

He Tian

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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.

88
papers

6,041
citations

29
h-index

77
g-index

92
ext. papers

7,485
ext. citations

12.4
avg, IF

5.68
L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 88 | Perovskite light-emitting diodes based on solution-processed self-organized multiple quantum wells. <i>Nature Photonics</i> , 2016 , 10, 699-704 | 33.9 | 1206 |
| 87 | Perovskite light-emitting diodes based on spontaneously formed submicrometre-scale structures. <i>Nature</i> , 2018 , 562, 249-253 | 50.4 | 1116 |
| 86 | Production and application of electron vortex beams. <i>Nature</i> , 2010 , 467, 301-4 | 50.4 | 579 |
| 85 | Efficient blue light-emitting diodes based on quantum-confined bromide perovskite nanostructures. <i>Nature Photonics</i> , 2019 , 13, 760-764 | 33.9 | 313 |
| 84 | C N-A 2D Crystalline, Hole-Free, Tunable-Narrow-Bandgap Semiconductor with Ferromagnetic Properties. <i>Advanced Materials</i> , 2017 , 29, 1605625 | 24 | 256 |
| 83 | Extremely Low Operating Current Resistive Memory Based on Exfoliated 2D Perovskite Single Crystals for Neuromorphic Computing. <i>ACS Nano</i> , 2017 , 11, 12247-12256 | 16.7 | 201 |
| 82 | Efficient and High-Color-Purity Light-Emitting Diodes Based on In Situ Grown Films of CsPbX (X = Br, I) Nanoplates with Controlled Thicknesses. <i>ACS Nano</i> , 2017 , 11, 11100-11107 | 16.7 | 153 |
| 81 | Phase-change heterostructure enables ultralow noise and drift for memory operation. <i>Science</i> , 2019 , 366, 210-215 | 33.3 | 143 |
| 80 | Reaction and Capacity-Fading Mechanisms of Tin Nanoparticles in Potassium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 12652-12657 | 3.8 | 121 |
| 79 | Degradation process of lead chromate in paintings by Vincent van Gogh studied by means of synchrotron X-ray spectromicroscopy and related methods. 1. Artificially aged model samples. <i>Analytical Chemistry</i> , 2011 , 83, 1214-23 | 7.8 | 105 |
| 78 | An ultrastable lithium metal anode enabled by designed metal fluoride spansules. <i>Science Advances</i> , 2020 , 6, eaaz3112 | 14.3 | 104 |
| 77 | Interfacial Oxygen Vacancies as a Potential Cause of Hysteresis in Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2016 , 28, 802-812 | 9.6 | 102 |
| 76 | Biomacromolecules enabled dendrite-free lithium metal battery and its origin revealed by cryo-electron microscopy. <i>Nature Communications</i> , 2020 , 11, 488 | 17.4 | 90 |
| 75 | Degradation process of lead chromate in paintings by Vincent van Gogh studied by means of spectromicroscopic methods. 3. Synthesis, characterization, and detection of different crystal forms of the chrome yellow pigment. <i>Analytical Chemistry</i> , 2013 , 85, 851-9 | 7.8 | 80 |
| 74 | Tuning Surface Structure and Strain in Pd-Pt Core-Shell Nanocrystals for Enhanced Electrocatalytic Oxygen Reduction. <i>Small</i> , 2017 , 13, 1603423 | 11 | 76 |
| 73 | How to manipulate nanoparticles with an electron beam?. <i>Advanced Materials</i> , 2013 , 25, 1114-7 | 24 | 71 |
| 72 | Tunable Synthesis of Hollow Metal-Nitrogen-Carbon Capsules for Efficient Oxygen Reduction Catalysis in Proton Exchange Membrane Fuel Cells. <i>ACS Nano</i> , 2019 , 13, 8087-8098 | 16.7 | 68 |

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| 71 | A new way of producing electron vortex probes for STEM. <i>Ultramicroscopy</i> , 2012 , 113, 83-87 | 3.1 | 68 |
| 70 | Hydroxyl-Group-Dominated Graphite Dots Reshape Laser Desorption/Ionization Mass Spectrometry for Small Biomolecular Analysis and Imaging. <i>ACS Nano</i> , 2017 , 11, 9500-9513 | 16.7 | 59 |
| 69 | Ultrathin Anatase TiO Nanosheets for High-Performance Photocatalytic Hydrogen Production. <i>Small</i> , 2017 , 13, 1604115 | 11 | 57 |
| 68 | Fatigue mechanism of yttrium-doped hafnium oxide ferroelectric thin films fabricated by pulsed laser deposition. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 3486-3497 | 3.6 | 56 |
| 67 | Electronic and nanostructure engineering of bifunctional MoS towards exceptional visible-light photocatalytic CO reduction and pollutant degradation. <i>Journal of Hazardous Materials</i> , 2020 , 381, 120972 | 12.8 | 52 |
| 66 | Direct observation of room-temperature out-of-plane ferroelectricity and tunneling electroresistance at the two-dimensional limit. <i>Nature Communications</i> , 2018 , 9, 3319 | 17.4 | 50 |
| 65 | Hierarchical nanosheet-constructed yolk-shell TiO porous microspheres for lithium batteries with high capacity, superior rate and long cycle capability. <i>Nanoscale</i> , 2015 , 7, 12979-89 | 7.7 | 47 |
| 64 | An In situ TEM study of the surface oxidation of palladium nanocrystals assisted by electron irradiation. <i>Nanoscale</i> , 2017 , 9, 6327-6333 | 7.7 | 45 |
| 63 | Functionalized Iron-Nitrogen-Carbon Electrocatalyst Provides a Reversible Electron Transfer Platform for Efficient Uranium Extraction from Seawater. <i>Advanced Materials</i> , 2021 , e2106621 | 24 | 42 |
| 62 | Efficient and bright warm-white electroluminescence from lead-free metal halides. <i>Nature Communications</i> , 2021 , 12, 1421 | 17.4 | 38 |
| 61 | Nanodiamonds do not provide unique evidence for a Younger Dryas impact. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 40-4 | 11.5 | 35 |
| 60 | Nanoscale investigation of the degradation mechanism of a historical chrome yellow paint by quantitative electron energy loss spectroscopy mapping of chromium species. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 11360-3 | 16.4 | 34 |
| 59 | Highly efficient electrocatalytic hydrogen evolution promoted by O-Mo-C interfaces of ultrafine EMoC nanostructures. <i>Chemical Science</i> , 2020 , 11, 3523-3530 | 9.4 | 29 |
| 58 | Manipulating topological transformations of polar structures through real-time observation of the dynamic polarization evolution. <i>Nature Communications</i> , 2019 , 10, 4864 | 17.4 | 29 |
| 57 | Hydrothermal synthesis and formation mechanism of the single-crystalline Bi ₄ Ti ₃ O ₁₂ nanosheets with dominant (010) facets. <i>CrystEngComm</i> , 2016 , 18, 2268-2274 | 3.3 | 25 |
| 56 | Artificial construction of the layered Ruddlesden-Popper manganite La ₂ Sr ₂ Mn ₃ O ₁₀ by reflection high energy electron diffraction monitored pulsed laser deposition. <i>Journal of the American Chemical Society</i> , 2012 , 134, 7700-14 | 16.4 | 24 |
| 55 | Fe ₃ O ₄ /ZnO: A high-quality magnetic oxide-semiconductor heterostructure by reactive deposition. <i>Applied Physics Letters</i> , 2011 , 98, 012512 | 3.4 | 24 |
| 54 | A Novel Room-Temperature Multiferroic System of Hexagonal Lu _{1-x} In _x FeO ₃ . <i>Advanced Functional Materials</i> , 2018 , 28, 1706062 | 15.6 | 23 |

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| 53 | Mesopores induced zero thermal expansion in single-crystal ferroelectrics. <i>Nature Communications</i> , 2018 , 9, 1638 | 17.4 | 23 |
| 52 | Light-Enhanced Ion Migration in Two-Dimensional Perovskite Single Crystals Revealed in Carbon Nanotubes/Two-Dimensional Perovskite Heterostructure and Its Photomemory Application. <i>ACS Central Science</i> , 2019 , 5, 1857-1865 | 16.8 | 23 |
| 51 | Efficient light-emitting diodes based on oriented perovskite nanoplatelets. <i>Science Advances</i> , 2021 , 7, eabg8458 | 14.3 | 23 |
| 50 | Controlled chelation between tannic acid and Fe precursors to obtain N, S co-doped carbon with high density Fe-single atom-nanoclusters for highly efficient oxygen reduction reaction in Zn air batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17136-17149 | 13 | 23 |
| 49 | Interfacial Multiferroics of TiO/PbTiO Heterostructure Driven by Ferroelectric Polarization Discontinuity. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1899-1906 | 9.5 | 22 |
| 48 | Shaping electron beams for the generation of innovative measurements in the (S)TEM. <i>Comptes Rendus Physique</i> , 2014 , 15, 190-199 | 1.4 | 22 |
| 47 | Surface Defect-Controlled Growth and High Photocatalytic H ₂ Production Efficiency of Anatase TiO ₂ Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 37256-37262 | 9.5 | 21 |
| 46 | In Situ Observation on Dislocation-Controlled Sublimation of Mg Nanoparticles. <i>Nano Letters</i> , 2016 , 16, 1156-60 | 11.5 | 20 |
| 45 | CO _x (Na ⁺) groups in non-doped carbon as active sites for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 8955-8961 | 13 | 18 |
| 44 | Enabling Full Conversion Reaction with High Reversibility to Approach Theoretical Capacity for Sodium Storage. <i>Advanced Functional Materials</i> , 2019 , 29, 1906680 | 15.6 | 18 |
| 43 | Overcoming the Limits of the Interfacial Dzyaloshinskii-Moriya Interaction by Antiferromagnetic Order in Multiferroic Heterostructures. <i>Advanced Materials</i> , 2020 , 32, e1904415 | 24 | 17 |
| 42 | Possible structural origin of superconductivity in Sr-doped Bi ₂ Se ₃ . <i>Physical Review Materials</i> , 2018 , 2, | 3.2 | 17 |
| 41 | Large-scale synthesis of N-doped carbon capsules supporting atomically dispersed iron for efficient oxygen reduction reaction electrocatalysis. <i>EScience</i> , 2022 , | | 17 |
| 40 | Metal-Free Catalyst with Large Carbon Defects for Efficient Direct Overall Water Splitting in Air at Room Pressure. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 30280-30288 | 9.5 | 15 |
| 39 | Electric field control of superconductivity at the LaAlO ₃ /KTaO ₃ (111) interface. <i>Science</i> , 2021 , 372, 721-724 | 33.3 | 15 |
| 38 | Interface-induced modulation of charge and polarization in thin film Fe ₃ O ₄ . <i>Advanced Materials</i> , 2014 , 26, 461-5 | 24 | 14 |
| 37 | Tuning Interfacial Magnetic Ordering via Polarization Control in Ferroelectric SrTiO ₃ /PbTiO ₃ Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10536-10542 | 9.5 | 13 |
| 36 | Single-Crystal BiFeO ₃ Nanoplates with Robust Antiferromagnetism. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5785-5792 | 9.5 | 13 |

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| 35 | Electrostatic Force-Driven Oxide Heteroepitaxy for Interface Control. <i>Advanced Materials</i> , 2018 , 30, e1707017 | 13 |
| 34 | Magnetic and electronic properties of the interface between half metallic Fe ₃ O ₄ and semiconducting ZnO. <i>Applied Physics Letters</i> , 2012 , 100, 081603 | 3.4 13 |
| 33 | Enhanced hybrid improper ferroelectricity in Sr _{3-x} BaxSn ₂ O ₇ ceramics with a Ruddlesden-Popper (RP) structure. <i>Applied Physics Letters</i> , 2020 , 116, 042903 | 3.4 12 |
| 32 | Two-Dimensional Superconductivity at the LaAlO ₃ /KTaO ₃ (110) Heterointerface. <i>Physical Review Letters</i> , 2021 , 126, 026802 | 7.4 12 |
| 31 | Atomic-Scale Control of Magnetism at the Titanite-Manganite Interfaces. <i>Nano Letters</i> , 2019 , 19, 3057-3065 | 10 |
| 30 | Fe ultra-small particles anchored on carbon aerogels to enhance the oxygen reduction reaction in Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 6861-6871 | 13 10 |
| 29 | Univariate Lattice Parameter Modulation of Single-Crystal-like Anatase TiO ₂ Hierarchical Nanowire Arrays to Improve Photoactivity. <i>Chemistry of Materials</i> , 2021 , 33, 1489-1497 | 9.6 10 |
| 28 | Nanoscale Investigation of the Degradation Mechanism of a Historical Chrome Yellow Paint by Quantitative Electron Energy Loss spectroscopy Mapping of Chromium Species. <i>Angewandte Chemie</i> , 2013 , 125, 11570-11573 | 3.6 9 |
| 27 | pH-Dependent growth of atomic Pd layers on trisoctahedral gold nanoparticles to realize enhanced performance in electrocatalysis and chemical catalysis. <i>Nanoscale</i> , 2018 , 10, 22302-22311 | 7.7 9 |
| 26 | Atomic scale investigation of enhanced ferroelectricity in (Ba,Ca)TiO ₃ . <i>RSC Advances</i> , 2017 , 7, 22587-22591 | 8 |
| 25 | A termination-insensitive and robust electron gas at the heterointerface of two complex oxides. <i>Nature Communications</i> , 2019 , 10, 4026 | 17.4 8 |
| 24 | Enhanced gas-sensing performance of SnO ₂ /Nb ₂ O ₅ hybrid nanowires. <i>RSC Advances</i> , 2016 , 6, 105317-105321 | 8 |
| 23 | Surface Amorphous Oxides Induced Electron Transfer into Complex Oxide Heterointerfaces. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1801216 | 4.6 8 |
| 22 | Balsam-pear-like rutile/anatase core/shell titania nanorod arrays for photoelectrochemical water splitting. <i>Nanotechnology</i> , 2017 , 28, 465602 | 3.4 7 |
| 21 | Fe-Ni Alloy Nanoclusters Anchored on Carbon Aerogels as High-Efficiency Oxygen Electrocatalysts in Rechargeable Zn-Air Batteries. <i>Small</i> , 2021 , 17, e2102002 | 11 7 |
| 20 | Near-equiatomc high-entropy decagonal quasicrystal in Al ₂₀ Si ₂₀ Mn ₂₀ Fe ₂₀ Ga ₂₀ . <i>Science China Materials</i> , 2021 , 64, 440-447 | 7.1 5 |
| 19 | 2D Materials: C ₃ N ₄ 2D Crystalline, Hole-Free, Tunable-Narrow-Bandgap Semiconductor with Ferromagnetic Properties (Adv. Mater. 16/2017). <i>Advanced Materials</i> , 2017 , 29, | 24 4 |
| 18 | A-site partially ordered La _{0.5} Y _{0.5} FeO ₃ and its multiferroic characteristics. <i>Applied Physics Letters</i> , 2019 , 114, 212904 | 3.4 4 |

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|----|---|------|---|
| 17 | Distribution and concentration of surface oxygen vacancy of TiO ₂ and its photocatalytic activity. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 424001 | 3 | 3 |
| 16 | Towards quantitative mapping of the charge distribution along a nanowire by in-line electron holography. <i>Ultramicroscopy</i> , 2018 , 194, 126-132 | 3.1 | 3 |
| 15 | Direct visualization of irreducible ferrielectricity in crystals. <i>Npj Quantum Materials</i> , 2020 , 5, | 5 | 3 |
| 14 | Interface-engineered electron and hole tunneling. <i>Science Advances</i> , 2021 , 7, | 14.3 | 3 |
| 13 | Oxygen Reduction Reaction: Tuning Surface Structure and Strain in PdPt CoreShell Nanocrystals for Enhanced Electrocatalytic Oxygen Reduction (Small 7/2017). <i>Small</i> , 2017 , 13, | 11 | 2 |
| 12 | Growth and structural characterisation of Sr-doped BiSe thin films. <i>Scientific Reports</i> , 2018 , 8, 2192 | 4.9 | 2 |
| 11 | Giant room temperature elastocaloric effect in metal-free thin-film perovskites. <i>Npj Computational Materials</i> , 2021 , 7, | 10.9 | 2 |
| 10 | Polarization screening-induced epitaxial growth and interfacial magnetism of BiFeO ₃ /PbTiO ₃ nanoplates. <i>CrystEngComm</i> , 2020 , 22, 639-645 | 3.3 | 1 |
| 9 | Cu atomic clusters on N-doped porous carbon with tunable oxidation state for the highly-selective electroreduction of CO ₂ . <i>Materials Advances</i> , 2020 , 1, 2286-2292 | 3.3 | 1 |
| 8 | Enhanced hybrid improper ferroelectricity in Fe/Nb cosubstituted Ca ₃ Mn ₂ O ₇ ceramics. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 4000-4013 | 3.8 | 1 |
| 7 | A unique ligand effect in Pt-based core-shell nanocubes to boost oxygen reduction electrocatalysis. <i>Journal of Materials Chemistry A</i> , | 13 | 1 |
| 6 | Plasmonic Metal Oxide Nanocrystals via Surface Anchoring of Redox-Active Phosphorus Species. <i>Chemistry of Materials</i> , 2021 , 33, 5290-5297 | 9.6 | 1 |
| 5 | Co ³⁺ Bond Elongation Unlocks Co ₃ O ₄ for Methane Activation under Ambient Conditions. <i>ACS Catalysis</i> , 7037-7045 | 13.1 | 1 |
| 4 | Room-temperature multiferroic characteristics and unique vortex domain structures of h-Yb _{1-x} In _x FeO ₃ solid solutions. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 6393 | 3.8 | 0 |
| 3 | B ₁₁ -O-02 Mapping valance and coordination by monochromated STEM EELS. <i>Microscopy (Oxford, England)</i> , 2015 , 64, i11.1-i11 | 1.3 | |
| 2 | Poster: Spin-Related Phenomena 2013 , 589-632 | | |
| 1 | Imaging simulation of charged nanowires in TEM with large defocus distance. <i>Microscopy (Oxford, England)</i> , 2021 , 70, 388-393 | 1.3 | |