

Title	Web Link	Citations
In situ single particle characterization of the theroresponsive and co-nonsolvent behavior of PNIPAM microgels and silica@PNIPAM core-shell colloids	<a href="https://linkinghub.elsevier.com/retrieve/pii/S0021979722022640">https://linkinghub.elsevier.com/retrieve/pii/S0021979722022640</a>	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
Upper critical solution temperature polymer assemblies via variable temperature liquid phase transmission electron microscopy and liquid resonant soft X-ray scattering	<a href="https://www.nature.com/articles/s41467-023-38781-2">https://www.nature.com/articles/s41467-023-38781-2</a>	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
A Machine-Vision Approach to Transmission Electron Microscopy Workflows, Results Analysis and Data Management	<a href="https://www.jove.com/t/65446/a-machine-vision-approach-to-transmission-electron-microscopy">https://www.jove.com/t/65446/a-machine-vision-approach-to-transmission-electron-microscopy</a>	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
Shedding Light on the Birth of Hybrid Perovskites: A Correlative Study by <i>In Situ</i> Electron Microscopy and Synchrotron-Based X-ray Scattering	<a href="https://pubs.acs.org/doi/10.1021/acs.chemmater.3c01167">https://pubs.acs.org/doi/10.1021/acs.chemmater.3c01167</a>	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 <i>In Situ</i> Electron Microscopy and Synchrotron-Based X-ray Scattering, 2023, Chemistry of Materials, 10.1021/acs.chemmater.3c01167
Liquid-cell transmission electron microscopy for imaging of thermosensitive recombinant polymers	<a href="https://linkinghub.elsevier.com/retrieve/pii/S0168365922000931">https://linkinghub.elsevier.com/retrieve/pii/S0168365922000931</a>	Isaacson, Kyle J.; Van Devener, Brian R.; Steinhauff, 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
Organic solution-phase transmission electron microscopy of copolymer nanoassembly morphology and dynamics	<a href="https://linkinghub.elsevier.com/retrieve/pii/S266638642200039X">https://linkinghub.elsevier.com/retrieve/pii/S266638642200039X</a>	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
Atomic-level structural responsiveness to environmental conditions from 3D electron diffraction	<a href="https://www.nature.com/articles/s41467-022-34237-1">https://www.nature.com/articles/s41467-022-34237-1</a>	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
In Situ Three-Dimensional Electron Diffraction for Probing Structural Transformations of Single Nanocrystals	<a href="https://pubs.acs.org/doi/10.1021/acs.chemmater.2c01744">https://pubs.acs.org/doi/10.1021/acs.chemmater.2c01744</a>	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., <a href="https://doi.org/10.1021/acs.chemmater.2c01744">https://doi.org/10.1021/acs.chemmater.2c01744</a>
Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution	<a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202102514">https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202102514</a>	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
In Situ Study of the Wet Chemical Etching of SiO <sub>2</sub> and Nanoparticle@SiO <sub>2</sub> Core-Shell Nanospheres	<a href="https://doi.org/10.1021/acsnano.0c02771">https://doi.org/10.1021/acsnano.0c02771</a>	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 <sub>2</sub> and Nanoparticle@SiO <sub>2</sub> Core-Shell Nanospheres, 2021, ACS Applied Nano Materials, 10.1021/acsnano.0c02771
Dipeptide Nanostructure Assembly and Dynamics via in Situ Liquid-Phase Electron Microscopy	<a href="https://doi.org/10.1021/acsnano.1c06130">https://doi.org/10.1021/acsnano.1c06130</a>	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
Thermoresponsive polymer assemblies via variable temperature liquid-phase transmission electron microscopy and small angle X-ray scattering	<a href="https://www.nature.com/articles/s41467-021-26773-z">https://www.nature.com/articles/s41467-021-26773-z</a>	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
Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles	<a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.202001874">https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.202001874</a>	He, Jing; Shi, Fenglei; Wu, Jianbo; Ye, Jian , Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles, 2021, Advanced Materials Interfaces, <a href="https://doi.org/10.1002/admi.202001874">https://doi.org/10.1002/admi.202001874</a>

Title	Web Link	Citations
Self-similar mesocrystals form via interface-driven nucleation and assembly	<a href="https://www.nature.com/articles/s41586-021-03300-0">https://www.nature.com/articles/s41586-021-03300-0</a>	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
Accessing local electron-beam induced temperature changes during in situ liquid-phase transmission electron microscopy	<a href="https://pubs.rsc.org/en/content/articlelanding/2021/na/d0na01027h">https://pubs.rsc.org/en/content/articlelanding/2021/na/d0na01027h</a>	Fritsch, Birk; Hutzler, Andreas; Wu, Mingjian; Khadivianazar, 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
In Situ Probing the Kinetics of Gold Nanoparticle Thermal Sintering in Liquids: Implications for Ink-Jet Printing	<a href="https://doi.org/10.1021/acsnm.0c03133">https://doi.org/10.1021/acsnm.0c03133</a>	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/acsnm.0c03133
Accessing local electron-beam induced temperature changes during in situ liquid-phase transmission electron microscopy	<a href="https://pubs.rsc.org/en/content/articlelanding/2021/na/d0na01027h">https://pubs.rsc.org/en/content/articlelanding/2021/na/d0na01027h</a>	Fritsch, Birk; Hutzler, Andreas; Wu, Mingjian; Khadivianazar, 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
In Situ Probing the Kinetics of Gold Nanoparticle Thermal Sintering in Liquids: Implications for Ink-Jet Printing	<a href="https://doi.org/10.1021/acsnm.0c03133">https://doi.org/10.1021/acsnm.0c03133</a>	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/acsnm.0c03133
Self-similar mesocrystals form via interface-driven nucleation and assembly	<a href="https://www.nature.com/articles/s41586-021-03300-0">https://www.nature.com/articles/s41586-021-03300-0</a>	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
In Situ Study of the Wet Chemical Etching of SiO <sub>2</sub> and Nanoparticle@SiO <sub>2</sub> Core-Shell Nanospheres	<a href="https://doi.org/10.1021/acsnm.0c02771">https://doi.org/10.1021/acsnm.0c02771</a>	Grau-Carbonell, Albert; Sadighkia, 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 <sub>2</sub> and Nanoparticle@SiO <sub>2</sub> Core-Shell Nanospheres, 2021, ACS Applied Nano Materials, 10.1021/acsnm.0c02771
Quantitative In Situ Visualization of Thermal Effects on the Formation of Gold Nanocrystals in Solution	<a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202102514">https://onlinelibrary.wiley.com/doi/abs/10.1002/adma.202102514</a>	Khelifa, 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
Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles	<a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.202001874">https://onlinelibrary.wiley.com/doi/abs/10.1002/admi.202001874</a>	He, Jing; Shi, Fenglei; Wu, Jianbo; Ye, Jian , Shape Transformation Mechanism of Gallium-Indium Alloyed Liquid Metal Nanoparticles, 2021, Advanced Materials Interfaces, <a href="https://doi.org/10.1002/admi.202001874">https://doi.org/10.1002/admi.202001874</a>
Thermoresponsive polymer assemblies via variable temperature liquid-phase transmission electron microscopy and small angle X-ray scattering	<a href="https://www.nature.com/articles/s41467-021-26773-z">https://www.nature.com/articles/s41467-021-26773-z</a>	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
Dipeptide Nanostructure Assembly and Dynamics via in Situ Liquid-Phase Electron Microscopy	<a href="https://doi.org/10.1021/acsnano.1c06130">https://doi.org/10.1021/acsnano.1c06130</a>	Gnanasekaran, Karthikeyan; Korpanty, Joanna; Berger, Or; Hampu, Nicholas; Halperin-Sternfeld, Michal; Cohen-Gerassi, Dana; Adler-Abramovich, Lihy; 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	<a href="https://pubs.rsc.org/en/content/articlelanding/2021/nr/d1nr01502h">https://pubs.rsc.org/en/content/articlelanding/2021/nr/d1nr01502h</a>	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
Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy	<a href="https://www.jove.com/t/62225/studying-effects-temperature-on-nucleation-growth-nanoparticles">https://www.jove.com/t/62225/studying-effects-temperature-on-nucleation-growth-nanoparticles</a>	Khelifa, 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
Probing Thermoresponsive Polymerization-Induced Self-Assembly with Variable-Temperature Liquid-Cell Transmission Electron Microscopy	<a href="http://www.sciencedirect.com/science/article/pii/S2590238520306664">http://www.sciencedirect.com/science/article/pii/S2590238520306664</a>	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

Title	Web Link	Citations
In Situ Monitoring of the Seeding and Growth of Silver Metal–Organic Nanotubes by Liquid-Cell Transmission Electron Microscopy	<a href="https://doi.org/10.1021/acsnano.0c03209">https://doi.org/10.1021/acsnano.0c03209</a>	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
Probing Thermoresponsive Polymerization-Induced Self-Assembly with Variable-Temperature Liquid-Cell Transmission Electron Microscopy	<a href="http://www.sciencedirect.com/science/article/pii/S2590238520306664">http://www.sciencedirect.com/science/article/pii/S2590238520306664</a>	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
Elucidating the Growth of Metal–Organic Nanotubes Combining Isoreticular Synthesis with Liquid-Cell Transmission Electron Microscopy	<a href="https://doi.org/10.1021/jacs.9b04586">https://doi.org/10.1021/jacs.9b04586</a>	Vailonis, Kristina M.; Gnanasekaran, Karthikeyan; Powers, Xian B.; Gianneschi, Nathan C.; Jenkins, David M. , Elucidating the Growth of Metal–Organic Nanotubes Combining Isoreticular Synthesis with Liquid-Cell Transmission Electron Microscopy, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b04586
Controlling the radical-induced redox chemistry inside a liquid-cell TEM	<a href="https://pubs.rsc.org/en/content/articlelanding/2019/sc/c9sc02227a">https://pubs.rsc.org/en/content/articlelanding/2019/sc/c9sc02227a</a>	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
Controlling the radical-induced redox chemistry inside a liquid-cell TEM	<a href="https://pubs.rsc.org/en/content/articlelanding/2019/sc/c9sc02227a">https://pubs.rsc.org/en/content/articlelanding/2019/sc/c9sc02227a</a>	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
Elucidating the Growth of Metal–Organic Nanotubes Combining Isoreticular Synthesis with Liquid-Cell Transmission Electron Microscopy	<a href="https://doi.org/10.1021/jacs.9b04586">https://doi.org/10.1021/jacs.9b04586</a>	Vailonis, Kristina M.; Gnanasekaran, Karthikeyan; Powers, Xian B.; Gianneschi, Nathan C.; Jenkins, David M. , Elucidating the Growth of Metal–Organic Nanotubes Combining Isoreticular Synthesis with Liquid-Cell Transmission Electron Microscopy, 2019, Journal of the American Chemical Society, 10.1021/jacs.9b04586
Colloidal Covalent Organic Frameworks	<a href="https://doi.org/10.1021/acscentsci.6b00331">https://doi.org/10.1021/acscentsci.6b00331</a>	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
In-situ studies of the dendritic yttria precursor nanostructures growth dynamics at elevated temperatures using liquid-cell transmission electron microscope	<a href="https://onlinelibrary.wiley.com/doi/full/10.1002/9783527808465.EMC2016.6563">https://onlinelibrary.wiley.com/doi/full/10.1002/9783527808465.EMC2016.6563</a>	Šturm, Sašo; 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, -