

Bin Lu

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2278691/bin-lu-publications-by-citations.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101
papers

5,931
citations

41
h-index

76
g-index

103
ext. papers

7,250
ext. citations

11.5
avg, IF

6.23
L-index

#	Paper	IF	Citations
101	Recent progress in hydrogen storage. <i>Materials Today</i> , 2008 , 11, 36-43	21.8	422
100	Recent advances and remaining challenges of nanostructured materials for hydrogen storage applications. <i>Progress in Materials Science</i> , 2017 , 88, 1-48	42.2	366
99	New Nanoconfined Galvanic Replacement Synthesis of Hollow Sb@C Yolk-Shell Spheres Constituting a Stable Anode for High-Rate Li/Na-Ion Batteries. <i>Nano Letters</i> , 2017 , 17, 2034-2042	11.5	306
98	Dramatically enhanced reversibility of Li ₂ O in SnO ₂ -based electrodes: the effect of nanostructure on high initial reversible capacity. <i>Energy and Environmental Science</i> , 2016 , 9, 595-603	35.4	257
97	Application of dielectric barrier discharge plasma-assisted milling in energy storage materials [A review]. <i>Journal of Alloys and Compounds</i> , 2017 , 691, 422-435	5.7	248
96	Stabilizing the Nanostructure of SnO Anodes by Transition Metals: A Route to Achieve High Initial Coulombic Efficiency and Stable Capacities for Lithium Storage. <i>Advanced Materials</i> , 2017 , 29, 1605006	24	246
95	Enhancing the Regeneration Process of Consumed NaBH ₄ for Hydrogen Storage. <i>Advanced Energy Materials</i> , 2017 , 7, 1700299	21.8	223
94	Mg@M (TM: Ti, Nb, V, Co, Mo or Ni) core-shell like nanostructures: synthesis, hydrogen storage performance and catalytic mechanism. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 9645-9655	13	167
93	Uniform Hierarchical Fe ₃ O ₄ @Polypyrrole Nanocages for Superior Lithium Ion Battery Anodes. <i>Advanced Energy Materials</i> , 2016 , 6, 1600256	21.8	152
92	Hydrogen generation by hydrolysis of MgH ₂ and enhanced kinetics performance of ammonium chloride introducing. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 6145-6150	6.7	142
91	Thermodynamic Tuning of Mg-Based Hydrogen Storage Alloys: A Review. <i>Materials</i> , 2013 , 6, 4654-4674	3.5	123
90	Dual-tuning effects of In, Al, and Ti on the thermodynamics and kinetics of Mg ₈₅ In ₅ Al ₅ Ti ₅ alloy synthesized by plasma milling. <i>Journal of Alloys and Compounds</i> , 2015 , 623, 354-358	5.7	120
89	Inhibiting grain coarsening and inducing oxygen vacancies: the roles of Mn in achieving a highly reversible conversion reaction and a long life SnO ₂ /Mn/graphite ternary anode. <i>Energy and Environmental Science</i> , 2017 , 10, 2017-2029	35.4	120
88	Mesoporous Mo ₂ C/N-doped carbon heteronanowires as high-rate and long-life anode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10842-10849	13	119
87	An one-step approach towards hydrogen production and storage through regeneration of NaBH ₄ . <i>Energy Storage Materials</i> , 2017 , 7, 222-228	19.4	116
86	Closing the Loop for Hydrogen Storage: Facile Regeneration of NaBH from its Hydrolytic Product. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 8623-8629	16.4	116
85	Sandwich-like SnS/Polypyrrole Ultrathin Nanosheets as High-Performance Anode Materials for Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 8502-10	9.5	115

84	A mechanical-force-driven physical vapour deposition approach to fabricating complex hydride nanostructures. <i>Nature Communications</i> , 2014 , 5, 3519	17.4	115
83	Silicon/graphene based nanocomposite anode: large-scale production and stable high capacity for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 9118-9125	13	113
82	Embedding nano-silicon in graphene nanosheets by plasma assisted milling for high capacity anode materials in lithium ion batteries. <i>Journal of Power Sources</i> , 2014 , 268, 610-618	8.9	99
81	Converting H ⁺ from coordinated water into H ₂ enables super facile synthesis of LiBH ₄ . <i>Green Chemistry</i> , 2019 , 21, 4380-4387	10	96
80	Magnesium-based hydrogen storage compounds: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154865	5.7	84
79	Sn@SnO _x /C nanocomposites prepared by oxygen plasma-assisted milling as cyclic durable anodes for lithium ion batteries. <i>Journal of Power Sources</i> , 2013 , 242, 114-121	8.9	84
78	The fast filling of nano-SnO ₂ in CNTs by vacuum absorption: a new approach to realize cyclic durable anodes for lithium ion batteries. <i>Nanoscale</i> , 2013 , 5, 11971-9	7.7	79
77	Hydrogen generation via hydrolysis of magnesium with seawater using Mo, MoO ₂ , MoO ₃ and MoS ₂ as catalysts. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8566-8575	13	76
76	Hydrogen generation by hydrolysis of Mg-Mg ₂ Si composite and enhanced kinetics performance from introducing of MgCl ₂ and Si. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 2903-2912	6.7	74
75	FeP@C Nanotube Arrays Grown on Carbon Fabric as a Low Potential and Freestanding Anode for High-Performance Li-Ion Batteries. <i>Small</i> , 2018 , 14, e1800793	11	73
74	Air-stable hydrogen generation materials and enhanced hydrolysis performance of MgH ₂ -LiNH ₂ composites. <i>Journal of Power Sources</i> , 2017 , 359, 427-434	8.9	69
73	Enhanced Hydrogen Generation Properties of MgH ₂ -Based Hydrides by Breaking the Magnesium Hydroxide Passivation Layer. <i>Energies</i> , 2015 , 8, 4237-4252	3.1	68
72	A long-life nano-silicon anode for lithium ion batteries: supporting of graphene nanosheets exfoliated from expanded graphite by plasma-assisted milling. <i>Electrochimica Acta</i> , 2016 , 187, 1-10	6.7	68
71	Promoting hydrogen generation from the hydrolysis of Mg-Graphite composites by plasma-assisted milling. <i>Energy</i> , 2019 , 167, 1205-1211	7.9	68
70	A highly stable (SnO _x -Sn)/few layered graphene composite anode of sodium-ion batteries synthesized by oxygen plasma assisted milling. <i>Journal of Power Sources</i> , 2017 , 350, 1-8	8.9	65
69	Unveiling critical size of coarsened Sn nanograins for achieving high round-trip efficiency of reversible conversion reaction in lithiated SnO ₂ nanocrystals. <i>Nano Energy</i> , 2018 , 45, 255-265	17.1	65
68	Hydrogen storage in light-metal based systems: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 829, 154597	5.7	61
67	A scalable ternary SnO ₂ /Co composite as a high initial coulombic efficiency, large capacity and long lifetime anode for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 7206-7220	13	56

66	Enhanced hydrogen generation by hydrolysis of Mg doped with flower-like MoS ₂ for fuel cell applications. <i>Journal of Power Sources</i> , 2017 , 365, 273-281	8.9	53
65	A spherical SnFe ₃ O ₄ @graphite composite as a long-life and high-rate-capability anode for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10321-10328	13	52
64	Cu ₆ Sn ₅ @SnO ₂ nanocomposite with stable core/shell structure as a high reversible anode for Li-ion batteries. <i>Nano Energy</i> , 2015 , 18, 232-244	17.1	47
63	Inhibiting Sn coarsening to enhance the reversibility of conversion reaction in lithiated SnO ₂ anodes by application of super-elastic NiTi films. <i>Acta Materialia</i> , 2016 , 109, 248-258	8.4	45
62	Deformable fibrous carbon supported ultrafine nano-SnO ₂ as a high volumetric capacity and cyclic durable anode for Li storage. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 15097-15107	13	44
61	Progress on Sn-based thin-film anode materials for lithium-ion batteries. <i>Science Bulletin</i> , 2012 , 57, 4119-4130	43	
60	Enhancing the performance of Sn nanocomposite as lithium ion anode by discharge plasma assisted milling. <i>Journal of Materials Chemistry</i> , 2012 , 22, 8022		40
59	Origin of Capacity Increasing in a Long-Life Ternary SnFe ₃ O ₄ @Graphite Anode for Li-Ion Batteries. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700113	4.6	39
58	Confined LiBH ₄ : Enabling fast hydrogen release at ~100°C. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 18920-18926	6.7	38
57	A flexible composite solid electrolyte with a highly stable interphase for dendrite-free and durable all-solid-state lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 18043-18054	13	38
56	Facile synthesis of self-supported Mn ₃ O ₄ @C nanotube arrays constituting an ultrastable and high-rate anode for flexible Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8555-8565	13	35
55	A novel method for the synthesis of solvent-free Mg(B ₃ H ₈) ₂ . <i>Dalton Transactions</i> , 2016 , 45, 3687-90	4.3	33
54	Constructing Li-Rich Artificial SEI Layer in Alloy-Polymer Composite Electrolyte to Achieve High Ionic Conductivity for All-Solid-State Lithium Metal Batteries. <i>Advanced Materials</i> , 2021 , 33, e2004711	24	32
53	Synthesis and hydrolysis of NaZn(BH ₄) ₃ and its ammoniates. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 17012-17020	13	29
52	NaBH ₄ regeneration from NaBO ₂ by high-energy ball milling and its plausible mechanism. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 13127-13135	6.7	28
51	Synthesis, structure and dehydrogenation of zirconium borohydride octaammoniate. <i>Chemical Communications</i> , 2015 , 51, 2794-7	5.8	28
50	Reversible hydrogen storage in yttrium aluminum hydride. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 60423-60462	7	27
49	A nanorod-like Ni-rich layered cathode with enhanced Li ⁺ diffusion pathways for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 2830-2839	13	26

48	Highly reversible conversion reaction in Sn ₂ Fe@SiO _x nanocomposite: A high initial Coulombic efficiency and long lifetime anode for lithium storage. <i>Energy Storage Materials</i> , 2018 , 13, 257-266	19.4	25
47	Nano-spatially confined and interface-controlled lithiation/delithiation in an in situ formed (SnS ₂ /SnS ₂ S)/FLG composite: a route to an ultrafast and cycle-stable anode for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 15320-15332	13	24
46	A synergistic strategy established by the combination of two H-enriched B ₁₂ based hydrides towards superior dehydrogenation. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 10155	13	24
45	Realizing facile regeneration of spent NaBH ₄ with Mg/Al alloy. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 10723-10728	13	21
44	Microsized Sn supported by NiTi alloy as a high-performance film anode for Li-ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 9539		21
43	Chemical bonding black phosphorus with TiO ₂ and carbon toward high-performance lithium storage. <i>Journal of Power Sources</i> , 2020 , 449, 227549	8.9	21
42	Ammonia borane modified zirconium borohydride octaammoniate with enhanced dehydrogenation properties. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 5299-5304	13	20
41	Sodium borohydride regeneration via direct hydrogen transformation of sodium metaborate tetrahydrate. <i>Journal of Power Sources</i> , 2018 , 390, 71-77	8.9	18
40	Plasma-assisted coating of nanosized SnO ₂ on LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ cathodes for enhanced cyclic stability of lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2019 , 803, 71-79	5.7	18
39	A phosphorus and carbon composite containing nanocrystalline Sb as a stable and high-capacity anode for sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 443-452	13	18
38	Controllable Hydrolysis Performance of MgLi Alloys and Their Hydrides. <i>ChemPhysChem</i> , 2019 , 20, 1316-1324	13.24	17
37	Subzero temperature promotes stable lithium storage in SnO ₂ . <i>Energy Storage Materials</i> , 2021 , 36, 242-250	9.4	17
36	Magnesium borohydride hydrolysis with kinetics controlled by ammoniate formation. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7392-7401	6.7	16
35	Efficient regeneration of sodium borohydride via ball milling dihydrate sodium metaborate with magnesium and magnesium silicide. <i>Journal of Alloys and Compounds</i> , 2017 , 729, 1079-1085	5.7	15
34	Plasma milling modified Sb ₂ S ₃ -graphite nanocomposite as a highly reversible alloying-conversion anode material for lithium storage. <i>Electrochimica Acta</i> , 2019 , 310, 26-37	6.7	13
33	Hydrogen generation properties and the hydrolysis mechanism of Zr(BH ₄) ₄ /BNH ₃ . <i>Journal of Materials Chemistry A</i> , 2017 , 5, 16630-16635	13	13
32	A Self-Supporting Covalent Organic Framework Separator with Desolvation Effect for High Energy Density Lithium Metal Batteries. <i>ACS Energy Letters</i> , 2022 , 7, 885-896	20.1	13
31	Advances in the Development of Single-Atom Catalysts for High-Energy-Density Lithium-Sulfur Batteries.. <i>Advanced Materials</i> , 2022 , e2200102	24	13

30	Metal-Borohydride-Modified Zr(BH ₄) ₄ ·NH ₃ : Low-Temperature Dehydrogenation Yielding Highly Pure Hydrogen. <i>Chemistry - A European Journal</i> , 2015 , 21, 14931-6	4.8	12
29	A high-performance hydrogen generation system: Hydrolysis of LiBH ₄ -based materials catalyzed by transition metal chlorides. <i>Renewable Energy</i> , 2020 , 156, 655-664	8.1	11
28	Hydrogen Production via Hydrolysis and Alcoholysis of Light Metal-Based Materials: A Review. <i>Nano-Micro Letters</i> , 2021 , 13, 134	19.5	11
27	In Situ Construction a Stable Protective Layer in Polymer Electrolyte for Ultralong Lifespan Solid-State Lithium Metal Batteries.. <i>Advanced Science</i> , 2022 , e2104277	13.6	11
26	Tin-Based Anode Materials for Stable Sodium Storage: Progress and Perspective. <i>Advanced Materials</i> , 2021 , e2106895	24	9
25	Dual-Carbon-Confined SnS Nanostructure with High Capacity and Long Cycle Life for Lithium-ion Batteries. <i>Energy and Environmental Materials</i> , 2020 ,	13	8
24	Microsized SnS/Few-Layer Graphene Composite with Interconnected Nanosized Building Blocks for Superior Volumetric Lithium and Sodium Storage. <i>Energy and Environmental Materials</i> , 2021 , 4, 229-238	13	8
23	Reaction Route Optimized LiBH ₄ for High Reversible Capacity Hydrogen Storage by Tunable Surface-Modified AlN. <i>ACS Applied Energy Materials</i> , 2020 , 3, 11964-11973	6.1	7
22	Applications of Plasma-Assisted Systems for Advanced Electrode Material Synthesis and Modification. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 13909-13919	9.5	7
21	Boosted lithium storage cycling stability of TiP ₂ by in-situ partial self-decomposition and nano-spatial confinement. <i>Journal of Power Sources</i> , 2021 , 485, 229337	8.9	7
20	Promoting Al hydrolysis via MgH ₂ and NaOH addition. <i>Journal of Alloys and Compounds</i> , 2020 , 831, 154793	9.3	6
19	Good cycling stability and high initial efficiency demonstrated in full cells with limited lithium source for an advanced SnO ₂ /TiO ₂ composite anode. <i>Electrochimica Acta</i> , 2020 , 334, 135640	6.7	6
18	Efficient Synthesis of Sodium Borohydride: Balancing Reducing Agents with Intrinsic Hydrogen Source in Hydrated Borax. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 13449-13458	8.3	6
17	Li ₂ CO ₃ induced stable SEI formation: An efficient strategy to boost reversibility and cyclability of Li storage in SnO ₂ anodes. <i>Science China Materials</i> , 2021 , 64, 2683-2696	7.1	5
16	LiF-Induced Stable Solid Electrolyte Interphase for a Wide Temperature SnO ₂ -Based Anode Extensible to 500°C. <i>Advanced Energy Materials</i> , 2021 , 11, 2101855	21.8	5
15	General construction of lithiophilic 3D skeleton for dendrite-free lithium metal anode via a versatile MOF-derived route. <i>Science China Materials</i> ,1	7.1	5
14	Recent progress on hydrogen generation from the hydrolysis of light metals and hydrides. <i>Journal of Alloys and Compounds</i> , 2022 , 164831	5.7	5
13	Kinetically Controllable Hydrogen Generation at Low Temperatures by the Alcoholysis of CaMg-Based Materials in Tailored Solutions. <i>ChemSusChem</i> , 2020 , 13, 2709-2718	8.3	4

12	Boosting Reversibility and Stability of Li Storage in SnO -Mo Multilayers: Introduction of Interfacial Oxygen Redistribution.. <i>Advanced Materials</i> , 2021 , e2106366	24	4
11	Low temperature dehydrogenation properties of ammonia borane within carbon nanotube arrays: a synergistic effect of nanoconfinement and alane.. <i>RSC Advances</i> , 2020 , 10, 19027-19033	3.7	4
10	Effect of Y substitution on the high rate dischargeability of AB4.6 alloys as an electrode material for nickel metal hydride batteries. <i>Journal of Alloys and Compounds</i> , 2020 , 849, 156641	5.7	4
9	In-situ introducing TIP2 nanocrystals in black phosphorus anode to promote high rate-capacity synergy. <i>Journal of Power Sources</i> , 2021 , 499, 229979	8.9	4
8	Reversible formation of metastable Sn-rich solid solution in SnO ₂ -based anode for high-performance lithium storage. <i>Applied Materials Today</i> , 2021 , 25, 101242	6.6	2
7	Enhanced hydrogen generation from hydrolysis of MgLi doped with expanded graphite. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 2185-2185	8.8	2
6	Synthesis of amorphous SeP ₂ /C composite by plasma assisted ball milling for high-performance anode materials of lithium and sodium-ion batteries. <i>Progress in Natural Science: Materials International</i> , 2021 , 31, 567-574	3.6	1
5	Construction of SnS-Mo-graphene nanosheets composite for highly reversible and stable lithium/sodium storage. <i>Journal of Materials Science and Technology</i> , 2022 , 121, 190-198	9.1	1
4	Insight into Reversible Conversion Reactions in SnO -Based Anodes for Lithium Storage: A Review.. <i>Small</i> , 2022 , e2201110	11	1
3	Efficient hydrogen release from LiBH ₄ alcoholysis in methanol/ethylene glycol based solutions over a wide temperature range. <i>Journal of Alloys and Compounds</i> , 2022 , 164030	5.7	0
2	Breaking the Passivation: Sodium Borohydride Synthesis by Reacting Hydrated Borax with Aluminum. <i>Chemistry - A European Journal</i> , 2021 , 27, 9087-9093	4.8	0
1	N-Doped Carbon Coated SnS/rGO Composite with Superior Cyclic Stability as Anode for Lithium-Ion Batteries. <i>Industrial & Engineering Chemistry Research</i> , 2022 , 61, 4339-4347	3.9	0