Xiaomin Xu

List of Publications by Year
in descending order

69 papers	6,495 citations	61984 43 h-index	82547 72 g-index
74 all docs	74 docs citations	74 times ranked	6629 citing authors

#	Article	IF	Citations
1	Electrochemical Water Splitting: Bridging the Gaps Between Fundamental Research and Industrial Applications. Energy and Environmental Materials, 2023, 6, .	12.8	89
2	Boosting Electrocatalytic Activity of Single Atom Catalysts Supported on Nitrogenâ€Doped Carbon through N Coordination Environment Engineering. Small, 2022, 18, e2105329.	10.0	78
3	A low resistance and stable lithium-garnet electrolyte interface enabled by a multifunctional anode additive for solid-state lithium batteries. Journal of Materials Chemistry A, 2022, 10, 2519-2527.	10.3	22
4	Superstructures with Atomic-Level Arranged Perovskite and Oxide Layers for Advanced Oxidation with an Enhanced Non-Free Radical Pathway. ACS Sustainable Chemistry and Engineering, 2022, 10, 1899-1909.	6.7	59
5	New Undisputed Evidence and Strategy for Enhanced Latticeâ€Oxygen Participation of Perovskite Electrocatalyst through Cation Deficiency Manipulation. Advanced Science, 2022, 9, e2200530.	11.2	75
6	A universal chemical-induced tensile strain tuning strategy to boost oxygen-evolving electrocatalysis on perovskite oxides. Applied Physics Reviews, 2022, 9, .	11.3	67
7	Materials Engineering in Perovskite for Optimized Oxygen Evolution Electrocatalysis in Alkaline Condition. Small, 2021, 17, e2006638.	10.0	41
8	Designing Highâ€Valence Metal Sites for Electrochemical Water Splitting. Advanced Functional Materials, 2021, 31, 2009779.	14.9	195
9	Highâ€Performance Perovskite Composite Electrocatalysts Enabled by Controllable Interface Engineering. Small, 2021, 17, e2101573.	10.0	128
10	Building Ruddlesdenâ€"Popper and Single Perovskite Nanocomposites: A New Strategy to Develop Highâ€Performance Cathode for Protonic Ceramic Fuel Cells. Small, 2021, 17, e2101872.	10.0	38
11	Fundamental Understanding and Application of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3âˆ'Î´}Perovskite in Energy Storage and Conversion: Past, Present, and Future. Energy & Fuels, 2021, 35, 13585-13609.	5.1	113
12	Recent Progress on Structurally Ordered Materials for Electrocatalysis. Advanced Energy Materials, 2021, 11, 2101937.	19.5	65
13	Ni2+/Co2+ doped Au-Fe7S8 nanoplatelets with exceptionally high oxygen evolution reaction activity. Nano Energy, 2021, 89, 106463.	16.0	45
14	Exceptional lattice-oxygen participation on artificially controllable electrochemistry-induced crystalline-amorphous phase to boost oxygen-evolving performance. Applied Catalysis B: Environmental, 2021, 297, 120484.	20.2	41
15	Modulating metalâ€"organic frameworks for catalyzing acidic oxygen evolution for proton exchange membrane water electrolysis. SusMat, 2021, 1, 460-481.	14.9	86
16	Perowskitoxidâ€Elektroden zur leistungsstarken photoelektrochemischen Wasserspaltung. Angewandte Chemie, 2020, 132, 140-158.	2.0	8
17	Perovskite Oxide Based Electrodes for Highâ€Performance Photoelectrochemical Water Splitting. Angewandte Chemie - International Edition, 2020, 59, 136-152.	13.8	253
18	Rational Design of Agâ€Based Catalysts for the Electrochemical CO₂ Reduction to CO: A Review. ChemSusChem, 2020, 13, 39-58.	6.8	106

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19	Metal-organic frameworks derived porous carbon, metal oxides and metal sulfides-based compounds for supercapacitors application. Energy Storage Materials, 2020, 26, 1-22.	18.0	208
20	Ruddlesdenâ€“Popper perovskites in electrocatalysis. Materials Horizons, 2020, 7, 2519-2565.	12.2	139
21	Facilitating Oxygen Redox on Manganese Oxide Nanosheets by Tuning Active Species and Oxygen Defects for Zincâ€Air Batteries. ChemElectroChem, 2020, 7, 4949-4955.	3.4	23
22	A Functionâ€Separated Design of Electrode for Realizing Highâ€Performance Hybrid Zinc Battery. Advanced Energy Materials, 2020, 10, 2002992.	19.5	84
23	A new highly active and CO2-stable perovskite-type cathode material for solid oxide fuel cells developed from A- and B-site cation synergy. Journal of Power Sources, 2020, 457, 227995.	7.8	30
24	A Porous Nano-Micro-Composite as a High-Performance Bi-Functional Air Electrode with Remarkable Stability for Rechargeable Zincâ€“Air Batteries. Nano-Micro Letters, 2020, 12, 130.	27.0	52
25	Activation-free supercapacitor electrode based on surface-modified Sr2CoMo1-xNixO6-Î´ perovskite. Chemical Engineering Journal, 2020, 390, 124645.	12.7	34
26	From scheelite BaMoO4 to perovskite BaMoO3: Enhanced electrocatalysis toward the hydrogen evolution in alkaline media. Composites Part B: Engineering, 2020, 198, 108214.	12.0	46
27	Self-Recovery Chemistry and Cobalt-Catalyzed Electrochemical Deposition of Cathode for Boosting Performance of Aqueous Zinc-Ion Batteries. IScience, 2020, 23, 100943.	4.1	83
28	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. Nature Communications, 2020, 11, 2002.	12.8	366
29	Perovskite Materials in Electrocatalysis. Materials Horizons, 2020, , 209-250.	0.6	4
30	Rational design of NiCo2O4/g-C3N4 composite as practical anode of lithium-ion batteries with outstanding electrochemical performance from multiple aspects. Journal of Alloys and Compounds, 2019, 805, 522-530.	5.5	27
31	Ternary Phase Diagram-Facilitated Rapid Screening of Double Perovskites As Electrocatalysts for the Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 5919-5926.	6.7	26
32	Enhancing the triiodide reduction activity of a perovskite-based electrocatalyst for dye-sensitized solar cells through exsolved silver nanoparticles. Journal of Materials Chemistry A, 2019, 7, 17489-17497.	10.3	35
33	Smart Control of Composition for Double Perovskite Electrocatalysts toward Enhanced Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 5111-5116.	6.8	33
34	A New Sodium-ion-conducting Layered Perovskite Oxide as Highly Active and Sulfur Tolerant Electrocatalyst for Solid Oxide Fuel Cells. Energy Procedia, 2019, 158, 1660-1665.	1.8	4
35	An Intrinsically Conductive Phosphorusâ€Doped Perovskite Oxide as a New Cathode for Highâ€Performance Dyeâ€Sensitized Solar Cells by Providing Internal Conducting Pathways. Solar Rrl, 2019, 3, 1900108.	5.8	18
36	Double Perovskites in Catalysis, Electrocatalysis, and Photo(electro)catalysis. Trends in Chemistry, 2019, 1, 410-424.	8.5	227

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37	Searching General Sufficientâ€andâ€Necessary Conditions for Ultrafast Hydrogenâ€Evolving Electrocatalysis. Advanced Functional Materials, 2019, 29, 1900704.	14.9	94
38	Boosting the oxygen evolution reaction activity of a perovskite through introducing multi-element synergy and building an ordered structure. Journal of Materials Chemistry A, 2019, 7, 9924-9932.	10.3	62
39	Spontaneous Formation of Heterodimer Auâ€"Fe₇S₈ Nanoplatelets by a Seeded Growth Approach. Journal of Physical Chemistry C, 2019, 123, 10604-10613.	3.1	7
40	Recent advances in anion-doped metal oxides for catalytic applications. Journal of Materials Chemistry A, 2019, 7, 7280-7300.	10.3	133
41	Recent Advances in Metalâ€Organic Framework Derivatives as Oxygen Catalysts for Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 272-289.	4.7	121
42	Earthâ€Abundant Silicon for Facilitating Water Oxidation over Ironâ€Based Perovskite Electrocatalyst. Advanced Materials Interfaces, 2018, 5, 1701693.	3.7	53
43	3D ordered macroporous SmCoO3 perovskite for highly active and selective hydrogen peroxide detection. Electrochimica Acta, 2018, 260, 372-383.	5.2	48
44	Materials design for ceramic oxygen permeation membranes: Single perovskite vs. single/double perovskite composite, a case study of tungsten-doped barium strontium cobalt ferrite. Journal of Membrane Science, 2018, 566, 278-287.	8.2	26
45	Recent progress in metalâ€"organic frameworks for lithiumâ€"sulfur batteries. Polyhedron, 2018, 155, 464-484.	2.2	74
46	Silver-doped strontium niobium cobaltite as a new perovskite-type ceramic membrane for oxygen separation. Journal of Membrane Science, 2018, 563, 617-624.	8.2	25
47	Recent Advances in Novel Nanostructuring Methods of Perovskite Electrocatalysts for Energyâ€Related Applications. Small Methods, 2018, 2, 1800071.	8.6	285
48	Rational Design of Metal Oxideâ€"Based Cathodes for Efficient Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2018, 8, 1800172.	19.5	30
49	Recent Progress in Metalâ€Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. Advanced Science, 2017, 4, 1600371.	11.2	594
50	Enhancing Electrocatalytic Activity for Hydrogen Evolution by Strongly Coupled Molybdenum Nitride@Nitrogen-Doped Carbon Porous Nano-Octahedrons. ACS Catalysis, 2017, 7, 3540-3547.	11.2	306
51	Adsorption-based synthesis of Co 3 O 4 /C composite anode for high performance lithium-ion batteries. Energy, 2017, 125, 569-575.	8.8	34
52	Rational Design of a Waterâ€Storable Hierarchical Architecture Decorated with Amorphous Barium Oxide and Nickel Nanoparticles as a Solid Oxide Fuel Cell Anode with Excellent Sulfur Tolerance. Advanced Science, 2017, 4, 1700337.	11.2	74
53	Activity and Stability of Ruddlesdenâ€"Popperâ€Type La_{<i>n</i>+1}Ni_{<i>n</i>}O_{3<i>n</i>+1} (<i>n</i>=1, 2, 3, and âˆž) Electrocatalysts for Oxygen Reduction and Evolution Reactions in Alkaline Media. Chemistry - A European Journal, 2016, 22, 2719-2727.	3.3	90
54	A Perovskite Electrocatalyst for Efficient Hydrogen Evolution Reaction. Advanced Materials, 2016, 28, 6442-6448.	21.0	429

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55	One-pot combustion synthesis of Li3VO4-Li4Ti5O12 nanocomposite as anode material of lithium-ion batteries with improved performance. Electrochimica Acta, 2016, 222, 587-595.	5.2	12
56	Toward Enhanced Oxygen Evolution on Perovskite Oxides Synthesized from Different Approaches: A Case Study of Ba 0.5 Sr 0.5 Co 0.8 Fe 0.2 O 3âˆ’Î´. Electrochimica Acta, 2016, 219, 553-559.	5.2	72
57	Coâ€doping Strategy for Developing Perovskite Oxides as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. Advanced Science, 2016, 3, 1500187.	11.2	245
58	Electrocatalysis: Coâ€doping Strategy for Developing Perovskite Oxides as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction (Adv. Sci. 2/2016). Advanced Science, 2016, 3, .	11.2	1
59	Understanding the doping effect toward the design of CO2-tolerant perovskite membranes with enhanced oxygen permeability. Journal of Membrane Science, 2016, 519, 11-21.	8.2	47
60	Surfactant-free self-assembly of reduced graphite oxide-MoO2 nanobelt composites used as electrode for lithium-ion batteries. Electrochimica Acta, 2016, 211, 972-981.	5.2	53
61	Three Strongly Coupled Allotropes in a Functionalized Porous Allâ€Carbon Nanocomposite as a Superior Anode for Lithiumâ€Ion Batteries. ChemElectroChem, 2016, 3, 698-703.	3.4	23
62	Pt/Câ€“LiCoO₂composites with ultralow Pt loadings as synergistic bifunctional electrocatalysts for oxygen reduction and evolution reactions. Journal of Materials Chemistry A, 2016, 4, 4516-4524.	10.3	65
63	Hierarchical carbon-coated acanthosphere-like Li4Ti5O12 microspheres for high-power lithium-ion batteries. Journal of Power Sources, 2016, 314, 18-27.	7.8	59
64	SrCo_{0.9}Ti_{0.1}O_{3âˆ’Î´} As a New Electrocatalyst for the Oxygen Evolution Reaction in Alkaline Electrolyte with Stable Performance. ACS Applied Materials & Interfaces, 2015, 7, 17663-17670.	8.0	125
65	Modified template synthesis and electrochemical performance of a Co₃O₄/mesoporous cathode for lithiumâ€“oxygen batteries. Journal of Materials Chemistry A, 2015, 3, 16132-16141.	10.3	31
66	Multifunctional Iron Oxide Nanoflake/Graphene Composites Derived from Mechanochemical Synthesis for Enhanced Lithium Storage and Electrocatalysis. ACS Applied Materials & Interfaces, 2015, 7, 14446-14455.	8.0	75
67	Boosting Oxygen Reduction Reaction Activity of Palladium by Stabilizing Its Unusual Oxidation States in Perovskite. Chemistry of Materials, 2015, 27, 3048-3054.	6.7	117
68	A top-down strategy for the synthesis of mesoporous Ba0.5Sr0.5Co0.8Fe0.2O3âˆ’ as a cathode precursor for buffer layer-free deposition on stabilized zirconia electrolyte with a superior electrochemical performance. Journal of Power Sources, 2015, 274, 1024-1033.	7.8	44
69	A Universal and Facile Way for the Development of Superior Bifunctional Electrocatalysts for Oxygen Reduction and Evolution Reactions Utilizing the Synergistic Effect. Chemistry - A European Journal, 2014, 20, 15533-15542.	3.3	87