Hongmin Zhu

List of Publications by Year
in descending order

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68	2,547	186265	189892
papers	citations	28 h-index	50 g-index

73	73	73	3416
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A solid-state electrolysis process for upcycling aluminium scrap. Nature, 2022, 606, 511-515.	27.8	61
2	A 4D x-ray computer microtomography for high-temperature electrochemistry. Science Advances, 2022, 8, eabm5678.	10.3	11
3	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
4	3D interconnected nanoporous Ta3N5 films for photoelectrochemical water splitting: thickness-controlled synthesis and insights into stability. Science China Materials, 2021, 64, 1876-1888.	6.3	13
5	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
6	A high-voltage and high-capacity Ti3C2T /BiCuS2.5 heterostructure to boost up the energy density and recyclability of zinc-ion-hybrid capacitors. Nano Energy, 2021, 87, 106136.	16.0	28
7	The molten chlorides for aluminum-graphite rechargeable batteries. Journal of Alloys and Compounds, 2020, 821, 153285.	5.5	30
8	Titanium production through electrolysis of titanium oxycarbide consumable anodeâ€"the USTB process. , 2020, , 315-329.		1
9	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
10	High-efficiency transformation of amorphous carbon into graphite nanoflakes for stable aluminum-ion battery cathodes. Nanoscale, 2019, 11, 12537-12546.	5.6	61
11	Production of Fine Titanium Powder from Titanium Sponge by the Shuttle of the Disproportionation Reaction in Molten NaClâ€"KCl. Materials Transactions, 2019, 60, 405-410.	1.2	5
12	Thermodynamics of Elements in Dilute Silicon Melts. Jom, 2019, 71, 1456-1470.	1.9	5
13	Equilibrium between Metallic Titanium and Titanium Ions in MgCl₂â€"LiCl Molten Salt. Materials Transactions, 2019, 60, 374-378.	1.2	11
14	Anodic Dissolution of Titanium Oxycarbide TiCxO1-x with Different O/C Ratio. Journal of the Electrochemical Society, 2019, 166, E22-E28.	2.9	15
15	Development of Wide-range Viscosity Measurement Technology for High Temperature Melts. Materia Japan, 2019, 58, 630-633.	0.1	0
16	Architectural design and cryogenic synthesis of Si₃N₄@(TiNâ€"Si₃N₄) for high conductivity. Journal of the American Ceramic Society, 2018, 101, 131-139.	3.8	3
17	Multifunctional 3D K2Ti6O13 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
18	Experimental and firstâ€principles study of Tiâ€"Câ€"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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19	Fabrication of dense Si₃N₄ ceramics via coating amorphous Si₃N₄ nano-powders by sodium reduction in liquid ammonia. Journal of the Ceramic Society of Japan, 2017, 125, 509-512.	1.1	0
20	Structural and Thermodynamic Properties of TiC x N y O 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
21	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
22	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
23	Threeâ€Dimensional Bimetalâ€Grapheneâ€Semiconductor Coaxial Nanowire Arrays to Harness Charge Flow for the Photochemical Reduction of Carbon Dioxide. Angewandte Chemie - International Edition, 2015, 54, 8480-8484.	13.8	119
24	High thermoelectric performance of all-oxide heterostructures with carrier double-barrier filtering effect. NPG Asia Materials, 2015, 7, e182-e182.	7.9	32
25	Unique 3D heterojunction photoanode design to harness charge transfer for efficient and stable photoelectrochemical water splitting. Energy and Environmental Science, 2015, 8, 1348-1357.	30.8	104
26	A unique Z-scheme 2D/2D nanosheet heterojunction design to harness charge transfer for photocatalysis. Journal of Materials Chemistry A, 2015, 3, 11006-11013.	10.3	117
27	Production of aluminum nitride from aluminum metal using molten fluoride. Journal of Materials Research, 2015, 30, 635-644.	2.6	3
28	Structural and Thermodynamics Properties of <scp><scp>TiC</scp></scp>_{1â^'x}<scp><scp>N</scp></scp>_xâ€“<scp><scp>TiO</scp></scp>< Solid Solutions: Xâ€ray Diffraction and Firstâ€Principles Approaches. Journal of the American Ceramic Society, 2014, 97, 1288-1295.	3.8	13
29	Removal of heavy metal ions from aqueous solution by chemically modified mangosteen pericarp. Desalination and Water Treatment, 2014, 52, 7108-7116.	1.0	21
30	Plasmonic Z-scheme Î±/Î²-Bi₂O₃â€“Agâ€“AgCl photocatalyst with enhanced visible-light photocatalytic performance. RSC Advances, 2014, 4, 41622-41630.	3.6	26
31	High-performance p-Cu₂O/n-TaON heterojunction nanorod photoanodes passivated with an ultrathin carbon sheath for photoelectrochemical water splitting. Energy and Environmental Science, 2014, 7, 3758-3768.	30.8	170
32	Production of Titanium Powder by Sodiothermic Reduction in CaCl2 Molten Salts. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 1750-1756.	2.1	7
33	The Equilibrium between Titanium Ions and Metallic Titanium in the Molten Binary Mixtures of LiCl. Electrochemistry, 2014, 82, 1047-1051.	1.4	20
34	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
35	Cobalt-bilayer catalyst decorated Ta3N5 nanorod arrays as integrated electrodes for photoelectrochemical water oxidation. Energy and Environmental Science, 2013, 6, 3322.	30.8	94
36	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

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37	Pivot roles of noble metal in single-phase TaXzON (0 < Z â‰¤ 0.001) and heterostructured XÎ´/TaXzâ^'Î´ON (X =) Tj ETQq1 1 0.784314 gr transfer for hydrogen production. Journal of Materials Chemistry A, 2013, 1, 5394.	10.3	5
38	Three-dimensional Z-scheme AgCl/Ag/Î²-TaON heterostructural hollow spheres for enhanced visible-light photocatalytic performance. Applied Catalysis B: Environmental, 2013, 142-143, 579-589.	20.2	89
39	Hierarchical metastable Î²-TaON hollow structures for efficient visible-light water splitting. Energy and Environmental Science, 2013, 6, 2134.	30.8	104
40	Structural studies of TiC1â^'xOx solid solution by Rietveld refinement and first-principles calculations. Journal of Solid State Chemistry, 2013, 204, 1-8.	2.9	62
41	Single crystalline Na₂Ti₃O₇rods as an anode material for sodium-ion batteries. RSC Advances, 2013, 3, 1041-1044.	3.6	95
42	Hierarchically Plasmonic Z-Scheme Photocatalyst of Ag/AgCl Nanocrystals Decorated Mesoporous Single-Crystalline Metastable Bi₂₀TiO₃₂ Nanosheets. Journal of Physical Chemistry C, 2013, 117, 5132-5141.	3.1	103
43	Removal of cadmium from aqueous solution by garlic peel. , 2013, , .		0
44	Fast removal of dyes from wastewater by combinatorial treatment by biosorption and visible light photodegradation. , 2013, , .		0
45	In situ chemical reduction of the Ta3N5 quantum dots coupled TaON hollow spheres heterojunction photocatalyst for water oxidation. Journal of Materials Chemistry, 2012, 22, 21972.	6.7	65
46	Hydrothermal synthesis of CdS/CdLa2S4 heterostructures for efficient visible-light-driven photocatalytic hydrogen production. RSC Advances, 2012, 2, 10330.	3.6	48
47	Bi2O3 quantum-dot decorated nitrogen-doped Bi3NbO7 nanosheets: in situ synthesis and enhanced visible-light photocatalytic activity. CrystEngComm, 2012, 14, 5923.	2.6	71
48	Efficient visible-light-driven photocatalytic hydrogen production using CdS@TaON coreâ€"shell composites coupled with graphene oxide nanosheets. Journal of Materials Chemistry, 2012, 22, 7291.	6.7	157
49	Microstructural Characterization of Co-Based ODS Alloys. Journal of Materials Engineering and Performance, 2012, 21, 2487-2494.	2.5	15
50	Preparation of niobium nanoparticles by sodiothermic reduction of Nb2O5 in molten salts. Rare Metals, 2012, 31, 621-626.	7.1	9
51	Highâ€Temperature Transport Property of <scp><scp>In</scp></scp>_{2â^'x}<scp><scp>Ce</scp></scp>_x<scp><scp>O</scp></scp>₃ (0Ââ‰ÂxÂâ‰Â0.10) Fine Grained Ceramics. Journal of the American Ceramic Society, 2012, 95, 2568-2572.	2.6	23
52	Carbon-modified bismuth titanate nanorods with enhanced visible-light-driven photocatalytic property. CrystEngComm, 2011, 13, 4735.	2.6	30
53	Chromium-doped bismuth titanate nanosheets as enhanced visible-light photocatalysts with a high percentage of reactive {110} facets. Journal of Materials Chemistry, 2011, 21, 7296.	6.7	63
54	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

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55	Thermoelectric Performance of Zn and Nd Co-doped In2O3 Ceramics. Journal of Electronic Materials, 2011, 40, 1083-1086.	2.2	11
56	Biosorption of Pb(II) from aqueous solution using modified wheat straw. , 2011, , .		1
57	An Electroanalytical Study of Electrode Process on Carbon Electrode in LiF-NaF-KF Melt. Electrochemistry, 2010, 78, 510-512.	1.4	3
58	Anodic Dissolution Behavior of TiCxOy in NaCl-KCl Melt. Electrochemistry, 2010, 78, 513-516.	1.4	13
59	Preparation of titanium oxycarbide from various titanium raw materials: Part I. Carbothermal reduction. Rare Metals, 2010, 29, 547-551.	7.1	26
60	Effect of Transitionâ€Metal Cobalt Doping on the Thermoelectric Performance of In₂O₃ Ceramics. Journal of the American Ceramic Society, 2010, 93, 2938-2941.	3.8	37
61	Electrochemical dissolution behavior of conductive TiCxO1â€“x solid solutions. Pure and Applied Chemistry, 2010, 82, 1691-1699.	1.9	29
62	Titanium nitride nanopowders produced via sodium reductionin liquid ammonia. Journal of Materials Research, 2009, 24, 448-451.	2.6	15
63	Synthesis and Sintering of Aluminium Nitride Nano-particles. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	3
64	In-situ synthesis of Si3N4/TiN nanocomposite powders in cryogenic solution. Materials Research Society Symposia Proceedings, 2007, 1056, 1.	0.1	0
65	Electrolysis of Ti2CO solid solution prepared by TiC and TiO2. Journal of Alloys and Compounds, 2007, 438, 243-246.	5.5	96
66	Novel metallurgical process for titanium production. Journal of Materials Research, 2006, 21, 2172-2175.	2.6	117
67	Viscoelastic Properties of Molten ZnCl2-MCl (M: Na, K) Binary Systems.. ISIJ International, 1993, 33, 176-181.	1.4	3
68	Synthesis of Nano-Sized Tantalum Nitrides with Various Morphology. , 0, , 37-41.		1