

Xiaoming Wen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11529822/publications.pdf>

Version: 2024-02-01

83
papers

5,996
citations

76294

40
h-index

71651

76
g-index

83
all docs

83
docs citations

83
times ranked

9310
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Universal passivation strategy to slot-die printed SnO ₂ for hysteresis-free efficient flexible perovskite solar module. <i>Nature Communications</i> , 2018, 9, 4609. | 5.8 | 596 |
| 2 | Temperature-Dependent Fluorescence in Carbon Dots. <i>Journal of Physical Chemistry C</i> , 2012, 116, 25552-25557. | 1.5 | 407 |
| 3 | Unravelling charge carrier dynamics in protonated g-C ₃ N ₄ interfaced with carbon nanodots as co-catalysts toward enhanced photocatalytic CO ₂ reduction: A combined experimental and first-principles DFT study. <i>Nano Research</i> , 2017, 10, 1673-1696. | 5.8 | 376 |
| 4 | Hole Transport Layer Free Inorganic CsPbI ₂ Br ₂ Perovskite Solar Cell by Dual Source Thermal Evaporation. <i>Advanced Energy Materials</i> , 2016, 6, 1502202. | 10.2 | 373 |
| 5 | Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. <i>Nature Communications</i> , 2017, 8, 14120. | 5.8 | 330 |
| 6 | BiVO ₄ {010} and {110} Relative Exposure Extent: Governing Factor of Surface Charge Population and Photocatalytic Activity. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1400-1405. | 2.1 | 231 |
| 7 | Methylammonium Lead Bromide Perovskite-Based Solar Cells by Vapor-Assisted Deposition. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3545-3549. | 1.5 | 223 |
| 8 | Defect trapping states and charge carrier recombination in organic-inorganic halide perovskites. <i>Journal of Materials Chemistry C</i> , 2016, 4, 793-800. | 2.7 | 171 |
| 9 | Intrinsic and Extrinsic Fluorescence in Carbon Nanodots: Ultrafast Time-Resolved Fluorescence and Carrier Dynamics. <i>Advanced Optical Materials</i> , 2013, 1, 173-178. | 3.6 | 156 |
| 10 | On the upconversion fluorescence in carbon nanodots and graphene quantum dots. <i>Chemical Communications</i> , 2014, 50, 4703-4706. | 2.2 | 140 |
| 11 | Fluorescence Dynamics in BSA-Protected Au ₂₅ Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 19032-19038. | 1.5 | 114 |
| 12 | Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. <i>Solar Rrl</i> , 2017, 1, 1600001. | 3.1 | 109 |
| 13 | Triggering the Passivation Effect of Potassium Doping in Mixed-Cation Mixed-Halide Perovskite by Light Illumination. <i>Advanced Energy Materials</i> , 2019, 9, 1901016. | 10.2 | 109 |
| 14 | Mobile Charge-Induced Fluorescence Intermittency in Methylammonium Lead Bromide Perovskite. <i>Nano Letters</i> , 2015, 15, 4644-4649. | 4.5 | 108 |
| 15 | Mobile Ion Induced Slow Carrier Dynamics in Organic-Inorganic Perovskite CH ₃ NH ₃ PbBr ₃ . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5351-5357. | 4.0 | 100 |
| 16 | Structure-Related Dual Fluorescent Bands in BSA-Protected Au ₂₅ Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11830-11836. | 1.5 | 97 |
| 17 | Efficient electron transfer in carbon nanodot-graphene oxide nanocomposites. <i>Journal of Materials Chemistry C</i> , 2014, 2, 2894. | 2.7 | 87 |
| 18 | The Dominant Energy Transport Pathway in Halide Perovskites: Photon Recycling or Carrier Diffusion?. <i>Advanced Energy Materials</i> , 2019, 9, 1900185. | 10.2 | 85 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Morphology and Carrier Extraction Study of Organic-Inorganic Metal Halide Perovskite by One- and Two-Photon Fluorescence Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3849-3853. | 2.1 | 84 |
| 20 | Ultrafast electron transfer in the nanocomposite of the graphene oxide-Au nanocluster with graphene oxide as a donor. <i>Journal of Materials Chemistry C</i> , 2014, 2, 3826-3834. | 2.7 | 82 |
| 21 | Nucleation and Growth Control of HC(NH ₂) ₂ PbI ₃ for Planar Perovskite Solar Cell. <i>Journal of Physical Chemistry C</i> , 2016, 120, 11262-11267. | 1.5 | 80 |
| 22 | Temperature-Dependent Fluorescence in Au ₁₀ Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 6567-6571. | 1.5 | 78 |
| 23 | Fluorescent Metallic Nanoclusters: Electron Dynamics, Structure, and Applications. <i>Particle and Particle Systems Characterization</i> , 2015, 32, 142-163. | 1.2 | 77 |
| 24 | Electric field induced reversible and irreversible photoluminescence responses in methylammonium lead iodide perovskite. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9060-9068. | 2.7 | 77 |
| 25 | Interfacing BiVO ₄ with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling. <i>Small</i> , 2016, 12, 5295-5302. | 5.2 | 68 |
| 26 | Temperature dependence of photoluminescence in silicon quantum dots. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 3573-3578. | 1.3 | 67 |
| 27 | Dynamic study of the light soaking effect on perovskite solar cells by in-situ photoluminescence microscopy. <i>Nano Energy</i> , 2018, 46, 356-364. | 8.2 | 67 |
| 28 | Light-Induced Formation of MoO _x /S _y Clusters on CdS Nanorods as Cocatalyst for Enhanced Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8324-8332. | 4.0 | 67 |
| 29 | Spatial Distribution of Lead Iodide and Local Passivation on Organo-Lead Halide Perovskite. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6072-6078. | 4.0 | 62 |
| 30 | Photophysics of 2D Organic-Inorganic Hybrid Lead Halide Perovskites: Progress, Debates, and Challenges. <i>Advanced Science</i> , 2021, 8, 2001843. | 5.6 | 59 |
| 31 | Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr ₃ Perovskite Colloidal Nanocrystal Back Layer. <i>Advanced Energy Materials</i> , 2017, 7, 1601773. | 10.2 | 56 |
| 32 | Construction of a Bi ₂ MoO ₆ :Bi ₂ Mo ₃ O ₁₂ heterojunction for efficient photocatalytic oxygen evolution. <i>Chemical Engineering Journal</i> , 2018, 353, 636-644. | 6.6 | 56 |
| 33 | Photogenerated charge dynamics of CdS nanorods with spatially distributed MoS ₂ for photocatalytic hydrogen generation. <i>Chemical Engineering Journal</i> , 2021, 420, 127709. | 6.6 | 56 |
| 34 | Ultrafast Carrier Dynamics in Methylammonium Lead Bromide Perovskite. <i>Journal of Physical Chemistry C</i> , 2016, 120, 2542-2547. | 1.5 | 54 |
| 35 | Temperature dependent spectral properties of type-I and quasi type-II CdSe/CdS dot-in-rod nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 3505. | 1.3 | 49 |
| 36 | Slow Response of Carrier Dynamics in Perovskite Interface upon Illumination. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 31452-31461. | 4.0 | 47 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Revealing the Role of Methylammonium Chloride for Improving the Performance of 2D Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 25980-25990. | 4.0 | 47 |
| 38 | Transient Energy Reservoir in 2D Perovskites. Advanced Optical Materials, 2019, 7, 1900971. | 3.6 | 46 |
| 39 | Phase segregation in inorganic mixed-halide perovskites: from phenomena to mechanisms. Photonics Research, 2020, 8, A56. | 3.4 | 45 |
| 40 | Spatially Modulating the Fluorescence Color of Mixed-Halide Perovskite Nanoplatelets through Direct Femtosecond Laser Writing. ACS Applied Materials & Interfaces, 2019, 11, 26017-26023. | 4.0 | 44 |
| 41 | Tracking Dynamic Phase Segregation in Mixed-Halide Perovskite Single Crystals under Two-Photon Scanning Laser Illumination. Small Methods, 2019, 3, 1900273. | 4.6 | 44 |
| 42 | Role of Surface Recombination in Halide Perovskite Nanoplatelets. ACS Applied Materials & Interfaces, 2018, 10, 31586-31593. | 4.0 | 41 |
| 43 | Free-standing ultra-thin Janus indium oxysulfide for ultrasensitive visible-light-driven optoelectronic chemical sensing. Nano Today, 2021, 37, 101096. | 6.2 | 38 |
| 44 | The Importance of the Interfacial Contact: Is Reduced Graphene Oxide Always an Enhancer in Photo(Electro)Catalytic Water Oxidation?. ACS Applied Materials & Interfaces, 2019, 11, 23125-23134. | 4.0 | 34 |
| 45 | Near-infrared enhanced carbon nanodots by thermally assisted growth. Applied Physics Letters, 2012, 101, . | 1.5 | 33 |
| 46 | Engineering van der Waals Materials for Advanced Metaphotonics. Chemical Reviews, 2022, 122, 15204-15355. | 23.0 | 33 |
| 47 | Nanoscale Characterization of Carrier Dynamic and Surface Passivation in InGaN/GaN Multiple Quantum Wells on GaN Nanorods. ACS Applied Materials & Interfaces, 2016, 8, 31887-31893. | 4.0 | 32 |
| 48 | Metallophilic Bond-Induced Quenching of Delayed Fluorescence in Au ₂₅ @BSA Nanoclusters. Particle and Particle Systems Characterization, 2013, 30, 467-472. | 1.2 | 31 |
| 49 | Illumination-Induced Halide Segregation in Gradient Bandgap Mixed-Halide Perovskite Nanoplatelets. Advanced Optical Materials, 2018, 6, 1801107. | 3.6 | 30 |
| 50 | Oxygen-deficient bismuth tungstate and bismuth oxide composite photoanode with improved photostability. Science Bulletin, 2018, 63, 990-996. | 4.3 | 29 |
| 51 | Long-Distance Ionic Diffusion in Cesium Lead Mixed Halide Perovskite Induced by Focused Illumination. Chemistry of Materials, 2019, 31, 9049-9056. | 3.2 | 28 |
| 52 | Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBr _{3-x} I _x) quantum dots. Journal of Colloid and Interface Science, 2017, 504, 586-592. | 5.0 | 27 |
| 53 | Temperature dependent photoluminescence in oxygen ion implanted and rapid thermally annealed ZnO ⁺ -ZnMgO multiple quantum wells. Applied Physics Letters, 2007, 90, 221914. | 1.5 | 25 |
| 54 | A room temperature all-optical sensor based on two-dimensional SnS ₂ for highly sensitive and reversible NO ₂ sensing. Journal of Hazardous Materials, 2022, 426, 127813. | 6.5 | 25 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Quantum Confined Stark Effect in Au ₈ and Au ₂₅ Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3621-3626. | 1.5 | 24 |
| 56 | Optical Probe Ion and Carrier Dynamics at the CH ₃ NH ₃ PbI ₃ Interface with Electron and Hole Transport Materials. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600467. | 1.9 | 23 |
| 57 | The Dependence of Bi ₂ MoO ₆ Photocatalytic Water Oxidation Capability on Crystal Facet Engineering. <i>ChemPhotoChem</i> , 2019, 3, 1246-1253. | 1.5 | 23 |
| 58 | Singlet and Triplet Carrier Dynamics in Rubrene Single Crystal. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17741-17747. | 1.5 | 22 |
| 59 | Fluorescence origin and spectral broadening mechanism in atomically precise Au ₈ nanoclusters. <i>Nanoscale</i> , 2013, 5, 10251. | 2.8 | 22 |
| 60 | Determining In-Plane Carrier Diffusion in Two-Dimensional Perovskite Using Local Time-Resolved Photoluminescence. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26384-26390. | 4.0 | 20 |
| 61 | Enhancing stability and luminescence quantum yield of CsPbBr ₃ quantum dots by embedded in borosilicate glass. <i>Journal of Alloys and Compounds</i> , 2021, 874, 159962. | 2.8 | 20 |
| 62 | Confined Au@Pd Ensembles in Mesoporous TiO ₂ Spheres for the Photocatalytic Oxidation of Acetaldehyde. <i>ChemCatChem</i> , 2013, 5, 3557-3561. | 1.8 | 18 |
| 63 | Revealing Dynamic Effects of Mobile Ions in Halide Perovskite Solar Cells Using Time-Resolved Microspectroscopy. <i>Small Methods</i> , 2021, 5, e2000731. | 4.6 | 18 |
| 64 | Layer number dependent exciton dissociation and carrier recombination in 2D Ruddlesden-Popper halide perovskites. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8966-8974. | 2.7 | 18 |
| 65 | Visualizing the Impact of Light Soaking on Morphological Domains in an Operational Cesium Lead Halide Perovskite Solar Cell. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 136-143. | 2.1 | 17 |
| 66 | Spectroscopic Insight into Efficient and Stable Hole Transfer at the Perovskite/Spiro-OMeTAD Interface with Alternative Additives. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 5752-5761. | 4.0 | 17 |
| 67 | Free charges versus excitons: photoluminescence investigation of InGaN/GaN multiple quantum well nanorods and their planar counterparts. <i>Nanoscale</i> , 2018, 10, 5358-5365. | 2.8 | 16 |
| 68 | Studies of the photostability of CdSe/CdS dot-in-rod nanoparticles. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1. | 0.8 | 14 |
| 69 | Time-resolved fluorescence anisotropy study of organic lead halide perovskite. <i>Solar Energy Materials and Solar Cells</i> , 2016, 151, 102-112. | 3.0 | 14 |
| 70 | Optical properties of gold particle-cluster core-satellite nanoassemblies. <i>RSC Advances</i> , 2013, 3, 19609. | 1.7 | 13 |
| 71 | The enhancement of electron-phonon coupling in glutathione-protected Au ₂₅ clusters. <i>Journal of Colloid and Interface Science</i> , 2013, 402, 86-89. | 5.0 | 12 |
| 72 | A high-performance visible-light-driven all-optical switch enabled by ultra-thin gallium sulfide. <i>Journal of Materials Chemistry C</i> , 2021, 9, 3115-3121. | 2.7 | 12 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Intermediate phase-enhanced Ostwald ripening for the elimination of phase segregation in efficient inorganic CsPbI ₂ Br ₂ perovskite solar cells. Science China Materials, 2021, 64, 2655-2666. | 3.5 | 12 |
| 74 | Dynamic study on the transformation process of gold nanoclusters. Nanotechnology, 2014, 25, 445705. | 1.3 | 8 |
| 75 | Origin and physical effects of edge states in two-dimensional Ruddlesden-Popper perovskites. Science, 2022, 25, 104420. | 1.9 | 8 |
| 76 | InOOH-mediated intergrown heterojunctions for enhanced photocatalytic Performance: Assembly and interfacial charge carrier transferring. Chemical Engineering Journal, 2022, 442, 136355. | 6.6 | 7 |
| 77 | Ni ²⁺ doping induced structural phase transition and photoluminescence enhancement of CsPbBr ₃ . AIP Advances, 2021, 11, . | 0.6 | 3 |
| 78 | Controllable Acceleration and Deceleration of Charge Carrier Transport in Metal-Halide Perovskite Single-Crystal by Cs-Cation Induced Bandgap Engineering. Small, 2022, 18, e2107680. | 5.2 | 3 |
| 79 | Illumination dependent carrier dynamics of CH ₃ NH ₃ PbBr ₃ perovskite. Proceedings of SPIE, 2015, , . | 0.8 | 1 |
| 80 | Improving Hole Transport and Extraction by Interface Engineering in Perovskite Solar Cells. Energy Technology, 0, , 2101002. | 1.8 | 1 |
| 81 | Optical properties and electron dynamics in carbon nanodots. , 2013, , . | | 0 |
| 82 | Ultrafast charge generation and relaxation dynamics in methylammonium lead bromide perovskites. , 2015, , . | | 0 |
| 83 | Ultrafast transient absorption study of hot carrier dynamics in hafnium nitride and zirconium nitride. , 2015, , . | | 0 |