

Xiaoyong Xu

List of Publications by Year in descending order

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72
papers

2,923
citations

159358

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168136

53
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docs citations

73
times ranked

4655
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Photogenerated electron reservoir in hetero-p α n CuO α n ZnO nanocomposite device for visible-light-driven photocatalytic reduction of aqueous Cr($\text{Cr}(\text{VI})$). Journal of Materials Chemistry A, 2015, 3, 1199-1207. | 5.2 | 231 |
| 2 | Half-metallic carbon nitride nanosheets with micro grid mode resonance structure for efficient photocatalytic hydrogen evolution. Nature Communications, 2018, 9, 3366. | 5.8 | 219 |
| 3 | Size Dependence of Defect-Induced Room Temperature Ferromagnetism in Undoped ZnO Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 8813-8818. | 1.5 | 201 |
| 4 | Photogenerated Carriers Transfer in Dye α Graphene α SnO SnO_2 Composites for Highly Efficient Visible-Light Photocatalysis. ACS Applied Materials & Interfaces, 2014, 6, 613-621. | 4.0 | 122 |
| 5 | Redox bifunctional activities with optical gain of Ni NiS_2 nanosheets edged with Mo MoS_2 for overall water splitting. Applied Catalysis B: Environmental, 2020, 268, 118435. | 10.8 | 118 |
| 6 | Oxygen vacancies activating surface reactivity to favor charge separation and transfer in nanoporous BiVO BiVO_4 photoanodes. Applied Catalysis B: Environmental, 2021, 281, 119477. | 10.8 | 116 |
| 7 | Single ZnO Microrod Ultraviolet Photodetector with High Photocurrent Gain. ACS Applied Materials & Interfaces, 2013, 5, 9344-9348. | 4.0 | 101 |
| 8 | Enriching Hot Electrons via NIR α Photon α Excited Plasmon in WS WS_2 @Cu Hybrids for Full α Spectrum Solar Hydrogen Evolution. Advanced Functional Materials, 2018, 28, 1804055. | 7.8 | 89 |
| 9 | Transparent and UV-shielding ZnO@PMMA nanocomposite films. Optical Materials, 2013, 36, 169-172. | 1.7 | 88 |
| 10 | Photoanode Current of Large α Area MoS MoS_2 Ultrathin Nanosheets with Vertically Mesh α Shaped Structure on Indium Tin Oxide. ACS Applied Materials & Interfaces, 2014, 6, 5983-5987. | 4.0 | 79 |
| 11 | Well α Steered Charge α Carrier Transfer in 3D Branched CuxO/ZnO@Au Heterostructures for Efficient Photocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2015, 7, 26819-26827. | 4.0 | 77 |
| 12 | Identification of few-layer ReS ReS_2 as photo-electro integrated catalyst for hydrogen evolution. Nano Energy, 2018, 48, 337-344. | 8.2 | 71 |
| 13 | Resistive switching memories in MoS MoS_2 nanosphere assemblies. Applied Physics Letters, 2014, 104, . | 1.5 | 62 |
| 14 | Vertically aligned MoS MoS_2 /MoO MoO_x heterojunction nanosheets for enhanced visible-light photocatalytic activity and photostability. CrystEngComm, 2014, 16, 9025-9032. | 1.3 | 58 |
| 15 | Enriching Photoelectrons via Three Transition Channels in Amino-Conjugated Carbon Quantum Dots to Boost Photocatalytic Hydrogen Generation. ACS Applied Materials & Interfaces, 2016, 8, 14118-14124. | 4.0 | 57 |
| 16 | Transition metal doping activated basal-plane catalytic activity of two-dimensional 1T α ReS ReS_2 for hydrogen evolution reaction: a first-principles calculation study. Nanoscale, 2019, 11, 10402-10409. | 2.8 | 56 |
| 17 | Interface Band Engineering Charge Transfer for 3D MoS MoS_2 Photoanode to Boost Photoelectrochemical Water Splitting. ACS Sustainable Chemistry and Engineering, 2017, 5, 3829-3836. | 3.2 | 51 |
| 18 | Construction of Active Orbital via Single-Atom Cobalt Anchoring on the Surface of 1T-MoS MoS_2 Basal Plane toward Efficient Hydrogen Evolution. ACS Applied Energy Materials, 2020, 3, 2315-2322. | 2.5 | 50 |

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|----|---|-----|-----------|
| 19 | Comparison on Photoluminescence and Magnetism between Two Kinds of Undoped ZnO Nanorods. Journal of Physical Chemistry C, 2013, 117, 24549-24553. | 1.5 | 44 |
| 20 | Three electron channels toward two types of active sites in MoS ₂ @Pt nanosheets for hydrogen evolution. Journal of Materials Chemistry A, 2017, 5, 22654-22661. | 5.2 | 42 |
| 21 | Surface photoluminescence and magnetism in hydrothermally grown undoped ZnO nanorod arrays. Applied Physics Letters, 2012, 100, 172401. | 1.5 | 41 |
| 22 | Identification of visible emission from ZnO quantum dots: Excitation-dependence and size-dependence. Journal of Applied Physics, 2012, 111, 083521. | 1.1 | 40 |
| 23 | Control mechanism behind broad fluorescence from violet to orange in ZnO quantum dots. CrystEngComm, 2013, 15, 977-981. | 1.3 | 39 |
| 24 | Steering Photoelectrons Excited in Carbon Dots into Platinum Cluster Catalyst for Solar-Driven Hydrogen Production. Advanced Science, 2017, 4, 1700273. | 5.6 | 39 |
| 25 | Surface states engineering carbon dots as multi-band light active sensitizers for ZnO nanowire array photoanode to boost solar water splitting. Carbon, 2017, 121, 201-208. | 5.4 | 38 |
| 26 | Metallic molybdenum sulfide nanodots as platinum-alternative co-catalysts for photocatalytic hydrogen evolution. Journal of Catalysis, 2019, 374, 237-245. | 3.1 | 37 |
| 27 | Variation of structural, optical and magnetic properties with Co-doping in Sn ¹⁺ xCo _x O ₂ nanoparticles. Journal of Magnetism and Magnetic Materials, 2013, 327, 24-27. | 1.0 | 35 |
| 28 | Localized Surface Plasmon Resonance-Enhanced Two-Photon Excited Ultraviolet Emission of Au-Decorated ZnO Nanorod Arrays. Advanced Optical Materials, 2013, 1, 940-945. | 3.6 | 33 |
| 29 | Evolutions of defects and blue-green emissions in ZnO microwhiskers fabricated by vapor-phase transport. Journal of Physics and Chemistry of Solids, 2012, 73, 858-862. | 1.9 | 32 |
| 30 | Photo-induced charge kinetic acceleration in ultrathin layered double hydroxide nanosheets boosts the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 1105-1112. | 5.2 | 32 |
| 31 | Dispersedly embedded loading of Fe ₃ O ₄ nanoparticles into graphene nanosheets for highly efficient and recyclable removal of heavy metal ions. New Journal of Chemistry, 2015, 39, 7355-7362. | 1.4 | 30 |
| 32 | Integrating Semiconducting Catalyst of ReS ₂ Nanosheets into P-Silicon Photocathode for Enhanced Solar Water Reduction. ACS Applied Materials & Interfaces, 2018, 10, 23074-23080. | 4.0 | 30 |
| 33 | Engineering Self-Reconstruction via Flexible Components in Layered Double Hydroxides for Superior-Evolving Performance. Small, 2021, 17, e2101671. | 5.2 | 30 |
| 34 | MoS ₂ Nanostructures with the 1T Phase for Electromagnetic Wave Absorption. ACS Applied Nano Materials, 2021, 4, 11042-11051. | 2.4 | 29 |
| 35 | High-performance deep ultraviolet photodetectors based on ZnO quantum dot assemblies. Journal of Applied Physics, 2014, 116, . | 1.1 | 26 |
| 36 | Self-assembled 3D ACF-rGO-TiO ₂ composite as efficient and recyclable spongy adsorbent for organic dye removal. Materials and Design, 2015, 83, 522-527. | 3.3 | 26 |

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|----|---|-----|-----------|
| 37 | Brush-like SnO ₂ /ZnO hierarchical nanostructure: Synthesis, characterization and application in UV photoresponse. AIP Advances, 2013, 3, . | 0.6 | 24 |
| 38 | Efficient photon harvesting and charge collection in 3D porous RGO-TiO ₂ photoanode for solar water splitting. Materials and Design, 2016, 101, 95-101. | 3.3 | 24 |
| 39 | Constructing n-ZnO@Au heterogeneous nanorod arrays on p-Si substrate as efficient photocathode for water splitting. Nanotechnology, 2016, 27, 305403. | 1.3 | 24 |
| 40 | Transition-metal doping induces the transition of electronic and magnetic properties in armchair MoS ₂ nanoribbons. Physical Chemistry Chemical Physics, 2017, 19, 24594-24604. | 1.3 | 24 |
| 41 | Two-dimensional ZnO ultrathin nanosheets decorated with Au nanoparticles for effective photocatalysis. Journal of Applied Physics, 2016, 120, . | 1.1 | 23 |
| 42 | Engineering Interfaces to Steer Hole Dynamics of BiVO ₄ Photoanodes for Solar Water Oxidation. Solar Rrl, 2019, 3, 1900115. | 3.1 | 23 |
| 43 | Refined Z-scheme charge transfer in facet-selective BiVO ₄ /Au/CdS heterostructure for solar overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 8531-8538. | 3.8 | 23 |
| 44 | Self-assembly optimization of cadmium/molybdenum sulfide hybrids by cation coordination competition toward extraordinarily efficient photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 18396-18402. | 5.2 | 22 |
| 45 | The indirect→direct band gap tuning in armchair MoS ₂ nanoribbon by edge passivation. Journal Physics D: Applied Physics, 2017, 50, 095102. | 1.3 | 20 |
| 46 | PEGME-bonded SnO ₂ quantum dots for excellent photocatalytic activity. RSC Advances, 2013, 3, 20422. | 1.7 | 19 |
| 47 | Heteroatomic Platinum→Cobalt Synergetic Active Centers with Charge Polarization Enable Superior Hydrogen Evolution Performance in both Acid and Base Media. ACS Applied Energy Materials, 2022, 5, 1496-1504. | 2.5 | 19 |
| 48 | Controllable fabrication and optical properties of Sn-doped ZnO hexagonal microdisk for whispering gallery mode microlaser. APL Materials, 2013, 1, . | 2.2 | 18 |
| 49 | Role of exchange splitting and ligand-field splitting in tuning the magnetic anisotropy of an individual iridium atom on S_{Ta_2} substrate. Physical Review B, 2021, 103, . | 1.1 | 17 |
| 50 | The cooling field and the exchange bias in ferromagnet/antiferromagnet bilayers. Journal of Applied Physics, 2009, 106, . | 1.1 | 14 |
| 51 | Coexistence of negative photoconductivity and hysteresis in semiconducting graphene. AIP Advances, 2016, 6, . | 0.6 | 14 |
| 52 | Role of zinc vacancies in driving ferromagnetism in undoped ZnO granular films. Europhysics Letters, 2013, 101, 27009. | 0.7 | 13 |
| 53 | Organic Dye Molecules Sensitization-Enhanced Photocatalytic Water-Splitting Activity of MoS ₂ from First-Principles Calculations. Journal of Physical Chemistry C, 2020, 124, 6580-6587. | 1.5 | 12 |
| 54 | Plasmonic Cocatalyst with Electric and Thermal Stimuli Boots Solar Hydrogen Evolution. Solar Rrl, 2020, 4, 2000094. | 3.1 | 11 |

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|----|---|-----|-----------|
| 55 | Transparent SnO ₂ QDs-based multifunctional glass for ultraviolet-blocking and enhanced hydrophobicity. <i>Materials Letters</i> , 2014, 128, 291-294. | 1.3 | 10 |
| 56 | ZnO quantum dots arranged by hole scavenger groups for enhanced and stable photocatalytic hydrogen generation. <i>Materials Letters</i> , 2016, 165, 196-199. | 1.3 | 10 |
| 57 | Vertical-orbital band center as an activity descriptor for hydrogen evolution reaction on single-atom-anchored 2D catalysts. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 245201. | 0.7 | 9 |
| 58 | Chameleon-Like Reconstruction on Redox Catalysts Adaptive to Alkali Water Electrolysis. <i>Small</i> , 2022, 18, . | 5.2 | 9 |
| 59 | Functionalization of two-dimensional 1Tâ€²-ReS ₂ with surface ligands for use as a photocatalyst in the hydrogen evolution reaction: a first-principles calculation study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 9415-9423. | 1.3 | 8 |
| 60 | Strain-induced magnetoresistance for novel strain sensors. <i>Journal of Applied Physics</i> , 2010, 108, 033916. | 1.1 | 7 |
| 61 | DEFECT-ORIGIN AND STABILITY OF VISIBLE EMISSION IN ZnO NANOPILLARS. <i>Functional Materials Letters</i> , 2012, 05, 1240001. | 0.7 | 7 |
| 62 | Excitation-dependent photoluminescence of ZnO microrods with MgO surface coating. <i>Materials Letters</i> , 2012, 82, 145-147. | 1.3 | 6 |
| 63 | Creating Carbon-Oxygen Bonds over TiO ₂ Nanofibers for Synergistic Benefits of Visible-Light Response and Charge Separation toward Photocatalysis. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600795. | 1.9 | 6 |
| 64 | Hole dynamic acceleration over CdSO nanoparticles for high-efficiency solar hydrogen production with urea photolysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25650-25656. | 5.2 | 6 |
| 65 | Room Temperature Ferromagnetism and Photoluminescence in Cu-Doped ZnO Nanocrystals. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 6012-6015. | 0.9 | 5 |
| 66 | Achieving half-metallicity in zigzag MoS ₂ nanoribbon with a sulfur vacancy by edge passivation. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 265005. | 1.3 | 5 |
| 67 | The mechanism of enhanced photocatalytic activity for water-splitting of ReS ₂ by strain and electric field engineering. <i>RSC Advances</i> , 2021, 11, 23055-23063. | 1.7 | 5 |
| 68 | Structure evolution and optical properties of hierarchical ZnO micro/nanorods fabricated by a two-step growth method. <i>CrystEngComm</i> , 2012, 14, 2180. | 1.3 | 4 |
| 69 | Plasmonic Cocatalyst with Electric and Thermal Stimuli Boots Solar Hydrogen Evolution. <i>Solar Rrl</i> , 2020, 4, 2070062. | 3.1 | 4 |
| 70 | Pronounced Linewidth Narrowing of Vertical Metallic Split-Ring Resonators via Strong Coupling with Metal Surface. <i>Nanomaterials</i> , 2021, 11, 2194. | 1.9 | 4 |
| 71 | Incorporation of active phase in porous MoS ₂ for enhanced hydrogen evolution reaction. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 4121-4128. | 1.1 | 3 |
| 72 | Manganese ion-assisted assembly of superparamagnetic graphene oxide microbowls. <i>Applied Physics Letters</i> , 2014, 104, 121602. | 1.5 | 2 |