# Wu Zhou

List of Publications by Year
in descending order

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|---|---|---|---|
| 229 papers | 35,895 citations | 2795 94 h-index | 3173 186 g-index |
| 237 all docs | 237 docs citations | 237 times ranked | 35091 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539. | 7.3 | 2,069 |
| 2 | Vertical and in-plane heterostructures from WS2/MoS2 monolayers. Nature Materials, 2014, 13, 1135-1142. | 13.3 | 1,918 |
| 3 | Intrinsic Structural Defects in Monolayer Molybdenum Disulfide. Nano Letters, 2013, 13, 2615-2622. | 4.5 | 1,766 |
| 4 | Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. Nature Materials, 2013, 12, 754-759. | 13.3 | 1,590 |
| 5 | An oxygen reduction electrocatalyst based on carbon nanotubeâ€“graphene complexes. Nature Nanotechnology, 2012, 7, 394-400. | 15.6 | 1,533 |
| 6 | Nanoscale nickel oxide/nickel heterostructures for active hydrogen evolution electrocatalysis. Nature Communications, 2014, 5, 4695. | 5.8 | 1,413 |
| 7 | Low-temperature hydrogen production from water and methanol using Pt/Î±-MoC catalysts. Nature, 2017, 544, 80-83. | 13.7 | 1,090 |
| 8 | Defects Engineered Monolayer MoS<sub>2</sub> for Improved Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 1097-1103. | 4.5 | 1,015 |
| 9 | van der Waals Epitaxy of MoS<sub>2</sub> Layers Using Graphene As Growth Templates. Nano Letters, 2012, 12, 2784-2791. | 4.5 | 888 |
| 10 | In-plane heterostructures of graphene and hexagonal boron nitride with controlled domain sizes. Nature Nanotechnology, 2013, 8, 119-124. | 15.6 | 796 |
| 11 | Room-temperature ferroelectricity in CuInP2S6 ultrathin flakes. Nature Communications, 2016, 7, 12357. | 5.8 | 637 |
| 12 | Ultrathin high-temperature oxidation-resistant coatings of hexagonal boron nitride. Nature Communications, 2013, 4, 2541. | 5.8 | 536 |
| 13 | Atomic-layered Au clusters on Î±-MoC as catalysts for the low-temperature water-gas shift reaction. Science, 2017, 357, 389-393. | 6.0 | 534 |
| 14 | PdSe<sub>2</sub>: Pentagonal Two-Dimensional Layers with High Air Stability for Electronics. Journal of the American Chemical Society, 2017, 139, 14090-14097. | 6.6 | 509 |
| 15 | Highâ€Electronâ€Mobility and Airâ€Stable 2D Layered PtSe<sub>2</sub> FETs. Advanced Materials, 2017, 29, 1604230. | 11.1 | 502 |
| 16 | Two-Step Growth of Two-Dimensional WSe<sub>2</sub>/MoSe<sub>2</sub> Heterostructures. Nano Letters, 2015, 15, 6135-6141. | 4.5 | 479 |
| 17 | Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449. | 4.5 | 463 |
| 18 | Structural defects on converted bismuth oxide nanotubes enable highly active electrocatalysis of carbon dioxide reduction. Nature Communications, 2019, 10, 2807. | 5.8 | 456 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Strain and structure heterogeneity in MoS2 atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246. | 5.8 | 453 |
| 20 | Large-Area Synthesis of Monolayer and Few-Layer MoSe<sub>2</sub> Films on SiO<sub>2</sub> Substrates. Nano Letters, 2014, 14, 2419-2425. | 4.5 | 376 |
| 21 | AtomicallyÂthin noble metal dichalcogenide: a broadband mid-infrared semiconductor. Nature Communications, 2018, 9, 1545. | 5.8 | 367 |
| 22 | Two-dimensional heterostructures: fabrication, characterization, and application. Nanoscale, 2014, 6, 12250-12272. | 2.8 | 323 |
| 23 | Direct Synthesis of Largeâ€Area 2D Mo<sub>2</sub>C on In Situ Grown Graphene. Advanced Materials, 2017, 29, 1700072. | 11.1 | 305 |
| 24 | Non-Bonding Interaction of Neighboring Fe and Ni Single-Atom Pairs on MOF-Derived N-Doped Carbon for Enhanced CO<sub>2</sub> Electroreduction. Journal of the American Chemical Society, 2021, 143, 19417-19424. | 6.6 | 305 |
| 25 | Fast kinetics of magnesium monochloride cations in interlayer-expanded titanium disulfide for magnesium rechargeable batteries. Nature Communications, 2017, 8, 339. | 5.8 | 304 |
| 26 | A highly CO-tolerant atomically dispersed Pt catalyst for chemoselective hydrogenation. Nature Nanotechnology, 2019, 14, 354-361. | 15.6 | 292 |
| 27 | A stable low-temperature H2-production catalyst by crowding Pt on Î±-MoC. Nature, 2021, 589, 396-401. | 13.7 | 290 |
| 28 | Long-range ferromagnetic ordering in manganese-doped two-dimensional dichalcogenides. Physical Review B, 2013, 88, . | 1.1 | 271 |
| 29 | Spatially controlled doping of two-dimensional SnS2 through intercalation for electronics. Nature Nanotechnology, 2018, 13, 294-299. | 15.6 | 269 |
| 30 | Ultrafast high-capacity NiZn battery with NiAlCo-layered double hydroxide. Energy and Environmental Science, 2014, 7, 2025. | 15.6 | 265 |
| 31 | MoS<sub>2</sub>/TiO<sub>2</sub> Edgeâ€On Heterostructure for Efficient Photocatalytic Hydrogen Evolution. Advanced Energy Materials, 2016, 6, 1600464. | 10.2 | 264 |
| 32 | Chemical Vapor Deposition of Large-Size Monolayer MoSe<sub>2</sub> Crystals on Molten Glass. Journal of the American Chemical Society, 2017, 139, 1073-1076. | 6.6 | 258 |
| 33 | Atomically-thin Bi2MoO6 nanosheets with vacancy pairs for improved photocatalytic CO2 reduction. Nano Energy, 2019, 61, 54-59. | 8.2 | 243 |
| 34 | Two-dimensional GaSe/MoSe <sub>2</sub> misfit bilayer heterojunctions by van der Waals epitaxy. Science Advances, 2016, 2, e1501882. | 4.7 | 239 |
| 35 | Boosting hydrogen evolution on MoS2 via co-confining selenium in surface and cobalt in inner layer. Nature Communications, 2020, 11, 3315. | 5.8 | 229 |
| 36 | Flexible metallic nanowires with self-adaptive contacts to semiconducting transition-metal dichalcogenide monolayers. Nature Nanotechnology, 2014, 9, 436-442. | 15.6 | 228 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Direct Determination of the Chemical Bonding of Individual Impurities in Graphene. Physical Review Letters, 2012, 109, 206803. | 2.9 | 222 |
| 38 | Boron- and Nitrogen-Substituted Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction Reaction. Chemistry of Materials, 2015, 27, 1181-1186. | 3.2 | 219 |
| 39 | Dynamic Behavior of Single-Atom Catalysts in Electrocatalysis: Identification of Cu-N<sub>3</sub> as an Active Site for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2021, 143, 14530-14539. | 6.6 | 218 |
| 40 | Phase Restructuring in Transition Metal Dichalcogenides for Highly Stable Energy Storage. ACS Nano, 2016, 10, 9208-9215. | 7.3 | 216 |
| 41 | Construction of a sp<sup>3</sup>/sp<sup>2</sup> Carbon Interface in 3D Nâ€Doped Nanocarbons for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2019, 58, 15089-15097. | 7.2 | 215 |
| 42 | Chemical Vapor Deposition of Monolayer Rhenium Disulfide (ReS<sub>2</sub>). Advanced Materials, 2015, 27, 4640-4648. | 11.1 | 203 |
| 43 | New insights into the nature of the acidic catalytic active sites present in ZrO2-supported tungsten oxide catalysts. Journal of Catalysis, 2008, 256, 108-125. | 3.1 | 200 |
| 44 | Direct chemical conversion of graphene to boron- and nitrogen- and carbon-containing atomic layers. Nature Communications, 2014, 5, 3193. | 5.8 | 198 |
| 45 | Atomically localized plasmon enhancement in monolayer graphene. Nature Nanotechnology, 2012, 7, 161-165. | 15.6 | 196 |
| 46 | Anomalous thickness dependence of Curie temperature in air-stable two-dimensional ferromagnetic 1T-CrTe2 grown by chemical vapor deposition. Nature Communications, 2021, 12, 809. | 5.8 | 196 |
| 47 | Engineering covalently bonded 2D layered materials by self-intercalation. Nature, 2020, 581, 171-177. | 13.7 | 185 |
| 48 | Alloying Nickel with Molybdenum Significantly Accelerates Alkaline Hydrogen Electrocatalysis. Angewandte Chemie - International Edition, 2021, 60, 5771-5777. | 7.2 | 182 |
| 49 | Largeâ€Area and Highâ€Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471. | 11.1 | 181 |
| 50 | Weakening hydrogen adsorption on nickel via interstitial nitrogen doping promotes bifunctional hydrogen electrocatalysis in alkaline solution. Energy and Environmental Science, 2019, 12, 3522-3529. | 15.6 | 177 |
| 51 | Blending Cr<sub>2</sub>O<sub>3</sub> into a NiOâ€“Ni Electrocatalyst for Sustained Water Splitting. Angewandte Chemie - International Edition, 2015, 54, 11989-11993. | 7.2 | 172 |
| 52 | Electrochemical CO2 reduction to ethylene by ultrathin CuO nanoplate arrays. Nature Communications, 2022, 13, 1877. | 5.8 | 172 |
| 53 | Chemical Stabilization of 1Tâ€² Phase Transition Metal Dichalcogenides with Giant Optical Kerr Nonlinearity. Journal of the American Chemical Society, 2017, 139, 2504-2511. | 6.6 | 171 |
| 54 | Atomically Dispersed Ni/Î±-MoC Catalyst for Hydrogen Production from Methanol/Water. Journal of the American Chemical Society, 2021, 143, 309-317. | 6.6 | 168 |

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|---|---|---|---|
| 55 | Vacancy-Induced Formation and Growth of Inversion Domains in Transition-Metal Dichalcogenide Monolayer. ACS Nano, 2015, 9, 5189-5197. | 7.3 | 167 |
| 56 | Molecular Beam Epitaxy of Highly Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride. Journal of the American Chemical Society, 2017, 139, 9392-9400. | 6.6 | 167 |
| 57 | Supported Pdâ€“Cu Bimetallic Nanoparticles That Have High Activity for the Electrochemical Oxidation of Methanol. Chemistry - A European Journal, 2012, 18, 4887-4893. | 1.7 | 166 |
| 58 | Electroreduction of CO<sub>2</sub> to Formate on a Copper-Based Electrocatalyst at High Pressures with High Energy Conversion Efficiency. Journal of the American Chemical Society, 2020, 142, 7276-7282. | 6.6 | 165 |
| 59 | Synergizing metalâ€“support interactions and spatial confinement boosts dynamics of atomic nickel for hydrogenations. Nature Nanotechnology, 2021, 16, 1141-1149. | 15.6 | 165 |
| 60 | Rheniumâ€Doped and Stabilized MoS<sub>2</sub> Atomic Layers with Basalâ€Plane Catalytic Activity. Advanced Materials, 2018, 30, e1803477. | 11.1 | 164 |
| 61 | Synthesis of Millimeterâ€Scale Transition Metal Dichalcogenides Single Crystals. Advanced Functional Materials, 2016, 26, 2009-2015. | 7.8 | 152 |
| 62 | Wormâ€Shape Pt Nanocrystals Grown on Nitrogenâ€Doped Lowâ€Defect Graphene Sheets: Highly Efficient Electrocatalysts for Methanol Oxidation Reaction. Small, 2017, 13, 1603013. | 5.2 | 151 |
| 63 | Identification of active Zrâ€“WOx clusters on a ZrO2 support for solid acid catalysts. Nature Chemistry, 2009, 1, 722-728. | 6.6 | 150 |
| 64 | Intrinsically patterned two-dimensional materials for selective adsorption of molecules andÂnanoclusters. Nature Materials, 2017, 16, 717-721. | 13.3 | 150 |
| 65 | Chemical Insights into the Design and Development of Face-Centered Cubic Ruthenium Catalysts for Fischerâ€“Tropsch Synthesis. Journal of the American Chemical Society, 2017, 139, 2267-2276. | 6.6 | 147 |
| 66 | Stacking-Dependent Interlayer Coupling in Trilayer MoS<sub>2</sub> with Broken Inversion Symmetry. Nano Letters, 2015, 15, 8155-8161. | 4.5 | 141 |
| 67 | Brittle Fracture of 2D MoSe<sub>2</sub>. Advanced Materials, 2017, 29, 1604201. | 11.1 | 138 |
| 68 | AC/AB Stacking Boundaries in Bilayer Graphene. Nano Letters, 2013, 13, 3262-3268. | 4.5 | 137 |
| 69 | Catalysis Science of Methanol Oxidation over Iron Vanadate Catalysts: Nature of the Catalytic Active Sites. ACS Catalysis, 2011, 1, 54-66. | 5.5 | 133 |
| 70 | Maximizing the Synergistic Effect of CoNi Catalyst on Î±-MoC for Robust Hydrogen Production. Journal of the American Chemical Society, 2021, 143, 628-633. | 6.6 | 132 |
| 71 | Direct Synthesis of a Macroscale Single-Walled Carbon Nanotube Non-Woven Material. Advanced Materials, 2004, 16, 1529-1534. | 11.1 | 131 |
| 72 | Chemical Vapor Deposition of Highâ€Quality Largeâ€Sized MoS<sub>2</sub> Crystals on Silicon Dioxide Substrates. Advanced Science, 2016, 3, 1500033. | 5.6 | 128 |

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|---|---|---|---|
| 73 | In Situ Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS<sub>2</sub> Flakes. Journal of the American Chemical Society, 2017, 139, 10133-10141. | 6.6 | 126 |
| 74 | Synthesis of large-scale atomic-layer SnS2 through chemical vapor deposition. Nano Research, 2017, 10, 2386-2394. | 5.8 | 124 |
| 75 | Dynamic Evolution of Solidâ€“Liquid Electrochemical Interfaces over Single-Atom Active Sites. Journal of the American Chemical Society, 2020, 142, 12306-12313. | 6.6 | 124 |
| 76 | Controllable deuteration of halogenated compounds by photocatalytic D2O splitting. Nature Communications, 2018, 9, 80. | 5.8 | 123 |
| 77 | Strain-Induced Electronic Structure Changes in Stacked van der Waals Heterostructures. Nano Letters, 2016, 16, 3314-3320. | 4.5 | 122 |
| 78 | Impact of the Coordination Environment on Atomically Dispersed Pt Catalysts for Oxygen Reduction Reaction. ACS Catalysis, 2020, 10, 907-913. | 5.5 | 121 |
| 79 | Fully exposed palladium cluster catalysts enable hydrogen production from nitrogen heterocycles. Nature Catalysis, 2022, 5, 485-493. | 16.1 | 118 |
| 80 | Spectroscopic Signatures of AAâ€² and AB Stacking of Chemical Vapor Deposited Bilayer MoS<sub>2</sub>. ACS Nano, 2015, 9, 12246-12254. | 7.3 | 117 |
| 81 | Platinum-Modulated Cobalt Nanocatalysts for Low-Temperature Aqueous-Phase Fischerâ€“Tropsch Synthesis. Journal of the American Chemical Society, 2013, 135, 4149-4158. | 6.6 | 116 |
| 82 | In-situ spectroscopic observation of dynamic-coupling oxygen on atomically dispersed iridium electrocatalyst for acidic water oxidation. Nature Communications, 2021, 12, 6118. | 5.8 | 115 |
| 83 | Controlled growth of ultrathin Mo <sub>2</sub> C superconducting crystals on liquid Cu surface. 2D Materials, 2017, 4, 011012. | 2.0 | 112 |
| 84 | Enhanced performance of in-plane transition metal dichalcogenides monolayers by configuring local atomic structures. Nature Communications, 2020, 11, 2253. | 5.8 | 112 |
| 85 | Origin of the synergistic interaction between MoO3 and iron molybdate for the selective oxidation of methanol to formaldehyde. Journal of Catalysis, 2010, 275, 84-98. | 3.1 | 110 |
| 86 | Controlled Synthesis of Organic/Inorganic van der Waals Solid for Tunable Lightâ€“Matter Interactions. Advanced Materials, 2015, 27, 7800-7808. | 11.1 | 109 |
| 87 | Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 18, 482-490. | 4.5 | 105 |
| 88 | Atomically sharp interface enabled ultrahigh-speed non-volatile memory devices. Nature Nanotechnology, 2021, 16, 882-887. | 15.6 | 105 |
| 89 | Direct visualization of reversible dynamics in a Si6 cluster embedded in a graphene pore. Nature Communications, 2013, 4, 1650. | 5.8 | 104 |
| 90 | Collapse of stamps for soft lithography due to interfacial adhesion. Applied Physics Letters, 2005, 86, 154106. | 1.5 | 101 |

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|---|---|---|---|
| 91 | Atomically Dispersed Semimetallic Selenium on Porous Carbon Membrane as an Electrode for Hydrazine Fuel Cells. Angewandte Chemie - International Edition, 2019, 58, 13466-13471. | 7.2 | 99 |
| 92 | Rapid and Nondestructive Identification of Polytypism and Stacking Sequences in Fewâ€Layer Molybdenum Diselenide by Raman Spectroscopy. Advanced Materials, 2015, 27, 4502-4508. | 11.1 | 96 |
| 93 | Band Engineering for Novel Twoâ€Dimensional Atomic Layers. Small, 2015, 11, 1868-1884. | 5.2 | 96 |
| 94 | The observation of square ice in graphene questioned. Nature, 2015, 528, E1-E2. | 13.7 | 95 |
| 95 | Relating n-Pentane Isomerization Activity to the Tungsten Surface Density of WO<sub>x</sub>/ZrO<sub>2</sub>. Journal of the American Chemical Society, 2010, 132, 13462-13471. | 6.6 | 94 |
| 96 | Boosting Activity and Stability of Metal Single-Atom Catalysts via Regulation of Coordination Number and Local Composition. Journal of the American Chemical Society, 2021, 143, 18854-18858. | 6.6 | 93 |
| 97 | Unprecedentedly high activity and selectivity for hydrogenation of nitroarenes with single atomic Co1-N3P1 sites. Nature Communications, 2022, 13, 723. | 5.8 | 91 |
| 98 | Synthesis of Coâ€Doped MoS<sub>2</sub> Monolayers with Enhanced Valley Splitting. Advanced Materials, 2020, 32, e1906536. | 11.1 | 84 |
| 99 | Catalytic Amination of Polylactic Acid to Alanine. Journal of the American Chemical Society, 2021, 143, 16358-16363. | 6.6 | 82 |
| 100 | Nature of Catalytically Active Sites in the Supported WO<sub>3</sub>/ZrO<sub>2</sub> Solid Acid System: A Current Perspective. ACS Catalysis, 2017, 7, 2181-2198. | 5.5 | 77 |
| 101 | Stabilization of graphene nanopore. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7522-7526. | 3.3 | 76 |
| 102 | Optimizing Electron Densities of Niâ€Nâ€C Complexes by Hybrid Coordination for Efficient Electrocatalytic CO<sub>2</sub> Reduction. ChemSusChem, 2020, 13, 929-937. | 3.6 | 76 |
| 103 | Insights into the physical chemistry of materials from advances in HAADF-STEM. Physical Chemistry Chemical Physics, 2015, 17, 3982-4006. | 1.3 | 72 |
| 104 | Synergy between tungsten and palladium supported on titania for the catalytic total oxidation of propane. Journal of Catalysis, 2012, 285, 103-114. | 3.1 | 71 |
| 105 | Facet-Dependent Disorder in Pristine High-Voltage Lithiumâ€“Manganese-Rich Cathode Material. ACS Nano, 2014, 8, 12710-12716. | 7.3 | 71 |
| 106 | Molecular Beam Epitaxy of Highly Crystalline MoSe<sub>2</sub> on Hexagonal Boron Nitride. ACS Nano, 2018, 12, 7562-7570. | 7.3 | 70 |
| 107 | Viralâ€Capsidâ€Type Vesicleâ€Like Structures Assembled from M<sub>12</sub>L<sub>24</sub> Metalâ€“Organic Hybrid Nanocages. Angewandte Chemie - International Edition, 2011, 50, 5182-5187. | 7.2 | 68 |
| 108 | Atomic-scale observation of structural and electronic orders in the layered compound Î±-RuCl3. Nature Communications, 2016, 7, 13774. | 5.8 | 66 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Atomâ€byâ€Atom Fabrication of Monolayer Molybdenum Membranes. Advanced Materials, 2018, 30, e1707281. | 11.1 | 66 |
| 110 | Single Atom Microscopy. Microscopy and Microanalysis, 2012, 18, 1342-1354. | 0.2 | 63 |
| 111 | Layer Engineering of 2D Semiconductor Junctions. Advanced Materials, 2016, 28, 5126-5132. | 11.1 | 63 |
| 112 | Temperature- and Phase-Dependent Phonon Renormalization in 1Tâ€²-MoS<sub>2</sub>. ACS Nano, 2018, 12, 5051-5058. | 7.3 | 63 |
| 113 | Engineering and modifying two-dimensional materials by electron beams. MRS Bulletin, 2017, 42, 667-676. | 1.7 | 62 |
| 114 | Reactivity of Ga2O3 Clusters on Zeolite ZSM-5 for the Conversion of Methanol to Aromatics. Catalysis Letters, 2012, 142, 1049-1056. | 1.4 | 61 |
| 115 | Sub-10-nm graphene nanoribbons with atomically smooth edges from squashed carbon nanotubes. Nature Electronics, 2021, 4, 653-663. | 13.1 | 61 |
| 116 | Importance of Species Heterogeneity in Supported Metal Catalysts. Journal of the American Chemical Society, 2022, 144, 5108-5115. | 6.6 | 60 |
| 117 | Lateral Epitaxy of Atomically Sharp WSe<sub>2</sub>/WS<sub>2</sub> Heterojunctions on Silicon Dioxide Substrates. Chemistry of Materials, 2016, 28, 7194-7197. | 3.2 | 59 |
| 118 | Nanostructural and chemical characterization of supported metal oxide catalysts by aberration corrected analytical electron microscopy. Current Opinion in Solid State and Materials Science, 2012, 16, 10-22. | 5.6 | 58 |
| 119 | Discovering superior basal plane active two-dimensional catalysts for hydrogen evolution. Materials Today, 2019, 25, 28-34. | 8.3 | 58 |
| 120 | Large-Scale Synthesis of Rings of Bundled Single-Walled Carbon Nanotubes by Floating Chemical Vapor Deposition. Advanced Materials, 2006, 18, 1817-1821. | 11.1 | 57 |
| 121 | Edge Segregated Polymorphism in 2D Molybdenum Carbide. Advanced Materials, 2019, 31, e1808343. | 11.1 | 56 |
| 122 | Large Area Synthesis of 1Dâ€MoSe<sub>2</sub> Using Molecular Beam Epitaxy. Advanced Materials, 2017, 29, 1605641. | 11.1 | 54 |
| 123 | Structural Flexibility and Alloying in Ultrathin Transition-Metal Chalcogenide Nanowires. ACS Nano, 2016, 10, 2782-2790. | 7.3 | 53 |
| 124 | Observation of the Kondo Effect in Multilayer Single-Crystalline VTe<sub>2</sub> Nanoplates. Nano Letters, 2019, 19, 8572-8580. | 4.5 | 52 |
| 125 | Controlled synthesis and room-temperature pyroelectricity of CuInP2S6 ultrathin flakes. Nano Energy, 2019, 58, 596-603. | 8.2 | 52 |
| 126 | Solvothermal Synthesis of Ultrasmall Tungsten Oxide Nanoparticles. Langmuir, 2012, 28, 17771-17777. | 1.6 | 51 |

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|---|---|---|---|
| 127 | Controlled Formation of Mixed Nanoscale Domains of High Capacity Fe<sub>2</sub>O<sub>3</sub>â€“FeF<sub>3</sub> Conversion Compounds by Direct Fluorination. ACS Nano, 2015, 9, 2530-2539. | 7.3 | 51 |
| 128 | Strain Modulation by van der Waals Coupling in Bilayer Transition Metal Dichalcogenide. ACS Nano, 2018, 12, 1940-1948. | 7.3 | 51 |
| 129 | Construction of a sp<sup>3</sup>/sp<sup>2</sup> Carbon Interface in 3D NâEDoped Nanocarbons for the Oxygen Reduction Reaction. Angewandte Chemie, 2019, 131, 15233-15241. | 1.6 | 49 |
| 130 | InSe/hBN/graphite heterostructure for high-performance 2D electronics and flexible electronics. Nano Research, 2020, 13, 1127-1132. | 5.8 | 48 |
| 131 | Diameter dependence of modulus in zinc oxide nanowires and the effect of loading mode: In situ experiments and universal core-shell approach. Applied Physics Letters, 2009, 95, . | 1.5 | 46 |
| 132 | Vacancy-Driven Anisotropic Defect Distribution in the Battery-Cathode Material<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>LiFePO</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2011, 107, 085507. | 2.9 | 46 |
| 133 | Unsupported single-atom-thick copper oxide monolayers. 2D Materials, 2017, 4, 011001. | 2.0 | 44 |
| 134 | Ferritin-based targeted delivery of arsenic to diverse leukaemia types confers strong anti-leukaemia therapeutic effects. Nature Nanotechnology, 2021, 16, 1413-1423. | 15.6 | 44 |
| 135 | Temperature dependence of excitonic recombination in lateral epitaxially overgrown InGaN/GaN quantum wells studied with cathodoluminescence. Journal of Applied Physics, 2004, 95, 1832-1842. | 1.1 | 41 |
| 136 | Atomically dispersed Ir/Î±-MoC catalyst with high metal loading and thermal stability for water-promoted hydrogenation reaction. National Science Review, 2022, 9, nwab026. | 4.6 | 41 |
| 137 | Selective electrochemical production of hydrogen peroxide at zigzag edges of exfoliated molybdenum telluride nanoflakes. National Science Review, 2020, 7, 1360-1366. | 4.6 | 40 |
| 138 | Direct growth of MoS <sub>2</sub> single crystals on polyimide substrates. 2D Materials, 2017, 4, 021028. | 2.0 | 39 |
| 139 | Dislocation-driven growth of two-dimensional lateral quantum-well superlattices. Science Advances, 2018, 4, eaap9096. | 4.7 | 38 |
| 140 | Plasmon-induced hot electron transfer in Auâ€“ZnO heterogeneous nanorods for enhanced SERS. Nanoscale, 2019, 11, 11782-11788. | 2.8 | 38 |
| 141 | Healing of Planar Defects in 2D Materials via Grain Boundary Sliding. Advanced Materials, 2019, 31, e1900237. | 11.1 | 38 |
| 142 | Alloying Nickel with Molybdenum Significantly Accelerates Alkaline Hydrogen Electrocatalysis. Angewandte Chemie, 2021, 133, 5835-5841. | 1.6 | 37 |
| 143 | Localization of inelastic electron scattering in the low-loss energy regime. Ultramicroscopy, 2012, 119, 51-56. | 0.8 | 36 |
| 144 | Structural and electrical properties of Mn1.56Co0.96Ni0.48O4 NTC thermistor films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 185, 74-78. | 1.7 | 34 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Patterned Growth of Pâ€Type MoS<sub>2</sub> Atomic Layers Using Solâ€“Gel as Precursor. Advanced Functional Materials, 2016, 26, 6371-6379. | 7.8 | 34 |
| 146 | 3D Band Diagram and Photoexcitation of 2Dâ€“3D Semiconductor Heterojunctions. Nano Letters, 2015, 15, 5919-5925. | 4.5 | 33 |
| 147 | Atomically Dispersed Semimetallic Selenium on Porous Carbon Membrane as an Electrode for Hydrazine Fuel Cells. Angewandte Chemie, 2019, 131, 13600-13605. | 1.6 | 32 |
| 148 | An electrodeposition approach to metal/metal oxide heterostructures for active hydrogen evolution catalysts in near-neutral electrolytes. Nano Research, 2019, 12, 1431-1435. | 5.8 | 31 |
| 149 | Strain-driven growth of ultra-long two-dimensional nano-channels. Nature Communications, 2020, 11, 772. | 5.8 | 31 |
| 150 | Interlaced crystals having a perfect Bravais lattice and complex chemical order revealed by real-space crystallography. Nature Communications, 2014, 5, 5431. | 5.8 | 29 |
| 151 | Low-loss electron energy loss spectroscopy: An atomic-resolution complement to optical spectroscopies and application to graphene. Physical Review B, 2015, 92, . | 1.1 | 29 |
| 152 | Airâ€Stable Monolayer Cu<sub>2</sub>Se Exhibits a Purely Thermal Structural Phase Transition. Advanced Materials, 2020, 32, e1908314. | 11.1 | 26 |
| 153 | Catalytic Synthesis of Formamides by Integrating CO<sub>2</sub> Capture and Morpholine Formylation on Supported Iridium Catalyst. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 25 |
| 154 | Insight into the Activity of Atomically Dispersed Cu Catalysts for Semihydrogenation of Acetylene: Impact of Coordination Environments. ACS Catalysis, 2022, 12, 48-57. | 5.5 | 23 |
| 155 | Artificial Neuron Networks Enabled Identification and Characterizations of 2D Materials and van der Waals Heterostructures. ACS Nano, 2022, 16, 2721-2729. | 7.3 | 22 |
| 156 | Direct Cation Exchange in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></r via Recombination-Enhanced Migration. Physical Review Letters, 2019, 122, 106101. | 2.9 | 21 |
| 157 | Self-synergistic cobalt catalysts with symbiotic metal single-atoms and nanoparticles for efficient oxygen reduction. Journal of Materials Chemistry A, 2021, 9, 1127-1133. | 5.2 | 21 |
| 158 | Single-atom electron microscopy for energy-related nanomaterials. Journal of Materials Chemistry A, 2020, 8, 16142-16165. | 5.2 | 20 |
| 159 | Double Wall Carbon Nanotubes with an Inner Diameter of 0.4 nm. Chemical Vapor Deposition, 2003, 9, 119-121. | 1.4 | 17 |
| 160 | Infrared optical properties of Mn1.56Co0.96Ni0.48O4 thin films prepared by chemical solution deposition. Applied Physics A: Materials Science and Processing, 2014, 114, 829-832. | 1.1 | 17 |
| 161 | Bendable Polycrystalline and Magnetic CoFe<sub>2</sub>O<sub>4</sub> Membranes by Chemical Methods. ACS Applied Materials & Interfaces, 2022, 14, 12845-12854. | 4.0 | 17 |
| 162 | Two distinct superconducting states controlled by orientations of local wrinkles in LiFeAs. Nature Communications, 2021, 12, 6312. | 5.8 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Direct growth of single-metal-atom chains. , 2022, 1, 245-253. | | 16 |
| 164 | Pristine edge structures of Tâ€²â€²-phase transition metal dichalcogenides (ReSe<sub>2</sub>,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 2.8 | 15 |
| 165 | Unveiling Atomic-Scale MoirÃ© Features and Atomic Reconstructions in High-Angle Commensurately Twisted Transition Metal Dichalcogenide Homobilayers. Nano Letters, 2021, 21, 3262-3270. | 4.5 | 15 |
| 166 | Electronic and Quantum Transport Properties of Atomically Identified Si Point Defects in Graphene. Journal of Physical Chemistry Letters, 2014, 5, 1711-1718. | 2.1 | 14 |
| 167 | Local low rank denoising for enhanced atomic resolution imaging. Ultramicroscopy, 2018, 187, 34-42. | 0.8 | 14 |
| 168 | Orbital Occupancy and Charge Doping in Ironâ€Based Superconductors. Advanced Materials, 2014, 26, 6193-6198. | 11.1 | 13 |
| 169 | A short story of imaging and spectroscopy of two-dimensional materials by scanning transmission electron microscopy. Ultramicroscopy, 2017, 180, 156-162. | 0.8 | 13 |
| 170 | Current rectification and asymmetric photoresponse in MoS <sub>2</sub> stacking-induced homojunctions. 2D Materials, 2017, 4, 035011. | 2.0 | 13 |
| 171 | Facile Chemical Route to Prepare Water Soluble Epitaxial Sr<sub>3</sub>Al<sub>2</sub>O<sub>6</sub> Sacrificial Layers for Freeâ€Standing Oxides. Advanced Materials Interfaces, 2021, 8, 2001643. | 1.9 | 13 |
| 172 | Electron Energy Loss Spectroscopy for Single Atom Catalysis. Topics in Catalysis, 2022, 65, 1609-1619. | 1.3 | 13 |
| 173 | Strong MoirÃ© Excitons in High-Angle Twisted Transition Metal Dichalcogenide Homobilayers with Robust Commensuration. Nano Letters, 2022, 22, 203-210. | 4.5 | 12 |
| 174 | Detection of defects in atomic-resolution images of materials using cycle analysis. Advanced Structural and Chemical Imaging, 2020, 6, . | 4.0 | 11 |
| 175 | Anisotropic point defects in rhenium diselenide monolayers. IScience, 2021, 24, 103456. | 1.9 | 11 |
| 176 | Preparation and properties of silicon oxycarbide fibers. Journal of Materials Science, 2005, 40, 3497-3501. | 1.7 | 10 |
| 177 | A phase transition glides into view. Nature Nanotechnology, 2014, 9, 333-334. | 15.6 | 10 |
| 178 | Watching Atoms Work: Nanocluster Structure and Dynamics. ACS Nano, 2015, 9, 9437-9440. | 7.3 | 10 |
| 179 | Probing the electronic structure and optical response of a graphene quantum disk supported on monolayer graphene. Journal of Physics Condensed Matter, 2012, 24, 314213. | 0.7 | 9 |
| 180 | Observation of an Incommensurate Charge Density Wave in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>TiSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m stretchy="false">(</mml:mo><mml:mn>1</mml:mn><mml:mn>1</mml:mn><mml:mn>1</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overl 2022, 128, 026401. | 2.8 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Signatures of distinct impurity configurations in atomic-resolution valence electron-energy-loss spectroscopy: Application to graphene. Physical Review B, 2016, 94, . | 1.1 | 8 |
| 182 | Improving the STEM Spatial Resolution Limit. Microscopy and Microanalysis, 2018, 24, 18-19. | 0.2 | 8 |
| 183 | Spectroscopic signatures of edge states in hexagonal boron nitride. Nano Research, 2019, 12, 1663-1667. | 5.8 | 7 |
| 184 | Investigating phase transitions from local crystallographic analysis based on statistical learning of atomic environments in 2D MoS2-ReS2. Applied Physics Reviews, 2021, 8, 011409. | 5.5 | 7 |
| 185 | Engineering Interlayer Electronâ€“Phonon Coupling in WS<sub>2</sub>/BN Heterostructures. Nano Letters, 2022, 22, 2725-2733. | 4.5 | 7 |
| 186 | Study on the fabrication and performance of Mn<sub>1.56</sub>Co<sub>0.96</sub>Ni<sub>0.48</sub>O<sub>4</sub> film optically immersed infrared detector. Materials Research Innovations, 2015, 19, S7-S10. | 1.0 | 6 |
| 187 | High-resolution electron microscopy for heterogeneous catalysis research. Chinese Physics B, 2018, 27, 056804. | 0.7 | 6 |
| 188 | Dimensional crossover in self-intercalated antiferromagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">V</mml:mi><mml:mn>5</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:mrow></mml:math> nanoflakes. Physical Review B, 2022, 105, . | 1.1 | 6 |
| 189 | Aberrationâ€corrected Analytical Microscopy Characterization of Doubleâ€Supported WO<sub>3</sub>/TiO<sub>2</sub>/SiO<sub>2</sub> Solid Acid Catalysts. ChemCatChem, 2011, 3, 1045-1050. | 1.8 | 5 |
| 190 | MgO intercalation and crystallization between epitaxial graphene and Ru(0001). Rare Metals, 0, , 1. | 3.6 | 5 |
| 191 | Exchange Bias Effects in Ferromagnetic MnSb<sub>2</sub>Te<sub>4</sub> down to a Monolayer. ACS Applied Electronic Materials, 2022, 4, 3256-3262. | 2.0 | 5 |
| 192 | Structural Characterization of WO<sub>3</sub>/ZrO<sub>2</sub> Catalysts using HAADF Imaging. Microscopy and Microanalysis, 2008, 14, 1350-1351. | 0.2 | 4 |
| 193 | Defect in 2D materials beyond graphene. , 2018, , 161-187. | | 4 |
| 194 | Using graphene to suppress the selenization of Pt for controllable fabrication of monolayer PtSe2. Nano Research, 2020, 13, 3212-3216. | 5.8 | 4 |
| 195 | Interfacial Intermixing and Its Impact on the Energy Band Structure in Interband Cascade Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 38553-38560. | 4.0 | 4 |
| 196 | Diverse Spin-Polarized In-Gap States at Grain Boundaries of Rhenium Dichalcogenides Induced by Unsaturated Reâ€“Re Bonding. , 2021, 3, 1513-1520. | | 4 |
| 197 | Accurate and Robust Calibration of the Uniform Affine Transformation Between Scan-Camera Coordinates for Atom-Resolved In-Focus 4D-STEM Datasets. Microscopy and Microanalysis, 2022, 28, 622-632. | 0.2 | 4 |
| 198 | Monochromatic STEM-EELS for Correlating the Atomic Structure and Optical Properties of Two-Dimensional Materials. Microscopy and Microanalysis, 2014, 20, 96-97. | 0.2 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Catalytic Synthesis of Formamides by Integrating CO<sub>2</sub> Capture and Morpholine Formylation on Supported Iridium Catalyst. Angewandte Chemie, 2022, 134, . | 1.6 | 3 |
| 200 | Selective linear etching of monolayer black phosphorus using electron beams*. Chinese Physics B, 2020, 29, 086801. | 0.7 | 2 |
| 201 | Characterization of Growth Defects in ZnTe Single Crystals. Materials Research Society Symposia Proceedings, 1994, 299, 203. | 0.1 | 1 |
| 202 | Stabilization of Nanopores in Graphene. Microscopy and Microanalysis, 2014, 20, 1732-1733. | 0.2 | 1 |
| 203 | Flexible Metallic Nanowires with Self-Adaptive Contacts to Semiconducting Transition-Metal Dichalcogenide Monolayers. Microscopy and Microanalysis, 2014, 20, 1760-1761. | 0.2 | 1 |
| 204 | Functionalization of Graphene. Microscopy and Microanalysis, 2015, 21, 737-738. | 0.2 | 1 |
| 205 | Defect Dynamics in 2D Transition Metal Dichalcogenide Monolayers. Microscopy and Microanalysis, 2015, 21, 433-434. | 0.2 | 1 |
| 206 | Formation of Single-atom-thick Copper Oxide Monolayers. Microscopy and Microanalysis, 2017, 23, 1684-1685. | 0.2 | 1 |
| 207 | Thermodynamics of order and randomness in dopant distributions inferred from atomically resolved imaging. Npj Computational Materials, 2021, 7, . | 3.5 | 1 |
| 208 | Characterization of Growth Defects in ZnTe Single Crystals. Materials Research Society Symposia Proceedings, 1993, 302, 451. | 0.1 | 0 |
| 209 | Preferred Orientation in Fibers of Hipco Single Wall Carbon Nanotubes from Diffuse X-Ray Scattering. Materials Research Society Symposia Proceedings, 2002, 740, 1. | 0.1 | 0 |
| 210 | Microstructural Development of Supported Pt/ZrO2/SiO2 Catalysts: The Effect of ZrO2 Nanoligands. Microscopy and Microanalysis, 2009, 15, 1414-1415. | 0.2 | 0 |
| 211 | Inelastic STEM Imaging Based on Low-Loss Spectroscopy. Microscopy and Microanalysis, 2014, 20, 90-91. | 0.2 | 0 |
| 212 | Atomic Imaging and Spectroscopy of Two-Dimensional Materials. Microscopy and Microanalysis, 2014, 20, 92-93. | 0.2 | 0 |
| 213 | Quantification of Dopant Distribution and the Local Band Gap in Selenium-Doped Molybdenum Disulfide. Microscopy and Microanalysis, 2014, 20, 1754-1755. | 0.2 | 0 |
| 214 | Interfaces in Two-Dimensional Heterostructures of Transition Metal Dichalcogenides. Microscopy and Microanalysis, 2015, 21, 105-106. | 0.2 | 0 |
| 215 | Atomic Structure and Properties of Dislocations and Grain Boundaries. , 2016, , . | | 0 |
| 216 | Low-Loss Imaging of Defect Structures in Two Dimensional Materials Using Aberration Corrected Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2016, 22, 1410-1411. | 0.2 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Atomic Level Structure-Property Relationship in a Spin-Orbit Mott insulator: Scanning Transmission Electron and Scanning Tunneling Microscopy Studies. Microscopy and Microanalysis, 2016, 22, 908-909. | 0.2 | 0 |
| 218 | Single Atom Imaging and Spectroscopy of Impurities in 2D Materials. Microscopy and Microanalysis, 2016, 22, 862-863. | 0.2 | 0 |
| 219 | An instrument for measuring scintillators efficiently based on silicon photomultipliers. Review of Scientific Instruments, 2016, 87, 113308. | 0.6 | 0 |
| 220 | Patterned Growth: Patterned Growth of P-Type MoS2Atomic Layers Using Sol-Gel as Precursor (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 7.8 | 0 |
| 221 | Alloying in Flexible Transition-metal Chalcogenide Nanowires. Microscopy and Microanalysis, 2016, 22, 1424-1425. | 0.2 | 0 |
| 222 | Exchange of Re and Mo atoms in MoS2 driven by Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 1702-1703. | 0.2 | 0 |
| 223 | Dislocation-Driven Growth of Two-Dimensional Lateral Quantum Well Superlattices. Microscopy and Microanalysis, 2018, 24, 88-89. | 0.2 | 0 |
| 224 | Electronic Structure and Coupling of Re Clusters In Monolayer MoS2. Microscopy and Microanalysis, 2019, 25, 506-507. | 0.2 | 0 |
| 225 | Engineering and Modifying Two-Dimensional Materials via Electron Beams. Microscopy and Microanalysis, 2019, 25, 1474-1475. | 0.2 | 0 |
| 226 | Innentitelbild: Atomically Dispersed Semimetallic Selenium on Porous Carbon Membrane as an Electrode for Hydrazine Fuel Cells (Angew. Chem. 38/2019). Angewandte Chemie, 2019, 131, 13298-13298. | 1.6 | 0 |
| 227 | Low voltage scanning transmission electron microscopy for two-dimensional materials. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 217303. | 0.2 | 0 |
| 228 | Microstructure Characterization of Nanoscale Materials and Interconnects. , 2017, , 489-534. | | 0 |
| 229 | Progress on large field-of-view coded aperture push-broom Compton scatter imaging. , 2020, , . | | 0 |