

Hongmin Zhu

List of Publications by Year in descending order

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68
papers

2,547
citations

186265

28
h-index

189892

50
g-index

73
all docs

73
docs citations

73
times ranked

3416
citing authors

#	ARTICLE	IF	CITATIONS
1	High-performance p-Cu ₂ O/n-TaON heterojunction nanorod photoanodes passivated with an ultrathin carbon sheath for photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2014, 7, 3758-3768.	30.8	170
2	Efficient visible-light-driven photocatalytic hydrogen production using CdS@TaON core-shell composites coupled with graphene oxide nanosheets. <i>Journal of Materials Chemistry</i> , 2012, 22, 7291.	6.7	157
3	Three-Dimensional Bimetal-Graphene-Semiconductor Coaxial Nanowire Arrays to Harness Charge Flow for the Photochemical Reduction of Carbon Dioxide. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8480-8484.	13.8	119
4	Novel metallurgical process for titanium production. <i>Journal of Materials Research</i> , 2006, 21, 2172-2175.	2.6	117
5	A unique Z-scheme 2D/2D nanosheet heterojunction design to harness charge transfer for photocatalysis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11006-11013.	10.3	117
6	Hierarchical metastable β -TaON hollow structures for efficient visible-light water splitting. <i>Energy and Environmental Science</i> , 2013, 6, 2134.	30.8	104
7	Unique 3D heterojunction photoanode design to harness charge transfer for efficient and stable photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2015, 8, 1348-1357.	30.8	104
8	Hierarchically Plasmonic Z-Scheme Photocatalyst of Ag/AgCl Nanocrystals Decorated Mesoporous Single-Crystalline Metastable Bi ₂₀ Ti ₃₂ Nanosheets. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5132-5141.	3.1	103
9	Electrolysis of Ti ₂ CO solid solution prepared by TiC and TiO ₂ . <i>Journal of Alloys and Compounds</i> , 2007, 438, 243-246.	5.5	96
10	Single crystalline Na ₂ Ti ₃ O ₇ rods as an anode material for sodium-ion batteries. <i>RSC Advances</i> , 2013, 3, 1041-1044.	3.6	95
11	Cobalt-bilayer catalyst decorated Ta ₃ N ₅ nanorod arrays as integrated electrodes for photoelectrochemical water oxidation. <i>Energy and Environmental Science</i> , 2013, 6, 3322.	30.8	94
12	Three-dimensional Z-scheme AgCl/Ag/ β -TaON heterostructural hollow spheres for enhanced visible-light photocatalytic performance. <i>Applied Catalysis B: Environmental</i> , 2013, 142-143, 579-589.	20.2	89
13	Bi ₂ O ₃ quantum-dot decorated nitrogen-doped Bi ₃ NbO ₇ nanosheets: in situ synthesis and enhanced visible-light photocatalytic activity. <i>CrystEngComm</i> , 2012, 14, 5923.	2.6	71
14	In situ chemical reduction of the Ta ₃ N ₅ quantum dots coupled TaON hollow spheres heterojunction photocatalyst for water oxidation. <i>Journal of Materials Chemistry</i> , 2012, 22, 21972.	6.7	65
15	Chromium-doped bismuth titanate nanosheets as enhanced visible-light photocatalysts with a high percentage of reactive {110} facets. <i>Journal of Materials Chemistry</i> , 2011, 21, 7296.	6.7	63
16	Structural studies of TiCl _{1-x} O _x solid solution by Rietveld refinement and first-principles calculations. <i>Journal of Solid State Chemistry</i> , 2013, 204, 1-8.	2.9	62
17	High-efficiency transformation of amorphous carbon into graphite nanoflakes for stable aluminum-ion battery cathodes. <i>Nanoscale</i> , 2019, 11, 12537-12546.	5.6	61
18	A solid-state electrolysis process for upcycling aluminium scrap. <i>Nature</i> , 2022, 606, 511-515.	27.8	61

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19	Hydrothermal synthesis of CdS/CdLa ₂ S ₄ heterostructures for efficient visible-light-driven photocatalytic hydrogen production. RSC Advances, 2012, 2, 10330.	3.6	48
20	Preparation of Titanium Deposit in Chloride Melts. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 1181-1187.	2.1	45
21	Multifunctional 3D K ₂ Ti ₆ O ₁₃ nanobelt-built architectures towards wastewater remediation: selective adsorption, photodegradation, mechanism insight and photoelectrochemical investigation. Catalysis Science and Technology, 2018, 8, 6180-6195.	4.1	44
22	Effect of Transition-Metal Cobalt Doping on the Thermoelectric Performance of In ₂ O ₃ Ceramics. Journal of the American Ceramic Society, 2010, 93, 2938-2941.	3.8	37
23	The Equilibrium Between Titanium Ions and Titanium Metal in NaCl-KCl Equimolar Molten Salt. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2013, 44, 906-913.	2.1	35
24	The influence of fluoride ions on the equilibrium between titanium ions and titanium metal in fused alkali chloride melts. Faraday Discussions, 2016, 190, 421-432.	3.2	33
25	High thermoelectric performance of all-oxide heterostructures with carrier double-barrier filtering effect. NPG Asia Materials, 2015, 7, e182-e182.	7.9	32
26	Carbon-modified bismuth titanate nanorods with enhanced visible-light-driven photocatalytic property. CrystEngComm, 2011, 13, 4735.	2.6	30
27	The molten chlorides for aluminum-graphite rechargeable batteries. Journal of Alloys and Compounds, 2020, 821, 153285.	5.5	30
28	Electrochemical dissolution behavior of conductive Ti _x O _{1-x} solid solutions. Pure and Applied Chemistry, 2010, 82, 1691-1699.	1.9	29
29	A high-voltage and high-capacity Ti ₃ C ₂ T _x /BiCuS _{2.5} heterostructure to boost up the energy density and recyclability of zinc-ion-hybrid capacitors. Nano Energy, 2021, 87, 106136.	16.0	28
30	Preparation of titanium oxycarbide from various titanium raw materials: Part I. Carbothermal reduction. Rare Metals, 2010, 29, 547-551.	7.1	26
31	Plasmonic Z-scheme In ₂ -Bi ₂ O ₃ -Ag-AgCl photocatalyst with enhanced visible-light photocatalytic performance. RSC Advances, 2014, 4, 41622-41630.	3.6	26
32	High-Temperature Transport Property of In ₂ Sn ₂ Ce _{0.8} O ₁₀ (O _A = 0.10) Fine Grained Ceramics. Journal of the American Ceramic Society, 2012, 95, 2568-2572.	0.8	26
33	Removal of heavy metal ions from aqueous solution by chemically modified mangosteen pericarp. Desalination and Water Treatment, 2014, 52, 7108-7116.	1.0	21
34	Self-assembled amorphous manganese oxide/hydroxide spheres via multi-phase electrochemical interactions in reverse micelle electrolytes and their capacitive behavior. Journal of Materials Chemistry A, 2013, 1, 5136.	10.3	20
35	The Equilibrium between Titanium Ions and Metallic Titanium in the Molten Binary Mixtures of LiCl. Electrochemistry, 2014, 82, 1047-1051.	1.4	20
36	Experimental and first-principles study of Ti-C-O system: Interplay of thermodynamic and structural properties. Journal of the American Ceramic Society, 2017, 100, 2253-2265.	3.8	17

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37	Titanium nitride nanopowders produced via sodium reduction in liquid ammonia. Journal of Materials Research, 2009, 24, 448-451.	2.6	15
38	Microstructural Characterization of Co-Based ODS Alloys. Journal of Materials Engineering and Performance, 2012, 21, 2487-2494.	2.5	15
39	Thermodynamic criteria of the end-of-life silicon wafers refining for closing the recycling loop of photovoltaic panels. Science and Technology of Advanced Materials, 2019, 20, 813-825.	6.1	15
40	Anodic Dissolution of Titanium Oxycarbide Ti_xO_{1-x} with Different O/C Ratio. Journal of the Electrochemical Society, 2019, 166, E22-E28.	2.9	15
41	Enhanced intercalation behaviors of edge-rich flakes-stacked graphite for Al-graphite dual-ion battery. Journal of Power Sources, 2021, 492, 229674.	7.8	14
42	Anodic Dissolution Behavior of Ti_xO_y in NaCl-KCl Melt. Electrochemistry, 2010, 78, 513-516.	1.4	13
43	Structural and Thermodynamics Properties of Ti_xN_x Solid Solutions: X-ray Diffraction and First-Principles Approaches. Journal of the American Ceramic Society, 2014, 97, 1288-1295.	3.8	13
44	3D interconnected nanoporous Ta ₃ N ₅ films for photoelectrochemical water splitting: thickness-controlled synthesis and insights into stability. Science China Materials, 2021, 64, 1876-1888.	6.3	13
45	Structural and Thermodynamic Properties of $Ti_xN_yO_z$ Solid Solution: Experimental Study and First-Principles Approaches. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4721-4731.	2.2	12
46	Thermoelectric Performance of Zn and Nd Co-doped In ₂ O ₃ Ceramics. Journal of Electronic Materials, 2011, 40, 1083-1086.	2.2	11
47	Synthesis and sintering of silicon nitride nano-powders via sodium reduction in liquid ammonia. Journal of the European Ceramic Society, 2016, 36, 1899-1904.	5.7	11
48	Equilibrium between Metallic Titanium and Titanium Ions in $MgCl_2 \cdot LiCl$ Molten Salt. Materials Transactions, 2019, 60, 374-378.	1.2	11
49	A 4D x-ray computer microtomography for high-temperature electrochemistry. Science Advances, 2022, 8, eabm5678.	10.3	11
50	Preparation of niobium nanoparticles by sodiothermic reduction of Nb ₂ O ₅ in molten salts. Rare Metals, 2012, 31, 621-626.	7.1	9
51	Production of Titanium Powder by Sodiothermic Reduction in CaCl ₂ Molten Salts. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 1750-1756.	2.1	7
52	Pivot roles of noble metal in single-phase Ta _x Zr _{1-x} O _n (0 < x < 0.001) and heterostructured $X_1/Ta_xZr_{1-x}O_n$ (X = Tj) ETQq0 0 0 rgBT /Overl transfer for hydrogen production. Journal of Materials Chemistry A, 2013, 1, 5394.	10.3	5
53	Production of Fine Titanium Powder from Titanium Sponge by the Shuttle of the Disproportionation Reaction in Molten NaCl-KCl. Materials Transactions, 2019, 60, 405-410.	1.2	5
54	Thermodynamics of Elements in Dilute Silicon Melts. Jom, 2019, 71, 1456-1470.	1.9	5

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55	A universal study of liquid metal cathodes for direct extraction of titanium within a closed loop. Journal of Cleaner Production, 2022, 368, 133135.	9.3	4
56	Synthesis and Sintering of Aluminium Nitride Nano-particles. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	3
57	An Electroanalytical Study of Electrode Process on Carbon Electrode in LiF-NaF-KF Melt. Electrochemistry, 2010, 78, 510-512.	1.4	3
58	Production of aluminum nitride from aluminum metal using molten fluoride. Journal of Materials Research, 2015, 30, 635-644.	2.6	3
59	Architectural design and cryogenic synthesis of Si_3N_4 @(TiN Si_3N_4) for high conductivity. Journal of the American Ceramic Society, 2018, 101, 131-139.	3.8	3
60	Viscoelastic Properties of Molten ZnCl_2 -MCl (M: Na, K) Binary Systems.. ISIJ International, 1993, 33, 176-181.	1.4	3
61	Biosorption of Pb(II) from aqueous solution using modified wheat straw. , 2011, , .		1
62	Titanium production through electrolysis of titanium oxycarbide consumable anodeâ€”the USTB process. , 2020, , 315-329.		1
63	Synthesis of Nano-Sized Tantalum Nitrides with Various Morphology. , 0, , 37-41.		1
64	In-situ synthesis of $\text{Si}_3\text{N}_4/\text{TiN}$ nanocomposite powders in cryogenic solution. Materials Research Society Symposia Proceedings, 2007, 1056, 1.	0.1	0
65	Removal of cadmium from aqueous solution by garlic peel. , 2013, , .		0
66	Fast removal of dyes from wastewater by combinatorial treatment by biosorption and visible light photodegradation. , 2013, , .		0
67	Fabrication of dense Si_3N_4 ceramics via coating amorphous Si_3N_4 nano-powders by sodium reduction in liquid ammonia. Journal of the Ceramic Society of Japan, 2017, 125, 509-512.	1.1	0
68	Development of Wide-range Viscosity Measurement Technology for High Temperature Melts. Materia Japan, 2019, 58, 630-633.	0.1	0