

Junyuan Xu

List of Publications by Year in descending order

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56
papers

3,960
citations

126858

33
h-index

149623

56
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57
all docs

57
docs citations

57
times ranked

5397
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	3.7	443
2	Boosting the hydrogen evolution performance of ruthenium clusters through synergistic coupling with cobalt phosphide. <i>Energy and Environmental Science</i> , 2018, 11, 1819-1827.	15.6	350
3	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.	10.2	267
4	High-Performance Flexible Solid-State Asymmetric Supercapacitors Based on Bimetallic Transition Metal Phosphide Nanocrystals. <i>ACS Nano</i> , 2019, 13, 10612-10621.	7.3	214
5	The electrocatalytic properties of an IrO ₂ /SnO ₂ catalyst using SnO ₂ as a support and an assisting reagent for the oxygen evolution reaction. <i>Electrochimica Acta</i> , 2012, 59, 105-112.	2.6	165
6	Vapor-phase solid synthesis of monolithic single-crystalline CoP nanowire electrodes for efficient and robust water electrolysis. <i>Chemical Science</i> , 2017, 8, 2952-2958.	3.7	162
7	Revealing the Origin of Activity in Nitrogen-Doped Nanocarbons towards Electrocatalytic Reduction of Carbon Dioxide. <i>ChemSusChem</i> , 2016, 9, 1085-1089.	3.6	143
8	Microwave-assisted hydrothermal synthesis of birnessite-type MnO ₂ nanospheres as supercapacitor electrode materials. <i>Journal of Power Sources</i> , 2012, 198, 428-431.	4.0	141
9	Strong Electronic Coupling between Ultrafine Iridium-Ruthenium Nanoclusters and Conductive, Acid-Stable Tellurium Nanoparticle Support for Efficient and Durable Oxygen Evolution in Acidic and Neutral Media. <i>ACS Catalysis</i> , 2020, 10, 3571-3579.	5.5	122
10	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.	5.2	95
11	Atomic-Step Enriched Ruthenium-Iridium Nanocrystals Anchored Homogeneously on MOF-Derived Support for Efficient and Stable Oxygen Evolution in Acidic and Neutral Media. <i>ACS Catalysis</i> , 2021, 11, 3402-3413.	5.5	87
12	Highly active and stable Pt electrocatalysts promoted by antimony-doped SnO ₂ supports for oxygen reduction reactions. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 112-120.	10.8	85
13	Oxygen evolution catalysts on supports with a 3-D ordered array structure and intrinsic proton conductivity for proton exchange membrane steam electrolysis. <i>Energy and Environmental Science</i> , 2014, 7, 820.	15.6	79
14	An oxygen evolution catalyst on an antimony doped tin oxide nanowire structured support for proton exchange membrane liquid water electrolysis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 20791-20800.	5.2	79
15	Stable overall water splitting in an asymmetric acid/alkaline electrolyzer comprising a bipolar membrane sandwiched by bifunctional cobalt-nickel phosphide nanowire electrodes. <i>Energy</i> , 2020, 2, 646-655.		79
16	Amorphous phosphatized ruthenium-iron bimetallic nanoclusters with Pt-like activity for hydrogen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119583.	10.8	78
17	Interface Engineering in Nanostructured Nickel Phosphide Catalyst for Efficient and Stable Water Oxidation. <i>ACS Catalysis</i> , 2017, 7, 5450-5455.	5.5	74
18	Al-Induced In Situ Formation of Highly Active Nanostructured Water-Oxidation Electrocatalyst Based on Ni-Phosphide. <i>ACS Catalysis</i> , 2018, 8, 2595-2600.	5.5	67

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19	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.	2.4	66
20	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.	1.7	64
21	Antimony doped tin oxides and their composites with tin pyrophosphates as catalyst supports for oxygen evolution reaction in proton exchange membrane water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18629-18640.	3.8	59
22	Bifunctional Porous Cobalt Phosphide Foam for High-Current-Density Alkaline Water Electrolysis with 4000-h Long Stability. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 10193-10200.	3.2	57
23	Electrocatalytic water oxidation over AlFe ₂ B ₂ . <i>Chemical Science</i> , 2019, 10, 2796-2804.	3.7	52
24	NiP ₂ : A Story of Two Divergent Polymorphic Multifunctional Materials. <i>Chemistry of Materials</i> , 2019, 31, 3407-3418.	3.2	52
25	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.	3.2	48
26	Iridium@Iron Diatomic Active Sites for Efficient Bifunctional Oxygen Electrocatalysis. <i>ACS Catalysis</i> , 2022, 12, 9397-9409.	5.5	47
27	Bi-metallic cobalt-nickel phosphide nanowires for electrocatalysis of the oxygen and hydrogen evolution reactions. <i>Catalysis Today</i> , 2020, 358, 196-202.	2.2	46
28	Ultrafine oxygen-defective iridium oxide nanoclusters for efficient and durable water oxidation at high current densities in acidic media. <i>Journal of Materials Chemistry A</i> , 2020, 8, 24743-24751.	5.2	45
29	Enhanced Stability of Immobilized Platinum Nanoparticles through Nitrogen Heteroatoms on Doped Carbon Supports. <i>Chemistry of Materials</i> , 2017, 29, 8670-8678.	3.2	44
30	Antimony doped tin oxide modified carbon nanotubes as catalyst supports for methanol oxidation and oxygen reduction reactions. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9737.	5.2	38
31	Oxygen breaks into carbon nanotubes and abstracts hydrogen from propane. <i>Carbon</i> , 2016, 96, 631-640.	5.4	38
32	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.	3.0	37
33	Efficient hydrogen production by saline water electrolysis at high current densities without the interfering chlorine evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22248-22253.	5.2	35
34	The physical-chemical properties and electrocatalytic performance of iridium oxide in oxygen evolution. <i>Electrochimica Acta</i> , 2011, 56, 10223-10230.	2.6	34
35	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.	2.5	31
36	Easy preparation of multifunctional ternary PdNiP/C catalysts toward enhanced small organic molecule electro-oxidation and hydrogen evolution reactions. <i>Journal of Energy Chemistry</i> , 2021, 58, 256-263.	7.1	31

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37	Oxygen electrochemistry in Li ₂ O batteries probed by in situ surface-enhanced Raman spectroscopy. <i>SusMat</i> , 2021, 1, 345-358.	7.8	31
38	A novel catalyst layer with hydrophilic-hydrophobic meshwork and pore structure for solid polymer electrolyte water electrolysis. <i>Electrochemistry Communications</i> , 2011, 13, 437-439.	2.3	30
39	The Effect of Different Phosphorus Chemical States on an Onion-like Carbon Surface for the Oxygen Reduction Reaction. <i>ChemSusChem</i> , 2015, 8, 2872-2876.	3.6	29
40	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.	2.5	29
41	Conformal and continuous deposition of bifunctional cobalt phosphide layers on p-silicon nanowire arrays for improved solar hydrogen evolution. <i>Nano Research</i> , 2018, 11, 4823-4835.	5.8	28
42	Ultrafine-Grained Porous Ir-Based Catalysts for High-Performance Overall Water Splitting in Acidic Media. <i>ACS Applied Energy Materials</i> , 2020, 3, 3736-3744.	2.5	26
43	The performance and mechanism of multi-step activation of MEA for DMFC. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 12341-12345.	3.8	25
44	Boosting acidic water oxidation performance by constructing arrays-like nanoporous Ir _x Ru _{1-x} O ₂ with abundant atomic steps. <i>Nano Research</i> , 2022, 15, 5933-5939.	5.8	25
45	In Situ Electrostatic Modulation of Path Selectivity for the Oxygen Reduction Reaction on Fe-N Doped Carbon Catalyst. <i>Chemistry of Materials</i> , 2017, 29, 4649-4653.	3.2	23
46	Plasma tailoring in WTe ₂ nanosheets for efficiently boosting hydrogen evolution reaction. <i>Journal of Materials Science and Technology</i> , 2021, 78, 170-175.	5.6	23
47	The Coulombic Nature of Active Nitrogen Sites in N-Doped Nanodiamond Revealed In Situ by Ionic Surfactants. <i>ACS Catalysis</i> , 2017, 7, 3295-3300.	5.5	20
48	Mille-Cr ³⁺ -like Metal Phosphide Nanocrystals/Carbon Nanotube Film Composites as High-Capacitance Negative Electrodes in Asymmetric Supercapacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 4580-4588.	2.5	19
49	Tuning the surface structure of supported PtNi _x bimetallic electrocatalysts for the methanol electro-oxidation reaction. <i>Chemical Communications</i> , 2016, 52, 3927-3930.	2.2	17
50	A novel catalyst coated membrane embedded with Cs-substituted phosphotungstates for proton exchange membrane water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 14531-14539.	3.8	14
51	Large-Scale Fabrication of Hollow Pt ₃ Al Nanoboxes and Their Electrocatalytic Performance for Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9842-9847.	3.2	14
52	Nanosphere-structured composites consisting of Cs-substituted phosphotungstates and antimony doped tin oxides as catalyst supports for proton exchange membrane liquid water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1914-1923.	3.8	13
53	Rhodium single-atom catalysts with enhanced electrocatalytic hydrogen evolution performance. <i>New Journal of Chemistry</i> , 2021, 45, 5770-5774.	1.4	13
54	Multifunctional Noble Metal Phosphide Electrocatalysts for Organic Molecule Electro-Oxidation. <i>ACS Applied Energy Materials</i> , 2021, 4, 1593-1600.	2.5	12

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55	Decisive Intermediates Responsible for the Carbonaceous Products of CO ₂ Electroreduction on Nitrogen-Doped sp ² Nanocarbon Catalysts in NaHCO ₃ Aqueous Electrolyte. ChemElectroChem, 2017, 4, 1274-1278.	1.7	9
56	Polar Layered Intermetallic LaCo ₂ P ₂ as a Water Oxidation Electrocatalyst. ACS Applied Materials & Interfaces, 2022, 14, 14120-14128.	4.0	4