Guanglin Xia

List of Publications by Year
in descending order

77 papers	2,894 citations	126708 33 h-index	174990 52 g-index
77 all docs	77 docs citations	77 times ranked	2623 citing authors

#	Article	IF	Citations
1	Monodisperse Magnesium Hydride Nanoparticles Uniformly Selfâ€Assembled on Graphene. Advanced Materials, 2015, 27, 5981-5988.	11.1	298
2	Heterostructure Manipulation <i>via in Situ</i> Localized Phase Transformation for High-Rate and Highly Durable Lithium Ion Storage. ACS Nano, 2018, 12, 10430-10438.	7.3	138
3	Porous Ni nanofibers with enhanced catalytic effect on the hydrogen storage performance of MgH₂. Journal of Materials Chemistry A, 2015, 3, 15843-15848.	5.2	121
4	Carbon hollow nanobubbles on porous carbon nanofibers: An ideal host for high-performance sodium-sulfur batteries and hydrogen storage. Energy Storage Materials, 2018, 14, 314-323.	9.5	110
5	Hydrogen release from amminelithium borohydride, LiBH4Â·NH3. Chemical Communications, 2010, 46, 2599.	2.2	107
6	Building Artificial Solidâ€Electrolyte Interphase with Uniform Intermolecular Ionic Bonds toward Dendriteâ€Free Lithium Metal Anodes. Advanced Functional Materials, 2020, 30, 2002414.	7.8	104
7	Significantly improved dehydrogenation of LiBH₄destabilized by TiF₃. Energy and Environmental Science, 2010, 3, 465-470.	15.6	96
8	Graphene-wrapped reversible reaction for advanced hydrogen storage. Nano Energy, 2016, 26, 488-495.	8.2	86
9	Boron and nitrogen co-doped porous carbon nanotubes webs as a high-performance anode material for lithium ion batteries. International Journal of Hydrogen Energy, 2016, 41, 14252-14260.	3.8	68
10	Carbonâ€Coated Li₃N Nanofibers for Advanced Hydrogen Storage. Advanced Materials, 2013, 25, 6238-6244.	11.1	66
11	General Synthesis of Transition Metal Oxide Ultrafine Nanoparticles Embedded in Hierarchically Porous Carbon Nanofibers as Advanced Electrodes for Lithium Storage. Advanced Functional Materials, 2016, 26, 6188-6196.	7.8	61
12	Enhanced hydrogen storage performance of LiBH4â€"Ni composite. Journal of Alloys and Compounds, 2009, 479, 545-548.	2.8	59
13	Amminelithium Amidoborane Li(NH₃)NH₂BH₃: A New Coordination Compound with Favorable Dehydrogenation Characteristics. Chemistry - A European Journal, 2010, 16, 3763-3769.	1.7	59
14	Heterostructures Built in Metal Hydrides for Advanced Hydrogen Storage Reversibility. Advanced Materials, 2020, 32, e2002647.	11.1	58
15	Electrospun carbon nanofibers with in-situ encapsulated Ni nanoparticles as catalyst for enhanced hydrogen storage of MgH2. Journal of Alloys and Compounds, 2021, 851, 156874.	2.8	56
16	Ammine aluminium borohydrides: an appealing system releasing over 12 wt% pure H2 under moderate temperature. Chemical Communications, 2012, 48, 4408.	2.2	54
17	Stabilization of low-valence transition metal towards advanced catalytic effects on the hydrogen storage performance of magnesium hydride. Journal of Magnesium and Alloys, 2021, 9, 647-657.	5.5	53
18	Ammine bimetallic (Na, Zn) borohydride for advanced chemical hydrogen storage. Journal of Materials Chemistry, 2012, 22, 7300.	6.7	52

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19	One-step uniform growth of magnesium hydride nanoparticles on graphene. Progress in Natural Science: Materials International, 2017, 27, 81-87.	1.8	52
20	Porous Carbon Nanofibers Encapsulated with Peapodâ€Like Hematite Nanoparticles for Highâ€Rate and Longâ€Life Battery Anodes. Small, 2017, 13, 1701561.	5.2	52
21	In situ fabrication of three-dimensional nitrogen and boron co-doped porous carbon nanofibers for high performance lithium-ion batteries. Journal of Power Sources, 2016, 324, 294-301.	4.0	50
22	Designing a hybrid electrode toward high energy density with a staged Li ⁺ and PF ₆ ^{â^’} deintercalation/intercalation mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2815-2823.	3.3	50
23	Grapheneâ€Tailored Thermodynamics and Kinetics to Fabricate Metal Borohydride Nanoparticles with High Purity and Enhanced Reversibility. Advanced Energy Materials, 2018, 8, 1702975.	10.2	48
24	Dendriteâ€Free Liâ€Metal Anode Enabled by Dendritic Structure. Advanced Functional Materials, 2021, 31, 2009712.	7.8	43
25	Magnesium Hydride Nanoparticles Self-Assembled on Graphene as Anode Material for High-Performance Lithium-Ion Batteries. ACS Nano, 2018, 12, 3816-3824.	7.3	41
26	MnO quantum dots embedded in carbon nanotubes as excellent anode for lithium-ion batteries. Energy Storage Materials, 2018, 10, 160-167.	9.5	39
27	Hollow-shell structured porous CoSe₂ microspheres encapsulated by MXene nanosheets for advanced lithium storage. Sustainable Energy and Fuels, 2020, 4, 2352-2362.	2.5	39
28	Mixed-metal (Li, Al) amidoborane: synthesis and enhanced hydrogen storage properties. Journal of Materials Chemistry A, 2013, 1, 1810-1820.	5.2	37
29	Stabilization of NaZn(BH₄)₃via nanoconfinement in SBA-15 towards enhanced hydrogen release. Journal of Materials Chemistry A, 2013, 1, 250-257.	5.2	34
30	Ammonia borane confined by nitrogen-containing carbon nanotubes: enhanced dehydrogenation properties originating from synergetic catalysis and nanoconfinement. Journal of Materials Chemistry A, 2015, 3, 20494-20499.	5.2	34
31	Hydrolysis of Mg-based alloys and their hydrides for efficient hydrogen generation. International Journal of Hydrogen Energy, 2021, 46, 18988-19000.	3.8	34
32	A balance between catalysis and nanoconfinement towards enhanced hydrogen storage performance of NaAlH4. Journal of Materials Science and Technology, 2021, 79, 205-211.	5.6	34
33	Controlled-Size Hollow Magnesium Sulfide Nanocrystals Anchored on Graphene for Advanced Lithium Storage. ACS Nano, 2018, 12, 12741-12750.	7.3	33
34	Enhanced hydrogen storage properties of LiBH4â€"MgH2 composite by the catalytic effect of MoCl3. International Journal of Hydrogen Energy, 2011, 36, 7128-7135.	3.8	31
35	Confined NaAlH₄ nanoparticles inside CeO₂ hollow nanotubes towards enhanced hydrogen storage. Nanoscale, 2017, 9, 14612-14619.	2.8	31
36	Nanoconfinement significantly improves the thermodynamics and kinetics of co-infiltrated 2LiBH4â€"LiAlH4 composites: Stable reversibility of hydrogen absorption/resorption. Acta Materialia, 2013, 61, 6882-6893.	3.8	30

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37	Oxygenâ€free Layerâ€byâ€Layer Assembly of Lithiated Composites on Graphene for Advanced Hydrogen Storage. Advanced Science, 2017, 4, 1600257.	5.6	30
38	Identifying the positive role of lithium hydride in stabilizing Li metal anodes. Science Advances, 2022, 8, eabl8245.	4.7	29
39	Magnesium hydride nanoparticles anchored on MXene sheets as high capacity anode for lithium-ion batteries. Journal of Energy Chemistry, 2021, 62, 431-439.	7.1	26
40	Nano-confined multi-synthesis of a Liâ€“Mgâ€“Nâ€“H nanocomposite towards low-temperature hydrogen storage with stable reversibility. Journal of Materials Chemistry A, 2015, 3, 12646-12652.	5.2	25
41	Construction of solid solution sulfide embedded in MXene@N-doped carbon dual protection matrix for advanced aluminum ion batteries. Journal of Power Sources, 2021, 511, 230450.	4.0	25
42	3D hollow MXene (Ti₃C₂)/reduced graphene oxide hybrid nanospheres for high-performance Li-ion storage. Journal of Materials Chemistry A, 2021, 9, 23841-23849.	5.2	24
43	Unlocking the Lithium Storage Capacity of Aluminum by Molecular Immobilization and Purification. Advanced Materials, 2019, 31, e1901372.	11.1	23
44	Low temperature hydrogen generation from ammonia combined with lithium borohydride. Journal of Materials Chemistry, 2009, 19, 7826.	6.7	22
45	Effect of MgCl2 additives on the H-desorption properties of Liâ€“Nâ€“H system. International Journal of Hydrogen Energy, 2012, 37, 903-907.	3.8	21
46	High-Performance Hydrogen Storage Nanoparticles Inside Hierarchical Porous Carbon Nanofibers with Stable Cycling. ACS Applied Materials & Interfaces, 2017, 9, 15502-15509.	4.0	20
47	Porous sulfurized poly(acrylonitrile) nanofiber as a long-life and high-capacity cathode for lithiumâ€“sulfur batteries. Journal of Alloys and Compounds, 2021, 860, 158445.	2.8	17
48	Sizeâ€Controllable Nickel Sulfide Nanoparticles Embedded in Carbon Nanofibers as Highâ€Rate Conversion Cathodes for Hybrid Mgâ€Based Battery. Advanced Science, 2022, 9, e2106107.	5.6	17
49	Hierarchical Porous Li2Mg(NH)2@C Nanowires with Long Cycle Life Towards Stable Hydrogen Storage. Scientific Reports, 2014, 4, 6599.	1.6	16
50	Synergistic effect of lithiophilic Zn nanoparticles and N-doping for stable Li metal anodes. Journal of Energy Chemistry, 2022, 65, 439-447.	7.1	16
51	Well-dispersed lithium amidoborane nanoparticles through nanoreactor engineering for improved hydrogen release. Nanoscale, 2014, 6, 12333-12339.	2.8	15
52	Graphene-tailored molecular bonds for advanced hydrogen and lithium storage performance. Energy Storage Materials, 2019, 17, 178-185.	9.5	14
53	Fast Lithium Ionic Conductivity in Complex Hydrideâ€Sulfide Electrolytes by Double Anions Substitution. Small Methods, 2021, 5, e2100609.	4.6	14
54	Light-weight solid-state hydrogen storage materials characterized by neutron scattering. Journal of Alloys and Compounds, 2022, 899, 163254.	2.8	14

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55	Synergetic Effects toward Catalysis and Confinement of Magnesium Hydride on Modified Graphene: A First-Principles Study. Journal of Physical Chemistry C, 2017, 121, 18401-18411.	1.5	13
56	Low-temperature electroless synthesis of mesoporous aluminum nanoparticles on graphene for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 13917-13921.	5.2	13
57	Catalytic effect of nickel phthalocyanine on hydrogen storage properties of magnesium hydride: Experimental and first-principles studies. International Journal of Hydrogen Energy, 2017, 42, 28485-28497.	3.8	12
58	Hierarchical 3D Cuprous Sulfide Nanoporous Cluster Arrays Selfâ€Assembled on Copper Foam as a Binderâ€Free Cathode for Hybrid Magnesiumâ€Based Batteries. Small, 2021, 17, e2101845.	5.2	12
59	Dehydrogenation/rehydrogenation mechanism in aluminum destabilized lithium borohydride. Journal of Materials Research, 2009, 24, 2720-2727.	1.2	11
60	Molecular-Scale Functionality on Graphene To Unlock the Energy Capabilities of Metal Hydrides for High-Capacity Lithium-Ion Batteries. ACS Nano, 2018, 12, 8177-8186.	7.3	11
61	Thermodynamically favored stable hydrogen storage reversibility of NaBH₄ inside of bimetallic nanoporous carbon nanosheets. Journal of Materials Chemistry A, 2022, 10, 7122-7129.	5.2	11
62	Co-Construction of Solid Solution Phase and Void Space in Yolkâ€“Shell Fe_{0.4}Co_{0.6}S@N-Doped Carbon to Enhance Cycling Capacity and Rate Capability for Aluminum-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 8076-8085.	4.0	10
63	First-principles study of decomposition mechanisms of Mg(BH₄)₂Â·2NH₃ and LiMg(BH₄)₃Â·2NH₃. RSC Advances, 2017, 7, 31027-31032.	1.7	9
64	Atomic scale understanding of aluminum intercalation into layered TiS2 and its electrochemical properties. Journal of Energy Chemistry, 2020, 43, 116-120.	7.1	9
65	The effect of oxygen coverages on hydrogenation of Mg (0001) surface. Applied Surface Science, 2019, 487, 510-518.	3.1	8
66	In Situ Constructed Destabilization Reaction of LiBH4 Wrapped with Graphene towards Stable Hydrogen Storage Reversibility. Materials Today Energy, 2021, 22, 100885.	2.5	8
67	Advanced H₂-storage system fabricated through chemical layer deposition in a well-designed porous carbon scaffold. Journal of Materials Chemistry A, 2014, 2, 15168-15174.	5.2	6
68	Enhanced dehydrogenation of hydrazine bisborane for hydrogen storage. Materials Chemistry and Physics, 2014, 143, 1055-1060.	2.0	6
69	Efficient chemical regeneration of LiBH4NH3 spent fuel for hydrogen storage. International Journal of Hydrogen Energy, 2015, 40, 146-150.	3.8	6
70	Decomposition Mechanism of Zinc Ammine Borohydride: A First-Principles Calculation. Journal of Physical Chemistry C, 2018, 122, 4241-4249.	1.5	6
71	Long-term stable Li metal anode enabled by strengthened and protected lithiophilic LiZn alloys. Journal of Power Sources, 2022, 543, 231839.	4.0	6
72	Metal Hydrides with In Situ Built Electron/Ion Dual-Conductive Framework for Stable All-Solid-State Li-Ion Batteries. ACS Nano, 2022, 16, 8040-8050.	7.3	5

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73	Combination of two H-enriched Bâ€"N based hydrides towards improved dehydrogenation properties. International Journal of Hydrogen Energy, 2014, 39, 11668-11674.	3.8	2
74	Building a House for Stabilizing Lithiumâ€Metal Anodes. Batteries and Supercaps, 0, , .	2.4	2
75	A comparison study of decomposition mechanisms of single-cation and double-cations (Li, Al) ammine borohydrides. International Journal of Hydrogen Energy, 2017, 42, 24861-24867.	3.8	1
76	The Chemistry of Sustainable Energy Conversion and Storage. Molecules, 2022, 27, 3731.	1.7	1
77	Editorial: Hierarchical Materials for Advanced Energy Storage. Frontiers in Chemistry, 2020, 8, 601947.	1.8	0