical Conductivity of Electrospun Titanium Oxynitride Carbon Composite Nanofibers, 2022, Nanomaterials, 10.3390/nano12132177
High-Entropy-Alloy Nanocrystal Based Macro- and Mesoporous Materials	https://pubs.acs.org/doi/10.1021/acsnano.2c05465	De Marco, Maria Letizia; Baaziz, Walid; Sharna, Sharmin; Devred, François; Poleunis, Claude; Chevillot-Biraud, Alexandre; Nowak, Sophie; Haddad, Ryma; Odziomek, Mateusz; Boissière, Cédric; Debecker, Damien P.; Ersen, Ovidiu; Peron, Jennifer; Faustini, Marco , High-Entropy-Alloy Nanocrystal Based Macro- and Mesoporous Materials, 2022, ACS Nano, 10.1021/acsnano.2c05465
In situ observation of droplet nanofluidics for yielding low-dimensional nanomaterials	https://linkinghub.elsevier.com/retrieve/pii/S016943221025605	Fan, Zheng; Maurice, Jean-Luc; Florea, Ileana; Chen, Wanghua; Yu, Linwei; Guilet, Stéphane; Cambri, Edmond; Lafosse, Xavier; Couraud, Laurent; Bouchoule, Sophie; Roca i Cabarrocas, Pere , In situ observation of droplet nanofluidics for yielding low-dimensional nanomaterials, 2022, Applied Surface Science, 10.1016/j.apsusc.2021.151510
Visualizing Dynamic Environmental Processes in Liquid at Nanoscale via Liquid-Phase Electron Microscopy	https://pubs.acs.org/doi/10.1021/acsnano.2c04246	Li, Meirong; Ling, Lan , Visualizing Dynamic Environmental Processes in Liquid at Nanoscale via Liquid-Phase Electron Microscopy, 2022, ACS Nano, 10.1021/acsnano.2c04246
Direct observation of initial stages of precipitation hardening process in commercial Al 6061 alloy	https://link.springer.com/10.1007/s10853-022-07341-2	Hillel, Guy; Kalabukhov, Sergey; Frage, Nachum; Zaretsky, Eugene; Meshi, Louisa , Direct observation of initial stages of precipitation hardening process in commercial Al 6061 alloy, 2022, Journal of Materials Science, 10.1007/s10853-022-07341-2
Influence of the Electron Beam and the Choice of Heating Membrane on the Evolution of Si Nanowires' Morphology in In Situ TEM	https://www.mdpi.com/1996-1944/15/15/5244	Shen, Ya; Zhao, Xuechun; Gong, Ruiling; Ngo, Eric; Maurice, Jean-Luc; Roca i Cabarrocas, Pere; Chen, Wanghua , Influence of the Electron Beam and the Choice of Heating Membrane on the Evolution of Si Nanowires' Morphology in In Situ TEM, 2022, Materials, 10.3390/ma15155244
Metastable hexagonal close-packed palladium hydride in liquid cell TEM	https://www.nature.com/articles/s41586-021-04391-5	Hong, Jaeyoung; Bae, Jee-Hwan; Jo, Hyesung; Park, Hee-Young; Lee, Sehyun; Hong, Sung Jun; Chun, Hoje; Cho, Min Kyung; Kim, Juyoung; Kim, Joodeok; Son, Yongju; Jin, Haneul; Suh, Jin-Yoo; Kim, Sung-Chul; Roh, Ha-Kyung; Lee, Kyu Hyoung; Kim, Hyung-Seok; Chung, Kyung Yoon; Yoon, Chang Won; Lee, Kiryeong; Kim, Seo Hee; Ahn, Jae-Pyoung; Baik, Hionsuck; Kim, Gyeung Ho; Han, Byungchan; Jin, Sungho; Hyeon, Taeghwan; Park, Jungwon; Son, Chang Yun; Yang, Yongsoo; Lee, Young-Su; Yoo, Sung Jong; Chun, Dong Won , Metastable hexagonal close-packed palladium hydride in liquid cell TEM, 2022, Nature, 10.1038/s41586-021-04391-5
Atomic-level structural responsiveness to environmental conditions from 3D electron diffraction	https://www.nature.com/articles/s41467-022-34237-1	Ling, Yang; Sun, Tu; Guo, Linshuo; Si, Xiaomeng; Jiang, Yilan; Zhang, Qing; Chen, Zhaoxi; Terasaki, Osamu; Ma, Yanhang , Atomic-level structural responsiveness to environmental conditions from 3D electron diffraction, 2022, Nature Communications, 10.1038/s41467-022-34237-1
Discovering the nanoscale origins of localized corrosion in additive manufactured stainless steel 316L by liquid cell transmission electron microscopy	https://www.sciencedirect.com/science/article/pii/S0010938X22005777	Tian, Mengkun; Choundraj, Jahnavi Desai; Voisin, Thomas; Wang, Y. Morris; Kacher, Josh , Discovering the nanoscale origins of localized corrosion in additive manufactured stainless steel 316L by liquid cell transmission electron microscopy, 2022, Corrosion Science, 10.1016/j.corsci.2022.110659
The structural evolution characteristics for high volatile bituminous coal by in-situ heating in electronical microscope	https://linkinghub.elsevier.com/retrieve/pii/S0165237022003217	Shao, Yan; Li, Meifen; Liu, Peizhi; Cui, Xi; Li, Yexi; Meng, Yanjun , The structural evolution characteristics for high volatile bituminous coal by in-situ heating in electronical microscope, 2022, Journal of Analytical and Applied Pyrolysis, 10.1016/j.jaap.2022.105751
Following carbon condensation by in situ TEM: towards a rational understanding of the processes in the synthesis of nitrogen-doped carbonaceous materials	http://xlink.rsc.org/?DOI=D2TA05247D	Piankova, Diana; Kossmann, Janina; Zschiesche, Hannes; Antonietti, Markus; López-Salas, Nieves; Tarakina, Nadezda V. , Following carbon condensation by in situ TEM: towards a rational understanding of the processes in the synthesis of nitrogen-doped carbonaceous materials, 2022, Journal of Materials Chemistry A, 10.1039/D2TA05247D
Formation of lamellar microstructure in Ti-48Al-7Nb-2.5V-1Cr alloy	https://linkinghub.elsevier.com/retrieve/pii/S0264127522009649	Yu, Yonghao; Kou, Hongchao; Yi Wang, William; Wang, Yichao; Qiang, Fengming; Zou, Chengxiang; Li, Jinshan , Formation of lamellar microstructure in Ti-48Al-7Nb-2.5V-1Cr alloy, 2022, Materials & Design, 10.1016/j.matdes.2022.111342
Use of a Bipolar, Metallic Luggin-Haber Probe for Electrochemical Measurements of Interfacial Potential	https://iopscience.iop.org/article/10.1149/1945-7111/aca367	Choudhary, Sanjay; Marusak, Katherine Elizabeth; Eldred, Timothy; Kelly, Robert , Use of a Bipolar, Metallic Luggin-Haber Probe for Electrochemical Measurements of Interfacial Potential, 2022, Journal of The Electrochemical Society, 10.1149/1945-7111/aca367

TITLE	WEB LINK	CITATIONS
Phase-controllable large-area two-dimensional In ₂ Se ₃ and ferroelectric heterophase junction	https://www.nature.com/articles/s41565-022-01257-3	Han, Wei; Zheng, Xiaodong; Yang, Ke; Tsang, Chi Shing; Zheng, Fangyuan; Wong, Lok Wing; Lai, Ka Hei; Yang, Tiefeng; Wei, Qi; Li, Mingjie; Io, Weng Fu; Guo, Feng; Cai, Yuan; Wang, Ning; Hao, Jianhua; Lau, Shu Ping; Lee, Chun-Sing; Ly, Thuc Hue; Yang, Ming; Zhao, Jiong , Phase-controllable large-area two-dimensional In ₂ Se ₃ and ferroelectric heterophase junction, 2022, Nature Nanotechnology, 10.1038/s41565-022-01257-3
Visualizing the Formation of High-Entropy Fluorite Oxides from an Amorphous Precursor at Atomic Resolution	https://pubs.acs.org/doi/10.1021/acsnano.2c09760	Su, Lei; Chen, Xi; Xu, Liang; Eldred, Tim; Smith, Jacob; DellaRova, Cierra; Wang, Hongjie; Gao, Wenpei , Visualizing the Formation of High-Entropy Fluorite Oxides from an Amorphous Precursor at Atomic Resolution, 2022, ACS Nano, 10.1021/acsnano.2c09760
Evidence for the Leidenfrost Effect at the Nanoscale	https://journals.jps.jp/doi/full/10.7566/JPSJ.91.123601	Ohba, Shota; Kohno, Hideo , Evidence for the Leidenfrost Effect at the Nanoscale, 2022, J. Phys. Soc. Jpn, https://doi.org/10.7566/JPSJ.91.123601
Geometric defects induced by strain relaxation in thin film oxide superlattices	https://aip.scitation.org/doi/full/10.1063/5.0120176	Webb, Matthew; Ma, Tao; Hunter, Allen H , Geometric defects induced by strain relaxation in thin film oxide superlattices, 2022, Applied Physics, https://doi.org/10.1063/5.0120176
Strong Metal–Support Interaction Mechanisms of Rh Supports in the CO–NO Reaction: Rh/Rh ₂ O ₃ Interconversion in Promoting NO Dissociation and CO ₂ Generation	https://pubs.acs.org/doi/10.1021/acs.jpcc.2c03808	Nakayama, Hiroki; Nagata, Makoto; Tomie, Toshihisa; Ishitsuka, Tomoaki; Matsubayashi, Nobuyuki; Shimizu, Yukihiko , Strong Metal–Support Interaction Mechanisms of Rh Supports in the CO–NO Reaction: Rh/Rh ₂ O ₃ Interconversion in Promoting NO Dissociation and CO ₂ Generation, 2022, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.2c03808
Sintering behavior of carbon-supported Pt nanoparticles and the effect of surface overcoating	https://linkinghub.elsevier.com/retrieve/pii/S2588842022001018	Liu, Q.; Rzepka, P.; Frey, H.; Tripp, J.; Beck, A.; Artiglia, L.; Ranocchiari, M.; van Bokhoven, J.A. , Sintering behavior of carbon-supported Pt nanoparticles and the effect of surface overcoating, 2022, Materials Today Nano, 10.1016/j.mtnano.2022.100273
Real-space determination of the isolated magnetic skyrmion deformation under electric current flow	https://www.pnas.org/doi/10.1073/pnas.2200958119	Yasin, Fehmi Sami; Masell, Jan; Karube, Kosuke; Kikkawa, Akiko; Taguchi, Yasujiro; Tokura, Yoshinori; Yu, Xiuzhen , Real-space determination of the isolated magnetic skyrmion deformation under electric current flow, 2022, PNAS, 10.1073/pnas.2200958119
Assessment of Active Dopants and p–n Junction Abruptness Using In Situ Biased 4D-STEM	https://pubs.acs.org/doi/10.1021/acs.nanolett.2c03684	da Silva, Bruno César; Sadre Momtaz, Zahra; Monroy, Eva; Okuno, Hanako; Rouviere, Jean-Luc; Cooper, David; Den Hertog, Martien Ilse , Assessment of Active Dopants and p–n Junction Abruptness Using In Situ Biased 4D-STEM, 2022, Nano Letters, 10.1021/acs.nanolett.2c03684
The influence of illumination conditions in the measurement of built-in electric field at p–n junctions by 4D-STEM	https://aip.scitation.org/doi/10.1063/5.0104861	da Silva, Bruno César; Momtaz, Zahra, S.; Bruas, Lucas; Rouviere, Jean-Luc; Okuno, Hanako; Cooper, D.; Den Hertog, Martien Ilse , The influence of illumination conditions in the measurement of built-in electric field at p–n junctions by 4D-STEM, 2022, Applied Physics Letters, https://doi.org/10.1063/5.0104861
In Situ Three-Dimensional Electron Diffraction for Probing Structural Transformations of Single Nanocrystals	https://pubs.acs.org/doi/10.1021/acs.chemmater.2c01744	Wu, Shitao; Li, Junyan; Ling, Yang; Sun, Tu; Fan, Yaqi; Yu, Jihong; Terasaki, Osamu; Ma, Yanhang , In Situ Three-Dimensional Electron Diffraction for Probing Structural Transformations of Single Nanocrystals, 2022, Chem. Mater., https://doi.org/10.1021/acs.chemmater.2c01744
In Situ Characterization of Carbonate/Oil/Water Interfacial Layers Using Advanced EM Techniques for Enhanced Oil Recovery	https://pubs.acs.org/doi/10.1021/acs.energyfuels.2c01932	Cha, Dongkyu; Ayirala, Subhash C.; AlOtaibi, Mohammed B.; AlYousef, Ali A. , In Situ Characterization of Carbonate/Oil/Water Interfacial Layers Using Advanced EM Techniques for Enhanced Oil Recovery, 2022, Energy & Fuels, 10.1021/acs.energyfuels.2c01932
Double-Bilayer Polar Nanoregions and Mn antisites in (Ca,Sr) ₃ Mn ₂ O ₇	https://www.nature.com/articles/s41467-022-32090-w	Miao, Leixin; Hasin, Kishwar-E; Moradifar, Parivash; Mukherjee, Debangshu; Wang, Ke; Cheong, Sang-Wook; Nowadnick, Elizabeth; Alem, Nasim , Double-Bilayer Polar Nanoregions and Mn antisites in (Ca,Sr) ₃ Mn ₂ O ₇ , 2022, Nature Communications, https://doi.org/10.1038/s41467-022-32090-w
Atomization driven crystalline nanocarbon based single-atom catalysts for superior oxygen electroreduction	https://linkinghub.elsevier.com/retrieve/pii/S0926337322011134	Jung, Jae Young; Jin, Haneul; Kim, Min Woo; Kim, Sungjun; Kim, Jeong-Gil; Kim, Pil; Sung, Yung-Eun; Yoo, Sung Jong; Kim, Nam Dong , Atomization driven crystalline nanocarbon based single-atom catalysts for superior oxygen electroreduction, 2023, Applied Catalysis B: Environmental, 10.1016/j.apcatb.2022.122172
Quantification of reagent mixing in liquid flow cells for Liquid Phase-TEM	https://www.sciencedirect.com/science/article/pii/S0304399122001735	Merkens, Stefan; De Salvo, Giuseppe; Kruse, Joscha; Modin, Evgenii; Tollan, Christopher; Grzelczak, Marek; Chuvilin, Andrey , Quantification of reagent mixing in liquid flow cells for Liquid Phase-TEM, 2023, Ultramicroscopy, 10.1016/j.ultramic.2022.113654
Atomic-Level Response of the Domain Walls in Bismuth Ferrite in a Subcoercive-Field Regime	https://pubs.acs.org/doi/10.1021/acs.nanolett.2c02857	Condurache, Oana; Dražić, Goran; Rojac, Tadej; Uršič, Hana; Dkhil, Brahim; Bradeško, Andraž; Damjanovic, Dragan; Benčan, Andreja , Atomic-Level Response of the Domain Walls in Bismuth Ferrite in a Subcoercive-Field Regime, 2023, Nano Letters, 10.1021/acs.nanolett.2c02857
Carbon segregation and cementite precipitation at grain boundaries in quenched and tempered lath martensite	https://linkinghub.elsevier.com/retrieve/pii/S092150932201749X	Morsdorf, L.; Kashiwar, A.; Kübel, C.; Tasan, C.C. , Carbon segregation and cementite precipitation at grain boundaries in quenched and tempered lath martensite, 2023, Materials Science and Engineering: A, 10.1016/j.msea.2022.144369
The role of temperature on defect diffusion and nanoscale patterning in graphene	https://www.sciencedirect.com/science/article/pii/S0008622322007308	Dyck, Ondrej; Yeom, Sinchul; Dillender, Sarah; Lupini, Andrew, R.; Yoon, Mina; Jesse, Stephen , The role of temperature on defect diffusion and nanoscale patterning in graphene, 2023, Carbon, https://doi.org/10.1016/j.carbon.2022.09.006

TITLE	WEB LINK	CITATIONS
The role of an elastic interphase in suppressing gas evolution and promoting uniform electroplating in sodium metal anodes	http://xlink.rsc.org/?DOI=D2EE02606F	Gong, Chen; Pu, Shengda D.; Zhang, Shengming; Yuan, Yi; Ning, Ziyang; Yang, Sixie; Gao, Xiangwen; Chau, Chloe; Li, Zixuan; Liu, Junliang; Pi, Liquan; Liu, Boyang; Capone, Isaac; Hu, Bingkun; Melvin, Dominic L. R.; Pasta, Mauro; Bruce, Peter G.; Robertson, Alex W. , The role of an elastic interphase in suppressing gas evolution and promoting uniform electroplating in sodium metal anodes, 2023, Energy & Environmental Science, 10.1039/D2EE02606F
Shape Transformation Mechanism of Gold Nanoplates	https://pubs.acs.org/doi/10.1021/acsnano.2c07256	Choi, Back Kyu; Kim, Jeongwon; Luo, Zhen; Kim, Joodeok; Kim, Jeong Hyun; Hyeon, Taeghwan; Mehraeen, Shafiq; Park, Sungho; Park, Jungwon , Shape Transformation Mechanism of Gold Nanoplates, 2023, ACS Nano, 10.1021/acsnano.2c07256
In Situ Tracking of Crystal-Surface-Dependent Cu 2 O Nanoparticle Dissolution in an Aqueous Environment	https://pubs.acs.org/doi/abs/10.1021/acs.est.2c07845	Wang, Xiangrui; Hung, Tak-Fu; Chen, Fu-Rong; Wang, Wen-Xiong , In Situ Tracking of Crystal-Surface-Dependent Cu 2 O Nanoparticle Dissolution in an Aqueous Environment, 2023, Environmental Science & Technology, 10.1021/acs.est.2c07845
Quasi/non-equilibrium state in nanobubble growth trajectory revealed by in-situ transmission electron microscopy	https://linkinghub.elsevier.com/retrieve/pii/S1748013223000105	Hu, Hao; Shi, Fenglei; Tieu, Peter; Fu, Benwei; Tao, Peng; Song, Chengyi; Shang, Wen; Pan, Xiaoqing; Deng, Tao; Wu, Jianbo , Quasi/non-equilibrium state in nanobubble growth trajectory revealed by in-situ transmission electron microscopy, 2023, Nano Today, 10.1016/j.nantod.2023.101761
Operando studies reveal active Cu nanograins for CO2 electroreduction	https://www.nature.com/articles/s41586-022-05540-0	Yang, Yao; Louisia, Sheena; Yu, Sunmoon; Jin, Jianbo; Roh, Inwhan; Chen, Chubai; Fonseca Guzman, Maria V.; Feijóo, Julian; Chen, Peng-Cheng; Wang, Hongsen; Pollock, Christopher J.; Huang, Xin; Shao, Yu-Tsun; Wang, Cheng; Muller, David A.; Abruña, Héctor D.; Yang, Peidong , Operando studies reveal active Cu nanograins for CO2 electroreduction, 2023, Nature, 10.1038/s41586-022-05540-0
In situ single particle characterization of the theroresponsive and co-nonsolvent behavior of PNIPAM microgels and silica@PNIPAM core-shell colloids	https://linkinghub.elsevier.com/retrieve/pii/S0021979722022640	Grau-Carbonell, Albert; Hagemans, Fabian; Bransen, Maarten; Elbers, Nina A.; van Dijk-Moes, Relinde J.A.; Sadighikia, Sina; Welling, Tom A.J.; van Blaaderen, Alfons; van Huis, Marijn A. , In situ single particle characterization of the theroresponsive and co-nonsolvent behavior of PNIPAM microgels and silica@PNIPAM core-shell colloids, 2023, Journal of Colloid and Interface Science, 10.1016/j.jcis.2022.12.116
Revealing the alloying and dealloying behaviours in AuAg nanorods by thermal stimulus	http://xlink.rsc.org/?DOI=D2NA00746K	He, Long-Bing; Shangguan, Lei; Ran, Ya-Ting; Zhu, Chao; Lu, Zi-Yu; Zhu, Jiong-Hao; Yu, Dao-Jiang; Kan, Cai-Xia; Sun, Li-Tao , Revealing the alloying and dealloying behaviours in AuAg nanorods by thermal stimulus, 2023, Nanoscale Advances, 10.1039/D2NA00746K
In Situ/Operando Studies for Reduced Eletromigration in Ag Nanowires with Stacking Faults	https://onlinelibrary.wiley.com/doi/10.1002/aelm.202201054	Hsueh, YuHsiang; Ranjan, Ashok; Lyu, LianMing; Hsiao, KaiYuan; Chang, YuCheng; Lu, MingPei; Lu, MingYen , In Situ/Operando Studies for Reduced Eletromigration in Ag Nanowires with Stacking Faults, 2023, Advanced Electronic Materials, 10.1002/aelm.202201054
Nanoscale mapping of point defect concentrations with 4D-STEM	https://linkinghub.elsevier.com/retrieve/pii/S1359645423000538	Mills, Sean H.; Zeltmann, Steven E.; Ercius, Peter; Kohnert, Aaron A.; Uberuaga, Blas P.; Minor, Andrew M. , Nanoscale mapping of point defect concentrations with 4D-STEM, 2023, Acta Materialia, 10.1016/j.actamat.2023.118721
Direct observation of Cu in high-silica chabazite zeolite by electron ptychography using Wigner distribution deconvolution	https://www.nature.com/articles/s41598-023-27452-3	Mitsuishi, Kazutaka; Nakazawa, Katsuaki; Sagawa, Ryusuke; Shimizu, Masahiko; Matsumoto, Hajime; Shima, Hisashi; Takewaki, Takahiko , Direct observation of Cu in high-silica chabazite zeolite by electron ptychography using Wigner distribution deconvolution, 2023, Scientific Reports, 10.1038/s41598-023-27452-3
Preparation of High-Quality Samples for MEMS-Based In-Situ (S)TEM Experiments	https://academic.oup.com/mam/advance-article/doi/10.1093/micmic/ozad004/7001856	Srot, Vesna; Straubinger, Rainer; Predel, Felicitas; van Aken, Peter A. , Preparation of High-Quality Samples for MEMS-Based In-Situ (S)TEM Experiments, 2023, Microscopy and Microanalysis, 10.1093/micmic/ozad004
Development of temporal series 4D-STEM and application to relaxation time measurement	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfad006/6987430	Nakazawa, Katsuaki; Mitsuishi, Kazutaka , Development of temporal series 4D-STEM and application to relaxation time measurement, 2023, Microscopy, 10.1093/jmicro/dfad006
Catalytic boosting on AuCu bimetallic nanoparticles by oxygen-induced atomic restructuring	https://linkinghub.elsevier.com/retrieve/pii/S0926337323003478	Kim, Taek-Seung; Choi, Hyuk; Kim, Daeho; Song, Hee Chan; Oh, Yusik; Jeong, Beomgyun; Lee, Jouhahn; Kim, Ki-Jeong; Shin, Jae Won; Byon, Hye Ryung; Ryoo, Ryong; Kim, Hyun You; Park, Jeong Young , Catalytic boosting on AuCu bimetallic nanoparticles by oxygen-induced atomic restructuring, 2023, Applied Catalysis B: Environmental, 10.1016/j.apcatb.2023.122704
AllSolidState GarnetBased Lithium Batteries at Work-In Operando TEM Investigations of Delithiation/Lithiation Process and Capacity Degradation Mechanism	https://onlinelibrary.wiley.com/doi/10.1002/advs.202205012	Hou, AnYuan; Huang, ChihYang; Tsai, ChihLong; Huang, ChunWei; Schierholz, Roland; Lo, HungYang; Tempel, Hermann; Kungl, Hans; Eichel, RüdigerA.; Chang, JengKuei; Wu, WenWei , AllSolidState GarnetBased Lithium Batteries at Work-In Operando TEM Investigations of Delithiation/Lithiation Process and Capacity Degradation Mechanism, 2023, Advanced Science, 10.1002/advs.202205012
Atomically Precise Detection and Manipulation of Nitrogen-Vacancy Centers in Nanodiamonds	https://pubs.acs.org/doi/10.1021/acsnano.2c10122	Hudak, Bethany M.; Stroud, Rhonda M. , Atomically Precise Detection and Manipulation of Nitrogen-Vacancy Centers in Nanodiamonds, 2023, ACS Nano, 10.1021/acsnano.2c10122
Cation and Lone Pair Order-Disorder in the Polymorphic Mixed Metal Bismuth Scheelite Bi 3 FeMo 2 O 12	https://pubs.acs.org/doi/10.1021/acs.chemmater.2c02740	Saura-Múzquiz, Matilde; Marlton, Frederick P.; Mullens, Bryce G.; Liu, Jiatu; Vogt, Thomas; Maynard-Casely, Helen E.; Avdeev, Maxim; Blom, Douglas A.; Kennedy, Brendan J. , Cation and Lone Pair Order-Disorder in the Polymorphic Mixed Metal Bismuth Scheelite Bi 3 FeMo 2 O 12, 2023, Chemistry of Materials, 10.1021/acs.chemmater.2c02740

TITLE	WEB LINK	CITATIONS
Direct Observation of OffStoichiometryInduced Phase Transformation of 2D CdSe Quantum Nanosheets	https://onlinelibrary.wiley.com/doi/10.1002/adv.202205690	Ma, Hyeonjong; Kim, Dongjun; Park, Soo Ik; Choi, Back Kyu; Park, Gisang; Baek, Hyeon; Lee, Hyeon; Kim, Hyeon; Yu, JongSung; Lee, Won Chul; Park, Jungwon; Yang, Jiwoong, Direct Observation of OffStoichiometryInduced Phase Transformation of 2D CdSe Quantum Nanosheets, 2023, Advanced Science, 10.1002/adv.202205690
Thermally driven phase transition of halide perovskites revealed by big data-powered in situ electron microscopy	https://aip.scitation.org/doi/10.1063/5.0144196	Luo, Xin; Liu, Weiyang; Wang, Zeyu; Lei, Teng; Yang, Peidong; Yu, Yi, Thermally driven phase transition of halide perovskites revealed by big data-powered in situ electron microscopy, 2023, The Journal of Chemical Physics, 10.1063/5.0144196
Understanding the depolarization temperature in (Bi0.5Na0.5)TiO3-based ferroelectrics	https://linkinghub.elsevier.com/retrieve/pii/S0955221923001930	Fan, Zhongming; Momjian, Sevag; Randall, Clive A., Understanding the depolarization temperature in (Bi0.5Na0.5)TiO3-based ferroelectrics, 2023, Journal of the European Ceramic Society, 10.1016/j.jeurceramsoc.2023.03.013
Real-time insight into the multistage mechanism of nanoparticle exsolution from a perovskite host surface	https://www.nature.com/articles/s41467-023-37212-6	Cali, Eleonora; Thomas, Melonie P.; Vasudevan, Rama; Wu, Ji; Gavalda-Diaz, Oriol; Marquardt, Katharina; Saiz, Eduardo; Neagu, Dragos; Unocic, Raymond R.; Parker, Stephen C.; Guiton, Beth S.; Payne, David J., Real-time insight into the multistage mechanism of nanoparticle exsolution from a perovskite host surface, 2023, Nature Communications, 10.1038/s41467-023-37212-6
Electric Field-Induced Water Condensation Visualized by Vapor-Phase Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/acs.jpca.2c08187	Wang, Yuhang; Rastogi, Dewansh; Malek, Kotiba; Sun, Jiayue; Asa-Awuku, Akua; Woehl, Taylor J., Electric Field-Induced Water Condensation Visualized by Vapor-Phase Transmission Electron Microscopy, 2023, The Journal of Physical Chemistry A, 10.1021/acs.jpca.2c08187
Operando Liquid-Phase TEM Experiments for the Investigation of Dissolution Kinetics: Application to Li-Ion Battery Materials	https://academic.oup.com/mam/article/29/1/105/6927146	Poulizac, Julie; Boulineau, Adrien; Billy, Emmanuel; Masenelli-Varlot, Karine, Operando Liquid-Phase TEM Experiments for the Investigation of Dissolution Kinetics: Application to Li-Ion Battery Materials, 2023, Microscopy and Microanalysis, 10.1093/micmic/ozac025
Resolution of MoS 2 NanosheetsInduced Pulmonary Inflammation Driven by Nanoscale Intracellular Transformation and ExtracellularVesicle Shuttles	https://onlinelibrary.wiley.com/doi/10.1002/adma.202209615	Ortiz Peña, Nathaly; Cherukula, Kondareddy; Even, Benjamin; Ji, DingKun; Razafindrakoto, Sarah; Peng, Shiyuan; Silva, Amanda K. A.; MénardMoyon, Cécilia; Hillaireau, Hervé; Bianco, Alberto; Fattal, Elias; Alloyeau, Damien; Gazeau, Florence, Resolution of MoS 2 NanosheetsInduced Pulmonary Inflammation Driven by Nanoscale Intracellular Transformation and ExtracellularVesicle Shuttles, 2023, Advanced Materials, 10.1002/adma.202209615
Understanding the sulphur-oxygen exchange process of metal sulphides prior to oxygen evolution reaction	https://www.nature.com/articles/s41467-023-37751-y	Hu, Yang; Zheng, Yao; Jin, Jing; Wang, Yantao; Peng, Yong; Yin, Jie; Shen, Wei; Hou, Yichao; Zhu, Liu; An, Li; Lu, Min; Xi, Pinxian; Yan, Chun-Hua, Understanding the sulphur-oxygen exchange process of metal sulphides prior to oxygen evolution reaction, 2023, Nature Communications, 10.1038/s41467-023-37751-y
In Situ TEM Study of the Genesis of Supported Nickel Catalysts	https://pubs.acs.org/doi/10.1021/acs.jpcc.3c01117	Turner, Savannah J.; Wezendonk, Dennie F. L.; Terorde, Robert J. A. M.; de Jong, Krijn P., In Situ TEM Study of the Genesis of Supported Nickel Catalysts, 2023, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.3c01117
Kinking of GaP Nanowires Grown in an In Situ (S)TEM Gas Cell Holder	https://onlinelibrary.wiley.com/doi/10.1002/admi.202202507	Krug, David; Widemann, Maximilian; Gruber, Felix; Ahmed, Shamail; Demuth, Thomas; Beyer, Andreas; Volz, Kerstin, Kinking of GaP Nanowires Grown in an In Situ (S)TEM Gas Cell Holder, 2023, Advanced Materials Interfaces, 10.1002/admi.202202507
In-situ observation of preparation of PLGA polymeric nanoparticles using liquid cell transmission electron microscopy	https://linkinghub.elsevier.com/retrieve/pii/S235249282300867X	Takahashi, Chisato, In-situ observation of preparation of PLGA polymeric nanoparticles using liquid cell transmission electron microscopy, 2023, Materials Today Communications, 10.1016/j.mtcomm.2023.106176
Environment-Dependent Structural Evolution and Electrocatalytic Performance in N 2 Reduction of Mo-Based ZIF-8	https://pubs.acs.org/doi/10.1021/acsanm.3c01669	Hsiao, Kai-Yuan; Tseng, Yu-Han; Chiang, Chao-Lung; Chen, Yan-De; Lin, Yan-Gu; Lu, Ming-Yen, Environment-Dependent Structural Evolution and Electrocatalytic Performance in N 2 Reduction of Mo-Based ZIF-8, 2023, ACS Applied Nano Materials, 10.1021/acsanm.3c01669
Formation mechanism of high-index faceted Pt-Bi alloy nanoparticles by evaporation-induced growth from metal salts	https://www.nature.com/articles/s41467-023-39458-6	Koo, Kunmo; Shen, Bo; Baik, Sung-Il; Mao, Zegang; Smeets, Paul J. M.; Cheuk, Ivan; He, Kun; Dos Reis, Roberto; Huang, Liliang; Ye, Zihao; Hu, Xiaobing; Mirkin, Chad A.; Dravid, Vinayak P., Formation mechanism of high-index faceted Pt-Bi alloy nanoparticles by evaporation-induced growth from metal salts, 2023, Nature Communications, 10.1038/s41467-023-39458-6
Leveraging generative adversarial networks to create realistic scanning transmission electron microscopy images	https://www.nature.com/articles/s41524-023-01042-3	Khan, Abid; Lee, Chia-Hao; Huang, Pinshane Y.; Clark, Bryan K., Leveraging generative adversarial networks to create realistic scanning transmission electron microscopy images, 2023, npj Computational Materials, 10.1038/s41524-023-01042-3
Control over epitaxy and the role of the InAs/Al interface in hybrid two-dimensional electron gas systems	https://link.aps.org/doi/10.1103/PhysRevMaterials.7.073403	Cheah, Erik; Haxell, Daniel Z.; Schott, Rüdiger; Zeng, Peng; Paysen, Ekaterina; ten Kate, Sofieke C.; Coraiola, Marco; Landstetter, Max; Zadeh, Ali B.; Trampert, Achim; Sousa, Marilyne; Riel, Heike; Nichele, Fabrizio; Wegscheider, Werner; Krizek, Filip, Control over epitaxy and the role of the InAs/Al interface in hybrid two-dimensional electron gas systems, 2023, Physical Review Materials, 10.1103/PhysRevMaterials.7.073403
Unraveling the Microstructure of Inorganic Halide Perovskites during Thermally Driven Phase Transition and Degradation	https://pubs.acs.org/doi/10.1021/acs.jpcc.3c02319	Luo, Xin; Hao, Ruixin; Wang, Hao; Zhai, Wenbo; Wang, Zeyu; Ning, Zhijun; Yu, Yi, Unraveling the Microstructure of Inorganic Halide Perovskites during Thermally Driven Phase Transition and Degradation, 2023, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.3c02319
The Atomic Drill Bit: Precision Controlled Atomic Fabrication of 2D Materials	https://onlinelibrary.wiley.com/doi/10.1002/adma.202210116	Boebinger, Matthew G.; Brea, Courtney; Ding, LiPing; Misra, Sudhjit; Olunloyo, Olugbenga; Yu, Yiling; Xiao, Kai; Lupini, Andrew R.; Ding, Feng; Hu, Guoxiang; Ganesh, Panchapakesan; Jesse, Stephen; Unocic, Raymond R., The Atomic Drill Bit: Precision Controlled Atomic Fabrication of 2D Materials, 2023, Advanced Materials, 10.1002/adma.202210116

TITLE	WEB LINK	CITATIONS
Nanoscale Disorder and Deintercalation Evolution in KDoped MoS 2 Analysed Via In Situ TEM	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202214390	Shao, Shouqi; Tainton, Gareth R.M.; Kuang, W. J.; Clark, Nick; Gorbachev, Roman; Eggeman, Alexander; Grigorieva, Irina V.; Kelly, Daniel J.; Haigh, Sarah J. , Nanoscale Disorder and Deintercalation Evolution in KDoped MoS 2 Analysed Via In Situ TEM, 2023, Advanced Functional Materials, 10.1002/adfm.202214390
Evolution of Cu-In Catalyst Nanoparticles under Hydrogen Plasma Treatment and Silicon Nanowire Growth Conditions	https://www.mdpi.com/2079-4991/13/14/2061	Wang, Weixi; Ngo, Éric; Bulkin, Pavel; Zhang, Zhengyu; Foldyna, Martin; Roca I Cabarrocas, Pere; Johnson, Erik V.; Maurice, Jean-Luc , Evolution of Cu-In Catalyst Nanoparticles under Hydrogen Plasma Treatment and Silicon Nanowire Growth Conditions, 2023, Nanomaterials, 10.3390/nano13142061
Crystallization Mechanism of Gel-Derived SiO 2 -TiO 2 Amorphous Nanobeads Elucidated by High-Temperature In Situ Experiments	https://pubs.acs.org/doi/10.1021/acs.cgd.3c00300	Zandonà, Alessio; Véron, Emmanuel; Hensch, Gundula; Canizarès, Aurélien; Deubener, Joachim; Allix, Mathieu; Genevois, Cécile , Crystallization Mechanism of Gel-Derived SiO 2 -TiO 2 Amorphous Nanobeads Elucidated by High-Temperature In Situ Experiments, 2023, Crystal Growth & Design, 10.1021/acs.cgd.3c00300
LatticeAsymmetryDriven Selective Area Sublimation: A Promising Strategy for IINitride Nanostructure Tailoring	https://onlinelibrary.wiley.com/doi/10.1002/pssr.202200399	Sheng, Shanshan; Li, Duo; Wang, Ping; Wang, Tao; Liu, Fang; Chen, Zhaoying; Tao, Renchun; Ge, Weikun; Shen, Bo; Wang, Xinqiang , LatticeAsymmetryDriven Selective Area Sublimation: A Promising Strategy for IINitride Nanostructure Tailoring, 2023, physica status solidi (RRL) – Rapid Research Letters, 10.1002/pssr.202200399
In situ transmission electron microscopy as a toolbox for the emerging science of nanometallurgy	https://pubs.rsc.org/en/content/articlelanding/2023/LC/D3LC00228D	Coradini, Diego S. R.; Tunes, Matheus A.; Willenshofer, Patrick; Samberger, Sebastian; Kremmer, Thomas; Dumitraschkewitz, Phillip; Uggowitzer, Peter J.; Pogatscher, Stefan , In situ transmission electron microscopy as a toolbox for the emerging science of nanometallurgy, 2023, Lab on a Chip, 10.1039/D3LC00228D
Confinement Effects on the Structure of EntropyInduced Supercrystals	https://onlinelibrary.wiley.com/doi/10.1002/sml.202303380	Goldmann, Claire; Chaâbani, Wajdi; Hotton, Claire; ImpérorClerc, Marianne; Moncomble, Adrien; Constantin, Doru; Alloeyau, Damien; Hamon, Cyrille , Confinement Effects on the Structure of EntropyInduced Supercrystals, 2023, Small, 10.1002/sml.202303380
In Situ Insights into the Nucleation and Growth Mechanisms of Gold Nanoparticles on Tobacco Mosaic Virus	https://pubs.acs.org/doi/10.1021/acs.nanolett.3c01311	Moreira Da Silva, Cora; Ortiz-Peña, Nathaly; Boubekeur-Lecaque, Leïla; Dušek, Jakub; Moravec, Tomáš; Alloeyau, Damien; Ha-Duong, Nguyêt-Thanh , In Situ Insights into the Nucleation and Growth Mechanisms of Gold Nanoparticles on Tobacco Mosaic Virus, 2023, Nano Letters, 10.1021/acs.nanolett.3c01311
Atomic Scale Observation of the Structural Dynamics of Supported Gold Nanocatalysts under 1,3Butadiene by in situ Environmental Transmission Electron Microscopy	https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cctc.202300434	Nassereddine, Abdallah; Delannoy, Laurent; Ricolleau, Christian; Louis, Catherine; Alloeyau, Damien; Wang, Guillaume; Wang, Qing; Guesmi, Hazar; Nelayah, Jaysen , Atomic Scale Observation of the Structural Dynamics of Supported Gold Nanocatalysts under 1,3Butadiene by in situ Environmental Transmission Electron Microscopy, 2023, ChemCatChem, 10.1002/cctc.202300434
Goethite Mineral Dissolution to Probe the Chemistry of Radiolytic Water in LiquidPhase Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/10.1002/adv.202301904	Couason, Thaïs; Fritsch, Birk; Jank, Michael P. M.; Blukis, Roberts; Hutzler, Andreas; Benning, Liane G. , Goethite Mineral Dissolution to Probe the Chemistry of Radiolytic Water in LiquidPhase Transmission Electron Microscopy, 2023, Advanced Science, 10.1002/adv.202301904
Probing Sodium Storage Mechanism in Hollow Carbon Nanospheres Using Liquid Phase Transmission Electron Microscopy	https://onlinelibrary.wiley.com/doi/10.1002/sml.202301415	Hou, Jing; Song, Zihan; Odziomek, Mateusz; Tarakina, Nadezda V. , Probing Sodium Storage Mechanism in Hollow Carbon Nanospheres Using Liquid Phase Transmission Electron Microscopy, 2023, Small, 10.1002/sml.202301415
Upper critical solution temperature polymer assemblies via variable temperature liquid phase transmission electron microscopy and liquid resonant soft X-ray scattering	https://www.nature.com/articles/s41467-023-38781-2	Korpanty, Joanna; Wang, Cheng; Gianneschi, Nathan C. , Upper critical solution temperature polymer assemblies via variable temperature liquid phase transmission electron microscopy and liquid resonant soft X-ray scattering, 2023, Nature Communications, 10.1038/s41467-023-38781-2
Unraveling Anisotropic and Pulsating Etching of ZnO Nanorods in Hydrochloric Acid via Correlative Electron Microscopy	https://pubs.acs.org/doi/10.1021/acsnano.3c02940	Liu, Fangyuan; Lu, Xingxu; Zhu, Chunxiang; Bian, Zichao; Song, Xiaohui; Sun, Jiyu; Zhang, Bo; Weng, Junfei; Subramanian, Ashwanth; Tong, Xiao; Zhang, Lichun; Dongare, Avinash M.; Nam, Chang-Yong; Ding, Yong; Zheng, Guoan; Tan, Haiyan; Gao, Pu-Xian , Unraveling Anisotropic and Pulsating Etching of ZnO Nanorods in Hydrochloric Acid via Correlative Electron Microscopy, 2023, ACS Nano, 10.1021/acsnano.3c02940
A Machine-Vision Approach to Transmission Electron Microscopy Workflows, Results Analysis and Data Management	https://www.jove.com/t/65446/a-machine-vision-approach-to-transmission-electron-microscopy	Dukes, Madeline Dressel; Krans, Nynke Albertine; Marusak, Katherine; Walden, Stamp; Eldred, Tim; Franks, Alan; Larson, Ben; Guo, Yaofeng; Nackashi, David; Damiano, John , A Machine-Vision Approach to Transmission Electron Microscopy Workflows, Results Analysis and Data Management, 2023, Journal of Visualized Experiments, 10.3791/65446
Visualizing the Flexibility of RHO Nanozeolite: Experiment and Modeling	https://pubs.acs.org/doi/10.1021/jacs.3c02822	Clatworthy, Edwin B.; Moldovan, Simona; Nakouri, Kalthoum; Gramatikov, Stoyan P.; Dalena, Francesco; Daturi, Marco; Petkov, Petko St.; Vayssilov, Georgi N.; Mintova, Svetlana , Visualizing the Flexibility of RHO Nanozeolite: Experiment and Modeling, 2023, Journal of the American Chemical Society, 10.1021/jacs.3c02822
Atomic Imaging of Zeolites and Confined Single Molecules by iDPC-STEM	https://pubs.acs.org/doi/10.1021/acscatal.3c02270	Xiong, Hao; Wang, Huiqiu; Chen, Xiao; Wei, Fei , Atomic Imaging of Zeolites and Confined Single Molecules by iDPC-STEM, 2023, ACS Catalysis, 10.1021/acscatal.3c02270
Non-classical crystallization of CeO 2 by means of in situ electron microscopy	http://xlink.rsc.org/?DOI=D3NR02400H	Zschiesche, Hannes; Soroka, Inna L.; Jonsson, Mats; Tarakina, Nadezda V. , Non-classical crystallization of CeO 2 by means of in situ electron microscopy, 2023, Nanoscale, 10.1039/D3NR02400H
Activating dynamic atomic-configuration for single-site electrocatalyst in electrochemical CO2 reduction	https://www.nature.com/articles/s41467-023-40970-y	Hsu, Chia-Shuo; Wang, Jiali; Chu, You-Chiuan; Chen, Jui-Hsien; Chien, Chia-Ying; Lin, Kuo-Hsin; Tsai, Li Duan; Chen, Hsiao-Chien; Liao, Yen-Fa; Hiraoka, Nozomu; Cheng, Yuan-Chung; Chen, Hao Ming , Activating dynamic atomic-configuration for single-site electrocatalyst in electrochemical CO2 reduction, 2023, Nature Communications, 10.1038/s41467-023-40970-y

TITLE	WEB LINK	CITATIONS
Shedding Light on the Birth of Hybrid Perovskites: A Correlative Study by In Situ Electron Microscopy and Synchrotron-Based X-ray Scattering	https://pubs.acs.org/doi/10.1021/acs.chemmater.3c01167	Sidhoum, Charles; Constantin, Doru; Ihiwakrim, Dris; Lenertz, Marc; Bizien, Thomas; Sanchez, Clément; Ersen, Ovidiu , Shedding Light on the Birth of Hybrid Perovskites: A Correlative Study by In Situ Electron Microscopy and Synchrotron-Based X-ray Scattering, 2023, Chemistry of Materials, 10.1021/acs.chemmater.3c01167
In Situ Investigation of Thermally Induced Surface Graphenization of Polymer-Derived Ceramic (PDC) Coatings from Molecular Layer (MLD) Deposited Silicon-Based Pre ceramic Thin Films	https://pubs.acs.org/doi/10.1021/acs.chemmater.3c01547	Ashurbekova, Kristina; Modin, Evgeny; Hano, Harun; Ashurbekova, Karina; Saric Jankovic, Iva; Peter, Robert; Petravić, Mladen; Chuvilin, Andrey; Abdulagatov, Aziz; Knez, Mato , In Situ Investigation of Thermally Induced Surface Graphenization of Polymer-Derived Ceramic (PDC) Coatings from Molecular Layer (MLD) Deposited Silicon-Based Pre ceramic Thin Films, 2023, Chemistry of Materials, 10.1021/acs.chemmater.3c01547
A Platform for Atomic Fabrication and In Situ Synthesis in a Scanning Transmission Electron Microscope	https://onlinelibrary.wiley.com/doi/10.1002/smt.202300401	Dyck, Ondrej; Lupini, Andrew R.; Jesse, Stephen , A Platform for Atomic Fabrication and In Situ Synthesis in a Scanning Transmission Electron Microscope, 2023, Small Methods, 10.1002/smt.202300401
Graphitization Control Using Additives in Pitch Composites Part I: Effect of Graphene on Temperature-Dependent Crystallite Size Evolution, Carbonization Reactions, and Mesophase Formation	https://pubs.acs.org/doi/10.1021/acs.energyfuels.3c02798	Gharpure, Akshay; Vander Wal, Randy L. , Graphitization Control Using Additives in Pitch Composites Part I: Effect of Graphene on Temperature-Dependent Crystallite Size Evolution, Carbonization Reactions, and Mesophase Formation, 2023, Energy & Fuels, 10.1021/acs.energyfuels.3c02798
Variable temperature in-situ TEM mapping of the thermodynamically stable element distribution in bimetallic Pt-Rh nanoparticles	http://pubs.rsc.org/en/Content/ArticleLanding/2023/NA/D3NA00448A	Jensen, Martin; Kierulf-Vieira, Wallace Peterle Soares; Kooyman, Patricia J.; Sjøstad, Anja Olafsen , Variable temperature in-situ TEM mapping of the thermodynamically stable element distribution in bimetallic Pt-Rh nanoparticles, 2023, Nanoscale Advances, 10.1039/D3NA00448A
Confinement-enabled infusion-alloying of iron into platinum nanoparticle for core-shell PtFe@Pt intermetallic electrocatalyst	https://linkinghub.elsevier.com/retrieve/pii/S0925838823033789	Lee, Eunjik; Lee, Dong-Je; Kim, Yujin; Kim, Changki; Kwon, Yongmin; Lee, Hyunjoon; Lim, Iksung; An, Byoeng-Seon; Yang, Tae-Hyun; Park, Gu-Gon , Confinement-enabled infusion-alloying of iron into platinum nanoparticle for core-shell PtFe@Pt intermetallic electrocatalyst, 2023, Journal of Alloys and Compounds, 10.1016/j.jallcom.2023.172075
In situ imaging of the atomic phase transition dynamics in metal halide perovskites	https://www.nature.com/articles/s41467-023-42999-5	Ma, Mengmeng; Zhang, Xuliang; Chen, Xiao; Xiong, Hao; Xu, Liang; Cheng, Tao; Yuan, Jianyu; Wei, Fei; Shen, Boyuan , In situ imaging of the atomic phase transition dynamics in metal halide perovskites, 2023, Nature Communications, 10.1038/s41467-023-42999-5
Precipitation behaviour in AlMgZnCuAg crossover alloy with coarse and ultrafine grains	https://www.tandfonline.com/doi/full/10.1080/21663831.2023.2281589	Willenshofer, P. D.; Tunes, M. A.; Kainz, C.; Renk, O.; Kremmer, T. M.; Gneiger, S.; Uggowitzer, P. J.; Pogatscher, S. , Precipitation behaviour in AlMgZnCuAg crossover alloy with coarse and ultrafine grains, 2023, Materials Research Letters, 10.1080/21663831.2023.2281589
Asymmetric nanoparticle oxidation observed in-situ by the evolution of diffraction contrast	https://iopscience.iop.org/article/10.1088/2515-7639/ad025f	Poerwoprajitno, Agus R; Baradwaj, Nitish; Singh, Manish Kumar; Carter, C Barry; Huber, Dale L; Kalia, Rajiv; Watt, John , Asymmetric nanoparticle oxidation observed in-situ by the evolution of diffraction contrast, 2023, Journal of Physics: Materials, 10.1088/2515-7639/ad025f
Fabrication of β -Ga ₂ O ₃ Nanotubes via Sacrificial GaSb-Nanowire Templates	https://www.mdpi.com/2079-4991/13/20/2756	Shangguan, Lei; He, Long-Bing; Dong, Sheng-Pan; Gao, Yu-Tian; Sun, Qian; Zhu, Jiong-Hao; Hong, Hua; Zhu, Chao; Yang, Zai-Xing; Sun, Li-Tao , Fabrication of β -Ga ₂ O ₃ Nanotubes via Sacrificial GaSb-Nanowire Templates, 2023, Nanomaterials, 10.3390/nano13202756
Structural Anisotropy-Driven Atomic Mechanisms of Phase Transformations in the Pt-Sn System	https://pubs.acs.org/doi/10.1021/acs.nanolett.3c02162	Yun, Hwanhui; Zhang, Delin; Birol, Turan; Wang, Jian-Ping; Mkhoyan, K. Andre , Structural Anisotropy-Driven Atomic Mechanisms of Phase Transformations in the Pt-Sn System, 2023, Nano Letters, 10.1021/acs.nanolett.3c02162
In Situ Sintering of CdSe/CdS Nanocrystals under Electron Beam Irradiation	https://www.mdpi.com/2079-4991/13/24/3082	Tang, Luping; Zhang, Chun; Liao, Chen; Liu, Yiwei; Cheng, Yonghao , In Situ Sintering of CdSe/CdS Nanocrystals under Electron Beam Irradiation, 2023, Nanomaterials, 10.3390/nano13243082
Thermally Induced Domain Migration and Interfacial Restructuring in Cation Exchanged ZnS-Cu 1.8 S Heterostructured Nanorods	https://pubs.acs.org/doi/10.1021/jacs.3c08765	Young, Haley L.; Gomez, Enrique D.; Schaak, Raymond E. , Thermally Induced Domain Migration and Interfacial Restructuring in Cation Exchanged ZnS-Cu 1.8 S Heterostructured Nanorods, 2023, Journal of the American Chemical Society, 10.1021/jacs.3c08765
Hydrogenated borophene enabled synthesis of multielement intermetallic catalysts	https://www.nature.com/articles/s41467-023-43294-z	Zeng, Xiaoxiao; Jing, Yudan; Gao, Saisai; Zhang, Wencong; Zhang, Yang; Liu, Hanwen; Liang, Chao; Ji, Chenchen; Rao, Yi; Wu, Jianbo; Wang, Bin; Yao, Yonggang; Yang, Shengchun , Hydrogenated borophene enabled synthesis of multielement intermetallic catalysts, 2023, Nature Communications, 10.1038/s41467-023-43294-z
Elucidating Phase Transformation and Surface Amorphization of Li ₇ La ₃ Zr ₂ O ₁₂ by In Situ Heating TEM	https://onlinelibrary.wiley.com/doi/10.1002/sml.202304799	Zheng, Hongkui; Xu, Mingjie; He, Kai , Elucidating Phase Transformation and Surface Amorphization of Li ₇ La ₃ Zr ₂ O ₁₂ by In Situ Heating TEM, 2023, Small, 10.1002/sml.202304799
In-Situ Single Particle Reconstruction Reveals 3D Evolution of PtNi Nanocatalysts During Heating	https://onlinelibrary.wiley.com/proxy.library.uu.nl/doi/full/10.1002/sml.202302426	Wang, Yi-Chi; Slater, Thomas J A; Leteba, Gerard M; Lang, Candace I; Lin, Zhong; Haigh, Sarah J , In-Situ Single Particle Reconstruction Reveals 3D Evolution of PtNi Nanocatalysts During Heating, 2023, Small, -
Emergent layer stacking arrangements in c-axis confined MoTe ₂	https://www.nature.com/articles/s41467-023-40528-y	Hart, James L.; Bhatt, Lopa; Zhu, Yanbing; Han, Myung-Geun; Bianco, Elisabeth; Li, Shunran; Hynek, David J.; Schneeloch, John A.; Tao, Yu; Louca, Despina; Guo, Peijun; Zhu, Yimei; Jornada, Felipe; Reed, Evan J.; Kourkoutis, Lena F.; Cha, Judy J. , Emergent layer stacking arrangements in c-axis confined MoTe ₂ , 2023, Nature Communications, 10.1038/s41467-023-40528-y
In Situ TEM/STEM Investigation of Crystallization in Y ₃ Al ₅ O ₁₂ :Ce at High Temperatures Inside a Transmission Electron Microscope	https://onlinelibrary.wiley.com/doi/10.1002/sml.202308001	Liu, Zheng; Nakamura, Hitomi; Akai, Tomoko , In Situ TEM/STEM Investigation of Crystallization in Y ₃ Al ₅ O ₁₂ :Ce at High Temperatures Inside a Transmission Electron Microscope, 2023, Small, 10.1002/sml.202308001

TITLE	WEB LINK	CITATIONS
Effect of Interdiffusion and Crystallization on Threshold Switching Characteristics of Nb/Nb 2 O 5 /Pt Memristors	https://pubs.acs.org/doi/10.1021/acsami.3c14431	Nandi, Sanjoy Kumar; Nath, Shimul Kanti; Das, Sujan Kumar; Murdoch, Billy J.; Ratcliff, Thomas; McCulloch, Dougal G.; Elliman, Robert G. , Effect of Interdiffusion and Crystallization on Threshold Switching Characteristics of Nb/Nb 2 O 5 /Pt Memristors, 2023, ACS Applied Materials & Interfaces, 10.1021/acsami.3c14431
Direct imaging of electron density with a scanning transmission electron microscope	https://www.nature.com/articles/s41467-023-42256-9	Dyck, Ondrej; Almutlaq, Jawaher; Lingerfelt, David; Swett, Jacob L.; Oxley, Mark P.; Huang, Bevin; Lupini, Andrew R.; Englund, Dirk; Jesse, Stephen , Direct imaging of electron density with a scanning transmission electron microscope, 2023, Nature Communications, 10.1038/s41467-023-42256-9
Investigation of AtomicScale Mechanical Behavior by BiasInduced Degradation in Janus and Alloy Polymorphic Monolayer TMDs via In Situ TEM	https://onlinelibrary.wiley.com/doi/10.1002/smsc.202300129	Sung, Hsin-Ya; Chen, Chieh-Ting; Tseng, Yi-Tang; Chueh, Yu-Lun; Wu, Wen-Wei , Investigation of AtomicScale Mechanical Behavior by BiasInduced Degradation in Janus and Alloy Polymorphic Monolayer TMDs via In Situ TEM, 2023, Small Science, 10.1002/smsc.202300129
Mapping of the Electrostatic Potentials in a Fully Processed Led Device with nmScale Resolution by In Situ offAxis Electron Holography	https://onlinelibrary.wiley.com/doi/10.1002/smt.202300537	Cooper, David; Licitra, Christophe; Boussadi, Younes; BenBakir, Badhise; Masenelli, Bruno , Mapping of the Electrostatic Potentials in a Fully Processed Led Device with nmScale Resolution by In Situ offAxis Electron Holography, 2023, Small Methods, 10.1002/smt.202300537
In situ TEM study of the thermal stability of nanotwinned Ni-Mo-W alloys	https://www.tandfonline.com/doi/full/10.1080/21663831.2023.2255321	He, Mo-Rigen; Zhang, Ruopeng; Dhall, Rohan; Minor, Andrew M.; Hemker, Kevin J. , In situ TEM study of the thermal stability of nanotwinned Ni-Mo-W alloys, 2023, Materials Research Letters, 10.1080/21663831.2023.2255321
In situ observation of destabilization of a nanostructured Ag/Cu multilayer fabricated via multicomponent accumulative roll bonding	https://linkinghub.elsevier.com/retrieve/pii/S0264127523009024	Dong, H.; Guo, Y.C.; Zhu, D.; Shan, G.B.; Yang, G.Y.; Chen, Y.Z. , In situ observation of destabilization of a nanostructured Ag/Cu multilayer fabricated via multicomponent accumulative roll bonding, 2023, Materials & Design, 10.1016/j.matdes.2023.112487
Effects of transition metal carbide dispersoids on helium bubble formation in dispersion-strengthened tungsten	https://www.nature.com/articles/s41598-023-40421-0	Saefan, Ashrakat; Liu, Xingyu; Lang, Eric; Higgins, Levko; Wang, Yongqiang; El-Atwani, Osman; Allain, Jean Paul; Wang, Xing , Effects of transition metal carbide dispersoids on helium bubble formation in dispersion-strengthened tungsten, 2023, Scientific Reports, 10.1038/s41598-023-40421-0
In Situ AtomicScale Investigation of Structural Evolution During Sodiation/Desodiation Processes in Na 3 V 2 (PO 4) 3 Based AllSolidState Sodium Batteries	https://onlinelibrary.wiley.com/doi/10.1002/advs.202301490	Shen, FangChun; Ma, Qianli; Tietz, Frank; Kao, JuiCheng; Huang, ChiTing; Hernandha, Rahmandhika Firdauzha Hary; Huang, ChunWei; Lo, YuChieh; Chang, JengKuei; Wu, WenWei , In Situ AtomicScale Investigation of Structural Evolution During Sodiation/Desodiation Processes in Na 3 V 2 (PO 4) 3 Based AllSolidState Sodium Batteries, 2023, Advanced Science, 10.1002/advs.202301490
Heat current-driven topological spin texture transformations and helical q-vector switching	https://www.nature.com/articles/s41467-023-42846-7	Yasin, Fehmi Sami; Masell, Jan; Karube, Kosuke; Shindo, Daisuke; Taguchi, Yasujiro; Tokura, Yoshinori; Yu, Xiuzhen , Heat current-driven topological spin texture transformations and helical q-vector switching, 2023, Nature Communications, 10.1038/s41467-023-42846-7
Graphitizability of Polymer Thin Films: An In Situ TEM Study of Thickness Effects on Nanocrystalline Graphene/Glassy Carbon Formation	https://onlinelibrary.wiley.com/doi/10.1002/mame.202300230	Shyam Kumar, C. N.; Possel, Clemens; Dehm, Simone; Chakravadhanula, Venkata Sai Kiran; Wang, Di; Wenzel, Wolfgang; Krupke, Ralph; Kübel, Christian , Graphitizability of Polymer Thin Films: An In Situ TEM Study of Thickness Effects on Nanocrystalline Graphene/Glassy Carbon Formation, 2023, Macromolecular Materials and Engineering, 10.1002/mame.202300230
In Situ TEM Observation of (Cr, Mn, Fe, Co, and Ni) 3 O 4 HighEntropy Spinel Oxide Formation During Calcination at Atomic Scale	https://onlinelibrary.wiley.com/doi/10.1002/sml.202307284	Yeh, YuTzu; Huang, ChunWei; Hou, AnYuan; Huang, ChihYang; Lin, YiDong; Wu, WenWei , In Situ TEM Observation of (Cr, Mn, Fe, Co, and Ni) 3 O 4 HighEntropy Spinel Oxide Formation During Calcination at Atomic Scale, 2023, Small, 10.1002/sml.202307284
Challenges of Electron Correlation Microscopy on Amorphous Silicon and Amorphous Germanium	https://academic.oup.com/mam/article/29/5/1579/7252196	Radić, Dražen; Peterlechner, Martin; Spangenberg, Katharina; Posselt, Matthias; Bracht, Hartmut , Challenges of Electron Correlation Microscopy on Amorphous Silicon and Amorphous Germanium, 2023, Microscopy and Microanalysis, 10.1093/micmic/ozad090
Automated Grain Boundary Detection for Bright-Field Transmission Electron Microscopy Images via U-Net	https://academic.oup.com/mam/advance-article/doi/10.1093/micmic/ozad115/7422794	Patrick, Matthew J; Eckstein, James K; Lopez, Javier R; Toderas, Silvia; Asher, Sarah A; Whang, Sylvia I; Levine, Stacey; Rickman, Jeffrey M; Barmak, Katayun , Automated Grain Boundary Detection for Bright-Field Transmission Electron Microscopy Images via U-Net, 2023, Microscopy and Microanalysis, https://doi.org/10.1093/micmic/ozad115
In situ TEM studies of relaxation dynamics and crystal nucleation in thin film nanoglasses	https://doi.org/10.1080/21663831.2023.2278597	Voigt, Hendrik; Rigoni, Aaron; Boltynjuk, Evgeniy; Rösner, Harald; Hahn, Horst; Wilde, Gerhard , In situ TEM studies of relaxation dynamics and crystal nucleation in thin film nanoglasses, 2023, Materials Research Letters, 10.1080/21663831.2023.2278597
Unraveling and leveraging in situ surface amorphization for enhanced hydrogen evolution reaction in alkaline media	https://www.nature.com/articles/s41467-023-42221-6	Fu, Qiang; Wong, Lok Wing; Zheng, Fangyuan; Zheng, Xiaodong; Tsang, Chi Shing; Lai, Ka Hei; Shen, Wenqian; Ly, Thuc Hue; Deng, Qingming; Zhao, Jiong , Unraveling and leveraging in situ surface amorphization for enhanced hydrogen evolution reaction in alkaline media, 2023, Nature Communications, 10.1038/s41467-023-42221-6
Operando Electrochemical Liquid Cell Scanning Transmission Electron Microscopy Investigation of the Growth and Evolution of the Mosaic Solid Electrolyte Interphase for Lithium-Ion Batteries	https://pubs.acs.org/doi/10.1021/acsnano.3c06879	Dachraoui, Walid; Pauer, Robin; Battaglia, Corsin; Erni, Rolf , Operando Electrochemical Liquid Cell Scanning Transmission Electron Microscopy Investigation of the Growth and Evolution of the Mosaic Solid Electrolyte Interphase for Lithium-Ion Batteries, 2023, ACS Nano, 10.1021/acsnano.3c06879
In Situ Liquid Cell Transmission Electron Microscopy Study of Studtite Particle Formation and Growth via Electron Beam Radiolysis	https://pubs.acs.org/doi/10.1021/acsomega.3c07743	Kurtyka, Nick; Van Devener, Brian; Chung, Brandon W.; McDonald, Luther W. , In Situ Liquid Cell Transmission Electron Microscopy Study of Studtite Particle Formation and Growth via Electron Beam Radiolysis, 2023, ACS Omega, 10.1021/acsomega.3c07743

TITLE	WEB LINK	CITATIONS
Functionalized MXene Films with Substantially Improved Lowvoltage Actuation	https://onlinelibrary.wiley.com/doi/10.1002/adma.202307045	Chen, Shaohua; Tan, Shu Fen; Singh, Harpreet; Liu, Liang; Etienne, Mathieu; Lee, Pooi See , Functionalized MXene Films with Substantially Improved Lowvoltage Actuation, 2023, Advanced Materials, 10.1002/adma.202307045
How Pt Influences H ₂ Reactions on High Surface-Area Pt/CeO ₂ Powder Catalyst Surfaces	https://pubs.acs.org/doi/10.1021/jacsau.3c00330	Lee, Jaeha; Tieu, Peter; Finzel, Jordan; Zang, Wenjie; Yan, Xingxu; Graham, George; Pan, Xiaoqing; Christopher, Phillip , How Pt Influences H ₂ Reactions on High Surface-Area Pt/CeO ₂ Powder Catalyst Surfaces, 2023, JACS Au, 10.1021/jacsau.3c00330
Synthesis, characterization, and preliminary insights of ZnFe ₂ O ₄ nanoparticles into potential applications, with a focus on gas sensing	https://www.nature.com/articles/s41598-023-46960-w	Abdulhamid, Zeyad M.; Dabbawala, Aasif A.; Delclos, Thomas; Straubinger, Rainer; Rueping, Magnus; Polychronopoulou, Kyriaki; Anjum, Dalaver H. , Synthesis, characterization, and preliminary insights of ZnFe ₂ O ₄ nanoparticles into potential applications, with a focus on gas sensing, 2023, Scientific Reports, 10.1038/s41598-023-46960-w
In situ TEM investigation of the oxide/metal interface during the annealing of anodically formed titanium dioxide nanotubes	https://link.springer.com/10.1007/s10853-023-09005-1	Malik, Hammad; Howard, Jerry R.; Van Devener, Brian; Mohanty, Swomitra Kumar; Carlson, Krista , In situ TEM investigation of the oxide/metal interface during the annealing of anodically formed titanium dioxide nanotubes, 2023, Journal of Materials Science, 10.1007/s10853-023-09005-1
Pathway to defective highly active and stable MoVSbOx catalysts for ethane oxidative dehydrogenation through a dislodging process involving controlled combustion of amino-organic compounds	https://linkinghub.elsevier.com/retrieve/pii/S0021951723003512	Valente, Jaime S.; Arnedáriz-Herrera, Héctor; Quintana-Solórzano, Roberto; Angeles-Chavez, Carlos; Rodríguez-Hernández, Andrea; Guzmán-Castillo, María L.; López Nieto, José M.; Mhin Nha Le, Thi; Millet, Jean-Marc M. , Pathway to defective highly active and stable MoVSbOx catalysts for ethane oxidative dehydrogenation through a dislodging process involving controlled combustion of amino-organic compounds, 2023, Journal of Catalysis, 10.1016/j.jcat.2023.115106
Direct Observation of Ni Nanoparticle Growth in Carbon-Supported Nickel under Carbon Dioxide Hydrogenation Atmosphere	https://pubs.acs.org/doi/10.1021/acsnano.3c03721	Visser, Nienke L.; Turner, Savannah J.; Stewart, Joseph A.; Vandegehuchte, Bart D.; Van Der Hoeven, Jessi E. S.; De Jongh, Petra E. , Direct Observation of Ni Nanoparticle Growth in Carbon-Supported Nickel under Carbon Dioxide Hydrogenation Atmosphere, 2023, ACS Nano, 10.1021/acsnano.3c03721
Carbon Nanofiber Growth Rates on NiCu Catalysts: Quantitative Coupling of Macroscopic and Nanoscale In Situ Studies	https://pubs.acs.org/doi/10.1021/acs.jpcc.3c02657	Welling, Tom A. J.; Schoemaker, Suzan E.; De Jong, Krijn P.; De Jongh, Petra E. , Carbon Nanofiber Growth Rates on NiCu Catalysts: Quantitative Coupling of Macroscopic and Nanoscale In Situ Studies, 2023, The Journal of Physical Chemistry C, 10.1021/acs.jpcc.3c02657
Metal Organic Vapor Phase Epitaxy in a Transmission Electron Microscope	https://onlinelibrary.wiley.com/doi/10.1002/smtd.202301079	Widemann, Maximilian; Krug, David; Maßmeyer, Oliver; Gruber, Felix; Beyer, Andreas; Volz, Kerstin , Metal Organic Vapor Phase Epitaxy in a Transmission Electron Microscope, 2023, Small Methods, 10.1002/smtd.202301079
Probing magnetic properties at the nanoscale: in-situ Hall measurements in a TEM	https://www.nature.com/articles/s41598-023-41985-7	Pohl, Darius; Lee, Yejin; Kriegner, Dominik; Beckert, Sebastian; Schneider, Sebastian; Rellinghaus, Bernd; Thomas, Andy , Probing magnetic properties at the nanoscale: in-situ Hall measurements in a TEM, 2023, Scientific Reports, 10.1038/s41598-023-41985-7
High-throughput assessment of the microstructural stability of segregation-engineered nanocrystalline Al-Ni-Y alloys	https://www.sciencedirect.com/science/article/pii/S2589152923002673	Cunningham, W. Streit; Shin, Jungo; Lei, Tianjiao; Rupert, Timothy J.; Gianola, Daniel S. , High-throughput assessment of the microstructural stability of segregation-engineered nanocrystalline Al-Ni-Y alloys, 2023, Materialia, 10.1016/j.mta.2023.101940
In Situ Imaging of an Anisotropic Layer-by-Layer Phase Transition in Few-Layer MoTe ₂	https://doi.org/10.1021/acs.nanolett.2c04550	Lee, Chia-Hao; Ryu, Huije; Nolan, Gillian; Zhang, Yichao; Lee, Yangjin; Oh, Siwon; Cheong, Hyeonsik; Watanabe, Kenji; Taniguchi, Takashi; Kim, Kwanpyo; Lee, Gwan-Hyoung; Huang, Pinshane Y. , In Situ Imaging of an Anisotropic Layer-by-Layer Phase Transition in Few-Layer MoTe ₂ , 2023, Nano Letters, 10.1021/acs.nanolett.2c04550
Hexagonal silicon-germanium nanowire branches with tunable composition	https://iopscience.iop.org/article/10.1088/1361-6528/ac9317	Li, A; Hauge, H I T; Verheijen, M A; Bakkers, E P A M; Tucker, R T; Vincent, L; Renard, C , Hexagonal silicon-germanium nanowire branches with tunable composition, 2023, Nanotechnology, 10.1088/1361-6528/ac9317
Understanding the formation mechanisms and stability of the Anti-Phase boundaries (APBs) in Al-Fe B ₂	https://linkinghub.elsevier.com/retrieve/pii/S0925838823039427	Hillel, Guy; Galaeva, Ekaterina; Edry, Itzhak; Fuks, David; Pinkas, Malki; Meshi, Louisa , Understanding the formation mechanisms and stability of the Anti-Phase boundaries (APBs) in Al-Fe B ₂ , 2024, Journal of Alloys and Compounds, 10.1016/j.jallcom.2023.172639
Ultrasound-Driven enhancement of Pt/C catalyst stability in oxygen reduction reaction	https://linkinghub.elsevier.com/retrieve/pii/S135041772300442X	Lee, Hyunjoon; Park, Eunbi; Lee, Eunjik; Lim, Iksung; Yang, Tae-Hyun; Park, Gu-Gon , Ultrasound-Driven enhancement of Pt/C catalyst stability in oxygen reduction reaction, 2024, Ultrasonics Sonochemistry, 10.1016/j.ultsonch.2023.106730
A precipitation pathway of T1 phase via heterogeneous nucleation on Li-rich particle in Al-Cu-Li alloy	https://linkinghub.elsevier.com/retrieve/pii/S0925838823040999	Chen, Longhui; Ma, Peipei; Liu, Chunhui; Zhan, Lihua; Zheng, Zeyu , A precipitation pathway of T1 phase via heterogeneous nucleation on Li-rich particle in Al-Cu-Li alloy, 2024, Journal of Alloys and Compounds, 10.1016/j.jallcom.2023.172796
Quasiin situ Observation of MnO ₂ Nanorods by Electrochemical Transmission Electron Microscopy for Oxygen Reduction Reaction Process	https://onlinelibrary.wiley.com/doi/10.1002/aesr.202300229	Han, Zengyu; Roslie, Hany; Tan, Shu Fen; Wu, Dongshuang , Quasiin situ Observation of MnO ₂ Nanorods by Electrochemical Transmission Electron Microscopy for Oxygen Reduction Reaction Process, 2024, Advanced Energy and Sustainability Research, 10.1002/aesr.202300229
Machine learning refinement of in situ images acquired by low electron dose LC-TEM	https://academic.oup.com/mam/advance-article/doi/10.1093/micmic/ozad142/7591557?searchresult=1	Katsuno, Hiroyasu; Kimura, Yuki; Yamazaki, Tomoya; Takigawa, Ichigaku , Machine learning refinement of in situ images acquired by low electron dose LC-TEM, 2024, Microscopy and Microanalysis, 10.1093/micmic/ozad142
Insights Into Formation and Growth of Colloidal Multielement Alloy Nanoparticles in Solution through In Situ Liquid Cell TEM Study	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202304685	Amiri, Azadeh; Yurkiv, Vitaliy; Phakatkar, Abhijit H.; Shokuhfar, Tolou; ShahbazianYassar, Reza , Insights Into Formation and Growth of Colloidal Multielement Alloy Nanoparticles in Solution through In Situ Liquid Cell TEM Study, 2024, Advanced Functional Materials, 10.1002/adfm.202304685

TITLE	WEB LINK	CITATIONS
Impact of palladium/palladium hydride conversion on electrochemical CO ₂ reduction via in-situ transmission electron microscopy and diffraction	https://www.nature.com/articles/s41467-024-45096-3	Abdellah, Ahmed M.; Ismail, Fatma; Siig, Oliver W.; Yang, Jie; Andrei, Carmen M.; DiCecco, Liza-Anastasia; Rakhsha, Amirhossein; Salem, Kholoud E.; Grandfield, Kathryn; Bassim, Nabil; Black, Robert; Kastlunger, Georg; Soleymani, Leyla; Higgins, Drew , Impact of palladium/palladium hydride conversion on electrochemical CO ₂ reduction via in-situ transmission electron microscopy and diffraction, 2024, Nature Communications, 10.1038/s41467-024-45096-3
A magnetically powered nanomachine with a DNA clutch	https://www.nature.com/articles/s41565-023-01599-6	Lin, Mouhong; Lee, Jung-uk; Kim, Youngjoo; Kim, Gooreum; Jung, Yunmin; Jo, Ala; Park, Mansoo; Lee, Sol; Lah, Jungsu David; Park, Jongseong; Noh, Kunwoo; Lee, Jae-Hyun; Kwak, Minsuk; Lungerich, Dominik; Cheon, Jinwoo , A magnetically powered nanomachine with a DNA clutch, 2024, Nature Nanotechnology, 10.1038/s41565-023-01599-6
In-situ TEM study from the perspective of holders	https://academic.oup.com/jmicro/advance-article/doi/10.1093/jmicro/dfad055/7438931	Yaguchi, Toshie; Gabriel, Mia San; Hashimoto, Ayako; Howe, Jane Y , In-situ TEM study from the perspective of holders, 2024, Microscopy, 10.1093/jmicro/dfad055
A new paradigm in electron microscopy: Automated microstructure analysis utilizing a dynamic segmentation convolutional neural network	https://linkinghub.elsevier.com/retrieve/pii/S2590049824000055	Taller, Stephen; Scime, Luke; Austin, Ty , A new paradigm in electron microscopy: Automated microstructure analysis utilizing a dynamic segmentation convolutional neural network, 2024, Materials Today Advances, 10.1016/j.mtadv.2024.100468
Visualization of the structural transformation of NiO/YSZ/BZY nanocomposite particles using in situ gas environmental transmission electron microscopy	http://xlink.rsc.org/?DOI=D3NR04525K	Liu, Zheng; Shimada, Hiroyuki , Visualization of the structural transformation of NiO/YSZ/BZY nanocomposite particles using in situ gas environmental transmission electron microscopy, 2024, Nanoscale, 10.1039/D3NR04525K
Elucidating the Reaction Pathway in the Ammonolysis of MoO ₃ via In Situ Powder X-ray Diffraction and Transmission Electron Microscopy	https://pubs.acs.org/doi/10.1021/acs.chemmater.3c01344	Zhang, Chi; Goldfine, Elise A.; He, Kun; Wenderott, Jill K.; Pandey, Shobhit A.; Dos Reis, Roberto; Shen, Jiahong; Wolverton, Chris; Bedzyk, Michael J.; Poepelmeier, Kenneth R.; Dravid, Vinayak P.; Haile, Sossina M. , Elucidating the Reaction Pathway in the Ammonolysis of MoO ₃ via In Situ Powder X-ray Diffraction and Transmission Electron Microscopy, 2024, Chemistry of Materials, 10.1021/acs.chemmater.3c01344
Oscillatory phase transition induced structural extension during iron oxide reduction	https://linkinghub.elsevier.com/retrieve/pii/S2667325824000037	Fu, Haoyang; Chen, Qingze; Min, Benzhi; Li, Shuzhou; Chen, Xiaodong; Ling, Lan , Oscillatory phase transition induced structural extension during iron oxide reduction, 2024, Fundamental Research, 10.1016/j.fmre.2023.10.023
Ultrathin silicon nitride microchip for in situ/operando microscopy with high spatial resolution and spectral visibility	https://www.science.org/doi/10.1126/sciadv.adj6417	Koo, Kunmo; Li, Zhiwei; Liu, Yukun; Ribet, Stephanie M.; Fu, Xianbiao; Jia, Ying; Chen, Xinqi; Shekawat, Gajendra; Smeets, Paul J. M.; Dos Reis, Roberto; Park, Jungjae; Yuk, Jong Min; Hu, Xiaobing; Dravid, Vinayak P. , Ultrathin silicon nitride microchip for in situ/operando microscopy with high spatial resolution and spectral visibility, 2024, Science Advances, 10.1126/sciadv.adj6417
Synthesis of core@shell catalysts guided by Tamman temperature	https://www.nature.com/articles/s41467-024-44705-5	Xiong, Pei; Xu, Zhihang; Wu, Tai-Sing; Yang, Tong; Lei, Qiong; Li, Jiangtong; Li, Guangchao; Yang, Ming; Soo, Yun-Liang; Bennett, Robert David; Lau, Shu Ping; Tsang, Shik Chi Edman; Zhu, Ye; Li, Molly Meng-Jung , Synthesis of core@shell catalysts guided by Tamman temperature, 2024, Nature Communications, 10.1038/s41467-024-44705-5
Elucidating Dynamic Conductive State Changes in Amorphous Lithium Lanthanum Titanate for Resistive Switching Devices	https://www.sciencedirect.com/science/article/pii/S2949822823001028	Shimizu, Ryosuke; Cheng, Diyi; Zhu, Guomin; Han, Bing; Marchese, Thomas S; Xu, Mingjie; Pan, Xiaoqing; Zhang, Minghao; Meng, Ying Shirley , Elucidating Dynamic Conductive State Changes in Amorphous Lithium Lanthanum Titanate for Resistive Switching Devices, 2024, Next Materials, 10.1016/j.nxmate.2023.100102
Pure-water-fed, electrocatalytic CO ₂ reduction to ethylene beyond 1,000 h stability at 10 A	https://www.nature.com/articles/s41560-023-01415-4	She, Xiaojie; Zhai, Lingling; Wang, Yifei; Xiong, Pei; Li, Molly Meng-Jung; Wu, Tai-Sing; Wong, Man Chung; Guo, Xuyun; Xu, Zhihang; Li, Huaming; Xu, Hui; Zhu, Ye; Tsang, Shik Chi Edman; Lau, Shu Ping , Pure-water-fed, electrocatalytic CO ₂ reduction to ethylene beyond 1,000 h stability at 10 A, 2024, Nature Energy, 10.1038/s41560-023-01415-4
Highly disordered amorphous Li-battery electrolytes	https://linkinghub.elsevier.com/retrieve/pii/S2590238523006173	Zhu, Yuntong; Hood, Zachary D.; Paik, Haemin; Groszewicz, Pedro B.; Erme, Steffen P.; Sayed, Farheen N.; Sun, Chengjun; Balaish, Moran; Ehre, David; Miara, Lincoln J.; Frenkel, Anatoly I.; Lubomirsky, Igor; Grey, Clare P.; Rupp, Jennifer L.M. , Highly disordered amorphous Li-battery electrolytes, 2024, Matter, 10.1016/j.matt.2023.12.004
Unraveling the atomic mechanism of the disorder–order phase transition from γ-Ga ₂ O ₃ to β-Ga ₂ O ₃	https://pubs.aip.org/apm/article/12/1/011110/2933719/Unraveling-the-atomic-mechanism-of-the-disorder	Wouters, Charlotte; Nofal, Musbah; Mazzolini, Piero; Zhang, Jijun; Remmele, Thilo; Kwasniewski, Albert; Bierwagen, Oliver; Albrecht, Martin , Unraveling the atomic mechanism of the disorder–order phase transition from γ-Ga ₂ O ₃ to β-Ga ₂ O ₃ , 2024, APL Materials, 10.1063/5.0182500
Localizing Low-Grade Heat Using Hybrid Photonic-Phononic Materials	https://pubs.acs.org/doi/10.1021/acsenerylett.3c02573	Beutler, Elliot K.; Kumar, Vishal; Duddy, Gordon H. K.; Bourgeois, Marc R.; Srijanto, Bernadeta R.; Hachtel, Jordan A.; Masiello, David J.; Camden, Jon P. , Localizing Low-Grade Heat Using Hybrid Photonic-Phononic Materials, 2024, ACS Energy Letters, 10.1021/acsenerylett.3c02573
Enhanced resistive switching performance and structural evolution of NiO/Nb ₂ O ₅ -x bilayer memristive device	https://linkinghub.elsevier.com/retrieve/pii/S0925838824004766	Wang, Chien-Hua; Lo, Hung-Yang; Huang, Chun-Wei; Chen, Jui-Yuan; Wu, Wen-Wei , Enhanced resistive switching performance and structural evolution of NiO/Nb ₂ O ₅ -x bilayer memristive device, 2024, Journal of Alloys and Compounds, https://doi.org/10.1016/j.jallcom.2024.173889
Electrochemical rewiring through quantum conductance effects in single metallic memristive nanowires	http://xlink.rsc.org/?DOI=D3NH00476G	Milano, Gianluca; Raffone, Federico; Bejtka, Katarzyna; De Carlo, Ivan; Fretto, Matteo; Pirri, Fabrizio Candido; Cicero, Giancarlo; Ricciardi, Carlo; Valov, Iliia , Electrochemical rewiring through quantum conductance effects in single metallic memristive nanowires, 2024, Nanoscale Horizons, 10.1039/D3NH00476G

TITLE	WEB LINK	CITATIONS
Uncovering the Network Modifier for Highly Disordered Amorphous LiGarnet GlassCeramics	https://onlinelibrary.wiley.com/doi/10.1002/adma.202302438	Zhu, Yuntong; Kennedy, Ellis R.; Yasar, Bengisu; Paik, Haemin; Zhang, Yaqian; Hood, Zachary D.; Scott, Mary; Rupp, Jennifer L.M. , Uncovering the Network Modifier for Highly Disordered Amorphous LiGarnet GlassCeramics, 2024, Advanced Materials, 10.1002/adma.202302438
Endotaxial stabilization of 2D charge density waves with long-range order	https://www.nature.com/articles/s41467-024-45711-3	Sung, Suk Hyun; Agarwal, Nishkarsh; El Baggari, Ismail; Kezer, Patrick; Goh, Yin Min; Schnitzer, Noah; Shen, Jeremy M.; Chiang, Tony; Liu, Yu; Lu, Wenjian; Sun, Yuping; Kourkoutis, Lena F.; Heron, John T.; Sun, Kai; Hovden, Robert , Endotaxial stabilization of 2D charge density waves with long-range order, 2024, Nature Communications, 10.1038/s41467-024-45711-3
Toward sub-second solution exchange dynamics in flow reactors for liquid-phase transmission electron microscopy	https://www-nature-com.proxy.library.uu.nl/articles/s41467-024-46842-3	Merkens, Stefan; Tolan, Christopher; De Salvo, Giuseppe; Bejtka, Katarzyna; Fontana, Marco; Chiodini, Angelica; Kruse, Joscha; Iriarte-Alonso, Maiara Aime; Grzelczak, Marek; Seifert, Andreas , Toward sub-second solution exchange dynamics in flow reactors for liquid-phase transmission electron microscopy, 2024, Nature Communications, 10.1038/s41467-024-46842-3
In Situ TEM Investigation of Thermally Induced Modifications of Cluster-Assembled Gold Films Undergoing Resistive Switching: Implications for Nanostructured Neuromorphic Devices	https://pubs.acs.org/doi/10.1021/acsnm.3c06261	Casu, Alberto; Chiodoni, Angelica; Ivanov, Yurii P.; Divitini, Giorgio; Milani, Paolo; Falqui, Andrea , In Situ TEM Investigation of Thermally Induced Modifications of Cluster-Assembled Gold Films Undergoing Resistive Switching: Implications for Nanostructured Neuromorphic Devices, 2024, ACS Applied Nano Materials, 10.1021/acsnm.3c06261
AtomicScale Phase Transformation in Perovskite LaCoO x Resistive Switching Memristive Devices	https://onlinelibrary.wiley.com/doi/10.1002/sstr.202400019	Chen, YenJung; Lo, HungYang; Chiu, ChunChien; Wang, CheHung; Yang, JanChi; Chen, JuiYuan; Wu, WenWei , AtomicScale Phase Transformation in Perovskite LaCoO x Resistive Switching Memristive Devices, 2024, Small Structures, 10.1002/sstr.202400019
Demystifying the SemiconductortoMetal Transition in Amorphous Vanadium Pentoxide: The Role of Substrate/Thin Film Interfaces	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202309544	Esther, A. Carmel Mary; Muralikrishna, G. Mohan; Chirumamilla, Manohar; Pinto, Manoel Da Silva; Ostendorp, Stefan; Peterlechner, Martin; Yu Petrov, Alexander; Eich, Manfred; Divinski, Sergiy V.; Hahn, Horst; Wilde, Gerhard , Demystifying the SemiconductortoMetal Transition in Amorphous Vanadium Pentoxide: The Role of Substrate/Thin Film Interfaces, 2024, Advanced Functional Materials, 10.1002/adfm.202309544
Precision Calcination Mechanism of CaCO3 to HighPorosity Nanoscale CaO CO2 Sorbent Revealed by Direct In Situ Observations	https://onlinelibrary.wiley.com/doi/10.1002/admi.202300811	Martinez, Jenny; Wardini, Jenna L.; Zheng, Xueli; Moghimi, Lauren; Rakowsky, Jason; Means, Jonathan; Guo, Huiming; Kuzmenko, Ivan; Ilavsky, Jan; Zhang, Fan; Dholabhai, Pratik P.; DresselhausMarais, Leora; Bowman, William J. , Precision Calcination Mechanism of CaCO3 to HighPorosity Nanoscale CaO CO2 Sorbent Revealed by Direct In Situ Observations, 2024, Advanced Materials Interfaces, 10.1002/admi.202300811
In-situ S/TEM DC biasing of p-GaN/AlGaN/GaN heterostructure for E-mode GaN HEMT devices	https://iopscience.iop.org/article/10.1088/2631-8695/ad2f84	Mehta, Abhas B; Zhu, Xiangyu; Shichijo, S; Kim, M J , In-situ S/TEM DC biasing of p-GaN/AlGaN/GaN heterostructure for E-mode GaN HEMT devices, 2024, Engineering Research Express, 10.1088/2631-8695/ad2f84
Atom-by-atom imaging of moiré transformations in 2D transition metal dichalcogenides	https://www.science.org/doi/10.1126/sciadv.adk1874	Zhang, Yichao; Baek, Ji-Hwan; Lee, Chia-Hao; Jung, Yeonjoon; Hong, Seong Chul; Nolan, Gillian; Watanabe, Kenji; Taniguchi, Takashi; Lee, Gwan-Hyoung; Huang, Pinshane Y. , Atom-by-atom imaging of moiré transformations in 2D transition metal dichalcogenides, 2024, Science Advances, 10.1126/sciadv.adk1874
Stress-induced ordering evolution of 1D segmented heteronanostructures and their chemical post-transformations	https://www.nature.com/articles/s41467-024-47446-7	Chen, Qing-Xia; Lu, Yu-Yang; Yang, Yang; Chang, Li-Ge; Li, Yi; Yang, Yuan; He, Zhen; Liu, Jian-Wei; Ni, Yong; Yu, Shu-Hong , Stress-induced ordering evolution of 1D segmented heteronanostructures and their chemical post-transformations, 2024, Nature Communications, 10.1038/s41467-024-47446-7
Applications of electron microscopic observations to electrochemistry in liquid electrolytes for batteries	https://academic.oup.com/jmicro/article/73/2/154/7271370	Yoshida, Kaname; Sasaki, Yuki; Kuwabara, Akihide; Ikuhara, Yuichi , Applications of electron microscopic observations to electrochemistry in liquid electrolytes for batteries, 2024, Microscopy, 10.1093/jmicro/dfad044
Ingenious Architecture and Coloration Generation in Enamel of Rodent Teeth	https://pubs.acs.org/doi/10.1021/acsnano.4c00578	Srot, Vesna; Houari, Sophia; Kapun, Gregor; Bussmann, Birgit; Predel, Felicitas; Pokorny, Boštjan; Bužan, Elena; Salzberger, Ute; Fenk, Bernhard; Kelsch, Marion; Van Aken, Peter A. , Ingenious Architecture and Coloration Generation in Enamel of Rodent Teeth, 2024, ACS Nano, 10.1021/acsnano.4c00578
Synthesis of uniform Fe2O3@Y2O3 yolk-shell nanoreactors as chemical looping oxygen carriers	https://www-sciencedirect-com/science/article/pii/S0926337324002492	Fan, Qianwenhao; Tan, Mingwu; Yao, Bingqing; Saqline, Syed; Tao, Longgang; He, Qian; Liu, Wen , Synthesis of uniform Fe2O3@Y2O3 yolk-shell nanoreactors as chemical looping oxygen carriers, 2024, Applied Catalysis B: Environment and Energy, 10.1016/j.apcatb.2024.123935
Liquid metals for boosting stability of zeolite catalysts in the conversion of methanol to hydrocarbons	https://www.nature.com/articles/s41467-024-46232-9	Zhou, Yong; Santos, Sara; Shamzhy, Mariya; Marinova, Maya; Blanchenet, Anne-Marie; Kolyagin, Yury G.; Simon, Pardis; Trentesaux, Martine; Sharna, Sharmin; Ersen, Ovidiu; Zholobenko, Vladimir L.; Saeyns, Mark; Khodakov, Andrei Y.; Ordonsky, Vitaly V. , Liquid metals for boosting stability of zeolite catalysts in the conversion of methanol to hydrocarbons, 2024, Nature Communications, 10.1038/s41467-024-46232-9