

Dehua Xiong

List of Publications by Year in descending order

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papers

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94433

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90
times ranked

7473
citing authors

#	ARTICLE	IF	CITATIONS
1	Bifunctional Nickel Phosphide Nanocatalysts Supported on Carbon Fiber Paper for Highly Efficient and Stable Overall Water Splitting. <i>Advanced Functional Materials</i> , 2016, 26, 4067-4077.	14.9	591
2	Trends in activity for the oxygen evolution reaction on transition metal (M = Fe, Co, Ni) phosphide pre-catalysts. <i>Chemical Science</i> , 2018, 9, 3470-3476.	7.4	443
3	Boosting the hydrogen evolution performance of ruthenium clusters through synergistic coupling with cobalt phosphide. <i>Energy and Environmental Science</i> , 2018, 11, 1819-1827.	30.8	350
4	Hydrothermal Synthesis of Monolithic Co ₃ Se ₄ Nanowire Electrodes for Oxygen Evolution and Overall Water Splitting with High Efficiency and Extraordinary Catalytic Stability. <i>Advanced Energy Materials</i> , 2017, 7, 1602579.	19.5	267
5	Synthesis of the 0D/3D CuO/ZnO Heterojunction with Enhanced Photocatalytic Activity. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9531-9539.	3.1	246
6	The oxygen evolution reaction enabled by transition metal phosphide and chalcogenide pre-catalysts with dynamic changes. <i>Chemical Communications</i> , 2019, 55, 8744-8763.	4.1	246
7	Hierarchical ZnO Decorated with CeO ₂ Nanoparticles as the Direct Z-Scheme Heterojunction for Enhanced Photocatalytic Activity. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 39679-39687.	8.0	226
8	Fast fabrication of self-supported porous nickel phosphide foam for efficient, durable oxygen evolution and overall water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5639-5646.	10.3	224
9	From water reduction to oxidation: Janus Co-Ni-P nanowires as high-efficiency and ultrastable electrocatalysts for over 3000 h water splitting. <i>Journal of Power Sources</i> , 2016, 330, 156-166.	7.8	190
10	Facile synthesis of iron phosphide nanorods for efficient and durable electrochemical oxygen evolution. <i>Chemical Communications</i> , 2016, 52, 8711-8714.	4.1	168
11	Hydrothermal synthesis of ultrasmall CuCrO ₂ nanocrystal alternatives to NiO nanoparticles in efficient p-type dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 24760.	6.7	162
12	Vapor-phase synthesis of monolithic single-crystalline CoP nanowire electrodes for efficient and robust water electrolysis. <i>Chemical Science</i> , 2017, 8, 2952-2958.	7.4	162
13	SrCl ₂ Derived Perovskite Facilitating a High Efficiency of 16% in Hole-Conductor-Free Fully Printable Mesoscopic Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1606608.	21.0	135
14	Vertically Aligned Porous Nickel(II) Hydroxide Nanosheets Supported on Carbon Paper with Long-Term Oxygen Evolution Performance. <i>Chemistry - an Asian Journal</i> , 2017, 12, 543-551.	3.3	118
15	Self-supported Co-Ni-P ternary nanowire electrodes for highly efficient and stable electrocatalytic hydrogen evolution in acidic solution. <i>Catalysis Today</i> , 2017, 287, 122-129.	4.4	105
16	Hollow cobalt phosphide octahedral pre-catalysts with exceptionally high intrinsic catalytic activity for electro-oxidation of water and methanol. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20646-20652.	10.3	95
17	Remarkable photocurrent of p-type dye-sensitized solar cell achieved by size controlled CuGaO ₂ nanoplates. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2968-2976.	10.3	93
18	Atomic-layer-deposited ultrafine MoS ₂ nanocrystals on cobalt foam for efficient and stable electrochemical oxygen evolution. <i>Nanoscale</i> , 2017, 9, 2711-2717.	5.6	88

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19	Porous W-doped VO ₂ films with simultaneously enhanced visible transparency and thermochromic properties. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 77, 85-93.	2.4	85
20	Efficient and durable electrochemical hydrogen evolution using cocoon-like MoS ₂ with preferentially exposed edges. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 9344-9354.	7.1	74
21	Improved Photovoltages for p-Type Dye-Sensitized Solar Cells Using CuCrO ₂ Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16375-16379.	3.1	72
22	Synthesis and Characterization of CuAlO ₂ and AgAlO ₂ Delafossite Oxides through Low-Temperature Hydrothermal Methods. <i>Inorganic Chemistry</i> , 2014, 53, 4106-4116.	4.0	70
23	Enhanced Performance of p-Type Dye-Sensitized Solar Cells Based on Ultrasmall Mg-Doped CuCrO ₂ Nanocrystals. <i>ChemSusChem</i> , 2013, 6, 1432-1437.	6.8	68
24	Template-Free Synthesis of Hollow Iron Phosphide-Phosphate Composite Nanotubes for Use as Active and Stable Oxygen Evolution Electrocatalysts. <i>ACS Applied Nano Materials</i> , 2018, 1, 617-624.	5.0	66
25	One-Step Fabrication of Monolithic Electrodes Comprising Co ₉ S ₈ Particles Supported on Cobalt Foam for Efficient and Durable Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2017, 23, 8749-8755.	3.3	64
26	A low temperature hydrothermal synthesis of delafossite CuCoO ₂ as an efficient electrocatalyst for the oxygen evolution reaction in alkaline solutions. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 183-188.	6.0	58
27	Low-cost porous Cu ₂ ZnSnSe ₄ film remarkably superior to noble Pt as counter electrode in quantum dot-sensitized solar cell system. <i>Journal of Power Sources</i> , 2013, 226, 359-362.	7.8	57
28	Hydrothermal synthesis of delafossite CuFeO ₂ crystals at 100 °C. <i>RSC Advances</i> , 2015, 5, 49280-49286.	3.6	56
29	Spray deposition of water-soluble multiwall carbon nanotube and Cu ₂ ZnSnSe ₄ nanoparticle composites as highly efficient counter electrodes in a quantum dot-sensitized solar cell system. <i>Nanoscale</i> , 2013, 5, 6992.	5.6	54
30	Efficient p-type dye-sensitized solar cells based on disulfide/thiolate electrolytes. <i>Nanoscale</i> , 2013, 5, 7963.	5.6	50
31	Crystal structural, optical properties and mott-schottky plots of p-type Ca doped CuFeO ₂ nanoplates. <i>Materials Research Bulletin</i> , 2016, 83, 141-147.	5.2	50
32	Modulated Charge Injection in p-Type Dye-Sensitized Solar Cells Using Fluorene-Based Light Absorbers. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 3448-3454.	8.0	48
33	Polyvinylpyrrolidone-Assisted Hydrothermal Synthesis of CuCoO ₂ Nanoplates with Enhanced Oxygen Evolution Reaction Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1493-1501.	6.7	48
34	Bi-metallic cobalt-nickel phosphide nanowires for electrocatalysis of the oxygen and hydrogen evolution reactions. <i>Catalysis Today</i> , 2020, 358, 196-202.	4.4	46
35	High-efficient separation of photoinduced carriers on double Z-scheme heterojunction for superior photocatalytic CO ₂ reduction. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 303-312.	9.4	46
36	Selective laser sintering of TiO ₂ nanoparticle film on plastic conductive substrate for highly efficient flexible dye-sensitized solar cell application. <i>Journal of Materials Chemistry A</i> , 2014, 2, 4566-4573.	10.3	40

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37	Recent progress on tandem structured dye-sensitized solar cells. <i>Frontiers of Optoelectronics</i> , 2012, 5, 371-389.	3.7	39
38	TiO ₂ Nanorods: A Facile Size- and Shape-Tunable Synthesis and Effective Improvement of Charge Collection Kinetics for Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 9698-9704.	8.0	37
39	Preparation of p-type AgCrO ₂ nanocrystals through low-temperature hydrothermal method and the potential application in p-type dye-sensitized solar cell. <i>Journal of Alloys and Compounds</i> , 2015, 642, 104-110.	5.5	37
40	One-step fabrication of a self-supported Co@CoTe ₂ electrocatalyst for efficient and durable oxygen evolution reactions. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 2523-2532.	6.0	37
41	Preparation and characterization of CuCrO ₂ /TiO ₂ heterostructure photocatalyst with enhanced photocatalytic activity. <i>Applied Surface Science</i> , 2015, 347, 747-754.	6.1	34
42	Low temperature hydrothermal synthesis mechanism and thermal stability of p-type CuMnO ₂ nanocrystals. <i>New Journal of Chemistry</i> , 2016, 40, 6498-6504.	2.8	34
43	Use of delafossite oxides CuCr _{1-x} Ga _x O ₂ nanocrystals in p-type dye-sensitized solar cell. <i>Journal of Alloys and Compounds</i> , 2016, 662, 374-380.	5.5	32
44	Highly-ordered silicon nanowire arrays for photoelectrochemical hydrogen evolution: an investigation on the effect of wire diameter, length and inter-wire spacing. <i>Sustainable Energy and Fuels</i> , 2018, 2, 978-982.	4.9	31
45	Cluster Beam Deposition of Ultrafine Cobalt and Ruthenium Clusters for Efficient and Stable Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018, 1, 3013-3018.	5.1	29
46	Passivation of hematite nanorod photoanodes with a phosphorus overlayer for enhanced photoelectrochemical water oxidation. <i>Nanotechnology</i> , 2016, 27, 375401.	2.6	28
47	Investigation of the structural, optical and electrical properties of Ca ²⁺ doped CuCoO ₂ nanosheets. <i>Dalton Transactions</i> , 2019, 48, 13753-13759.	3.3	28
48	A facile hydrothermal route to synthesize delafossite CuMnO ₂ nanocrystals. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 10159-10163.	2.2	26
49	Anodic bonding of glass/ceramics to stainless steel coated with intermediate SiO ₂ layer. <i>Microelectronic Engineering</i> , 2010, 87, 1741-1746.	2.4	24
50	Near Field Enhanced Photocurrent Generation in P-type Dye-Sensitized Solar Cells. <i>Scientific Reports</i> , 2014, 4, 3961.	3.3	24
51	Surfactant-Modified Hydrothermal Synthesis of Ca-Doped CuCoO ₂ Nanosheets with Abundant Active Sites for Enhanced Electrocatalytic Oxygen Evolution. <i>Inorganic Chemistry</i> , 2020, 59, 9889-9899.	4.0	23
52	Oleic acid assisted formation mechanism of CuInS ₂ nanocrystals with tunable structures. <i>RSC Advances</i> , 2014, 4, 36875-36881.	3.6	22
53	Enhanced luminous efficiency of multilayer gradient refractive index phosphor in P ₂ O ₅ -ZnO-B ₂ O ₃ -BaO glass for white light-emitting diode packages. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 215-221.	3.1	22
54	High refractive index coating of phosphor-in-glass for enhanced light extraction efficiency of white LEDs. <i>Journal of Materials Science</i> , 2018, 53, 1335-1345.	3.7	22

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55	Metal-organic framework derived bimetal oxide CuCoO_2 as efficient electrocatalyst for the oxygen evolution reaction. Dalton Transactions, 2022, 51, 5997-6006.	3.3	22
56	Self-supported cobalt-nickel bimetallic telluride as an advanced catalyst for the oxygen evolution reaction. Inorganic Chemistry Frontiers, 2021, 8, 4247-4256.	6.0	19
57	Fabrication and band engineering of Cu-doped $\text{CdSe}_{0.6}\text{Te}_{0.4}$ -alloyed quantum dots for solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 161-170.	6.2	18
58	Tunable chromaticity and enhanced luminous efficacy of white LEDs with phosphor-in-glass coating via multilayer screen-printing. Ceramics International, 2017, 43, 13569-13575.	4.8	18
59	Solvothermal synthesis of CuCoO_2 nanoplates using zeolitic imidazolate framework-67 (ZIF-67) as a co-derived precursor. New Journal of Chemistry, 2019, 43, 15233-15239.	2.8	18
60	Hydrothermal synthesis of delafossite CuScO_2 hexagonal plates as an electrocatalyst for the alkaline oxygen evolution reaction. Dalton Transactions, 2020, 49, 3519-3524.	3.3	18
61	Gradient refractive index structure of phosphor-in-glass coating for packaging of white LED s. Journal of the American Ceramic Society, 2019, 102, 1677-1685.	3.8	17
62	CoTe_2 - NiTe_2 heterojunction directly grown on CoNi alloy foam for efficient oxygen evolution reaction. Inorganic Chemistry Frontiers, 2022, 9, 332-342.	6.0	14
63	Composition and crystallization kinetics of $\text{R}_2\text{O}\cdot\text{Al}_2\text{O}_3\cdot\text{SiO}_2$ glass-ceramics. Journal of Alloys and Compounds, 2010, 498, 162-167.	5.5	13
64	Discovery of Real-Space Topological Ferroelectricity in Metallic Transition Metal Phosphides. Advanced Materials, 2020, 32, e2003479.	21.0	13
65	Bifunctional Catalysts: Bifunctional Nickel Phosphide Nanocatalysts Supported on Carbon Fiber Paper for Highly Efficient and Stable Overall Water Splitting (Adv. Funct. Mater. 23/2016). Advanced Functional Materials, 2016, 26, 4066-4066.	14.9	12
66	Mapping the glass forming region and making their phosphor-in-glass for application in WLED s packaging. Journal of the American Ceramic Society, 2020, 103, 5056-5066.	3.8	11
67	Crystallization behaviors of $\text{R}_2\text{O}\cdot\text{Al}_2\text{O}_3\cdot\text{SiO}_2$ glass-ceramics for use as anodic bonding materials. Journal of Alloys and Compounds, 2010, 507, 531-534.	5.5	10
68	P-type transparent conducting characteristics of delafossite Ca doped CuScO_2 prepared by hydrothermal synthesis. Dalton Transactions, 2021, 50, 5262-5268.	3.3	10
69	Heat-up and gram-scale synthesis of Cu-poor CZTS nanocrystals with controllable compositions and shapes. CrystEngComm, 2017, 19, 2013-2020.	2.6	9
70	Self-Epitaxial Hetero-Nanolayers and Surface Atom Reconstruction in Electrocatalytic Nickel Phosphides. ACS Applied Materials & Interfaces, 2020, 12, 21616-21622.	8.0	9
71	Effect of nickel doping on the structure, morphology and oxygen evolution reaction performance of Cu-BTC derived CuCoO_2 . Dalton Transactions, 2022, 51, 8757-8765.	3.3	9
72	Surface and interface characterization of oxygen plasma activated anodic bonding of glass-ceramics to stainless steel. Microelectronics Reliability, 2012, 52, 1367-1372.	1.7	8

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73	Nanocrystals of CuCoO_2 derived from MOFs and their catalytic performance for the oxygen evolution reaction. <i>Dalton Transactions</i> , 2022, 51, 11536-11546.	3.3	8
74	Electrical properties of $\text{R}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$ glass-ceramics for anodic bonding. <i>Journal of Materials Science: Materials in Electronics</i> , 2010, 21, 882-888.	2.2	7
75	Low-temperature solution synthesis of a ZnO nanorod array with a mesoporous surface mediated by cadmium ions. <i>CrystEngComm</i> , 2016, 18, 8277-8283.	2.6	7
76	Enhanced high reflectance SiO_2 -Ag- SiO_2 thin film adhesion for Concentrating Solar Power reflector. <i>Surfaces and Interfaces</i> , 2017, 8, 225-229.	3.0	7
77	Impact of Mg doping on the optical and electrical properties of p-type CuMnO_2 ultrathin nanosheets. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 5452-5461.	2.2	7
78	Glass forming region and bonding mechanism of low-melting $\text{V}_2\text{O}_5 \cdot \text{TeO}_2 \cdot \text{Bi}_2\text{O}_3$ glass applied in vacuum glazing sealing. <i>Journal of the American Ceramic Society</i> , 2021, 104, 5050-5066.	3.8	7
79	Improved efficiency and carrier dynamic transportation behavior in perovskite solar cells with CuInS_2 quantum dots as hole-transport materials. <i>Dalton Transactions</i> , 2021, 50, 8837-8844.	3.3	6
80	Controllable synthesis of CdSe/ZnS core-shell quantum dots by one-step thermal injection and application in light-emitting diodes. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 22024-22034.	2.2	6
81	Hydrothermal synthesized delafossite CuGaO_2 as an electrocatalyst for water oxidation. <i>Frontiers of Optoelectronics</i> , 2022, 15, 1.	3.7	6
82	One-step synthesis of novel Ag/AgCl-glass with remarkably stable photocatalytic activity. <i>Journal of Non-Crystalline Solids</i> , 2019, 506, 21-27.	3.1	5
83	Exceptional lithium storage performance achieved by iron-based nanostructures upon extended high-rate cycling. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161626.	5.5	4
84	Enhanced vacuum glazing bonding strength by anodic bonding-assisted sealing method. <i>International Journal of Applied Glass Science</i> , 2020, 11, 147-154.	2.0	3
85	Al-Si Thin Films Assisted Anodic Bonding of $\text{R}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$ Glass-ceramics to Stainless Steel. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 1925-1935.	2.6	2
86	Preparation and Luminescent Properties of Tb^{3+} -doped $\text{SrO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$ Glass-ceramics for white Light-Emitting Diode. <i>Glass Physics and Chemistry</i> , 2018, 44, 300-306.	0.7	1
87	Dye-sensitized Solar Cells Based on P-type Delafossite Structure Nanocrystals of CuCrO_2 and CuGaO_2 . , 2013, , .		0