Baorui Xia

List of Publications by Year
in descending order

91 papers	5,807 citations	70961 41 h-index	74018 75 g-index
91 all docs	91 docs citations	91 times ranked	8245 citing authors

#	Article	IF	Citations
1	Dualâ€Functional N Dopants in Edges and Basal Plane of MoS₂ Nanosheets Toward Efficient and Durable Hydrogen Evolution. Advanced Energy Materials, 2017, 7, 1602086.	10.2	286
2	Metallic Ni₃N nanosheets with exposed active surface sites for efficient hydrogen evolution. Journal of Materials Chemistry A, 2016, 4, 17363-17369.	5.2	233
3	Accelerated Hydrogen Evolution Reaction in CoS₂ by Transition-Metal Doping. ACS Energy Letters, 2018, 3, 779-786.	8.8	231
4	Activating and Optimizing Activity of CoS₂ for Hydrogen Evolution Reaction through the Synergic Effect of N Dopants and S Vacancies. ACS Energy Letters, 2017, 2, 1022-1028.	8.8	229
5	Engineering Lower Coordination Atoms onto NiO/Co₃O₄ Heterointerfaces for Boosting Oxygen Evolution Reactions. ACS Catalysis, 2020, 10, 12376-12384.	5.5	223
6	Expediting in-Situ Electrochemical Activation of Two-Dimensional Metalâ€“Organic Frameworks for Enhanced OER Intrinsic Activity by Iron Incorporation. ACS Catalysis, 2019, 9, 7356-7364.	5.5	215
7	A low crystallinity oxygen-vacancy-rich Co₃O₄ cathode for high-performance flexible asymmetric supercapacitors. Journal of Materials Chemistry A, 2018, 6, 16094-16100.	5.2	182
8	Ferromagnetism in freestanding MoS2 nanosheets. Nanoscale Research Letters, 2013, 8, 129.	3.1	180
9	Bimetallic Nickel Cobalt Sulfide as Efficient Electrocatalyst for Znâ€“Air Battery and Water Splitting. Nano-Micro Letters, 2019, 11, 2.	14.4	179
10	Room temperature ferromagnetism of pure ZnO nanoparticles. Journal of Applied Physics, 2009, 105, .	1.1	178
11	Vacancy-Mediated Magnetism in Pure Copper Oxide Nanoparticles. Nanoscale Research Letters, 2010, 5, 769-772.	3.1	171
12	Defect-related ferromagnetism in ultrathin metal-free g-C3N4 nanosheets. Nanoscale, 2014, 6, 2577.	2.8	167
13	Room-Temperature Ferromagnetism of Flowerlike CuO Nanostructures. Journal of Physical Chemistry C, 2010, 114, 18347-18351.	1.5	163
14	Selfâ€Powered Waterâ€Splitting Devices by Coreâ€“Shell NiFe@Nâ€Graphiteâ€Based Znâ€“Air Batteries. Advanced Functional Materials, 2018, 28, 1706928.	7.8	155
15	Ferromagnetism in ultrathin VS2 nanosheets. Journal of Materials Chemistry C, 2013, 1, 5909.	2.7	149
16	N-doped WS₂ nanosheets: a high-performance electrocatalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2016, 4, 11234-11238.	5.2	147
17	Dualâ€Native Vacancy Activated Basal Plane and Conductivity of MoSe₂ with Highâ€Efficiency Hydrogen Evolution Reaction. Small, 2018, 14, e1704150.	5.2	114
18	Activation of the MoSe₂ basal plane and Se-edge by B doping for enhanced hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 510-515.	5.2	110

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19	Bifunctional Oxygen Electrocatalyst of Mesoporous Ni/NiO Nanosheets for Flexible Rechargeable Znâ€“Air Batteries. Nano-Micro Letters, 2020, 12, 68.	14.4	103
20	Bifunctional porous Co-doped NiO nanoflowers electrocatalysts for rechargeable zinc-air batteries. Applied Catalysis B: Environmental, 2019, 250, 71-77.	10.8	98
21	Ferromagnetism in exfoliated tungsten disulfide nanosheets. Nanoscale Research Letters, 2013, 8, 430.	3.1	97
22	Realization of high Curie temperature ferromagnetism in atomically thin MoS₂ and WS₂ nanosheets with uniform and flower-like morphology. Nanoscale, 2015, 7, 650-658.	2.8	94
23	Electronic structure modulation of NiS₂ by transition metal doping for accelerating the hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 4971-4976.	5.2	93
24	Enhanced hydrogen evolution catalysis in MoS₂ nanosheets by incorporation of a metal phase. Journal of Materials Chemistry A, 2015, 3, 24414-24421.	5.2	88
25	Synthesis, Magnetic Anisotropy and Optical Properties of Preferred Oriented Zinc Ferrite Nanowire Arrays. Nanoscale Research Letters, 2010, 5, 1289-1294.	3.1	87
26	Phosphorus dual-site driven CoS₂@S, N co-doped porous carbon nanosheets for flexible quasi-solid-state supercapacitors. Journal of Materials Chemistry A, 2019, 7, 26618-26630.	5.2	82
27	Interfacial Engineering of NiO/NiCo₂O₄ Porous Nanofibers as Efficient Bifunctional Catalysts for Rechargeable Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2020, 12, 21661-21669.	4.0	80
28	Atomically Thin B doped g-C3N4 Nanosheets: High-Temperature Ferromagnetism and calculated Half-Metallicity. Scientific Reports, 2016, 6, 35768.	1.6	74
29	Ar²⁺ Beam Irradiation-Induced Multivancancies in MoSe₂ Nanosheet for Enhanced Electrochemical Hydrogen Evolution. ACS Energy Letters, 2018, 3, 2167-2172.	8.8	73
30	Transition-metal-doped NiSe2 nanosheets towards efficient hydrogen evolution reactions. Nano Research, 2018, 11, 6051-6061.	5.8	72
31	d ferromagnetism in undoped sphalerite ZnS nanoparticles. Applied Physics Letters, 2011, 99, .	1.5	71
32	Tunable ferromagnetic ordering in MoS₂ nanosheets with fluorine adsorption. Nanoscale, 2015, 7, 4211-4216.	2.8	65
33	Ferromagnetism in ultrathin MoS2 nanosheets: from amorphous to crystalline. Nanoscale Research Letters, 2014, 9, 586.	3.1	63
34	Energy-level engineered hollow N-doped NiS1.03 for Znâ€“Air batteries. Energy Storage Materials, 2020, 25, 202-209.	9.5	62
35	Copper dopants improved the hydrogen evolution activity of earth-abundant cobalt pyrite catalysts by activating the electrocatalytically inert sulfur sites. Journal of Materials Chemistry A, 2017, 5, 17601-17608.	5.2	61
36	Insights into Bimetallic Oxide Synergy during Carbon Dioxide Hydrogenation to Methanol and Dimethyl Ether over GaZrO_x Oxide Catalysts. ACS Catalysis, 2021, 11, 4704-4711.	5.5	60

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37	Singly-charged oxygen vacancy-induced ferromagnetism in mechanically milled SnO₂powders. RSC Advances, 2014, 4, 45467-45472.	1.7	57
38	Cu and Co nanoparticle-Co-decorated N-doped graphene nanosheets: a high efficiency bifunctional electrocatalyst for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2019, 7, 12851-12858.	5.2	50
39	N⁺-ion irradiation engineering towards the efficient oxygen evolution reaction on NiO nanosheet arrays. Journal of Materials Chemistry A, 2019, 7, 4729-4733.	5.2	48
40	Engineering the Nucleophilic Active Oxygen Species in CuTiO_x for Efficient Low-Temperature Propene Combustion. Environmental Science & Technology, 2020, 54, 15476-15488.	4.6	48
41	Re doping induced 2H-1T phase transformation and ferromagnetism in MoS2 nanosheets. Applied Physics Letters, 2018, 113, .	1.5	45
42	Bifunctional Electrocatalytic Activity of Nitrogen-Doped NiO Nanosheets for Rechargeable Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2019, 11, 30865-30871.	4.0	41
43	Magnetic properties of Er-doped ZnO films prepared by reactive magnetron sputtering. Applied Physics A: Materials Science and Processing, 2010, 100, 79-82.	1.1	37
44	Room temperature ferromagnetism of Cu doped ZnO nanowire arrays. Journal of Applied Physics, 2009, 105, .	1.1	34
45	A series of unexpected ferromagnetic behaviors based on the surface-vacancy state: an insight into NiO nanoparticles with a coreâ€“shell structure. RSC Advances, 2014, 4, 46133-46140.	1.7	34
46	Optimized Conductivity and Spin States in N-Doped LaCoO₃ for Oxygen Electrocatalysis. ACS Applied Materials & Interfaces, 2021, 13, 2447-2454.	4.0	34
47	Room temperature ferromagnetism in CuO/Cu2O microspheres: Towards interface effect. Applied Physics Letters, 2014, 104, .	1.5	31
48	Aliovalent fluorine doping and anodization-induced amorphization enable bifunctional catalysts for efficient water splitting. Journal of Materials Chemistry A, 2020, 8, 10831-10838.	5.2	31
49	Solvothermal synthesis of magnetic copper nitride nanocubes with highly electrocatalytic reduction properties. RSC Advances, 2014, 4, 14206-14209.	1.7	30
50	Surface-Electronic-Structure Reconstruction of Perovskite via Double-Cation Gradient Etching for Superior Water Oxidation. Nano Letters, 2021, 21, 8166-8174.	4.5	29
51	Tunable Fe3O4 Nanorods for Enhanced Magnetic Hyperthermia Performance. Scientific Reports, 2020, 10, 8331.	1.6	28
52	Atomic-level coupled spinel@perovskite dual-phase oxides toward enhanced performance in Znâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 1506-1513.	5.2	28
53	Zigzag-edge related ferromagnetism in MoSe₂ nanoflakes. Physical Chemistry Chemical Physics, 2015, 17, 32505-32510.	1.3	26
54	Intrinsic ferromagnetism in hexagonal boron nitride nanosheets. Journal of Chemical Physics, 2014, 140, 204701.	1.2	24

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55	Interface mediated ferromagnetism in bulk CuO/Cu2O composites. Applied Physics Letters, 2012, 101, .	1.5	23
56	Porous tin disulfide nanosheets with room temperature ferromagnetic nature. CrystEngComm, 2014, 16, 7876.	1.3	23
57	Hierarchical ultrathin Mo(S_xSe_{1â^'x})₂nanosheets with tunable ferromagnetism and efficient hydrogen evolution reaction activity: towards defect site effect. CrystEngComm, 2015, 17, 6420-6425.	1.3	23
58	Phase-transfer induced room temperature ferromagnetic behavior in 1T@2H-MoSe2 nanosheets. Scientific Reports, 2017, 7, 45307.	1.6	23
59	Manifestation of high-temperature ferromagnetism in fluorinated graphitic carbon nitride nanosheets. Journal of Materials Chemistry C, 2015, 3, 12230-12235.	2.7	21
60	Fluorination activates the basal plane HER activity of ReS₂: a combined experimental and theoretical study. Journal of Materials Chemistry A, 2021, 9, 14451-14458.	5.2	21
61	Significant Change of Metal Cations in Geometric Sites by Magneticâ€Field Annealing FeCo₂O₄ for Enhanced Oxygen Catalytic Activity. Small, 2022, 18, e2104248.	5.2	21
62	Bifunctional catalysts of CoNi nanoparticle-embedded nitrogen-doped carbon nanotubes for rechargeable Znâ€“air batteries. Nanotechnology, 2019, 30, 435701.	1.3	20
63	Transforming from paramagnetism to room temperature ferromagnetism in CuO by ball milling. AIP Advances, 2011, 1, .	0.6	19
64	High efficiency electrocatalyst of LaCr0.5Fe0.5O3 nanoparticles on oxygen-evolution reaction. Scientific Reports, 2020, 10, 13395.	1.6	17
65	Abnormal room temperature ferromagnetism in CuOâ€“ZnO heterostructures: interface related or not?. Chemical Communications, 2015, 51, 1151-1153.	2.2	16
66	Observation of room temperature ferromagnetism in pure La2O3 nanoparticles. Applied Physics A: Materials Science and Processing, 2014, 116, 1293-1298.	1.1	15
67	Synthesis and characterization of shape-controlled mesoporous Co₃O₄hierarchical nanostructures. RSC Advances, 2013, 3, 508-512.	1.7	14
68	Origin of the unexpected room temperature ferromagnetism: formation of artificial defects on the surface in NaCl particles. Journal of Materials Chemistry C, 2013, 1, 6216.	2.7	13
69	Ferromagnetism of two-dimensional transition metal chalcogenides: both theoretical and experimental investigations. Nanoscale, 2021, 13, 12772-12787.	2.8	12
70	Hydrogen-etched CoS₂ to produce a Co₉S₈@CoS₂ heterostructure electrocatalyst for highly efficient oxygen evolution reaction. RSC Advances, 2021, 11, 30448-30454.	1.7	12
71	Anion vacancy-mediated ferromagnetism in atomic-thick Ni3N nanosheets. Applied Physics Letters, 2017, 111, .	1.5	11
72	One-step synthesis of open-cell Ni foams by annealing the Ni2+-based precursor in air. Journal of Materials Chemistry, 2012, 22, 9462.	6.7	10

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73	Efficient visible light-induced degradation of rhodamine B by W(NxS1â^'x)2 nanoflowers. Scientific Reports, 2017, 7, 40784.	1.6	10
74	Giant magnetoelectric coupling observed at high frequency in NiFe₂O₄â€"BaTiO₃ particulate composite. RSC Advances, 2020, 10, 27242-27248.	1.7	10
75	Hydrothermal epitaxy and resultant properties of EuTiO3 films on SrTiO3(001) substrate. Nanoscale Research Letters, 2014, 9, 266.	3.1	9
76	Cu vacancies modulated the room temperature ferromagnetism in Cu₂O/Cu nanoparticle composites. CrystEngComm, 2015, 17, 2118-2122.	1.3	9
77	Realization of â€œsingle-atom ferromagnetismâ€•in graphene by Cuâ€"N4 moieties anchoring. Applied Physics Letters, 2020, 116, .	1.5	9
78	Unexpected surface superparamagnetism in antiferromagnetic Cr₂O₃ nanoparticles. RSC Advances, 2015, 5, 46705-46710.	1.7	8
79	A Co₃O₄/MnCO₃ heterojunction on three-dimensional nickel foam for an enhanced oxygen evolution reaction. CrystEngComm, 2020, 22, 3984-3990.	1.3	7
80	Efficient electrocatalyst of Î±-Fe₂O₃ nanorings for oxygen evolution reaction in acidic conditions. RSC Advances, 2020, 10, 29077-29081.	1.7	6
81	Enhanced thermal stability of lead-free (1-x)Ba(Zr0.2Ti0.8)O3-x(Ba0.7Ca0.3)TiO3 ferroelectric ceramics. Journal of Materials Science, 2020, 55, 16890-16899.	1.7	6
82	Nitrogen-doped RuS₂ nanoparticles containing in situ reduced Ru as an efficient electrocatalyst for hydrogen evolution. RSC Advances, 2020, 10, 17862-17868.	1.7	6
83	High-Magnetization Tetragonal Ferrite-Based Films Induced by Carbon and Oxygen Vacancy Pairs. ACS Applied Materials & Interfaces, 2019, 11, 1049-1056.	4.0	5
84	A large enhancement of magnetism in zigzag Janus MoSSe nanoribbons: First-principles calculations. Europhysics Letters, 2019, 127, 46003.	0.7	4
85	Synthesis and magnetic properties of CuFe2O4 nanotube arrays. Journal Wuhan University of Technology, Materials Science Edition, 2012, 27, 550-554.	0.4	3
86	On-chip scalable mode-selective converter based on asymmetrical micro-racetrack resonators. Nanophotonics, 2020, 9, 1447-1455.	2.9	3
87	Effect of annealing temperature on the magnetic properties of Zn_{0.97}Al_{0.03}O nanoparticles. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2454-2459.	0.8	2
88	Cr cation-anchored carbon nanosheets: synthesis, paramagnetism and ferromagnetism. Nanotechnology, 2021, 32, 335706.	1.3	2
89	Tunable ferromagnetic ordering in phosphorus adsorbed ReS2 nanosheets. Nanotechnology, 2021, 32, 075701.	1.3	2
90	Ferromagnetic Cu₃N Nanoparticles Demonstrated by X-ray Magnetic Circular Dichroism (XMCD) and the Density Functional Theory (DFT) Calculations. Journal of Nanoelectronics and Optoelectronics, 2020, 15, 1494-1501.	0.1	2

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91	High efficiency electrocatalyst of LaNiO3@LaCoO3 nanoparticles on oxygen-evolution reaction. FlatChem, 2022, , 100371.	2.8	0