Xin Cai

List of Publications by Year
in descending order

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51 papers	3,778 citations	147801 31 h-index	182427 51 g-index
51 all docs	51 docs citations	51 times ranked	5912 citing authors

#	Article	IF	Citations
1	Integrated Bifunctional Oxygen Electrodes for Flexible Zincâ€“Air Batteries: From Electrode Designing to Wearable Energy Storage. Advanced Materials Technologies, 2022, 7, 2100673.	5.8	12
2	CdS@Mg(OH)2 core/shell composite photocatalyst for efficient visible-light photocatalytic overall water splitting. International Journal of Hydrogen Energy, 2022, 47, 8729-8738.	7.1	11
3	Ni Foam Supported TiO₂ Nanorod Arrays with CdS Branches: Type II and Zâ€Scheme Mechanisms Coexisted Monolithic Catalyst Film for Improved Photocatalytic H₂ Production. Solar Rrl, 2022, 6, .	5.8	9
4	Cu Vacancy Induced Product Switching from Formate to CO for CO₂ Reduction on Copper Sulfide. ACS Catalysis, 2022, 12, 9074-9082.	11.2	35
5	Vanadium Nitride Quantum Dots/Holey Graphene Matrix Boosting Adsorption and Conversion Reaction Kinetics for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 30746-30755.	8.0	29
6	A CuNi Alloyâ€“Carbon Layer Coreâ€“Shell Catalyst for Highly Efficient Conversion of Aqueous Formaldehyde to Hydrogen at Room Temperature. ACS Applied Materials & Interfaces, 2021, 13, 37299-37307.	8.0	24
7	Boosting photocatalytic hydrogen evolution using a noble-metal-free co-catalyst: CuNi@C with oxygen-containing functional groups. Applied Catalysis B: Environmental, 2021, 291, 120139.	20.2	61
8	Phaseâ€Controllable Growth Ni_xP_y Modified CdS@Ni₃S₂ Electrodes for Efficient Electrocatalytic and Enhanced Photoassisted Electrocatalytic Overall Water Splitting. Small Methods, 2021, 5, e2100878.	8.6	37
9	Bio-inspired multilayered graphene-directed assembly of monolithic photo-membrane for full-visible light response and efficient charge separation. Applied Catalysis B: Environmental, 2020, 263, 117587.	20.2	24
10	Strong adsorption of tetracycline hydrochloride on magnetic carbon-coated cobalt oxide nanoparticles. Chemosphere, 2020, 239, 124831.	8.2	82
11	In situ photo-derived MnOOH collaborating with Mn₂Co₂C@C dual co-catalysts boost photocatalytic overall water splitting. Journal of Materials Chemistry A, 2020, 8, 17120-17127.	10.3	24
12	Hierarchically porous, ultrathin Nâ€“doped carbon nanosheets embedded with highly dispersed cobalt nanoparticles as efficient sulfur host for stable lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 50, 106-114.	12.9	43
13	An amorphous trimetallic (Niâ€“Coâ€“Fe) hydroxide-sheathed 3D bifunctional electrode for superior oxygen evolution and high-performance cable-type flexible zincâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 5601-5611.	10.3	57
14	In Situ Photodeposited Construction of Ptâ€“CdS/g-C₃N₄â€“MnO_x Composite Photocatalyst for Efficient Visible-Light-Driven Overall Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 20579-20588.	8.0	111
15	CdS@Ni₃S₂ coreâ€“shell nanorod arrays on nickel foam: a multifunctional catalyst for efficient electrochemical catalytic, photoelectrochemical and photocatalytic H₂ production reaction. Journal of Materials Chemistry A, 2019, 7, 2560-2574.	10.3	71
16	CdS branched TiO2: Rods-on-rods nanoarrays for efficient photoelectrochemical (PEC) and self-bias photocatalytic (PC) hydrogen production. Journal of Power Sources, 2019, 430, 32-42.	7.8	38
17	Dualâ€Confined SiO Embedded in TiO₂ Shell and 3D Carbon Nanofiber Web as Stable Anode Material for Superior Lithium Storage. Advanced Materials Interfaces, 2019, 6, 1801800.	3.7	27
18	Zinc-assisted mechanochemical coating of a reduced graphene oxide thin layer on silicon microparticles to achieve efficient lithium-ion battery anodes. Sustainable Energy and Fuels, 2019, 3, 1258-1268.	4.9	5

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19	Amorphous TiO2 layer on silicon monoxide nanoparticles as stable and scalable core-shell anode materials for high performance lithium ion batteries. Applied Surface Science, 2019, 479, 980-988.	6.1	30
20	Carbonâ€Coated Cu nanoparticles as a Cocatalyst of gâ€C₃N₄ for Enhanced Photocatalytic H₂ Evolution Activity under Visibleâ€Light Irradiation. Energy Technology, 2019, 7, 1800846.	3.8	17
21	Simultaneous Encapsulation of Nano-Si in Redox Assembled rGO Film as Binder-Free Anode for Flexible/Bendable Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 3897-3908.	8.0	53
22	Electrospray synthesis of nano-Si encapsulated in graphite/carbon microplates as robust anodes for high performance lithium-ion batteries. Sustainable Energy and Fuels, 2018, 2, 679-687.	4.9	25
23	Enhanced photocatalytic oxidation and biodegradation of polyethylene films with PMMA grafted TiO₂ as proâ€oxidant additives for plastic mulch application. Polymer Composites, 2018, 39, 3409-3417.	4.6	7
24	Mn doped FeCO3/reduced graphene composite as anode material for high performance lithium-ion batteries. Applied Surface Science, 2018, 428, 73-81.	6.1	26
25	Facile synthesis of interlocking g-C3N4/CdS photoanode for stable photoelectrochemical hydrogen production. Electrochimica Acta, 2018, 279, 74-83.	5.2	62
26	3D Porous Silicon/N-Doped Carbon Composite Derived from Bamboo Charcoal as High-Performance Anode Material for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2018, 6, 9930-9939.	6.7	86
27	Hierarchical Fe₂O₃@CNF fabric decorated with MoS₂ nanosheets as a robust anode for flexible lithium-ion batteries exhibiting ultrahigh areal capacity. Journal of Materials Chemistry A, 2018, 6, 16890-16899.	10.3	61
28	Application of carbon fibers to flexible, miniaturized wire/fiber-shaped energy conversion and storage devices. Journal of Materials Chemistry A, 2017, 5, 2444-2459.	10.3	67
29	Low-cost nanocarbon electrodes on arbitrary fibrous substrates as efficient bifacial photovoltaic wires. RSC Advances, 2017, 7, 9653-9661.	3.6	4
30	Monodispersed FeCO 3 nanorods anchored on reduced graphene oxide as mesoporous composite anode for high-performance lithium-ion batteries. Journal of Power Sources, 2017, 364, 359-366.	7.8	31
31	Stretchable, Conductive, and Stable PEDOTâ€Modified Textiles through a Novel In Situ Polymerization Process for Stretchable Supercapacitors. Advanced Materials Technologies, 2016, 1, 1600009.	5.8	48
32	High-performance perovskite memristor based on methyl ammonium lead halides. Journal of Materials Chemistry C, 2016, 4, 1375-1381.	5.5	118
33	PbCl₂-assisted film formation for high-efficiency heterojunction perovskite solar cells. RSC Advances, 2016, 6, 648-655.	3.6	17
34	Direct low-temperature synthesis of graphene on various glasses by plasma-enhanced chemical vapor deposition for versatile, cost-effective electrodes. Nano Research, 2015, 8, 3496-3504.	10.4	112
35	Dyeâ€Sensitized Solar Cells with Vertically Aligned TiO₂ Nanowire Arrays Grown on Carbon Fibers. ChemSusChem, 2014, 7, 474-482.	6.8	43
36	Integration of fiber dye-sensitized solar cells with luminescent solar concentrators for high power output. Journal of Materials Chemistry A, 2014, 2, 926-932.	10.3	27

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37	Flexible planar/fiber-architectured supercapacitors for wearable energy storage. Journal of Materials Chemistry C, 2014, 2, 1184-1200.	5.5	207
38	Understanding the solvent-assisted crystallization mechanism inherent in efficient organicâ€“inorganic halide perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 20454-20461.	10.3	147
39	Waveguide fiber dye-sensitized solar cells. Nano Energy, 2014, 10, 117-124.	16.0	32
40	Synthesis of all-deuterated tris(2-phenylpyridine)iridium for highly stable electrophosphorescence: the â€œdeuterium effectâ€. Journal of Materials Chemistry C, 2013, 1, 4821.	5.5	35
41	Nitrogen-doped graphene for dye-sensitized solar cells and the role of nitrogen states in triiodide reduction. Energy and Environmental Science, 2013, 6, 3356.	30.8	265
42	Integrated power fiber for energy conversion and storage. Energy and Environmental Science, 2013, 6, 805.	30.8	359
43	Flexible fiber-type zincâ€“carbon battery based on carbon fiber electrodes. Nano Energy, 2013, 2, 1242-1248.	16.0	107
44	Macro/microfiber-shaped electronic devices. Nano Energy, 2012, 1, 273-281.	16.0	69
45	Flexible, metal-free composite counter electrodes for efficient fiber-shaped dye-sensitized solar cells. Journal of Power Sources, 2012, 215, 164-169.	7.8	61
46	Fiber Supercapacitors Utilizing Pen Ink for Flexible/Wearable Energy Storage. Advanced Materials, 2012, 24, 5713-5718.	21.0	571
47	All-carbon electrode-based fiber-shaped dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 125-130.	2.8	82
48	Flexible conductive threads for wearable dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 6549.	6.7	64
49	Direct application of commercial fountain pen ink to efficient dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 9639.	6.7	40
50	Conjunction of fiber solar cells with groovy micro-reflectors as highly efficient energy harvesters. Energy and Environmental Science, 2011, 4, 3379.	30.8	101
51	Transparent conductive oxide-less, flexible, and highly efficient dye-sensitized solar cells with commercialized carbon fiber as the counter electrode. Journal of Materials Chemistry, 2011, 21, 13776.	6.7	104