Yi-Sheng Liu

List of Publications by Year
in descending order

47 papers	3,636 citations	257357 24 h-index	206029 48 g-index
50 all docs	50 docs citations	50 times ranked	5979 citing authors

#	Article	IF	Citations
1	The influence of LiH and TiH2 on hydrogen storage in MgB2 I: Promotion of bulk hydrogenation at reduced temperature. International Journal of Hydrogen Energy, 2022, 47, 387-402.	3.8	6
2	The influence of LiH and TiH2 on hydrogen storage in MgB2 II. XPS study of surface and near-surface phenomena. International Journal of Hydrogen Energy, 2022, 47, 403-419.	3.8	8
3	Reversible dehydrogenation and rehydrogenation of cyclohexane and methylcyclohexane by single-site platinum catalyst. Nature Communications, 2022, 13, 1092.	5.8	41
4	Oxygen evolution reaction over catalytic single-site Co in a well-defined brookite TiO2 nanorod surface. Nature Catalysis, 2021, 4, 36-45.	16.1	189
5	CuBi₂O₄: Electronic Structure, Optical Properties, and Photoelectrochemical Performance Limitations of the Photocathode. Chemistry of Materials, 2021, 33, 934-945.	3.2	45
6	In situ/operando soft x-ray spectroscopy of chemical interfaces in gas and liquid environments. MRS Bulletin, 2021, 46, 747-754.	1.7	2
7	Additive Destabilization of Porous Magnesium Borohydride Framework with Coreâ€Shell Structure. Small, 2021, 17, e2101989.	5.2	6
8	Spontaneous dynamical disordering of borophenes in MgB2 and related metal borides. Nature Communications, 2021, 12, 6268.	5.8	14
9	A Mechanistic Analysis of Phase Evolution and Hydrogen Storage Behavior in Nanocrystalline Mg(BH₄)₂ within Reduced Graphene Oxide. ACS Nano, 2020, 14, 1745-1756.	7.3	29
10	Reversible Electrochemical Interface of Mg Metal and Conventional Electrolyte Enabled by Intermediate Adsorption. ACS Energy Letters, 2020, 5, 200-206.	8.8	44
11	Phonon Dispersion Relation of Bulk Boron-Doped Graphitic Carbon. Journal of Physical Chemistry C, 2020, 124, 23027-23037.	1.5	7
12	Nanoconfinement of Molecular Magnesium Borohydride Captured in a Bipyridine-Functionalized Metalâ€“Organic Framework. ACS Nano, 2020, 14, 10294-10304.	7.3	40
13	Sugar-alcohol@ZIF nanocomposites display suppressed phase-change temperatures. Journal of Materials Chemistry A, 2020, 8, 23795-23802.	5.2	9
14	Enhanced and stabilized hydrogen production from methanol by ultrasmall Ni nanoclusters immobilized on defect-rich h-BN nanosheets. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29442-29452.	3.3	34
15	A nature-inspired hydrogen-bonded supramolecular complex for selective copper ion removal from water. Nature Communications, 2020, 11, 3947.	5.8	86
16	Probing calcium solvation by XAS, MD and DFT calculations. RSC Advances, 2020, 10, 27315-27321.	1.7	12
17	Factors Defining the Intercalation Electrochemistry of CaFe₂O₄-Type Manganese Oxides. Chemistry of Materials, 2020, 32, 8203-8215.	3.2	6
18	In-situ/operando X-ray absorption spectroscopic investigation of the electrode/electrolyte interface on the molecular scale. Surface Science, 2020, 702, 121720.	0.8	19

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19	Nanoscale Mgâ€“B via Surfactant Ball Milling of MgB₂: Morphology, Composition, and Improved Hydrogen Storage Properties. Journal of Physical Chemistry C, 2020, 124, 21761-21771.	1.5	17
20	Disparate Exciton-Phonon Couplings for Zone-Center and Boundary Phonons in Solid-State Graphite. Physical Review Letters, 2020, 125, 116401.	2.9	7
21	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. Nature Energy, 2020, 5, 478-486.	19.8	363
22	Intercalation of Mg into a Few-Layer Phyllomanganate in Nonaqueous Electrolytes at Room Temperature. Chemistry of Materials, 2020, 32, 6014-6025.	3.2	3
23	Full Energy Range Resonant Inelastic X-ray Scattering of O₂ and CO₂: Direct Comparison with Oxygen Redox State in Batteries. Journal of Physical Chemistry Letters, 2020, 11, 2618-2623.	2.1	30
24	Deciphering the Solvent Effect for the Solvation Structure of Ca²⁺ in Polar Molecular Liquids. Journal of Physical Chemistry B, 2020, 124, 3408-3417.	1.2	8
25	A lithium-sulfur battery with a solution-mediated pathway operating under lean electrolyte conditions. Nano Energy, 2020, 76, 105041.	8.2	25
26	Carbon doping switching on the hydrogen adsorption activity of NiO for hydrogen evolution reaction. Nature Communications, 2020, 11, 590.	5.8	170
27	Correlation-driven eightfold magnetic anisotropy in a two-dimensional oxide monolayer. Science Advances, 2020, 6, eaay0114.	4.7	43
28	Efficient Hydrogen Production from Methanol Using a Single-Site Pt₁/CeO₂ Catalyst. Journal of the American Chemical Society, 2019, 141, 17995-17999.	6.6	114
29	Excess Lithium in Transition Metal Layers of Epitaxially Grown Thin Film Cathodes of Li₂MnO₃ Leads to Rapid Loss of Covalency during First Battery Cycle. Journal of Physical Chemistry C, 2019, 123, 28519-28526.	1.5	19
30	Runaway Carbon Dioxide Conversion Leads to Enhanced Uptake in a Nanohybrid Form of Porous Magnesium Borohydride. Advanced Materials, 2019, 31, e1904252.	11.1	10
31	Investigating possible kinetic limitations to MgB2 hydrogenation. International Journal of Hydrogen Energy, 2019, 44, 31239-31256.	3.8	10
32	Electronic Structure and Performance Bottlenecks of CuFeO₂ Photocathodes. Chemistry of Materials, 2019, 31, 2524-2534.	3.2	43
33	Inâ€Situ/Operando Xâ€ray Characterization of Metal Hydrides. ChemPhysChem, 2019, 20, 1261-1271.	1.0	12
34	Multimodal characterization of solution-processed Cu₃SbS₄absorbers for thin film solar cells. Journal of Materials Chemistry A, 2018, 6, 8682-8692.	5.2	24
35	Soft x-ray spectroscopy of high pressure liquid. Review of Scientific Instruments, 2018, 89, 013114.	0.6	9
36	A facile route for the synthesis of heterogeneous crystal structures in hierarchical architectures with vacancy-driven defects via the oriented attachment growth mechanism. Journal of Materials Chemistry A, 2018, 6, 10663-10673.	5.2	4

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37	Strong O 2pâ€“Fe 3d Hybridization Observed in Solution-Grown Hematite Films by Soft X-ray Spectroscopies. Journal of Physical Chemistry B, 2018, 122, 927-932.	1.2	18
38	Copper adparticle enabled selective electrosynthesis of n-propanol. Nature Communications, 2018, 9, 4614.	5.8	153
39	X-ray spectroscopies studies of the 3d transition metal oxides and applications of photocatalysis. MRS Communications, 2017, 7, 53-66.	0.8	22
40	Electronic Structure, Optoelectronic Properties, and Photoelectrochemical Characteristics of Î³-Cu₃V₂O₈ Thin Films. Chemistry of Materials, 2017, 29, 3334-3345.	3.2	60
41	Atomically Thin Interfacial Suboxide Key to Hydrogen Storage Performance Enhancements of Magnesium Nanoparticles Encapsulated in Reduced Graphene Oxide. Nano Letters, 2017, 17, 5540-5545.	4.5	37
42	Elucidating the mechanism of MgB₂initial hydrogenation via a combined experimentalâ€“theoretical study. Physical Chemistry Chemical Physics, 2017, 19, 22646-22658.	1.3	23
43	Anion Redox Chemistry in the Cobalt Free 3d Transition Metal Oxide Intercalation Electrode Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂. Journal of the American Chemical Society, 2016, 138, 11211-11218.	6.6	271
44	Graphene oxide/metal nanocrystal multilaminates as the atomic limit for safe and selective hydrogen storage. Nature Communications, 2016, 7, 10804.	5.8	178
45	Charge-compensation in 3d-transition-metal-oxide intercalation cathodes through the generation of localized electron holes on oxygen. Nature Chemistry, 2016, 8, 684-691.	6.6	898
46	An ultra-high vacuum electrochemical flow cell for in situ/operando soft X-ray spectroscopy study. Review of Scientific Instruments, 2014, 85, 043106.	0.6	43
47	Probing the Optical Property and Electronic Structure of TiO₂Nanomaterials for Renewable Energy Applications. Chemical Reviews, 2014, 114, 9662-9707.	23.0	422