

# Haimei Zheng

## List of Publications by Year in descending order

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Version: 2024-02-01

172  
papers

23,503  
citations

15504

65  
h-index

7518

151  
g-index

179  
all docs

179  
docs citations

179  
times ranked

24643  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Epitaxial BiFeO <sub>3</sub> Multiferroic Thin Film Heterostructures. <i>Science</i> , 2003, 299, 1719-1722.  | 12.6 | 5,548     |
| 2  | Multiferroic BaTiO <sub>3</sub> -CoFe <sub>2</sub> O <sub>4</sub> Nanostructures. <i>Science</i> , 2004, 303, 661-663.  | 12.6 | 2,051     |
| 3  | Graphene Oxide as a Sulfur Immobilizer in High Performance Lithium/Sulfur Cells. <i>Journal of the American Chemical Society</i> , 2011, 133, 18522-18525.                                      | 13.7 | 1,415     |
| 4  | Observation of Single Colloidal Platinum Nanocrystal Growth Trajectories. <i>Science</i> , 2009, 324, 1309-1312.  | 12.6 | 1,200     |
| 5  | Real-Time Imaging of Pt <sub>3</sub> Fe Nanorod Growth in Solution. <i>Science</i> , 2012, 336, 1011-1014.  | 12.6 | 649       |
| 6  | Strain engineering and one-dimensional organization of metal-insulator domains in single-crystal vanadium dioxide beams. <i>Nature Nanotechnology</i> , 2009, 4, 732-737.                       | 31.5 | 562       |
| 7  | Highly porous non-precious bimetallic electrocatalysts for efficient hydrogen evolution. <i>Nature Communications</i> , 2015, 6, 6567.  | 12.8 | 440       |
| 8  | Photovoltaic Devices Employing Ternary PbS <sub>1-x</sub> Se <sub>x</sub> Nanocrystals. <i>Nano Letters</i> , 2009, 9, 1699-1703.   | 9.1  | 433       |
| 9  | Facet development during platinum nanocube growth. <i>Science</i> , 2014, 345, 916-919.   | 12.6 | 429       |
| 10 | Electric Field-Induced Magnetization Switching in Epitaxial Columnar Nanostructures. <i>Nano Letters</i> , 2005, 5, 1793-1796.  | 9.1  | 426       |
| 11 | Selective Facet Reactivity during Cation Exchange in Cadmium Sulfide Nanorods. <i>Journal of the American Chemical Society</i> , 2009, 131, 5285-5293.  | 13.7 | 372       |
| 12 | Co-occurrence of Superparamagnetism and Anomalous Hall Effect in Highly Reduced Cobalt-Doped Rutile TiO <sub>2</sub> Films. <i>Physical Review Letters</i> , 2004, 92, 166601.                  | 7.8  | 352       |
| 13 | Synthesis of PbS Nanorods and Other Ionic Nanocrystals of Complex Morphology by Sequential Cation Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2009, 131, 16851-16857. | 13.7 | 329       |
| 14 | Self-Assembled Growth of BiFeO <sub>3</sub> -CoFe <sub>2</sub> O <sub>4</sub> Nanostructures. <i>Advanced Materials</i> , 2006, 18, 2747-2752.  | 21.0 | 317       |
| 15 | Visualization of Electrode-Electrolyte Interfaces in LiPF <sub>6</sub> /EC/DEC Electrolyte for Lithium Ion Batteries via in Situ TEM. <i>Nano Letters</i> , 2014, 14, 1745-1750.                | 9.1  | 304       |
| 16 | Nanocrystal Diffusion in a Liquid Thin Film Observed by in Situ Transmission Electron Microscopy. <i>Nano Letters</i> , 2009, 9, 2460-2465.   | 9.1  | 282       |
| 17 | Electrically Assisted Magnetic Recording in Multiferroic Nanostructures. <i>Nano Letters</i> , 2007, 7, 1586-1590.  | 9.1  | 268       |
| 18 | Controlling Self-Assembled Perovskite-Spinel Nanostructures. <i>Nano Letters</i> , 2006, 6, 1401-1407.  | 9.1  | 256       |

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|----|--|------|-----------|
| 19 | Epitaxial BiFeO <sub>3</sub> thin films on Si. Applied Physics Letters, 2004, 85, 2574-2576.   | 3.3  | 249       |
| 20 | Hetero-Epitaxial Anion Exchange Yields Single-Crystalline Hollow Nanoparticles. Journal of the American Chemical Society, 2009, 131, 13943-13945.                                      | 13.7 | 221       |
| 21 | Observation of Transient Structural-Transformation Dynamics in a Cu <sub>2</sub> S Nanorod. Science, 2011, 333, 206-209.   | 12.6 | 220       |
| 22 | Nitrogen-doped cobalt phosphate@nanocarbon hybrids for efficient electrocatalytic oxygen reduction. Energy and Environmental Science, 2016, 9, 2563-2570.                              | 30.8 | 216       |
| 23 | Surface-Confinement Fabrication of Ultrathin Nickel Cobalt Layered Double Hydroxide Nanosheets for High-Performance Supercapacitors. Advanced Functional Materials, 2018, 28, 1803272. | 14.9 | 215       |
| 24 | Ferroelectric size effects in multiferroic BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2007, 90, 252906.   | 3.3  | 180       |
| 25 | A spongy nickel-organic CO <sub>2</sub> reduction photocatalyst for nearly 100% selective CO production. Science Advances, 2017, 3, e1700921.  | 10.3 | 175       |
| 26 | In-situ liquid cell transmission electron microscopy investigation on oriented attachment of gold nanoparticles. Nature Communications, 2018, 9, 421.                                  | 12.8 | 171       |
| 27 | Formation of two-dimensional transition metal oxide nanosheets with nanoparticles as intermediates. Nature Materials, 2019, 18, 970-976.   | 27.5 | 169       |
| 28 | Self-assembled single-crystal ferromagnetic iron nanowires formed by decomposition. Nature Materials, 2004, 3, 533-538.  | 27.5 | 165       |
| 29 | Revealing the Atomic Restructuring of Pt-Co Nanoparticles. Nano Letters, 2014, 14, 3203-3207.  | 9.1  | 162       |
| 30 | Revealing Bismuth Oxide Hollow Nanoparticle Formation by the Kirkendall Effect. Nano Letters, 2013, 13, 5715-5719.   | 9.1  | 157       |
| 31 | Direct Observation of Nanoparticle Superlattice Formation by Using Liquid Cell Transmission Electron Microscopy. ACS Nano, 2012, 6, 2078-2085.   | 14.6 | 152       |
| 32 | Determination of the Quantum Dot Band Gap Dependence on Particle Size from Optical Absorbance and Transmission Electron Microscopy Measurements. ACS Nano, 2012, 6, 9021-9032.         | 14.6 | 138       |
| 33 | In Situ Study of Lithiation and Delithiation of MoS <sub>2</sub> Nanosheets Using Electrochemical Liquid Cell Transmission Electron Microscopy. Nano Letters, 2015, 15, 5214-5220.     | 9.1  | 135       |
| 34 | Three-dimensional heteroepitaxy in self-assembled BaTiO <sub>3</sub> -CoFe <sub>2</sub> O <sub>4</sub> nanostructures. Applied Physics Letters, 2004, 85, 2035-2037.                   | 3.3  | 132       |
| 35 | Towards data-driven next-generation transmission electron microscopy. Nature Materials, 2021, 20, 274-279.   | 27.5 | 130       |
| 36 | Observation of growth of metal nanoparticles. Chemical Communications, 2013, 49, 11720.  | 4.1  | 128       |

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|----|---|------|-----------|
| 37 | Preparation of Single-Layer $\text{MoS}_2$ and $\text{Mo}_x\text{Se}_{2-x}$ Nanosheets with High-Concentration Metallic 1T Phase. <i>Small</i> , 2016, 12, 1866-1874.   | 10.0 | 126       |
| 38 | Dynamic Covalent Synthesis of Crystalline Porous Graphitic Frameworks. <i>CheM</i> , 2020, 6, 933-944.  | 11.7 | 123       |
| 39 | Structure and interface chemistry of perovskite-spinel nanocomposite thin films. <i>Applied Physics Letters</i> , 2006, 89, 172902.   | 3.3  | 122       |
| 40 | Liquid Cell Transmission Electron Microscopy. <i>Annual Review of Physical Chemistry</i> , 2016, 67, 719-747.   | 10.8 | 120       |
| 41 | Liquid Cell Transmission Electron Microscopy Study of Platinum Iron Nanocrystal Growth and Shape Evolution. <i>Journal of the American Chemical Society</i> , 2013, 135, 5038-5043.                           | 13.7 | 117       |
| 42 | In Situ Observation of Oscillatory Growth of Bismuth Nanoparticles. <i>Nano Letters</i> , 2012, 12, 1470-1474.  | 9.1  | 114       |
| 43 | Sulfidation of Cadmium at the Nanoscale. <i>ACS Nano</i> , 2008, 2, 1452-1458.  | 14.6 | 113       |
| 44 | Size effects in ultrathin epitaxial ferroelectric heterostructures. <i>Applied Physics Letters</i> , 2004, 84, 5225-5227.   | 3.3  | 112       |
| 45 | Evidence for power-law frequency dependence of intrinsic dielectric response in the $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ . <i>Physical Review B</i> , 2004, 70, .  | 3.2  | 110       |
| 46 | Assembled Monolayer Nanorod Heterojunctions. <i>ACS Nano</i> , 2011, 5, 3811-3816.  | 14.6 | 109       |
| 47 | Frontiers of <i>in situ</i> electron microscopy. <i>MRS Bulletin</i> , 2015, 40, 12-18.   | 3.5  | 109       |
| 48 | Imaging Protein Structure in Water at 2.7 Åm Resolution by Transmission Electron Microscopy. <i>Biophysical Journal</i> , 2012, 102, L15-L17.   | 0.5  | 105       |
| 49 | $\text{CO}_2$ Hydrogenation Studies on Co and CoPt Bimetallic Nanoparticles Under Reaction Conditions Using TEM, XPS and NEXAFS. <i>Topics in Catalysis</i> , 2011, 54, 778-785.                              | 2.8  | 103       |
| 50 | An investigation of ultrathin nickel-iron layered double hydroxide nanosheets grown on nickel foam for high-performance supercapacitor electrodes. <i>Journal of Alloys and Compounds</i> , 2017, 714, 63-70. | 5.5  | 101       |
| 51 | Electric Field Effect in Diluted Magnetic Insulator $\text{AnataseCo:TiO}_2$ . <i>Physical Review Letters</i> , 2005, 94, 126601.   | 7.8  | 100       |
| 52 | Direct observation of stick-slip movements of water nanodroplets induced by an electron beam. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 7187-7190.  | 7.1  | 97        |
| 53 | Heterophase fcc-2H-fcc gold nanorods. <i>Nature Communications</i> , 2020, 11, 3293.  | 12.8 | 92        |
| 54 | One-pot synthesis of carbon coated-SnO <sub>2</sub> /graphene-sheet nanocomposite with highly reversible lithium storage capability. <i>Journal of Power Sources</i> , 2013, 232, 152-158.                    | 7.8  | 91        |

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|----|---|------|-----------|
| 55 | Nickel sulfide nanostructures prepared by laser irradiation for efficient electrocatalytic hydrogen evolution reaction and supercapacitors. <i>Chemical Engineering Journal</i> , 2019, 367, 115-122. | 12.7 | 90        |
| 56 | Heteroepitaxially enhanced magnetic anisotropy in BaTiO <sub>3</sub> /CoFe <sub>2</sub> O <sub>4</sub> nanostructures. <i>Applied Physics Letters</i> , 2007, 90, 1131-113.                           | 3.3  | 88        |
| 57 | Size-Dependent Polar Ordering in Colloidal GeTe Nanocrystals. <i>Nano Letters</i> , 2011, 11, 1147-1152.  | 9.1  | 84        |
| 58 | Revealing Correlation of Valence State with Nanoporous Structure in Cobalt Catalyst Nanoparticles by <i>In Situ</i> Environmental TEM. <i>ACS Nano</i> , 2012, 6, 4241-4247.                          | 14.6 | 84        |
| 59 | Structural and Morphological Evolution of Lead Dendrites during Electrochemical Migration. <i>Scientific Reports</i> , 2013, 3, 3227.   | 3.3  | 83        |
| 60 | Tracking Nanoparticle Diffusion and Interaction during Self-Assembly in a Liquid Cell. <i>Nano Letters</i> , 2017, 17, 15-20.   | 9.1  | 82        |
| 61 | Electron Beam Manipulation of Nanoparticles. <i>Nano Letters</i> , 2012, 12, 5644-5648.   | 9.1  | 80        |
| 62 | SnS <sub>2</sub> nanoparticle loaded graphene nanocomposites for superior energy storage. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 6981.  | 2.8  | 79        |
| 63 | Thermoelectric Effect across the Metal/Insulator Domain Walls in VO <sub>2</sub> Microbeams. <i>Nano Letters</i> , 2009, 9, 4001-4006.  | 9.1  | 77        |
| 64 | <i>In Situ</i> TEM Study of Catalytic Nanoparticle Reactions in Atmospheric Pressure Gas Environment. <i>Microscopy and Microanalysis</i> , 2013, 19, 1558-1568.                                      | 0.4  | 72        |
| 65 | High-performance carbon nanotube transistors on SrTiO <sub>3</sub> /Si substrates. <i>Applied Physics Letters</i> , 2004, 84, 1946-1948.  | 3.3  | 70        |
| 66 | Nanocomposites from Solution-Synthesized PbTe/BiSbTe Nanoheterostructure with Unity Figure of Merit at Low-Medium Temperatures (500-600 K). <i>Advanced Materials</i> , 2017, 29, 1605140.            | 21.0 | 70        |
| 67 | In situ TEM study of the Li/Au reaction in an electrochemical liquid cell. <i>Faraday Discussions</i> , 2014, 176, 95-107.  | 3.2  | 60        |
| 68 | Visualization of the Coalescence of Bismuth Nanoparticles. <i>Microscopy and Microanalysis</i> , 2014, 20, 416-424.   | 0.4  | 58        |
| 69 | Electrode roughness dependent electrodeposition of sodium at the nanoscale. <i>Nano Energy</i> , 2020, 72, 104721.  | 16.0 | 54        |
| 70 | Dynamic deformability of individual PbSe nanocrystals during superlattice phase transitions. <i>Science Advances</i> , 2019, 5, eaaw5623.   | 10.3 | 52        |
| 71 | In Situ Study of Fe <sub>3</sub> Pt/Fe <sub>2</sub> O <sub>3</sub> Core-Shell Nanoparticle Formation. <i>Journal of the American Chemical Society</i> , 2015, 137, 14850-14853.                       | 13.7 | 51        |
| 72 | Controlled Synthesis and Size-Dependent Polarization Domain Structure of Colloidal Germanium Telluride Nanocrystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 2044-2047.          | 13.7 | 49        |

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|----|--|------|-----------|
| 73 | Nanostructured flexible Mg-modified LiMnPO <sub>4</sub> matrix as high-rate cathode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6368-6373.                            | 10.3 | 47        |
| 74 | Highly efficient and well-controlled ambient temperature RAFT polymerization of glycidyl methacrylate under visible light radiation. <i>Journal of Polymer Science Part A</i> , 2007, 45, 5091-5102.         | 2.3  | 45        |
| 75 | MoS <sub>2</sub> Liquid Cell Electron Microscopy Through Clean and Fast Polymer-Free MoS <sub>2</sub> Transfer. <i>Nano Letters</i> , 2019, 19, 1788-1795.   | 9.1  | 45        |
| 76 | Unveiling the mechanisms of lithium dendrite suppression by cationic polymer film induced solid-electrolyte interphase modification. <i>Energy and Environmental Science</i> , 2020, 13, 1832-1842.          | 30.8 | 45        |
| 77 | Visualization of facet-dependent pseudo-photocatalytic behavior of TiO <sub>2</sub> nanorods for water splitting using In situ liquid cell TEM. <i>Nano Energy</i> , 2019, 62, 507-512.                      | 16.0 | 44        |
| 78 | Selective Placement of Faceted Metal Tips on Semiconductor Nanorods. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 980-982.   | 13.8 | 43        |
| 79 | Tuning Complex Transition Metal Hydroxide Nanostructures as Active Catalysts for Water Oxidation by a Laser-Chemical Route. <i>Nano Letters</i> , 2015, 15, 2498-2503.                                       | 9.1  | 42        |
| 80 | Crystallization of Mordenite Platelets using Cooperative Organic Structure-Directing Agents. <i>Journal of the American Chemical Society</i> , 2019, 141, 20155-20165.                                       | 13.7 | 42        |
| 81 | Chemically Stable Polyarylether-Based Metallophthalocyanine Frameworks with High Carrier Mobilities for Capacitive Energy Storage. <i>Journal of the American Chemical Society</i> , 2021, 143, 17701-17707. | 13.7 | 42        |
| 82 | Visualization of Colloidal Nanocrystal Formation and Electrode-Electrolyte Interfaces in Liquids Using TEM. <i>Accounts of Chemical Research</i> , 2017, 50, 1808-1817.                                      | 15.6 | 40        |
| 83 | In Situ Study of Spinel Ferrite Nanocrystal Growth Using Liquid Cell Transmission Electron Microscopy. <i>Chemistry of Materials</i> , 2015, 27, 8146-8152.  | 6.7  | 39        |
| 84 | Dynamics of Nanoscale Dendrite Formation in Solution Growth Revealed Through in Situ Liquid Cell Electron Microscopy. <i>Nano Letters</i> , 2018, 18, 6427-6433.   | 9.1  | 38        |
| 85 | Modification of critical current density of MgB <sub>2</sub> films irradiated with 200 MeV Ag ions. <i>Applied Physics Letters</i> , 2004, 84, 2352-2354.  | 3.3  | 37        |
| 86 | Partial Dislocations in Graphene and Their Atomic Level Migration Dynamics. <i>Nano Letters</i> , 2015, 15, 5950-5955.   | 9.1  | 37        |
| 87 | Tracking the Effects of Ligands on Oxidative Etching of Gold Nanorods in Graphene Liquid Cell Electron Microscopy. <i>ACS Nano</i> , 2020, 14, 10239-10250.  | 14.6 | 35        |
| 88 | Dynamic behavior of nanoscale liquids in graphene liquid cells revealed by in situ transmission electron microscopy. <i>Micron</i> , 2019, 116, 22-29.   | 2.2  | 31        |
| 89 | Self-assembled vertical heteroepitaxial nanostructures: from growth to functionalities. <i>MRS Communications</i> , 2014, 4, 31-44.  | 1.8  | 29        |
| 90 | Electrically driven cation exchange for in situ fabrication of individual nanostructures. <i>Nature Communications</i> , 2017, 8, 14889.   | 12.8 | 29        |

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|-----|--|------|-----------|
| 91  | Selective nitrogen doping of graphene oxide by laser irradiation for enhanced hydrogen evolution activity. <i>Chemical Communications</i> , 2018, 54, 13726-13729.   | 4.1  | 28        |
| 92  | In situ TEM observation of calcium silicate hydrate nanostructure at high temperatures. <i>Cement and Concrete Research</i> , 2021, 149, 106579.   | 11.0 | 28        |
| 93  | Perspectives on in situ electron microscopy. <i>Ultramicroscopy</i> , 2017, 180, 188-196.  | 1.9  | 26        |
| 94  | Liquid phase transmission electron microscopy for imaging of nanoscale processes in solution. <i>MRS Bulletin</i> , 2020, 45, 704-712.   | 3.5  | 26        |
| 95  | On-Column Bound State with Topological Charge $\pm 1$ Excited by an Atomic-Size Vortex Beam in an Aberration-Corrected Scanning Transmission Electron Microscope. <i>Microscopy and Microanalysis</i> , 2012, 18, 711-719.   | 0.4  | 24        |
| 96  | Using molecular tweezers to move and image nanoparticles. <i>Nanoscale</i> , 2013, 5, 4070.  | 5.6  | 24        |
| 97  | Self-Passivation of Defects: Effects of High-Energy Particle Irradiation on the Elastic Modulus of Multilayer Graphene. <i>Advanced Materials</i> , 2015, 27, 6841-6847.   | 21.0 | 24        |
| 98  | Aggregation dynamics of nanoparticles at solid-liquid interfaces. <i>Nanoscale</i> , 2017, 9, 10044-10050.   | 5.6  | 24        |
| 99  | Nanoscale x-ray magnetic circular dichroism probing of electric-field-induced magnetic switching in multiferroic nanostructures. <i>Applied Physics Letters</i> , 2007, 90, 123104.  | 3.3  | 23        |
| 100 | Revealing of the Activation Pathway and Cathode Electrolyte Interphase Evolution of Li-Rich $0.5\text{Li}_{2-x}\text{MnO}_3 \cdot 0.5\text{LiNi}_{0.3}\text{Co}_{0.3}\text{Mn}_{0.4}\text{O}_2$ Cathode by in Situ Electrochemical Quartz Crystal Microbalance. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 16214-16222. | 8.0  | 23        |
| 101 | Strain-Mediated Interfacial Dynamics during Au-PbS Core-Shell Nanostructure Formation. <i>ACS Nano</i> , 2016, 10, 6235-6240.  | 14.6 | 21        |
| 102 | Identifying surface structural changes in a newly-developed Ga-based alloy with melting temperature below $10^3$ Å°C. <i>Applied Surface Science</i> , 2019, 492, 143-149.   | 6.1  | 21        |
| 103 | Structural and Chemical Evolution of Amorphous Nickel Iron Complex Hydroxide upon Lithiation/Delithiation. <i>Chemistry of Materials</i> , 2015, 27, 1583-1589.  | 6.7  | 20        |
| 104 | In-situ Multimodal Imaging and Spectroscopy of Mg Electrodeposition at Electrode-Electrolyte Interfaces. <i>Scientific Reports</i> , 2017, 7, 42527.   | 3.3  | 20        |
| 105 | In situ TEM observation of neck formation during oriented attachment of PbSe nanocrystals. <i>Nano Research</i> , 2019, 12, 2549-2553.   | 10.4 | 20        |
| 106 | Epitaxially induced high temperature (>900K) cubic-tetragonal structural phase transition in BaTiO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2004, 85, 4109-4111.  | 3.3  | 19        |
| 107 | Bubble nucleation and migration in a lead-iron hydr(oxide) core-shell nanoparticle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12928-12932.   | 7.1  | 19        |
| 108 | Revealing Cation-Exchange-Induced Phase Transformations in Multielemental Chalcogenide Nanoparticles. <i>Chemistry of Materials</i> , 2017, 29, 9192-9199.   | 6.7  | 19        |

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|-----|--|------|-----------|
| 109 | Solidâ€“liquidâ€“ gas reaction accelerated by gas molecule tunnelling-like effect. <i>Nature Materials</i> , 2022, 21, 859-863.  | 27.5 | 19        |
| 110 | In Situ TEM Study of the Degradation of PbSe Nanocrystals in Air. <i>Chemistry of Materials</i> , 2019, 31, 190-199.   | 6.7  | 18        |
| 111 | Defect-mediated ripening of core-shell nanostructures. <i>Nature Communications</i> , 2022, 13, 2211.  | 12.8 | 17        |
| 112 | Origin of antiphase domain boundaries and their effect on the dielectric constant of Ba <sub>0.5</sub> Sr <sub>0.5</sub> TiO <sub>3</sub> films grown on MgO substrates. <i>Applied Physics Letters</i> , 2002, 81, 4398-4400.       | 3.3  | 16        |
| 113 | Electrical Breakdown of Suspended Mono- and Few-Layer Tungsten Disulfide <i>via</i> Sulfur Depletion Identified by <i>In Situ</i> Atomic Imaging. <i>ACS Nano</i> , 2017, 11, 9435-9444.   | 14.6 | 16        |
| 114 | Understanding the role of water-soluble guar gum binder in reducing capacity fading and voltage decay of Li-rich cathode for Li-ion batteries. <i>Electrochimica Acta</i> , 2020, 351, 136401.                                       | 5.2  | 16        |
| 115 | Growth mechanism of coreâ€“shell PtNiâ€“Ni nanoparticles using in situ transmission electron microscopy. <i>Nanoscale</i> , 2018, 10, 11281-11286.   | 5.6  | 15        |
| 116 | Identification of a quasi-liquid phase at solidâ€“liquid interface. <i>Nature Communications</i> , 2022, 13, .   | 12.8 | 15        |
| 117 | Size and shape evolution of embedded single-crystal $\pm$ -Fe nanowires. <i>Applied Physics Letters</i> , 2005, 87, 203110.  | 3.3  | 14        |
| 118 | Suppression of antiphase domain boundary formation in Ba <sub>0.5</sub> Sr <sub>0.5</sub> TiO <sub>3</sub> films grown on vicinal MgO substrates. <i>Applied Physics Letters</i> , 2004, 85, 2905-2907.                              | 3.3  | 13        |
| 119 | Facile synthesis of wellâ€“defined pHâ€“liable Schiffâ€“baseâ€“type photosensitive polymers via visibleâ€“lightâ€“activated ambient temperature RAFT polymerization. <i>Journal of Polymer Science Part A</i> , 2009, 47, 6668-6681. | 2.3  | 13        |
| 120 | Controlling electron beam-induced structure modifications and cation exchange in cadmium sulfideâ€“copper sulfide heterostructured nanorods. <i>Ultramicroscopy</i> , 2013, 134, 207-213.  | 1.9  | 13        |
| 121 | Imaging, understanding, and control of nanoscale materials transformations. <i>MRS Bulletin</i> , 2021, 46, 443-450.   | 3.5  | 13        |
| 122 | Tailoring Transitionâ€“Metal Hydroxides and Oxides by Photonâ€“Induced Reactions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14272-14276.  | 13.8 | 11        |
| 123 | Spring-Like Pseudoelasticity of Monocrystalline Cu <sub>2</sub> S Nanowire. <i>Nano Letters</i> , 2018, 18, 5070-5077.   | 9.1  | 11        |
| 124 | Negative Electro-conductance in Suspended 2D WS <sub>2</sub> Nanoscale Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32963-32970.  | 8.0  | 10        |
| 125 | Growth and assembly of cobalt oxide nanoparticle rings at liquid nanodroplets with solid junction. <i>Nanoscale</i> , 2017, 9, 13915-13921.  | 5.6  | 10        |
| 126 | Spontaneous Reshaping and Splitting of AgCl Nanocrystals under Electron Beam Illumination. <i>Small</i> , 2018, 14, e1803231.  | 10.0 | 10        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 127 | Observation of Surface Ligands-Controlled Etching of Palladium Nanocrystals. Nano Letters, 2021, 21, 6640-6647.  | 9.1  | 10        |
| 128 | Transmission Electron Microscopy for Chemists. Accounts of Chemical Research, 2017, 50, 1795-1796.   | 15.6 | 9         |
| 129 | Efficient CO <sub>2</sub> reduction MOFs derivatives transformation mechanism revealed by in-situ liquid phase TEM. Applied Catalysis B: Environmental, 2022, 307, 121164.   | 20.2 | 9         |
| 130 | Real time imaging of two-dimensional iron oxide spherulite nanostructure formation. Nano Research, 2019, 12, 2889-2893.  | 10.4 | 8         |
| 131 | Controlled oxidative etching of gold nanorods revealed through in-situ liquid cell electron microscopy. Science China Materials, 2020, 63, 2599-2605.  | 6.3  | 8         |
| 132 | Local dielectric measurements of BaTiO <sub>3</sub> @CoFe <sub>2</sub> O <sub>4</sub> nanocomposites through microwave microscopy. Journal of Materials Research, 2007, 22, 1193-1199.   | 2.6  | 7         |
| 133 | Revealing Dynamic Processes of Materials in Liquids Using Liquid Cell Transmission Electron Microscopy. Journal of Visualized Experiments, 2012, , .   | 0.3  | 7         |
| 134 | Scanning Confocal Electron Energy-Loss Microscopy Using Valence-Loss Signals. Microscopy and Microanalysis, 2013, 19, 1036-1049.   | 0.4  | 7         |
| 135 | A unique pathway of PtNi nanoparticle formation observed with liquid cell transmission electron microscopy. Nanoscale, 2020, 12, 1414-1418.  | 5.6  | 7         |
| 136 | Recent progress in thermoelectric nanocomposites based on solution-synthesized nanoheterostructures. Nano Research, 2017, 10, 1498-1509.   | 10.4 | 6         |
| 137 | Anomalously high electronic thermal conductivity and Lorenz ratio in Bi <sub>2</sub> Te <sub>3</sub> nanoribbons far from the bipolar condition. Applied Physics Letters, 2019, 114, .   | 3.3  | 5         |
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