

# Xiaohui Ren

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

3,115  
citations

201385

27  
h-index

182168

51  
g-index

51  
all docs

51  
docs citations

51  
times ranked

4014  
citing authors

| #  | ARTICLE                                                                                                                                                                                                                              | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector. <i>Advanced Functional Materials</i> , 2017, 27, 1606834.                                                                | 7.8  | 342       |
| 2  | Few-Layer Black Phosphorus Nanosheets as Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2017, 7, 1700396.                                                                       | 10.2 | 301       |
| 3  | High-Performance Photo-Electrochemical Photodetector Based on Liquid-Exfoliated Few-Layered InSe Nanosheets with Enhanced Stability. <i>Advanced Functional Materials</i> , 2018, 28, 1705237.                                       | 7.8  | 258       |
| 4  | Self-Powered Photodetectors Based on 2D Materials. <i>Advanced Optical Materials</i> , 2020, 8, 1900765.                                                                                                                             | 3.6  | 245       |
| 5  | A black/red phosphorus hybrid as an electrode material for high-performance Li-ion batteries and supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6581-6588.                                                      | 5.2  | 160       |
| 6  | Wall-like hierarchical metal oxide nanosheet arrays grown on carbon cloth for excellent supercapacitor electrodes. <i>Nanoscale</i> , 2016, 8, 13273-13279.                                                                          | 2.8  | 144       |
| 7  | Plasmonic photothermal catalysis for solar-to-fuel conversion: current status and prospects. <i>Chemical Science</i> , 2021, 12, 5701-5719.                                                                                          | 3.7  | 129       |
| 8  | Present Perspectives of Advanced Characterization Techniques in TiO <sub>2</sub> -Based Photocatalysts. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23265-23286.                                                        | 4.0  | 112       |
| 9  | Two-dimensional bismuth nanosheets as prospective photo-detector with tunable optoelectronic performance. <i>Nanotechnology</i> , 2018, 29, 235201.                                                                                  | 1.3  | 98        |
| 10 | Temperature-Dependent Raman Responses of the Vapor-Deposited Tin Selenide Ultrathin Flakes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4674-4679.                                                                           | 1.5  | 94        |
| 11 | Two-dimensional MOF and COF nanosheets for next-generation optoelectronic applications. <i>Coordination Chemistry Reviews</i> , 2021, 435, 213781.                                                                                   | 9.5  | 88        |
| 12 | Triggering Water and Methanol Activation for Solar-Driven H <sub>2</sub> Production: Interplay of Dual Active Sites over Plasmonic ZnCu Alloy. <i>Journal of the American Chemical Society</i> , 2021, 143, 12145-12153.             | 6.6  | 85        |
| 13 | 2D co-catalytic MoS <sub>2</sub> nanosheets embedded with 1D TiO <sub>2</sub> nanoparticles for enhancing photocatalytic activity. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 315304.                                     | 1.3  | 80        |
| 14 | Recent advances of low-dimensional phosphorus-based nanomaterials for solar-driven photocatalytic reactions. <i>Coordination Chemistry Reviews</i> , 2020, 424, 213516.                                                              | 9.5  | 64        |
| 15 | Direct Vapor Deposition Growth of 1T MoTe <sub>2</sub> on Carbon Cloth for Electrocatalytic Hydrogen Evolution. <i>ACS Applied Energy Materials</i> , 2020, 3, 3212-3219.                                                            | 2.5  | 52        |
| 16 | Hierarchical NiSe <sub>2</sub> sheet-like nano-architectures as an efficient and stable bifunctional electrocatalyst for overall water splitting: Phase and morphology engineering. <i>Electrochimica Acta</i> , 2018, 279, 195-203. | 2.6  | 49        |
| 17 | Rational construction of dual cobalt active species encapsulated by ultrathin carbon matrix from MOF for boosting photocatalytic H <sub>2</sub> generation. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119924.           | 10.8 | 49        |
| 18 | Hydrothermally synthesized FeCo <sub>2</sub> O <sub>4</sub> nanostructures: Structural manipulation for high-performance all solid-state supercapacitors. <i>Ceramics International</i> , 2018, 44, 120-127.                         | 2.3  | 48        |

| #  | ARTICLE                                                                                                                                                                                                                            | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Few-Layer Antimonene Nanosheet: A Metal-Free Bifunctional Electrocatalyst for Effective Water Splitting. <i>ACS Applied Energy Materials</i> , 2019, 2, 4774-4781.                                                                 | 2.5  | 46        |
| 20 | Stabilizing Atomically Dispersed Catalytic Sites on Tellurium Nanosheets with Strong Metal-Support Interaction Boosts Photocatalysis. <i>Small</i> , 2020, 16, e2002356.                                                           | 5.2  | 45        |
| 21 | Self-powered photodetectors based on 0D/2D mixed dimensional heterojunction with black phosphorus quantum dots as hole accepters. <i>Applied Materials Today</i> , 2020, 20, 100765.                                               | 2.3  | 44        |
| 22 | Synthesis of SnSe nanosheets by hydrothermal intercalation and exfoliation route and their photoresponse properties. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016, 214, 46-50. | 1.7  | 42        |
| 23 | Flexible Bismuth Selenide /Graphene composite paper for lithium-ion batteries. <i>Ceramics International</i> , 2017, 43, 1437-1442.                                                                                                | 2.3  | 41        |
| 24 | Flexible self-powered photoelectrochemical-type photodetector based on 2D WS <sub>2</sub> -graphene heterojunction. <i>FlatChem</i> , 2021, 25, 100215.                                                                            | 2.8  | 35        |
| 25 | A universal strategy boosting photoelectrochemical water oxidation by utilizing MXene nanosheets as hole transfer mediators. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120268.                                        | 10.8 | 35        |
| 26 | Photodetectors Based on SnS <sub>2</sub> /Graphene Heterostructure on Rigid and Flexible Substrates. <i>ChemNanoMat</i> , 2018, 4, 373-378.                                                                                        | 1.5  | 34        |
| 27 | Single Cobalt Atom Anchored Black Phosphorous Nanosheets as an Effective Cocatalyst Promotes Photocatalysis. <i>ChemCatChem</i> , 2020, 12, 3870-3879.                                                                             | 1.8  | 34        |
| 28 | Recent insights into the robustness of two-dimensional black phosphorous in optoelectronic applications. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2020, 43, 100354.                           | 5.6  | 25        |
| 29 | Engineering interfacial charge transfer channel for efficient photocatalytic H <sub>2</sub> evolution: The interplay of CoPx and Ca <sup>2+</sup> dopant. <i>Applied Catalysis B: Environmental</i> , 2022, 303, 120887.           | 10.8 | 25        |
| 30 | MoS <sub>2</sub> Nanosheet Loaded with TiO <sub>2</sub> Nanoparticles: An Efficient Electrocatalyst for Hydrogen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2016, 163, H1087-H1090.                       | 1.3  | 23        |
| 31 | Hydrothermal synthesis of NiSe <sub>2</sub> nanosheets on carbon cloths for photoelectrochemical hydrogen generation. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 768-772.                           | 1.1  | 23        |
| 32 | Efficient photocatalytic CO <sub>2</sub> reduction mediated by transitional metal borides: metal site-dependent activity and selectivity. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21833-21841.                          | 5.2  | 23        |
| 33 | Constructing Chemical Interaction between Hematite and Carbon Nanosheets with Single Active Sites for Efficient Photo-Electrochemical Water Oxidation. <i>Small Methods</i> , 2020, 4, 2000577.                                    | 4.6  | 23        |
| 34 | Photoelectrochemical self-powered photodetector based on 2D liquid-exfoliated bismuth nanosheets: with novel structures for portability and flexibility. <i>Materials Today Nano</i> , 2021, 14, 100109.                           | 2.3  | 23        |
| 35 | Anomalous Temperature-Dependent Raman Scattering of Vapor-Deposited Two-Dimensional Bi Thin Films. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24459-24466.                                                                | 1.5  | 22        |
| 36 | Photoresponse improvement in liquid-exfoliated SnSe nanosheets by reduced graphene oxide hybridization. <i>Journal of Materials Science</i> , 2018, 53, 4371-4377.                                                                 | 1.7  | 19        |

| #  | ARTICLE                                                                                                                                                                                                                          | IF   | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | Tridecaboron diphosphide: a new infrared light active photocatalyst for efficient CO <sub>2</sub> photoreduction under mild reaction conditions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2421-2428.                   | 5.2  | 19        |
| 38 | Engineering Heterogeneous NiS <sub>2</sub> /NiS Cocatalysts with Progressive Electron Transfer from Planar p-Si Photocathodes for Solar Hydrogen Evolution. <i>Small Methods</i> , 2021, 5, e2001018.                            | 4.6  | 18        |
| 39 | Enhanced photoresponse behavior of Au@Bi <sub>2</sub> Te <sub>3</sub> based photoelectrochemical-type photodetector at solid-solid-liquid joint interface. <i>Materials Today Energy</i> , 2020, 16, 100401.                     | 2.5  | 17        |
| 40 | Exploring co-catalytic graphene frameworks for improving photocatalytic activity of Tin disulfide nanoplates. <i>Solar Energy</i> , 2017, 157, 905-910.                                                                          | 2.9  | 16        |
| 41 | Investigating the photocurrent generation and optoelectronic responsivity of WS <sub>2</sub> /TiO <sub>2</sub> heterostructure. <i>Optics Communications</i> , 2018, 406, 118-122.                                               | 1.0  | 16        |
| 42 | Au Nanoparticle Modification Induces Charge-Transfer Channels to Enhance the Electrocatalytic Hydrogen Evolution Reaction of InSe Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 2908-2917.               | 4.0  | 14        |
| 43 | Mixed-dimensional TiO <sub>2</sub> nanoparticles with MoSe <sub>2</sub> nanosheets for photochemical hydrogen generation. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 2023-2028.                   | 1.1  | 9         |
| 44 | Electronic and Magnetic Properties of Monolayer and Bilayer Phosphorene Doped with Transition-Metal Atoms. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1700370.                                                | 0.7  | 9         |
| 45 | Non-stoichiometric Ag-In-S quantum dots for efficient photocatalytic CO <sub>2</sub> reduction: Ag/In molar ratio dependent activity and selectivity. <i>Journal of Catalysis</i> , 2021, 401, 271-278.                          | 3.1  | 9         |
| 46 | Facile sonochemical-assisted synthesis of orthorhombic phase black phosphorus/rGO hybrids for effective photothermal therapy. <i>Nanophotonics</i> , 2020, 9, 3023-3034.                                                         | 2.9  | 7         |
| 47 | Synergy between Confined Cobalt Centers and Oxygen Defects on Fe <sub>2</sub> O <sub>3</sub> Platelets for Efficient Photocatalytic CO <sub>2</sub> Reduction. <i>Solar Rrl</i> , 2022, 6, 2100833.                              | 3.1  | 6         |
| 48 | A synergetic strategy to construct anti-reflective and anti-corrosive Co-P/WS <sub>x</sub> /Si photocathode for durable hydrogen evolution in alkaline condition. <i>Applied Catalysis B: Environmental</i> , 2022, 304, 120954. | 10.8 | 6         |
| 49 | Photodetectors: Environmentally Robust Black Phosphorus Nanosheets in Solution: Application for Self-Powered Photodetector ( <i>Adv. Funct. Mater.</i> 18/2017). <i>Advanced Functional Materials</i> , 2017, 27, .              | 7.8  | 4         |
| 50 | Facile hydrothermally synthesis of hexagon tin disulfide nanosheets for high-performance photocatalytic hydrogen generation. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 19614-19619.              | 1.1  | 3         |
| 51 | P25/Black phosphorus/Graphene hybrid for enhanced photocatalytic activity. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 4441-4448.                                                                  | 1.1  | 2         |