

# Zhanxi Fan

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

93  
papers

12,225  
citations

50  
h-index

103  
g-index

103  
ext. papers

13,886  
ext. citations

16.2  
avg. IF

6.48  
L-index

| #  | Paper  | IF   | Citations |
|----|--|------|-----------|
| 93 | Surface Molecular Functionalization of Unusual Phase Metal Nanomaterials for Highly Efficient Electrochemical Carbon Dioxide Reduction under Industry-Relevant Current Density.. <i>Small</i> , <b>2022</b> , e2106766 | 11.7 | 7         |
| 92 | Confined growth of silver-copper Janus nanostructures with {100} facets for highly selective tandem electrocatalytic carbon dioxide reduction.. <i>Advanced Materials</i> , <b>2022</b> , e2110607                     | 24   | 10        |
| 91 | Transient Solid-State Laser Activation of Indium for High-Performance Reduction of CO to Formate.. <i>Small</i> , <b>2022</b> , e2201311   | 11   | 5         |
| 90 | Electrochemical lithium extraction from aqueous sources. <i>Matter</i> , <b>2022</b> , 5, 1760-1791  | 12.7 | 3         |
| 89 | Recent Progress on Two-Dimensional Materials. <i>Wuli Huaxue Xuebao/Acta Physico - Chimica Sinica</i> , <b>2021</b> , 2108017-0  | 3.8  | 69        |
| 88 | Synthesis of Pd Sn and PdCuSn Nanorods with L1 Phase for Highly Efficient Electrocatalytic Ethanol Oxidation. <i>Advanced Materials</i> , <b>2021</b> , e2106115   | 24   | 17        |
| 87 | Evoking ordered vacancies in metallic nanostructures toward a vacated Barlow packing for high-performance hydrogen evolution. <i>Science Advances</i> , <b>2021</b> , 7,   | 14.3 | 25        |
| 86 | Surface modification of metal materials for high-performance electrocatalytic carbon dioxide reduction. <i>Matter</i> , <b>2021</b> , 4, 888-926   | 12.7 | 21        |
| 85 | Tandem catalysis in electrochemical CO2 reduction reaction. <i>Nano Research</i> , <b>2021</b> , 14, 4471  | 10   | 26        |
| 84 | Dopant-Free Hole-Transporting Material with Enhanced Intermolecular Interaction for Efficient and Stable n-i-p Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100967                    | 21.8 | 11        |
| 83 | General Synthesis of Ordered Mesoporous Carbonaceous Hybrid Nanostructures with Molecularly Dispersed Polyoxometallates. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 15556-15562              | 16.4 | 2         |
| 82 | Recent Progresses in Electrochemical Carbon Dioxide Reduction on Copper-Based Catalysts toward Multicarbon Products. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102151                                  | 15.6 | 28        |
| 81 | General Synthesis of Ordered Mesoporous Carbonaceous Hybrid Nanostructures with Molecularly Dispersed Polyoxometallates. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 15684-15690                                     | 3.6  |           |
| 80 | Quasi-Epitaxial Growth of Magnetic Nanostructures on 4H-Au Nanoribbons. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007140   | 24   | 8         |
| 79 | Recent Advances in the Controlled Synthesis and Catalytic Applications of Two-Dimensional Rhodium Nanomaterials <b>2021</b> , 3, 121-133   |      | 12        |
| 78 | Gold-based nanoalloys: synthetic methods and catalytic applications. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 19025-19053  | 13   | 3         |
| 77 | 2D Materials for electrochemical carbon dioxide reduction <b>2021</b> , 183-196  |      | 0         |

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|----|--|------|-----|
| 76 | Preparation of Au@Pd Core-Shell Nanorods with 2H- Heterophase for Highly Efficient Electrocatalytic Alcohol Oxidation.. <i>Journal of the American Chemical Society</i> , <b>2021</b> ,  | 16.4 | 13  |
| 75 | Crystal phase-controlled growth of PtCu and PtCo alloys on 4H Au nanoribbons for electrocatalytic ethanol oxidation reaction. <i>Nano Research</i> , <b>2020</b> , 13, 1970-1975   | 10   | 11  |
| 74 | Key factors affecting Rayleigh instability of ultrathin 4H hexagonal gold nanoribbons. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 3027-3032  | 5.1  | 1   |
| 73 | Ethylene Selectivity in Electrocatalytic CO Reduction on Cu Nanomaterials: A Crystal Phase-Dependent Study. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 12760-12766   | 16.4 | 89  |
| 72 | Phase engineering of nanomaterials. <i>Nature Reviews Chemistry</i> , <b>2020</b> , 4, 243-256   | 34.6 | 198 |
| 71 | Heterophase fcc-2H-fcc gold nanorods. <i>Nature Communications</i> , <b>2020</b> , 11, 3293  | 17.4 | 41  |
| 70 | Thermal Effect and Rayleigh Instability of Ultrathin 4H Hexagonal Gold Nanoribbons. <i>Matter</i> , <b>2020</b> , 2, 658-665   | 12.7 | 14  |
| 69 | Phase-Selective Epitaxial Growth of Heterophase Nanostructures on Unconventional 2H-Pd Nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 18971-18980   | 16.4 | 53  |
| 68 | Undercoordinated Active Sites on 4H Gold Nanostructures for CO Reduction. <i>Nano Letters</i> , <b>2020</b> , 20, 8074-8080  | 11.5 | 21  |
| 67 | Crystal Phase Control of Gold Nanomaterials by Wet-Chemical Synthesis. <i>Accounts of Chemical Research</i> , <b>2020</b> , 53, 2106-2118  | 24.3 | 34  |
| 66 | Phase Engineering of Nanomaterials for Clean Energy and Catalytic Applications. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2002019   | 21.8 | 39  |
| 65 | Unusual 4H-phase twinned noble metal nanokites. <i>Nature Communications</i> , <b>2019</b> , 10, 2881  | 17.4 | 15  |
| 64 | Crystal phase-based epitaxial growth of hybrid noble metal nanostructures on 4H/fcc Au nanowires. <i>Nature Chemistry</i> , <b>2018</b> , 10, 456-461  | 17.6 | 160 |
| 63 | Two-Dimensional Metal Nanomaterials: Synthesis, Properties, and Applications. <i>Chemical Reviews</i> , <b>2018</b> , 118, 6409-6455   | 68.1 | 467 |
| 62 | Nanosheet Sensors: Recent Advances in Sensing Applications of Two-Dimensional Transition Metal Dichalcogenide Nanosheets and Their Composites (Adv. Funct. Mater. 19/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27, | 15.6 | 2   |
| 61 | Recent Advances in Sensing Applications of Two-Dimensional Transition Metal Dichalcogenide Nanosheets and Their Composites. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1605817   | 15.6 | 137 |
| 60 | Ultrathin Two-Dimensional Organic-Inorganic Hybrid Perovskite Nanosheets with Bright, Tunable Photoluminescence and High Stability. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 4252-4255                   | 16.4 | 165 |
| 59 | Graphene Oxide Scroll Meshes Prepared by Molecular Combing for Transparent and Flexible Electrodes. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600231  | 6.8  | 11  |

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| 58 | Molecular-Level Design of Hierarchically Porous Carbons Codoped with Nitrogen and Phosphorus Capable of In Situ Self-Activation for Sustainable Energy Systems. <i>Small</i> , <b>2017</b> , 13, 1602010              | 11   | 37  |
| 57 | Spirals and helices by asymmetric active surface growth. <i>Nanoscale</i> , <b>2017</b> , 9, 18352-18358  | 7-7  | 4   |
| 56 | Facile synthesis of gold nanomaterials with unusual crystal structures. <i>Nature Protocols</i> , <b>2017</b> , 12, 2367-2378   | 2378 | 56  |
| 55 | High-Yield Synthesis of Crystal-Phase-Heterostructured 4H/fcc Au@Pd Core-Shell Nanorods for Electrocatalytic Ethanol Oxidation. <i>Advanced Materials</i> , <b>2017</b> , 29, 1701331                                 | 24   | 112 |
| 54 | Synthesis of Ultrathin PdCu Alloy Nanosheets Used as a Highly Efficient Electrocatalyst for Formic Acid Oxidation. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700769  | 24   | 154 |
| 53 | Epitaxial growth of unusual 4H hexagonal Ir, Rh, Os, Ru and Cu nanostructures on 4H Au nanoribbons. <i>Chemical Science</i> , <b>2017</b> , 8, 795-799  | 9-4  | 64  |
| 52 | Submonolayered Ru Deposited on Ultrathin Pd Nanosheets used for Enhanced Catalytic Applications. <i>Advanced Materials</i> , <b>2016</b> , 28, 10282-10286  | 24   | 117 |
| 51 | Synthesis of 4H/fcc Noble Multimetallic Nanoribbons for Electrocatalytic Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 1414-9                                     | 16.4 | 152 |
| 50 | Atomic-layer-deposited iron oxide on arrays of metal/carbon spheres and their application for electrocatalysis. <i>Nano Energy</i> , <b>2016</b> , 20, 244-253  | 17.1 | 58  |
| 49 | Crystal phase-controlled synthesis, properties and applications of noble metal nanomaterials. <i>Chemical Society Reviews</i> , <b>2016</b> , 45, 63-82   | 58.5 | 268 |
| 48 | Synthesis of 4H/fcc-Au@M (M = Ir, Os, IrOs) Core-Shell Nanoribbons For Electrocatalytic Oxygen Evolution Reaction. <i>Small</i> , <b>2016</b> , 12, 3908-13   | 11   | 44  |
| 47 | Template Synthesis of Noble Metal Nanocrystals with Unusual Crystal Structures and Their Catalytic Applications. <i>Accounts of Chemical Research</i> , <b>2016</b> , 49, 2841-2850                                   | 24.3 | 139 |
| 46 | One-Pot Synthesis of Highly Anisotropic Five-Fold-Twinned PtCu Nanoframes Used as a Bifunctional Electrocatalyst for Oxygen Reduction and Methanol Oxidation. <i>Advanced Materials</i> , <b>2016</b> , 28, 8712-8717 | 24   | 275 |
| 45 | AuAg nanosheets assembled from ultrathin AuAg nanowires. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 1444-7  | 16.4 | 61  |
| 44 | Substrate-bound growth of Au-Pd diblock nanowire and hybrid nanorod-plate. <i>Nanoscale</i> , <b>2015</b> , 7, 8115-21  | 21   | 8   |
| 43 | Stabilization of 4H hexagonal phase in gold nanoribbons. <i>Nature Communications</i> , <b>2015</b> , 6, 7684   | 17.4 | 165 |
| 42 | Controllable galvanic synthesis of triangular Ag-Pd alloy nanoframes for efficient electrocatalytic methanol oxidation. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 8691-5                              | 4.8  | 44  |
| 41 | Iron oxide-decorated carbon for supercapacitor anodes with ultrahigh energy density and outstanding cycling stability. <i>ACS Nano</i> , <b>2015</b> , 9, 5198-207  | 16.7 | 375 |

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| 40 | Synthesis of Ultrathin Face-Centered-Cubic Au@Pt and Au@Pd Core-Shell Nanoplates from Hexagonal-Close-Packed Au Square Sheets. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 5764-5768   | 3.6  | 26  |
| 39 | Synthesis of ultrathin face-centered-cubic au@pt and au@pd core-shell nanoplates from hexagonal-close-packed au square sheets. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 5672-6                                 | 16.4 | 94  |
| 38 | Tubular TiC fibre nanostructures as supercapacitor electrode materials with stable cycling life and wide-temperature performance. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1559-1568                                     | 35.4 | 188 |
| 37 | Surface modification-induced phase transformation of hexagonal close-packed gold square sheets. <i>Nature Communications</i> , <b>2015</b> , 6, 6571   | 17.4 | 157 |
| 36 | Conformally deposited NiO on a hierarchical carbon support for high-power and durable asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 23283-23288   | 13   | 82  |
| 35 | Hierarchical Ni-Mo-S nanosheets on carbon fiber cloth: A flexible electrode for efficient hydrogen generation in neutral electrolyte. <i>Science Advances</i> , <b>2015</b> , 1, e1500259  | 14.3 | 356 |
| 34 | Synthesis of 4H/fcc-Au@Metal Sulfide Core-Shell Nanoribbons. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 10910-3  | 16.4 | 35  |
| 33 | One-pot synthesis of CdS nanocrystals hybridized with single-layer transition-metal dichalcogenide nanosheets for efficient photocatalytic hydrogen evolution. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 1210-4 | 16.4 | 519 |
| 32 | One-pot Synthesis of CdS Nanocrystals Hybridized with Single-Layer Transition-Metal Dichalcogenide Nanosheets for Efficient Photocatalytic Hydrogen Evolution. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1226-1230                     | 3.6  | 129 |
| 31 | Novel Metal@Carbon Spheres Core-Shell Arrays by Controlled Self-Assembly of Carbon Nanospheres: A Stable and Flexible Supercapacitor Electrode. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401709                                | 21.8 | 129 |
| 30 | VO <sub>2</sub> nanoflake arrays for supercapacitor and Li-ion battery electrodes: performance enhancement by hydrogen molybdenum bronze as an efficient shell material. <i>Materials Horizons</i> , <b>2015</b> , 2, 237-244              | 14.4 | 142 |
| 29 | Thin metal nanostructures: synthesis, properties and applications. <i>Chemical Science</i> , <b>2015</b> , 6, 95-111   | 9.4  | 169 |
| 28 | Supramolecular Polymerization Promoted In Situ Fabrication of Nitrogen-Doped Porous Graphene Sheets as Anode Materials for Li-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500559                                   | 21.8 | 112 |
| 27 | Reduced graphene oxide-wrapped MoO <sub>3</sub> composites prepared by using metal-organic frameworks as precursor for all-solid-state flexible supercapacitors. <i>Advanced Materials</i> , <b>2015</b> , 27, 4695-701                    | 24   | 326 |
| 26 | Enhanced Lithium Storage Performance of CuO Nanowires by Coating of Graphene Quantum Dots. <i>Advanced Materials Interfaces</i> , <b>2015</b> , 2, 1400499   | 4.6  | 80  |
| 25 | TiO <sub>2</sub> nanotube @ SnO <sub>2</sub> nanoflake core-shell arrays for lithium-ion battery anode. <i>Nano Energy</i> , <b>2014</b> , 4, 105-112  | 17.1 | 151 |
| 24 | Chemically engineered graphene oxide as high performance cathode materials for Li-ion batteries. <i>Carbon</i> , <b>2014</b> , 76, 148-154   | 10.4 | 67  |
| 23 | Highly stable and reversible lithium storage in SnO <sub>2</sub> nanowires surface coated with a uniform hollow shell by atomic layer deposition. <i>Nano Letters</i> , <b>2014</b> , 14, 4852-8   | 11.5 | 242 |

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| 22 | Triangular Ag-Pd alloy nanoprisms: rational synthesis with high-efficiency for electrocatalytic oxygen reduction. <i>Nanoscale</i> , <b>2014</b> , 6, 11738-43  | 7.7  | 35   |
| 21 | Encapsulation of nanoscale metal oxides into an ultra-thin Ni matrix for superior Li-ion batteries: a versatile strategy. <i>Nanoscale</i> , <b>2014</b> , 6, 12990-3000  | 7.7  | 18   |
| 20 | Coating two-dimensional nanomaterials with metal-organic frameworks. <i>ACS Nano</i> , <b>2014</b> , 8, 8695-701  | 16.7 | 141  |
| 19 | 3D carbon/cobalt-nickel mixed-oxide hybrid nanostructured arrays for asymmetric supercapacitors. <i>Small</i> , <b>2014</b> , 10, 2937-45   | 11   | 126  |
| 18 | Nitrogen and sulfur codoped graphene: multifunctional electrode materials for high-performance li-ion batteries and oxygen reduction reaction. <i>Advanced Materials</i> , <b>2014</b> , 26, 6186-92  | 24   | 532  |
| 17 | A universal method for preparation of noble metal nanoparticle-decorated transition metal dichalcogenide nanobelts. <i>Advanced Materials</i> , <b>2014</b> , 26, 6250-4  | 24   | 58   |
| 16 | A new type of porous graphite foams and their integrated composites with oxide/polymer core/shell nanowires for supercapacitors: structural design, fabrication, and full supercapacitor demonstrations. <i>Nano Letters</i> , <b>2014</b> , 14, 1651-8 | 11.5 | 395  |
| 15 | Evolution of disposable bamboo chopsticks into uniform carbon fibers: a smart strategy to fabricate sustainable anodes for Li-ion batteries. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 2670-2679                                       | 35.4 | 219  |
| 14 | A V2O5/conductive-polymer core/shell nanobelt array on three-dimensional graphite foam: a high-rate, ultrastable, and freestanding cathode for lithium-ion batteries. <i>Advanced Materials</i> , <b>2014</b> , 26, 5794-800                            | 24   | 400  |
| 13 | Rational synthesis of triangular Au-Ag <sub>2</sub> S hybrid nanoframes with effective photoresponses. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 2742-5   | 4.8  | 19   |
| 12 | Periodic AuAg-Ag <sub>2</sub> S heterostructured nanowires. <i>Small</i> , <b>2014</b> , 10, 479-82   | 11   | 17   |
| 11 | Synthesis of few-layer MoS <sub>2</sub> nanosheet-coated TiO <sub>2</sub> nanobelt heterostructures for enhanced photocatalytic activities. <i>Small</i> , <b>2013</b> , 9, 140-7   | 11   | 1059 |
| 10 | Solution-phase epitaxial growth of noble metal nanostructures on dispersible single-layer molybdenum disulfide nanosheets. <i>Nature Communications</i> , <b>2013</b> , 4, 1444   | 17.4 | 658  |
| 9  | Achieving high open-circuit voltage in the PPV-CdHgTe bilayer photovoltaic devices on the basis of the heterojunction interfacial modification. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 9161  |      | 16   |
| 8  | Graphene-based electrodes. <i>Advanced Materials</i> , <b>2012</b> , 24, 5979-6004  | 24   | 756  |
| 7  | An Effective Method for the Fabrication of Few-Layer-Thick Inorganic Nanosheets. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 9186-9190  | 3.6  | 31   |
| 6  | An effective method for the fabrication of few-layer-thick inorganic nanosheets. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 9052-6  | 16.4 | 453  |
| 5  | Efficient polymer/nanocrystal hybrid solar cells fabricated from aqueous materials. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2831   | 35.4 | 55   |

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|---|--|------|-----|
| 4 | Aqueous-solution-processed hybrid solar cells from poly(1,4-naphthalenevinylene) and CdTe nanocrystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 2919-23           | 9.5  | 31  |
| 3 | Polymer-mediated growth of fluorescent semiconductor nanoparticles in preformed nanocomposites. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 11843-9                     | 3.6  | 9   |
| 2 | Facile approach in fabricating superhydrophobic and superoleophilic surface for water and oil mixture separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2009</b> , 1, 2613-7  | 9.5  | 316 |
| 1 | Decreasing the Overpotential of Aprotic Li-CO <sub>2</sub> Batteries with the In-Plane Alloy Structure in Ultrathin 2D Ru-Based Nanosheets. <i>Advanced Functional Materials</i> , 2202737 | 15.6 | 8   |