Xiaoxu Zhao

List of Publications by Year in Descending Order

129 papers	5,343 citations	43 h-index	69 g-index
141 ext. papers	7,113 ext. citations	13.9 avg, IF	5.85 L-index

#	Paper	IF	Citations
129	Ultralow-Threshold and High-Quality Whispering-Gallery-Mode Lasing from Colloidal Core/Hybrid-Shell Quantum Wells.. *Advanced Materials*, **2022**, e2108884	24	5
128	Ultralow-Threshold and High-Quality Whispering-Gallery-Mode Lasing from Colloidal Core/Hybrid-Shell Quantum Wells (Adv. Mater. 13/2022). *Advanced Materials*, **2022**, 34, 2270104	24	1
127	Learning motifs and their hierarchies in atomic resolution microscopy.. *Science Advances*, **2022**, 8, eabk1005	14.3	1
126	Addressing the quantitative conversion bottleneck in single-atom catalysis.. *Nature Communications*, **2022**, 13, 2807	17.4	2
125	Electronegativity Induced Charge Balancing to Boost Stability and Activity of Amorphous Electrocatalyst.. *Advanced Materials*, **2021**, e2100537	24	6
124	Epitaxial Growth of Step-Like Cr S Lateral Homojunctions Towards Versatile Conduction Polarities and Enhanced Transistor Performances. *Small*, **2021**, e2105744	11	3
123	Scalable two-step annealing method for preparing ultra-high-density single-atom catalyst libraries. *Nature Nanotechnology*, **2021**,	28.7	40
122	Anisotropic point defects in rhenium diselenide monolayers. *IScience*, **2021**, 24, 103456	6.1	0
121	Imaging and modifying 2D materials by STEM **2021**,		
120	High-Yield Exfoliation of Monolayer 1T MoTe as Saturable Absorber for Ultrafast Photonics. *ACS Nano*, **2021**,	16.7	5
119	Electron beam triggered single-atom dynamics in two-dimensional materials. *Journal of Physics Condensed Matter*, **2021**, 33, 063001	1.8	2
118	Unveiling Atomic-Scale Moir Features and Atomic Reconstructions in High-Angle Commensurately Twisted Transition Metal Dichalcogenide Homobilayers. *Nano Letters*, **2021**, 21, 3262-3270	11.5	5
117	Tuning the Spin Density of Cobalt Single-Atom Catalysts for Efficient Oxygen Evolution. *ACS Nano*, **2021**, 15, 7105-7113	16.7	21
116	Direct Laser Patterning of a 2D WSe2 Logic Circuit. *Advanced Functional Materials*, **2021**, 31, 2009549	15.6	6
115	Ordered clustering of single atomic Te vacancies in atomically thin PtTe promotes hydrogen evolution catalysis. *Nature Communications*, **2021**, 12, 2351	17.4	24
114	2D Electrolytes: Theory, Modeling, Synthesis, and Characterization. *Advanced Materials*, **2021**, 33, e2100442	24	4
113	Chemical Vapor Deposition of Superconducting FeTeSe Nanosheets. *Nano Letters*, **2021**, 21, 5338-5344	11.5	8

112	Zero-Valent Palladium Single-Atoms Catalysts Confined in Black Phosphorus for Efficient Semi-Hydrogenation. *Advanced Materials*, **2021**, 33, e2008471	24	15
111	A comparison of free-hand method and electromagnetic navigation technique for the distal locking during intramedullary nailing procedures: a meta-analysis. *Archives of Orthopaedic and Trauma Surgery*, **2021**, 141, 45-53	3.6	1
110	Printable two-dimensional superconducting monolayers. *Nature Materials*, **2021**, 20, 181-187	27	38
109	Molecular engineered palladium single atom catalysts with an M-C1N3 subunit for Suzuki coupling. *Journal of Materials Chemistry A*, **2021**, 9, 11427-11432	13	5
108	Two-Dimensional Metallic Vanadium Ditelluride as a High-Performance Electrode Material. *ACS Nano*, **2021**, 15, 1858-1868	16.7	11
107	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. *ACS Applied Materials & Interfaces*, **2021**, 13, 8518-8527	9.5	9
106	Atomically Dispersed Indium Sites for Selective CO Electroreduction to Formic Acid. *ACS Nano*, **2021**, 15, 5671-5678	16.7	38
105	Iron Single Atom Catalyzed Quinoline Synthesis. *Advanced Materials*, **2021**, 33, e2101382	24	11
104	High thermoelectric performance enabled by convergence of nested conduction bands in PbBiSe with low thermal conductivity. *Nature Communications*, **2021**, 12, 4793	17.4	15
103	MoTe: Semiconductor or Semimetal?. *ACS Nano*, **2021**,	16.7	4
102	Phenotype, genotype and long-term prognosis of 40 Chinese patients with isobutyryl-CoA dehydrogenase deficiency and a review of variant spectra in ACAD8. *Orphanet Journal of Rare Diseases*, **2021**, 16, 392	4.2	0
101	Visible-light driven room-temperature coupling of methane to ethane by atomically dispersed Au on WO3. *Journal of Energy Chemistry*, **2021**, 61, 195-202	12	15
100	Nanocrystalline diamond film grown by pulsed linear antenna microwave CVD. *Diamond and Related Materials*, **2021**, 119, 108576	3.5	1
99	Defect Engineering of Two-Dimensional Transition-Metal Dichalcogenides: Applications, Challenges, and Opportunities. *ACS Nano*, **2021**, 15, 2165-2181	16.7	53
98	Atomically Dispersed Cobalt Trifunctional Electrocatalysts with Tailored Coordination Environment for Flexible Rechargeable Zn–Air Battery and Self-Driven Water Splitting. *Advanced Energy Materials*, **2020**, 10, 2002896	21.8	95
97	Divergent Chemistry Paths for 3D and 1D Metallo-Covalent Organic Frameworks (COFs). *Angewandte Chemie*, **2020**, 132, 11624-11629	3.6	3
96	Imprinting Ferromagnetism and Superconductivity in Single Atomic Layers of Molecular Superlattices. *Advanced Materials*, **2020**, 32, e1907645	24	11
95	Engineering covalently bonded 2D layered materials by self-intercalation. *Nature*, **2020**, 581, 171-177	50.4	68

94	Two-Dimensional Metallic NiTe with Ultrahigh Environmental Stability, Conductivity, and Electrocatalytic Activity. *ACS Nano*, **2020**, 14, 9011-9020	16.7	27
93	An Anomalous Magneto-Optic Effect in Epitaxial Indium Selenide Layers. *Nano Letters*, **2020**, 20, 5330-5338	11.5	4
92	Domain Engineering in ReS2 by Coupling Strain during Electrochemical Exfoliation. *Advanced Functional Materials*, **2020**, 30, 2003057	15.6	8
91	Single crystal of a one-dimensional metallo-covalent organic framework. *Nature Communications*, **2020**, 11, 1434	17.4	26
90	Divergent Chemistry Paths for 3D and 1D Metallo-Covalent Organic Frameworks (COFs). *Angewandte Chemie - International Edition*, **2020**, 59, 11527-11532	16.4	10
89	Engineering Local and Global Structures of Single Co Atoms for a Superior Oxygen Reduction Reaction. *ACS Catalysis*, **2020**, 10, 5862-5870	13.1	76
88	Enhanced Valley Zeeman Splitting in Fe-Doped Monolayer MoS. *ACS Nano*, **2020**, 14, 4636-4645	16.7	32
87	Self-sacrificing template strategy to non-noble Bi modified BiVO4 for promoted visible light photocatalytic performance. *Chemical Physics Letters*, **2020**, 755, 137786	2.5	4
86	Highly Efficient 2D NIR-II Photothermal Agent with Fenton Catalytic Activity for Cancer Synergistic Photothermal-Chemodynamic Therapy. *Advanced Science*, **2020**, 7, 1902576	13.6	96
85	Spin-Valley Locking Effect in Defect States of Monolayer MoS. *Nano Letters*, **2020**, 20, 2129-2136	11.5	27
84	Rapid, Scalable Construction of Highly Crystalline Acylhydrazone Two-Dimensional Covalent Organic Frameworks via Dipole-Induced Antiparallel Stacking. *Journal of the American Chemical Society*, **2020**, 142, 4932-4943	16.4	48
83	Room Temperature Commensurate Charge Density Wave on Epitaxially Grown Bilayer 2H-Tantalum Sulfide on Hexagonal Boron Nitride. *ACS Nano*, **2020**, 14, 3917-3926	16.7	17
82	Building vertically-structured, high-performance electrodes by interlayer-confined reactions in accordion-like, chemically expanded graphite. *Nano Energy*, **2020**, 70, 104482	17.1	16
81	Controlled Growth of 3R Phase Tantalum Diselenide and Its Enhanced Superconductivity. *Journal of the American Chemical Society*, **2020**, 142, 2948-2955	16.4	12
80	Epitaxial Growth of Centimeter-Scale Single-Crystal MoS Monolayer on Au(111). *ACS Nano*, **2020**, 14, 5036-5045	16.7	107
79	Controlled Growth and Thickness-Dependent Conduction-Type Transition of 2D Ferrimagnetic Cr S Semiconductors. *Advanced Materials*, **2020**, 32, e1905896	24	58
78	Phase-controllable growth of ultrathin 2D magnetic FeTe crystals. *Nature Communications*, **2020**, 11, 3729	17.4	57
77	Partitioning the interlayer space of covalent organic frameworks by embedding pseudorotaxanes in their backbones. *Nature Chemistry*, **2020**, 12, 1115-1122	17.6	23

76	Atomically-precise dopant-controlled single cluster catalysis for electrochemical nitrogen reduction. *Nature Communications*, **2020**, 11, 4389	17.4	52
75	Space-confined microwave synthesis of ternary-layered BiOCl crystals with high-performance ultraviolet photodetection. *Informa Materily*, **2020**, 2, 593-600	23.1	25
74	Phase-Controlled Synthesis of Monolayer W Re S Alloy with Improved Photoresponse Performance. *Small*, **2020**, 16, e2000852	11	7
73	Single-Atom Catalysts: Atomically Dispersed Cobalt Trifunctional Electrocatalysts with Tailored Coordination Environment for Flexible Rechargeable Zn Air Battery and Self-Driven Water Splitting (Adv. Energy Mater. 48/2020). *Advanced Energy Materials*, **2020**, 10, 2070195	21.8	2
72	High-Concentration Niobium-Substituted WS Basal Domains with Reconfigured Electronic Band Structure for Hydrogen Evolution Reaction. *ACS Applied Materials & Interfaces*, **2019**, 11, 34862-34868	9.5	11
71	Hypertension-associated mitochondrial DNA 4401A>G mutation caused the aberrant processing of tRNAMet, all 8 tRNAs and ND6 mRNA in the light-strand transcript. *Nucleic Acids Research*, **2019**, 47, 10340-10356	20.1	12
70	Effects of precursor pre-treatment on the vapor deposition of WS2 monolayers. *Nanoscale Advances*, **2019**, 1, 953-960	5.1	7
69	Location-selective growth of two-dimensional metallic/semiconducting transition metal dichalcogenide heterostructures. *Nanoscale*, **2019**, 11, 4183-4189	7.7	10
68	High-Energy Gain Upconversion in Monolayer Tungsten Disulfide Photodetectors. *Nano Letters*, **2019**, 19, 5595-5603	11.5	24
67	Single-Atom Coated Separator for Robust Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 25147-25154	9.5	95
66	Phase-Controlled Synthesis of Monolayer Ternary Telluride with a Random Local Displacement of Tellurium Atoms. *Advanced Materials*, **2019**, 31, e1900862	24	30
65	Hierarchically Porous Carbon Plates Derived from Wood as Bifunctional ORR/OER Electrodes. *Advanced Materials*, **2019**, 31, e1900341	24	191
64	New Family of Plasmonic Photocatalysts without Noble Metals. *Chemistry of Materials*, **2019**, 31, 2320-2327	9.6	17
63	Atomically-thin Bi2MoO6 nanosheets with vacancy pairs for improved photocatalytic CO2 reduction. *Nano Energy*, **2019**, 61, 54-59	17.1	150
62	Healing of Planar Defects in 2D Materials via Grain Boundary Sliding. *Advanced Materials*, **2019**, 31, e1900237	24	24
61	A machine perspective of atomic defects in scanning transmission electron microscopy. *Informa Materily*, **2019**, 1, 359-375	23.1	19
60	Engineering and Modifying Two-Dimensional Materials via Electron Beams. *Microscopy and Microanalysis*, **2019**, 25, 1474-1475	0.5	
59	Designing Energy Materials via Atomic-resolution Microscopy and Spectroscopy. *Microscopy and Microanalysis*, **2019**, 25, 1998-1999	0.5	0

58	Chemically Exfoliated VSe Monolayers with Room-Temperature Ferromagnetism. *Advanced Materials*, **2019**, 31, e1903779	24	131
57	Gate-Tunable In-Plane Ferroelectricity in Few-Layer SnS. *Nano Letters*, **2019**, 19, 5109-5117	11.5	80
56	High yield electrochemical exfoliation synthesis of tin selenide quantum dots for high-performance lithium-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 23958-23963	13	15
55	From All-Triazine C3N3 Framework to Nitrogen-Doped Carbon Nanotubes: Efficient and Durable Trifunctional Electrocatalysts. *ACS Applied Nano Materials*, **2019**, 2, 7969-7977	5.6	27
54	Thermal-Assisted Vertical Electron Injections in Few-Layer Pyramidal-Structured MoS Crystals. *Journal of Physical Chemistry Letters*, **2019**, 10, 1292-1299	6.4	5
53	Edge Segregated Polymorphism in 2D Molybdenum Carbide. *Advanced Materials*, **2019**, 31, e1808343	24	40
52	Expedient synthesis of -hydrazone esters and 1-indazole scaffolds through heterogeneous single-atom platinum catalysis. *Science Advances*, **2019**, 5, eaay1537	14.3	17
51	From Self-Assembly Hierarchical h-BN Patterns to Centimeter-Scale Uniform Monolayer h-BN Film. *Advanced Materials Interfaces*, **2019**, 6, 1801493	4.6	14
50	Promoted Glycerol Oxidation Reaction in an Interface-Confined Hierarchically Structured Catalyst. *Advanced Materials*, **2019**, 31, e1804763	24	29
49	Ultrasensitive 2D Bi O Se Phototransistors on Silicon Substrates. *Advanced Materials*, **2019**, 31, e1804945	24	119
48	Mutation analysis of Leber hereditary optic neuropathy using a multi-gene panel. *Biomedical Reports*, **2018**, 8, 51-58	1.8	18
47	Strain Modulation by van der Waals Coupling in Bilayer Transition Metal Dichalcogenide. *ACS Nano*, **2018**, 12, 1940-1948	16.7	37
46	Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. *Nano Letters*, **2018**, 18, 482-490	11.5	76
45	Controllable deuteration of halogenated compounds by photocatalytic DO splitting. *Nature Communications*, **2018**, 9, 80	17.4	88
44	A non-dispersion strategy for large-scale production of ultra-high concentration graphene slurries in water. *Nature Communications*, **2018**, 9, 76	17.4	117
43	Atom-by-Atom Fabrication of Monolayer Molybdenum Membranes. *Advanced Materials*, **2018**, 30, e1707281	21	46
42	Temperature- and Phase-Dependent Phonon Renormalization in 1T MoS. *ACS Nano*, **2018**, 12, 5051-5058	16.7	39
41	Improved photoelectric performance via fabricated heterojunction g-C3N4/TiO2/HNTs loaded photocatalysts for photodegradation of ciprofloxacin. *Journal of Industrial and Engineering Chemistry*, **2018**, 64, 206-218	6.3	40

40	Molecular Beam Epitaxy of Highly Crystalline MoSe on Hexagonal Boron Nitride. *ACS Nano*, **2018**, 12, 7562-7570	16.7	44
39	Synthesis of Fe□/C with Cauliflower-Like BiVO□ for Improved Separation Efficiency of Charge Carriers and Photocatalytic Activity. *Journal of Nanoscience and Nanotechnology*, **2018**, 18, 4675-4683	1.3	4
38	Atomic engineering of high-density isolated Co atoms on graphene with proximal-atom controlled reaction selectivity. *Nature Communications*, **2018**, 9, 3197	17.4	105
37	Progress and prospects of aberration-corrected STEM for functional materials. *Ultramicroscopy*, **2018**, 194, 182-192	3.1	25
36	Fabrication of a visible-light In2S3/BiPO4 heterojunction with enhanced photocatalytic activity. *New Journal of Chemistry*, **2018**, 42, 15136-15145	3.6	9
35	Homoepitaxial Growth of Large-Scale Highly Organized Transition Metal Dichalcogenide Patterns. *Advanced Materials*, **2018**, 30, 1704674	24	47
34	Molybdenum Disulfid: Differentiating Polymorphs in Molybdenum Disulfide via Electron Microscopy (Adv. Mater. 47/2018). *Advanced Materials*, **2018**, 30, 1870360	24	2
33	Photoluminescence Upconversion by Defects in Hexagonal Boron Nitride. *Nano Letters*, **2018**, 18, 6898-6905	11.5	48
32	The Atomic Circus: Small Electron Beams Spotlight Advanced Materials Down to the Atomic Scale. *Advanced Materials*, **2018**, 30, e1802402	24	26
31	Molecular-Beam Epitaxy of Two-Dimensional InSe and Its Giant Electroresistance Switching in Ferroresistive Memory Junction. *Nano Letters*, **2018**, 18, 6340-6346	11.5	100
30	Overexpression of human mitochondrial alanyl-tRNA synthetase suppresses biochemical defects of the mt-tRNA mutation in cybrids. *International Journal of Biological Sciences*, **2018**, 14, 1437-1444	11.2	7
29	Differentiating Polymorphs in Molybdenum Disulfide via Electron Microscopy. *Advanced Materials*, **2018**, 30, e1802397	24	45
28	Few-layer 1T? MoTe 2 as gapless semimetal with thickness dependent carrier transport. *2D Materials*, **2018**, 5, 031010	5.9	5
27	Large Area Synthesis of 1D-MoSe Using Molecular Beam Epitaxy. *Advanced Materials*, **2017**, 29, 1605641	24	38
26	Chemical Stabilization of 1T□Phase Transition Metal Dichalcogenides with Giant Optical Kerr Nonlinearity. *Journal of the American Chemical Society*, **2017**, 139, 2504-2511	16.4	114
25	Interface confined hydrogen evolution reaction in zero valent metal nanoparticles-intercalated molybdenum disulfide. *Nature Communications*, **2017**, 8, 14548	17.4	139
24	Model updating of suspended-dome using artificial neural networks. *Advances in Structural Engineering*, **2017**, 20, 1727-1743	1.9	9
23	Molecular Beam Epitaxy of Highly Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride. *Journal of the American Chemical Society*, **2017**, 139, 9392-9400	16.4	110

22	Chemical Vapor Deposition of Large-Size Monolayer MoSe Crystals on Molten Glass. *Journal of the American Chemical Society*, **2017**, 139, 1073-1076	16.4	196
21	Controlled growth of ultrathin Mo 2 C superconducting crystals on liquid Cu surface. *2D Materials*, **2017**, 4, 011012	5.9	67
20	Engineering and modifying two-dimensional materials by electron beams. *MRS Bulletin*, **2017**, 42, 667-676	3.2	48
19	Direct Synthesis of Large-Area 2D Mo C on In Situ Grown Graphene. *Advanced Materials*, **2017**, 29, 1700072	24	195
18	In Situ Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS Flakes. *Journal of the American Chemical Society*, **2017**, 139, 10133-10141	16.4	106
17	Specific oriented recognition of a new stable ICTX@Mfa with retrievability for selective photocatalytic degrading of ciprofloxacin. *Catalysis Science and Technology*, **2016**, 6, 1367-1377	5.5	76
16	Phase Restructuring in Transition Metal Dichalcogenides for Highly Stable Energy Storage. *ACS Nano*, **2016**, 10, 9208-9215	16.7	160
15	A novel hollow capsule-like recyclable functional ZnO/C/Fe3O4 endowed with three-dimensional oriented recognition ability for selectively photodegrading danofloxacin mesylate. *Catalysis Science and Technology*, **2016**, 6, 6513-6524	5.5	61
14	Enhanced selective photocatalytic properties of a novel magnetic retrievable imprinted ZnFe2O4/PPy composite with specific recognition ability. *RSC Advances*, **2016**, 6, 51877-51887	3.7	18
13	Synthesis of stable core–shell structured TiO2@Fe3O4 based on carbon derived from yeast with an enhanced photocatalytic ability. *RSC Advances*, **2016**, 6, 46889-46899	3.7	11
12	Lateral Epitaxy of Atomically Sharp WSe2/WS2 Heterojunctions on Silicon Dioxide Substrates. *Chemistry of Materials*, **2016**, 28, 7194-7197	9.6	50
11	Biochemical evidence for a mitochondrial genetic modifier in the phenotypic manifestation of Leber's hereditary optic neuropathy-associated mitochondrial DNA mutation. *Human Molecular Genetics*, **2016**, 25, 3613-3625	5.6	26
10	Chemical Vapor Deposition of High-Quality Large-Sized MoS Crystals on Silicon Dioxide Substrates. *Advanced Science*, **2016**, 3, 1500033	13.6	93
9	Surface imprinting of a g-C3N4 photocatalyst for enhanced photocatalytic activity and selectivity towards photodegradation of 2-mercaptobenzothiazole. *RSC Advances*, **2015**, 5, 40726-40736	3.7	49
8	Enhanced Recyclability, Stability, and Selectivity of CdS/C@Fe3O4 Nanoreactors for Orientation Photodegradation of Ciprofloxacin. *Chemistry - A European Journal*, **2015**, 21, 18528-33	4.8	92
7	Fabrication of flexible thermoelectric thin film devices by inkjet printing. *Small*, **2014**, 10, 3551-4	11	177
6	A novel CdS photocatalyst based on magnetic fly ash cenospheres as the carrier: performance and mechanism. *RSC Advances*, **2014**, 4, 60148-60157	3.7	7
5	Growth of Si nanowires in porous carbon with enhanced cycling stability for Li-ion storage. *Journal of Power Sources*, **2014**, 250, 160-165	8.9	17

4	Aqueous solution synthesis of (Sb, Bi)2(Te, Se)3 nanocrystals with controllable composition and morphology. *Journal of Materials Chemistry C*, **2013**, 1, 6271	7.1	15
3	Olivine-type nanosheets for lithium ion battery cathodes. *ACS Nano*, **2013**, 7, 5637-46	16.7	193
2	2D Cairo Pentagonal PdPS: Air-Stable Anisotropic Ternary Semiconductor with High Optoelectronic Performance. *Advanced Functional Materials*,2113255	15.6	5
1	Atomically Precise Single Metal Oxide Cluster Catalyst with Oxygen-Controlled Activity. *Advanced Functional Materials*,2200933	15.6	2