

# Yuzi Liu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6574532/publications.pdf>

Version: 2024-02-01

195  
papers

9,371  
citations

41258

49  
h-index

46693

89  
g-index

199  
all docs

199  
docs citations

199  
times ranked

14478  
citing authors

| #  | ARTICLE                                                                                                                                                                                                             | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Stable cycling of high-voltage lithium metal batteries in ether electrolytes. <i>Nature Energy</i> , 2018, 3, 739-746.                                                                                              | 19.8 | 767       |
| 2  | Highly selective electrocatalytic CO <sub>2</sub> reduction to ethanol by metallic clusters dynamically formed from atomically dispersed copper. <i>Nature Energy</i> , 2020, 5, 623-632.                           | 19.8 | 393       |
| 3  | Making Li-metal electrodes rechargeable by controlling the dendrite growth direction. <i>Nature Energy</i> , 2017, 2, .                                                                                             | 19.8 | 355       |
| 4  | Facet-dependent active sites of a single Cu <sub>2</sub> O particle photocatalyst for CO <sub>2</sub> reduction to methanol. <i>Nature Energy</i> , 2019, 4, 957-968.                                               | 19.8 | 349       |
| 5  | Building ultraconformal protective layers on both secondary and primary particles of layered lithium transition metal oxide cathodes. <i>Nature Energy</i> , 2019, 4, 484-494.                                      | 19.8 | 345       |
| 6  | Morphological and Crystalline Evolution of Nanostructured MnO <sub>2</sub> and Its Application in Lithium-Air Batteries. <i>ACS Nano</i> , 2012, 6, 8067-8077.                                                      | 7.3  | 266       |
| 7  | Nanostructured Black Phosphorus/Ketjenblack-Multiwalled Carbon Nanotubes Composite as High Performance Anode Material for Sodium-Ion Batteries. <i>Nano Letters</i> , 2016, 16, 3955-3965.                          | 4.5  | 246       |
| 8  | Heterogeneous nucleation and shape transformation of multicomponent metallic Nanostructures. <i>Nature Materials</i> , 2015, 14, 215-223.                                                                           | 13.3 | 187       |
| 9  | Ru Nanoframes with an fcc Structure and Enhanced Catalytic Properties. <i>Nano Letters</i> , 2016, 16, 2812-2817.                                                                                                   | 4.5  | 187       |
| 10 | In Situ Visualization of Self-Assembly of Charged Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2013, 135, 3764-3767.                                                                       | 6.6  | 183       |
| 11 | Nanostructured Layered Cathode for Rechargeable Mg-Ion Batteries. <i>ACS Nano</i> , 2015, 9, 8194-8205.                                                                                                             | 7.3  | 181       |
| 12 | Understanding Pt Nanoparticle Anchoring on Graphene Supports through Surface Functionalization. <i>ACS Catalysis</i> , 2016, 6, 2642-2653.                                                                          | 5.5  | 172       |
| 13 | Insights into the structural effects of layered cathode materials for high voltage sodium-ion batteries. <i>Energy and Environmental Science</i> , 2017, 10, 1677-1693.                                             | 15.6 | 143       |
| 14 | Superstructures generated from truncated tetrahedral quantum dots. <i>Nature</i> , 2018, 561, 378-382.                                                                                                              | 13.7 | 143       |
| 15 | Lead-Free Cs <sub>4</sub> CuSb <sub>2</sub> Cl <sub>12</sub> Layered Double Perovskite Nanocrystals. <i>Journal of the American Chemical Society</i> , 2020, 142, 11927-11936.                                      | 6.6  | 131       |
| 16 | Enhancing the Photon- and Gas-Sensing Properties of a Single SnO <sub>2</sub> Nanowire Based Nanodevice by Nanoparticle Surface Functionalization. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11539-11544. | 1.5  | 128       |
| 17 | Solid-Solution CrCoCuFeNi High-Entropy Alloy Thin Films Synthesized by Sputter Deposition. <i>Materials Research Letters</i> , 2015, 3, 203-209.                                                                    | 4.1  | 127       |
| 18 | Parasitic Reactions in Nanosized Silicon Anodes for Lithium-Ion Batteries. <i>Nano Letters</i> , 2017, 17, 1512-1519.                                                                                               | 4.5  | 122       |

| #  | ARTICLE                                                                                                                                                                                                                                                                            | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Nanostructured TiO <sub>2</sub> /Polypyrrole for Visible Light Photocatalysis. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15540-15544.                                                                                                                                    | 1.5  | 121       |
| 20 | Elastic Properties and Buckling of Silicon Nanowires. <i>Advanced Materials</i> , 2008, 20, 3919-3923.                                                                                                                                                                             | 11.1 | 119       |
| 21 | Ambient-stable tetragonal phase in silver nanostructures. <i>Nature Communications</i> , 2012, 3, 971.                                                                                                                                                                             | 5.8  | 119       |
| 22 | Li <sub>x</sub> NiO/Ni Heterostructure with Strong Basic Lattice Oxygen Enables Electrocatalytic Hydrogen Evolution with Pt-like Activity. <i>Journal of the American Chemical Society</i> , 2020, 142, 12613-12619.                                                               | 6.6  | 103       |
| 23 | Efficient photocatalytic H <sub>2</sub> production via rational design of synergistic spatially-separated dual cocatalysts modified Mn <sub>0.5</sub> Cd <sub>0.5</sub> S photocatalyst under visible light irradiation. <i>Chemical Engineering Journal</i> , 2018, 337, 480-487. | 6.6  | 102       |
| 24 | Unprecedented non-hysteretic superelasticity of [001]-oriented NiCoFeGa single crystals. <i>Nature Materials</i> , 2020, 19, 712-718.                                                                                                                                              | 13.3 | 95        |
| 25 | Li <sub>2</sub> S encapsulated by nitrogen-doped carbon for lithium sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18026-18032.                                                                                                                              | 5.2  | 90        |
| 26 | An All-Ceramic, Anisotropic, and Flexible Aerogel Insulation Material. <i>Nano Letters</i> , 2020, 20, 3828-3835.                                                                                                                                                                  | 4.5  | 79        |
| 27 | Visualization of the Magnetic Structure of Sculpted Three-Dimensional Cobalt Nanospirals. <i>Nano Letters</i> , 2014, 14, 759-764.                                                                                                                                                 | 4.5  | 73        |
| 28 | Hydrogenolysis of 5-hydroxymethylfurfural to 2,5-dimethylfuran over supported Pt-Co bimetallic catalysts under mild conditions. <i>Green Chemistry</i> , 2018, 20, 2894-2902.                                                                                                      | 4.6  | 73        |
| 29 | Variability and origins of grain boundary electric potential detected by electron holography and atom-probe tomography. <i>Nature Materials</i> , 2020, 19, 887-893.                                                                                                               | 13.3 | 72        |
| 30 | In Situ Oxidation Studies of High-Entropy Alloy Nanoparticles. <i>ACS Nano</i> , 2020, 14, 15131-15143.                                                                                                                                                                            | 7.3  | 71        |
| 31 | Highly Reversible Sodiation/Desodiation from a Carbon-Sandwiched Sn <sub>2</sub> Nanosheet Anode for Sodium Ion Batteries. <i>Nano Letters</i> , 2020, 20, 3844-3851.                                                                                                              | 4.5  | 69        |
| 32 | Electrochemically induced amorphous-to-rock-salt phase transformation in niobium oxide electrode for Li-ion batteries. <i>Nature Materials</i> , 2022, 21, 795-803.                                                                                                                | 13.3 | 69        |
| 33 | Revealing mechanism responsible for structural reversibility of single-crystal VO <sub>2</sub> nanorods upon lithiation/delithiation. <i>Nano Energy</i> , 2017, 36, 197-205.                                                                                                      | 8.2  | 65        |
| 34 | Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. <i>Nature Communications</i> , 2020, 11, 6373.                                                                                                                                 | 5.8  | 65        |
| 35 | Solid-State Lithium/Selenium-Sulfur Chemistry Enabled via a Robust Solid-Electrolyte Interphase. <i>Advanced Energy Materials</i> , 2019, 9, 1802235.                                                                                                                              | 10.2 | 63        |
| 36 | Hollow Silicon Nanospheres Encapsulated with a Thin Carbon Shell: An Electrochemical Study. <i>Electrochimica Acta</i> , 2016, 215, 126-141.                                                                                                                                       | 2.6  | 62        |

| #  | ARTICLE                                                                                                                                                                                                                                                                      | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | Spatial and Temporal Analysis of Sodium-Ion Batteries. ACS Energy Letters, 2021, 6, 4023-4054.                                                                                                                                                                               | 8.8  | 62        |
| 38 | Visualizing Redox Dynamics of a Single Ag/AgCl Heterogeneous Nanocatalyst at Atomic Resolution. ACS Nano, 2016, 10, 3738-3746.                                                                                                                                               | 7.3  | 61        |
| 39 | Atomic layer deposited Pt-Co bimetallic catalysts for selective hydrogenation of $\hat{1}\pm$ , $\hat{1}^2$ -unsaturated aldehydes to unsaturated alcohols. Journal of Catalysis, 2018, 366, 61-69.                                                                          | 3.1  | 61        |
| 40 | Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 24715-24724.                                                                                                                                 | 4.0  | 60        |
| 41 | A Low-Current and Analog Memristor with Ru as Mobile Species. Advanced Materials, 2020, 32, e1904599.                                                                                                                                                                        | 11.1 | 59        |
| 42 | Evolution of Self-Assembled ZnTe Magic-Sized Nanoclusters. Journal of the American Chemical Society, 2015, 137, 742-749.                                                                                                                                                     | 6.6  | 58        |
| 43 | PVP-Assisted Synthesis of Uniform Carbon Coated $\text{Li}_2\text{S/CB}$ for High-Performance Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2015, 7, 25748-25756.                                                                                            | 4.0  | 56        |
| 44 | A practical phosphorus-based anode material for high-energy lithium-ion batteries. Nano Energy, 2020, 74, 104849.                                                                                                                                                            | 8.2  | 56        |
| 45 | Synthesis of $\text{Sm}^{\text{II}}\text{Co}$ and $\text{Sm}^{\text{II}}\text{Co/Fe}$ nanocrystals by reductive annealing of nanoparticles. Journal of Alloys and Compounds, 2011, 509, 2132-2136.                                                                           | 2.8  | 55        |
| 46 | Photoinduced Electron Transfer Pathways in Hydrogen-Evolving Reduced Graphene Oxide-Boosted Hybrid Nano-Bio Catalyst. ACS Nano, 2014, 8, 7995-8002.                                                                                                                          | 7.3  | 55        |
| 47 | Origin and regulation of oxygen redox instability in high-voltage battery cathodes. Nature Energy, 2022, 7, 808-817.                                                                                                                                                         | 19.8 | 55        |
| 48 | Tunable room-temperature ferromagnetism in Co-doped two-dimensional van der Waals ZnO. Nature Communications, 2021, 12, 3952.                                                                                                                                                | 5.8  | 54        |
| 49 | Hierarchical polybenzimidazole-grafted graphene hybrids as supports for Pt nanoparticle catalysts with excellent PEMFC performance. Nano Energy, 2015, 16, 281-292.                                                                                                          | 8.2  | 50        |
| 50 | Quantifying the Nucleation and Growth Kinetics of Microwave Nanochemistry Enabled by in Situ High-Energy X-ray Scattering. Nano Letters, 2016, 16, 715-720.                                                                                                                  | 4.5  | 50        |
| 51 | $\text{H}_3\text{PO}_4$ treatment to enhance the electrochemical properties of $\text{Li}(\text{Ni}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3})\text{O}_2$ and $\text{Li}(\text{Ni}_{0.5}\text{Mn}_{0.3}\text{Co}_{0.2})\text{O}_2$ cathodes. Electrochimica Acta, 2019, 301, 8-22. | 2.6  | 50        |
| 52 | Material Dimensionality Effects on Electron Transfer Rates Between $\text{CsPbBr}_3$ and CdSe Nanoparticles. Nano Letters, 2018, 18, 4771-4776.                                                                                                                              | 4.5  | 49        |
| 53 | Controlling Nanoparticle Orientations in the Self-Assembly of Patchy Quantum Dot-Gold Heterostructural Nanocrystals. Journal of the American Chemical Society, 2019, 141, 6013-6021.                                                                                         | 6.6  | 49        |
| 54 | Li-ion battery material under high pressure: amorphization and enhanced conductivity of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ . National Science Review, 2019, 6, 239-246.                                                                                                   | 4.6  | 49        |

| #  | ARTICLE                                                                                                                                                                                                                     | IF  | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Highly Asymmetric, Interfaced Dimers Made of Au Nanoparticles and Bimetallic Nanoshells: Synthesis and Photo-enhanced Catalysis. <i>Advanced Functional Materials</i> , 2014, 24, 2828-2836.                                | 7.8 | 47        |
| 56 | X-ray micro-beam characterization of lattice rotations and distortions due to an individual dislocation. <i>Nature Communications</i> , 2013, 4, 2774.                                                                      | 5.8 | 46        |
| 57 | Semi-artificial Photosynthetic CO <sub>2</sub> Reduction through Purple Membrane Re-engineering with Semiconductor. <i>Journal of the American Chemical Society</i> , 2019, 141, 11811-11815.                               | 6.6 | 44        |
| 58 | Redox Catalytic and Quasi-Solid Sulfur Conversion for High-Capacity Lean Lithium Sulfur Batteries. <i>ACS Nano</i> , 2019, 13, 14540-14548.                                                                                 | 7.3 | 44        |
| 59 | Magnetic Damping Modulation in $\text{IrMn}$ via the Magnetic Spin Hall Effect. <i>Physical Review Letters</i> , 2020, 124, 087204.                                                                                         | 7.0 | 44        |
| 60 | Carbon Free and Noble Metal Free Ni <sub>2</sub> Mo <sub>6</sub> S <sub>8</sub> Electrocatalyst for Selective Electrosynthesis of H <sub>2</sub> O <sub>2</sub> . <i>Advanced Functional Materials</i> , 2021, 31, 2104716. | 7.8 | 44        |
| 61 | Magnetoresistance and anomalous Hall effect in magnetic ZnO films. <i>Journal of Applied Physics</i> , 2007, 101, 063918.                                                                                                   | 1.1 | 43        |
| 62 | High thermal stability of carbon-coated L10-FePt nanoparticles prepared by salt-matrix annealing. <i>Journal of Applied Physics</i> , 2008, 103, .                                                                          | 1.1 | 43        |
| 63 | In Situ Focused Ion Beam Scanning Electron Microscope Study of Microstructural Evolution of Single Tin Particle Anode for Li-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 1733-1738.            | 4.0 | 42        |
| 64 | Electron beam induced evolution in Au, Ag, and interfaced heterogeneous Au/Ag nanoparticles. <i>Nanoscale</i> , 2015, 7, 13687-13693.                                                                                       | 2.8 | 41        |
| 65 | Birnessite-Type MnO <sub>2</sub> Nanosheets with Layered Structures Under High Pressure: Elimination of Crystalline Stacking Faults and Oriented Laminar Assembly. <i>Small</i> , 2015, 11, 300-305.                        | 5.2 | 41        |
| 66 | Investigations of Si Thin Films as Anode of Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 3487-3494.                                                                                     | 4.0 | 40        |
| 67 | Electrostatic Self-Assembly Enabling Integrated Bulk and Interfacial Sodium Storage in 3D Titania-Graphene Hybrid. <i>Nano Letters</i> , 2018, 18, 336-346.                                                                 | 4.5 | 40        |
| 68 | A revisit to atomic layer deposition of zinc oxide using diethylzinc and water as precursors. <i>Journal of Materials Science</i> , 2019, 54, 5236-5248.                                                                    | 1.7 | 40        |
| 69 | Polyvinylpyrrolidone (PVP)-Capped Pt Nanocubes with Superior Peroxidase-Like Activity. <i>ChemNanoMat</i> , 2017, 3, 33-38.                                                                                                 | 1.5 | 37        |
| 70 | Li-Substituted Layered Spinel Cathode Material for Sodium Ion Batteries. <i>Chemistry of Materials</i> , 2018, 30, 8145-8154.                                                                                               | 3.2 | 37        |
| 71 | Microstructure analysis of a SmCo/Fe exchange spring bilayer. <i>Applied Physics Letters</i> , 2008, 93, .                                                                                                                  | 1.5 | 35        |
| 72 | Ultrafine Pt cluster and RuO <sub>2</sub> heterojunction anode catalysts designed for ultra-low Pt-loading anion exchange membrane fuel cells. <i>Nanoscale Horizons</i> , 2020, 5, 316-324.                                | 4.1 | 34        |

| #  | ARTICLE                                                                                                                                                                                                                                                          | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 73 | Synthesis and performance of nanostructured silicon/graphite composites with a thin carbon shell and engineered voids. <i>Electrochimica Acta</i> , 2017, 258, 274-283.                                                                                          | 2.6  | 33        |
| 74 | Stress- and Interface-Compatible Red Phosphorus Anode for High-Energy and Durable Sodium-Ion Batteries. <i>ACS Energy Letters</i> , 2021, 6, 547-556.                                                                                                            | 8.8  | 33        |
| 75 | A mechanistic study of mesoporous TiO <sub>2</sub> nanoparticle negative electrode materials with varying crystallinity for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3333-3343.                                                 | 5.2  | 32        |
| 76 | One-Step Chemical Vapor Deposition Synthesis of Hierarchical Ni and N Co-Doped Carbon Nanosheet/Nanotube Hybrids for Efficient Electrochemical CO <sub>2</sub> Reduction at Commercially Viable Current Densities. <i>ACS Catalysis</i> , 2021, 11, 10333-10344. | 5.5  | 32        |
| 77 | Enhanced spin signals due to native oxide formation in Ni <sub>80</sub> Fe <sub>20</sub> /Ag lateral spin valves. <i>Applied Physics Letters</i> , 2010, 97, .                                                                                                   | 1.5  | 31        |
| 78 | Selenium Nanocomposite Cathode with Long Cycle Life for Rechargeable Lithium-Selenium Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 784-791.                                                                                                              | 2.4  | 31        |
| 79 | Insights into the Distinct Lithiation/Sodiation of Porous Cobalt Oxide by in Operando Synchrotron X-ray Techniques and Ab Initio Molecular Dynamics Simulations. <i>Nano Letters</i> , 2017, 17, 953-962.                                                        | 4.5  | 30        |
| 80 | Perpendicular anisotropy dependence of oscillatory interlayer coupling behavior in [Pt/Co] <sub>5</sub> /Ru/[Co/Pt] <sub>5</sub> multilayers. <i>Journal of Applied Physics</i> , 2008, 104, .                                                                   | 1.1  | 29        |
| 81 | Boosting Superior Lithium Storage Performance of Alloy-Based Anode Materials via Ultraconformal Sb Coating-Derived Favorable Solid-Electrolyte Interphase. <i>Advanced Energy Materials</i> , 2020, 10, 1903186.                                                 | 10.2 | 29        |
| 82 | <i>In Situ</i> Construction of an Ultrarobust and Lithiophilic Li-Enriched Li-N Nanoshield for High-Performance Ge-Based Anode Materials. <i>ACS Energy Letters</i> , 2020, 5, 3490-3497.                                                                        | 8.8  | 29        |
| 83 | Native lattice strain induced structural earthquake in sodium layered oxide cathodes. <i>Nature Communications</i> , 2022, 13, 436.                                                                                                                              | 5.8  | 29        |
| 84 | Enhanced hardness in B-doped ZnO thin films on fused quartz substrates by pulsed-laser deposition. <i>Applied Surface Science</i> , 2006, 253, 726-729.                                                                                                          | 3.1  | 28        |
| 85 | Glancing-incidence focussed ion beam milling: A coherent X-ray diffraction study of 3D nano-scale lattice strains and crystal defects. <i>Acta Materialia</i> , 2018, 154, 113-123.                                                                              | 3.8  | 28        |
| 86 | Amorphous and crystalline TiO <sub>2</sub> nanoparticle negative electrodes for sodium-ion batteries. <i>Electrochimica Acta</i> , 2019, 321, 134723.                                                                                                            | 2.6  | 28        |
| 87 | Tunable and rapid self-assembly of block copolymers using mixed solvent vapors. <i>Nanoscale</i> , 2014, 6, 15216-15221.                                                                                                                                         | 2.8  | 27        |
| 88 | Elevated Temperature Photophysical Properties and Morphological Stability of CdSe and CdSe/CdS Nanoplatelets. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 286-293.                                                                                   | 2.1  | 27        |
| 89 | Synergistic Multisites Fe <sub>2</sub> Mo <sub>6</sub> S <sub>8</sub> Electrocatalysts for Ambient Nitrogen Conversion to Ammonia. <i>ACS Nano</i> , 2021, 15, 16887-16895.                                                                                      | 7.3  | 27        |
| 90 | Bottom-up, hard template and scalable approaches toward designing nanostructured Li <sub>2</sub> S for high performance lithium sulfur batteries. <i>Nanoscale</i> , 2015, 7, 18071-18080.                                                                       | 2.8  | 26        |

| #   | ARTICLE                                                                                                                                                                                                                                                                | IF  | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91  | Silicon Nanoparticles: Stability in Aqueous Slurries and the Optimization of the Oxide Layer Thickness for Optimal Electrochemical Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 32727-32736.                                                  | 4.0 | 26        |
| 92  | Stabilized Electrode/Electrolyte Interphase by a Saturated Ionic Liquid Electrolyte for High-Voltage NMC532/Si-Graphite Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 23035-23045.                                                                  | 4.0 | 26        |
| 93  | Revealing High-Temperature Reduction Dynamics of High-Entropy Alloy Nanoparticles <i>via In Situ</i> Transmission Electron Microscopy. <i>Nano Letters</i> , 2021, 21, 1742-1748.                                                                                      | 4.5 | 26        |
| 94  | Improved cyclability of a lithium-sulfur battery using POP-Sulfur composite materials. <i>RSC Advances</i> , 2014, 4, 27518-27521.                                                                                                                                     | 1.7 | 25        |
| 95  | Novel chemoresistive CH <sub>4</sub> sensor with 10 <sup>-5</sup> ppm sensitivity based on multiwalled carbon nanotubes functionalized with SnO <sub>2</sub> nanocrystals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016, 34, . | 0.9 | 25        |
| 96  | Oxidation Induced Doping of Nanoparticles Revealed by <i>In Situ</i> X-ray Absorption Studies. <i>Nano Letters</i> , 2016, 16, 3738-3747.                                                                                                                              | 4.5 | 25        |
| 97  | Tunable LiAlO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> Coating through a Wet-Chemical Method To Improve Cycle Stability of Nano-LiCoO <sub>2</sub> . <i>ACS Applied Energy Materials</i> , 2019, 2, 3098-3113.                                                     | 2.5 | 25        |
| 98  | Silicon compatible Sn-based resistive switching memory. <i>Nanoscale</i> , 2018, 10, 9441-9449.                                                                                                                                                                        | 2.8 | 24        |
| 99  | Do thermal fluctuations influence the recoil loops of nanocomposite magnets?. <i>Applied Physics Letters</i> , 2008, 93, .                                                                                                                                             | 1.5 | 23        |
| 100 | Insight into the Structural Evolution of a High-Voltage Spinel for Lithium-Ion Batteries. <i>Chemistry of Materials</i> , 2014, 26, 4750-4756.                                                                                                                         | 3.2 | 23        |
| 101 | Photoinitiated charge separation in a hybrid titanium dioxide metalloporphyrin peptide material. <i>Nature Communications</i> , 2014, 5, 4606.                                                                                                                         | 5.8 | 23        |
| 102 | Mesoporous Colloidal Superparticles of Platinum-Group Nanocrystals with Surfactant-Free Surfaces and Enhanced Heterogeneous Catalysis. <i>Advanced Functional Materials</i> , 2015, 25, 1638-1647.                                                                     | 7.8 | 23        |
| 103 | Disordered 3D Multi-layer Graphene Anode Material from CO <sub>2</sub> for Sodium-Ion Batteries. <i>ChemSusChem</i> , 2016, 9, 1397-1402.                                                                                                                              | 3.6 | 23        |
| 104 | Amorphous boron nanorod as an anode material for lithium-ion batteries at room temperature. <i>Nanoscale</i> , 2017, 9, 10757-10763.                                                                                                                                   | 2.8 | 23        |
| 105 | Disket-Nanorings of K <sub>2</sub> Ti <sub>6</sub> O <sub>13</sub> Formed by Self-Spiraling of a Nanobelt. <i>Journal of Physical Chemistry C</i> , 2008, 112, 7547-7551.                                                                                              | 1.5 | 22        |
| 106 | Kinetic Pathway of Palladium Nanoparticle Sulfidation Process at High Temperatures. <i>Nano Letters</i> , 2013, 13, 4893-4901.                                                                                                                                         | 4.5 | 22        |
| 107 | High-Performance High-Loading Lithium-Sulfur Batteries by Low Temperature Atomic Layer Deposition of Aluminum Oxide on Nanophase S Cathodes. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700096.                                                                  | 1.9 | 22        |
| 108 | Capacity Fading Mechanism and Improvement of Cycling Stability of the SiO Anode for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A2102-A2107.                                                                                     | 1.3 | 22        |

| #   | ARTICLE                                                                                                                                                                                                                      | IF  | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 109 | <i>In situ</i> and <i>operando</i> investigation of the dynamic morphological and phase changes of a selenium-doped germanium electrode during (de)lithiation processes. Journal of Materials Chemistry A, 2020, 8, 750-759. | 5.2 | 21        |
| 110 | A novel multifunctional NiTi/Ag hierarchical composite. Scientific Reports, 2014, 4, 5267.                                                                                                                                   | 1.6 | 19        |
| 111 | Effect of proton irradiation on anatase TiO <sub>2</sub> nanotube anodes for lithium-ion batteries. Journal of Materials Science, 2019, 54, 13221-13235.                                                                     | 1.7 | 19        |
| 112 | Visualization of magnetic domain structure changes induced by interfacial strain in CoFe <sub>2</sub> O <sub>4</sub> /BaTiO <sub>3</sub> heterostructures. Journal Physics D: Applied Physics, 2013, 46, 055001.             | 1.3 | 18        |
| 113 | Effect of hydrogen flow during cooling phase to achieve uniform and repeatable growth of bilayer graphene on copper foils over large area. Carbon, 2014, 77, 341-350.                                                        | 5.4 | 18        |
| 114 | Synthesis of uniformly distributed single- and double-sided zinc oxide (ZnO) nanocombs. Journal of Crystal Growth, 2015, 430, 34-40.                                                                                         | 0.7 | 18        |
| 115 | In Situ Monitoring of the Growth of Nickel, Manganese, and Cobalt Hydroxide Precursors during Co-Precipitation Synthesis of Li-Ion Cathode Materials. Journal of the Electrochemical Society, 2018, 165, A3077-A3083.        | 1.3 | 18        |
| 116 | Fabrication and characterization of high quality n-ZnO/p-GaN heterojunction light emission diodes. Thin Solid Films, 2011, 520, 445-447.                                                                                     | 0.8 | 17        |
| 117 | Dynamic Lithium Intercalation/Deintercalation in 18650 Lithium Ion Battery by Time-Resolved High Energy Synchrotron X-Ray Diffraction. Journal of the Electrochemical Society, 2015, 162, A2195-A2200.                       | 1.3 | 17        |
| 118 | A stable rhodium single-site catalyst encapsulated within dendritic mesoporous nanochannels. Nanoscale, 2018, 10, 1047-1055.                                                                                                 | 2.8 | 17        |
| 119 | Crack-Free Silicon Monoxide as Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 57141-57145.                                                                                                  | 4.0 | 17        |
| 120 | Co location and valence state determination in ferromagnetic ZnO:Co thin films by atom-location-by-channeling-enhanced-microanalysis electron energy-loss spectroscopy. Applied Physics Letters, 2007, 90, 154101.           | 1.5 | 16        |
| 121 | Effect of annealing and applied bias on barrier shape in CoFe/MgO/CoFe tunnel junctions. Physical Review B, 2011, 83, .                                                                                                      | 1.1 | 16        |
| 122 | In Situ Small-Angle X-ray Scattering from Pd Nanoparticles Formed by Thermal Decomposition of Organo-Pd Catalyst Precursors Dissolved in Hydrocarbons. Journal of Physical Chemistry C, 2013, 117, 22627-22635.              | 1.5 | 16        |
| 123 | Hydrogen bonding directed co-assembly of polyoxometalates and polymers to core-shell nanoparticles. Materials Chemistry Frontiers, 2018, 2, 2070-2075.                                                                       | 3.2 | 16        |
| 124 | In Situ Focused Ion Beam-Scanning Electron Microscope Study of Crack and Nanopore Formation in Germanium Particle During (De)lithiation. ACS Applied Energy Materials, 2019, 2, 2441-2446.                                   | 2.5 | 16        |
| 125 | Effects of elemental distributions on the behavior of MgO-based magnetic tunnel junctions. Journal of Applied Physics, 2011, 109, 103909.                                                                                    | 1.1 | 15        |
| 126 | Investigation towards scalable processing of silicon/graphite nanocomposite anodes with good cycle stability and specific capacity. Nano Materials Science, 2020, 2, 297-308.                                                | 3.9 | 15        |

| #   | ARTICLE                                                                                                                                                                                                                                                                   | IF  | CITATIONS |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 127 | Solution Blowing Synthesis of Li-Conductive Ceramic Nanofibers. ACS Applied Materials & Interfaces, 2020, 12, 16200-16208.                                                                                                                                                | 4.0 | 15        |
| 128 | Revealing Sintering Kinetics of MoS <sub>2</sub> -Supported Metal Nanocatalysts in Atmospheric Gas Environments via Operando Transmission Electron Microscopy. ACS Nano, 2020, 14, 4074-4086.                                                                             | 7.3 | 15        |
| 129 | Morphological Control of Chromophore Spin State in Zinc Porphyrin-Peptide Assemblies. Journal of the American Chemical Society, 2020, 142, 233-241.                                                                                                                       | 6.6 | 14        |
| 130 | Strain Recovery and Defect Characterization in Mg-Implanted Homoepitaxial GaN on High-Quality GaN Substrates. Physica Status Solidi (B): Basic Research, 2020, 257, 1900705.                                                                                              | 0.7 | 14        |
| 131 | Interfacial control of LaAlO <sub>3</sub> films deposited on Si (100) using a thin La-Al-Si-O silicate film as the barrier layer. Thin Solid Films, 2006, 515, 2722-2725.                                                                                                 | 0.8 | 13        |
| 132 | Inversion domain boundary in a ZnO film. Philosophical Magazine Letters, 2007, 87, 687-693.                                                                                                                                                                               | 0.5 | 13        |
| 133 | Rapid photoresponse of single-crystalline selenium nanobelts. Solid State Communications, 2008, 148, 145-147.                                                                                                                                                             | 0.9 | 13        |
| 134 | Nanocrystallization in Fluorochlorozirconate Glass-Ceramics. Journal of the American Ceramic Society, 2013, 96, 3617-3621.                                                                                                                                                | 1.9 | 13        |
| 135 | Synthesis of Highly Dispersed and Highly Stable Supported Au-Pt Bimetallic Catalysts by a Two-Step Method. Catalysis Letters, 2016, 146, 2606-2613.                                                                                                                       | 1.4 | 13        |
| 136 | Silicon Microreactor as a Fast Charge, Long Cycle Life Anode with High Initial Coulombic Efficiency Synthesized via a Scalable Method. ACS Applied Energy Materials, 2021, 4, 4744-4757.                                                                                  | 2.5 | 13        |
| 137 | Enhanced magnetoresistance in naturally oxidized MgO-based magnetic tunnel junctions with ferromagnetic CoFe/CoFeB bilayers. Applied Physics Letters, 2011, 98, 232506.                                                                                                   | 1.5 | 12        |
| 138 | Structure-property relationships in self-assembled metalorganic chemical vapor deposition-grown CoFe <sub>2</sub> O <sub>4</sub> -PbTiO <sub>3</sub> multiferroic nanocomposites using three-dimensional characterization. Journal of Applied Physics, 2011, 110, 034103. | 1.1 | 12        |
| 139 | Thermal transformation of Î-MnO <sub>2</sub> nanoflowers studied by in-situ TEM. Science China Chemistry, 2012, 55, 2346-2352.                                                                                                                                            | 4.2 | 12        |
| 140 | Engineering the Si Anode Interface via Particle Surface Modification: Embedded Organic Carbonates Lead to Enhanced Performance. ACS Applied Energy Materials, 2021, 4, 8193-8200.                                                                                         | 2.5 | 11        |
| 141 | In situ TEM study of reversible and irreversible electroforming in Pt/Ti:NiO/Pt heterostructures. Physica Status Solidi - Rapid Research Letters, 2015, 9, 301-306.                                                                                                       | 1.2 | 10        |
| 142 | Size-dependent phase transition of Er <sub>2</sub> O <sub>3</sub> under high pressure. Applied Physics Letters, 2018, 112, 143102.                                                                                                                                        | 1.5 | 10        |
| 143 | Structural underpinnings of cathode protection by in situ generated lithium oxyfluorophosphates. Journal of Power Sources, 2019, 438, 227039.                                                                                                                             | 4.0 | 10        |
| 144 | In situ Characterization of Dynamic Morphological and Phase Changes of Selenium-Doped Germanium Using a Single Particle Cell and Synchrotron X-ray Microscopy. ChemSusChem, 2021, 14, 1370-1376.                                                                          | 3.6 | 10        |

| #   | ARTICLE                                                                                                                                                                                                                            | IF  | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 145 | The 30° rotation domains in wurtzite ZnO films. <i>Journal of Crystal Growth</i> , 2006, 290, 631-636.                                                                                                                             | 0.7 | 9         |
| 146 | Formation of metastable MgO structures on type-III oxide surfaces: Effect of periodic out-of-plane electric dipole moment of substrates. <i>Journal of Crystal Growth</i> , 2009, 311, 425-428.                                    | 0.7 | 9         |
| 147 | Lithium Assisted "Dissolution" Alloying Synthesis of Nanoalloys from Individual Bulk Metals. <i>Chemistry of Materials</i> , 2016, 28, 2267-2277.                                                                                  | 3.2 | 9         |
| 148 | Evaluation of the microstructure and property of TiNi SMA prepared using VIM in BaZrO <sub>3</sub> crucible. <i>Vacuum</i> , 2019, 168, 108843.                                                                                    | 1.6 | 9         |
| 149 | Microfluidic, One-Batch Synthesis of Pd Nanocrystals on N-Doped Carbon in Surfactant-Free Deep Eutectic Solvents for Formic Acid Electrochemical Oxidation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 42704-42710. | 4.0 | 9         |
| 150 | Synergistics of Fe <sub>3</sub> C and Fe on Mesoporous Fe-N-C Sulfur Host for Nearly Complete and Fast Lithium Polysulfide Conversion. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17791-17799.                      | 4.0 | 9         |
| 151 | Microstructure and polarity of epitaxial ZnO films grown on LSAT(111) substrate studied by transmission electron microscopy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 339, 497-502.      | 0.9 | 8         |
| 152 | Quantifying mean inner potential of ZnO nanowires by off-axis electron holography. <i>Micron</i> , 2015, 78, 67-72.                                                                                                                | 1.1 | 8         |
| 153 | Bottom-up direct writing approach for controlled fabrication of WS <sub>2</sub> /MoS <sub>2</sub> heterostructure systems. <i>RSC Advances</i> , 2016, 6, 66589-66594.                                                             | 1.7 | 8         |
| 154 | In Situ and Operando Morphology Study of Germanium-Selenium Alloy Anode for Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 6115-6120.                                                                       | 2.5 | 8         |
| 155 | Anisotropic Transient Disorder of Colloidal, Two-Dimensional CdSe Nanoplatelets upon Optical Excitation. <i>Nano Letters</i> , 2021, 21, 1288-1294.                                                                                | 4.5 | 8         |
| 156 | Metastable rocksalt ZnO interfacial layer and its influence on polarity selection of Zn-polar ZnO films. <i>Journal of Crystal Growth</i> , 2010, 312, 263-266.                                                                    | 0.7 | 7         |
| 157 | Leakage current suppression in solution-deposited barium titanate films on copper foils. <i>Journal of Materials Science: Materials in Electronics</i> , 2012, 23, 901-908.                                                        | 1.1 | 7         |
| 158 | Unexpected compositional and structural modification of CoPt <sub>3</sub> nanoparticles by extensive surface purification. <i>Nanoscale</i> , 2018, 10, 6382-6392.                                                                 | 2.8 | 7         |
| 159 | Synergetic effect of carbon and AlF <sub>3</sub> coatings on the lithium titanium oxide anode material for high power lithium-ion batteries. <i>Journal of Electroanalytical Chemistry</i> , 2019, 837, 240-245.                   | 1.9 | 7         |
| 160 | Blade-Type Reaction Front in Micrometer-Sized Germanium Particles during Lithiation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 47574-47579.                                                                        | 4.0 | 7         |
| 161 | A macromolecular assembly directed ceramic aerogel monolith material. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10319-10324.                                                                                              | 2.7 | 7         |
| 162 | Investigations on the effect of current density on SiO/Si composite electrodes. <i>Electrochimica Acta</i> , 2021, 393, 139072.                                                                                                    | 2.6 | 7         |

| #   | ARTICLE                                                                                                                                                                                                      | IF  | CITATIONS |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 163 | Secondary growth of small ZnO tripodlike arms on the end of nanowires. Applied Physics Letters, 2007, 91, 013106.                                                                                            | 1.5 | 5         |
| 164 | Transfer of Graphene with Protective Oxide Layers. ChemEngineering, 2018, 2, 58.                                                                                                                             | 1.0 | 5         |
| 165 | Mask-free patterning and selective CVD-growth of 2D-TMDCs semiconductors. Semiconductor Science and Technology, 2019, 34, 085010.                                                                            | 1.0 | 5         |
| 166 | Measurement of specimen thickness by phase change determination in TEM. Ultramicroscopy, 2008, 108, 1616-1622.                                                                                               | 0.8 | 4         |
| 167 | Novel colloidal materials from functionalized polyoxometalates. Inorganic Chemistry Communication, 2017, 84, 20-23.                                                                                          | 1.8 | 4         |
| 168 | Unusual Reduction of Graphene Oxide by Titanium Dioxide Electrons Produced by Ionizing Radiation: Reaction Products and Mechanism. Journal of Physical Chemistry C, 2020, 124, 5425-5435.                    | 1.5 | 4         |
| 169 | Selective volatile organic compound gas sensor based on carbon nanotubes functionalized with ZnO nanoparticles. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2021, 39, . | 0.6 | 4         |
| 170 | Synthetic Ligand Selection Affects Stoichiometry, Carrier Dynamics, and Trapping in CuInSe <sub>2</sub> Nanocrystals. ACS Nano, 2021, 15, 19588-19599.                                                       | 7.3 | 4         |
| 171 | Self-healing Growth of LaNiO <sub>3</sub> on a Mixed-Terminated Perovskite Surface. ACS Applied Materials & Interfaces, 2022, 14, 16928-16938.                                                               | 4.0 | 4         |
| 172 | Synthesis of lamellar niobic acid nanorods via proton-exchange and their conversion to T-Nb <sub>2</sub> O <sub>5</sub> nanorods. Ceramics International, 2012, 38, 861-865.                                 | 2.3 | 3         |
| 173 | Synthesis and Characterization of Bio-Active GFP-P4VP Core-Shell Nanoparticles. Catalysts, 2020, 10, 627.                                                                                                    | 1.6 | 3         |
| 174 | Potential mapping of ZnO by off-axis electron holography. Philosophical Magazine Letters, 2007, 87, 103-111.                                                                                                 | 0.5 | 2         |
| 175 | Experimental evidence of dipolar interaction in bilayer nanocomposite magnets. Applied Physics A: Materials Science and Processing, 2011, 103, 1183-1187.                                                    | 1.1 | 2         |
| 176 | A Unified test for the Intercept of a Predictive Regression Model*. Oxford Bulletin of Economics and Statistics, 2021, 83, 571-588.                                                                          | 0.9 | 2         |
| 177 | The effect of annealing on optical transmittance and structure of ZLANI fluorozirconate glass thin films. Micron, 2021, 140, 102977.                                                                         | 1.1 | 2         |
| 178 | Low-field positive and high-field negative magneto-resistances in multiphase Fe-oxide thin films at room temperature. Science Bulletin, 2007, 52, 1607-1611.                                                 | 1.7 | 1         |
| 179 | 3-Dimensional Nanoscale Structural Characterization of Magnetic Tunnel Junction. Microscopy and Microanalysis, 2009, 15, 1248-1249.                                                                          | 0.2 | 1         |
| 180 | Controlled growth of Zn-polar ZnO film on MgAl <sub>2</sub> O <sub>4</sub> (111) substrate using MgO buffer layer. Journal Physics D: Applied Physics, 2010, 43, 085301.                                     | 1.3 | 1         |

| #   | ARTICLE                                                                                                                                                                                                                            | IF  | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 181 | A unique approach to accurately measure thickness in thick multilayers. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 425-427.                                                                                               | 1.0 | 1         |
| 182 | Visualization of Magnetization in CoFe Nanofibers by Lorentz TEM and Electron Holography. <i>Microscopy and Microanalysis</i> , 2016, 22, 1692-1693.                                                                               | 0.2 | 1         |
| 183 | Hypoxia-induced biosynthesis of gold nanoparticles in the living brain. <i>Nanoscale</i> , 2019, 11, 19285-19290.                                                                                                                  | 2.8 | 1         |
| 184 | Mesoscale Confinement Effects and Emergent Quantum Interference in Titania Antidot Thin Films. <i>ACS Nano</i> , 2021, 15, 12935-12944.                                                                                            | 7.3 | 1         |
| 185 | Lithium trapping in germanium nanopores during delithiation process. <i>Applied Materials Today</i> , 2021, 24, 101140.                                                                                                            | 2.3 | 1         |
| 186 | Thermal dynamics of P2-Na <sub>0.67</sub> Ni <sub>0.33</sub> Mn <sub>0.67</sub> O <sub>2</sub> cathode materials for sodium ion batteries studied by in situ analysis. <i>Journal of Materials Research</i> , 2022, 37, 1156-1163. | 1.2 | 1         |
| 187 | Synchrotron X-ray-induced Synthesis of Copper Hydroxide Nitrate Nanoplates on Cu Thin Films in an Ambient Atmosphere. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 23342-23347.                                       | 4.0 | 1         |
| 188 | Tuning working potential of silicon-phosphorus anode via microstructure control for high-energy lithium-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 0, , .                                                     | 1.2 | 1         |
| 189 | Designing 1D multiheme peptide amphiphile assemblies reminiscent of natural systems. <i>Nanoscale</i> , 0, , .                                                                                                                     | 2.8 | 1         |
| 190 | Solution growth of HgTe Nanowires at lowtemperature. , 2009, , .                                                                                                                                                                   |     | 0         |
| 191 | Three-dimensional characterization of near-field transducers by electron tomography. <i>Materials Characterization</i> , 2012, 72, 104-110.                                                                                        | 1.9 | 0         |
| 192 | Study of Functional Materials by Correlative Electron and Synchrotron X-ray Microscopy. <i>Microscopy and Microanalysis</i> , 2021, 27, 364-366.                                                                                   | 0.2 | 0         |
| 193 | Operando Investigation of Energy Storage Material by FIB-SEM System. <i>Microscopy and Microanalysis</i> , 2021, 27, 440-442.                                                                                                      | 0.2 | 0         |
| 194 | Operando Investigation of Energy Storage Material by FIB-SEM System. <i>Microscopy and Microanalysis</i> , 2020, 26, 416-418.                                                                                                      | 0.2 | 0         |
| 195 | Synchrotron X-ray-Driven Nitrogen Reduction on an AgCu Thin Film. <i>Small</i> , 0, , 2202720.                                                                                                                                     | 5.2 | 0         |