Tianbiao Liu

List of Publications by Year
in descending order

92 papers	8,093 citations	46984 47 h-index	48277 88 g-index
107 all docs	107 docs citations	107 times ranked	5779 citing authors

#	Article	IF	Citations
1	Research Progress of Magnesium Sulfur Batteries. , 2022, , 158-170.		0
2	Mechanistic insights of cycling stability of ferrocene catholytes in aqueous redox flow batteries. Energy and Environmental Science, 2022, 15, 1315-1324.	15.6	32
3	Tailoring electron transfer pathway for photocatalytic N₂-to-NH₃ reduction in a CdS quantum dots-nitrogenase system. Sustainable Energy and Fuels, 2022, 6, 2256-2263.	2.5	6
4	Materials challenges of aqueous redox flow batteries. MRS Energy & Sustainability, 2022, 9, 1-12.	1.3	11
5	A Stable, Low Permeable TEMPO Catholyte for Aqueous Total Organic Redox Flow Batteries (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	10.2	2
6	A Stable, Low Permeable TEMPO Catholyte for Aqueous Total Organic Redox Flow Batteries. Advanced Energy Materials, 2022, 12, .	10.2	40
7	Progress and prospects of electrolyte chemistry of calcium batteries. Chemical Science, 2022, 13, 5797-5812.	3.7	18
8	An Energyâ€Dense, Powerful, Robust Bipolar Zincâ€"Ferrocene Redoxâ€Flow Battery. Angewandte Chemie - International Edition, 2022, 61, .	7.2	21
9	An Energyâ€Dense, Powerful, Robust Bipolar Zincâ€"Ferrocene Redoxâ€Flow Battery. Angewandte Chemie, 2022, 134, .	1.6	1
10	Mitigating Ringâ€Opening to Develop Stable TEMPO Catholytes for pHâ€Neutral Allâ€Organic Redox Flow Batteries. Advanced Functional Materials, 2022, 32, .	7.8	25
11	Nickelâ€Catalyzed Electrochemical C(sp³)âˆ'C(sp²) Crossâ€Coupling Reactions of Benzyl Trifluoroborate and Organic Halides**. Angewandte Chemie - International Edition, 2021, 60, 6107-6116.	7.2	67
12	Nickelâ€Catalyzed Electrochemical C(sp 3)âˆ'C(sp 2) Crossâ€Coupling Reactions of Benzyl Trifluoroborate and Organic Halides**. Angewandte Chemie, 2021, 133, 6172-6181.	1.6	17
13	Tanking up energy through atypical charging. Science, 2021, 372, 788-789.	6.0	15
14	A Self-Trapping, Bipolar Viologen Bromide Electrolyte for Redox Flow Batteries. ACS Energy Letters, 2021, 6, 2891-2897.	8.8	39
15	Multipleâ€Site Concerted Protonâ€"Electron Transfer in a Manganeseâ€Based Complete Functional Model for [FeFe]â€Hydrogenase. Angewandte Chemie - International Edition, 2021, 60, 25839-25845.	7.2	9
16	<i>In Situ</i> Sulfurized Carbon-Confined Cobalt for Long-Life Mg/S Batteries. ACS Applied Energy Materials, 2020, 3, 2516-2525.	2.5	23
17	Reversible Electrochemical Interface of Mg Metal and Conventional Electrolyte Enabled by Intermediate Adsorption. ACS Energy Letters, 2020, 5, 200-206.	8.8	44
18	High-performance solar flow battery powered by a perovskite/silicon tandem solar cell. Nature Materials, 2020, 19, 1326-1331.	13.3	90

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19	A robust ionic liquid magnesium electrolyte enabling Mg/S batteries. Journal of Materials Chemistry A, 2020, 8, 12301-12305.	5.2	21
20	Wiederaufladbare Calciumâ€Batterien. Angewandte Chemie, 2020, 132, 3392-3394.	1.6	4
21	Dawn of Calcium Batteries. Angewandte Chemie - International Edition, 2020, 59, 3368-3370.	7.2	27
22	Integrated Saltwater Desalination and Energy Storage through a pH Neutral Aqueous Organic Redox Flow Battery. Advanced Functional Materials, 2020, 30, 2000385.	7.8	39
23	Optimizing Calcium Electrolytes by Solvent Manipulation for Calcium Batteries. Batteries and Supercaps, 2020, 3, 766-772.	2.4	44
24	A Strategic High Yield Synthesis of 2,5-Dihydroxy-1,4-benzoquinone Based MOFs. Inorganic Chemistry, 2019, 58, 10756-10760.	1.9	15
25	A pHâ€Neutral, Metalâ€Free Aqueous Organic Redox Flow Battery Employing an Ammonium Anthraquinone Anolyte. Angewandte Chemie, 2019, 131, 16782-16789.	1.6	63
26	Status and Prospects of Organic Redox Flow Batteries toward Sustainable Energy Storage. ACS Energy Letters, 2019, 4, 2220-2240.	8.8	327
27	A pHâ€Neutral, Metalâ€Free Aqueous Organic Redox Flow Battery Employing an Ammonium Anthraquinone Anolyte. Angewandte Chemie - International Edition, 2019, 58, 16629-16636.	7.2	128
28	Highly active nanostructured CoS2/CoS heterojunction electrocatalysts for aqueous polysulfide/iodide redox flow batteries. Nature Communications, 2019, 10, 3367.	5.8	212
29	An Efficient Viologen-Based Electron Donor to Nitrogenase. Biochemistry, 2019, 58, 4590-4595.	1.2	17
30	Computational Insights into Mgâ€Cl Complex Electrolytes for Rechargeable Magnesium Batteries. Batteries and Supercaps, 2019, 2, 792-800.	2.4	16
31	A Stable, Nonâ€Corrosive Perfluorinated Pinacolatoborate Mg Electrolyte for Rechargeable Mg Batteries. Angewandte Chemie, 2019, 131, 7041-7045.	1.6	27
32	RÃ¼cktitelbild: A Stable, Nonâ€Corrosive Perfluorinated Pinacolatoborate Mg Electrolyte for Rechargeable Mg Batteries (Angew. Chem. 21/2019). Angewandte Chemie, 2019, 131, 7218-7218.	1.6	1
33	Evaluation of attractive interactions in the second coordination sphere of iron complexes containing pendant amines. Dalton Transactions, 2019, 48, 4867-4878.	1.6	12
34	A Stable, Nonâ€Corrosive Perfluorinated Pinacolatoborate Mg Electrolyte for Rechargeable Mg Batteries. Angewandte Chemie - International Edition, 2019, 58, 6967-6971.	7.2	122
35	A 1.51 V pH neutral redox flow battery towards scalable energy storage. Journal of Materials Chemistry A, 2019, 7, 9130-9136.	5.2	69
36	Electrochemical Dinitrogen Reduction to Ammonia by Mo₂N: Catalysis or Decomposition?. ACS Energy Letters, 2019, 4, 1053-1054.	8.8	114

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37	Unprecedented Capacity and Stability of Ammonium Ferrocyanide Catholyte in pH Neutral Aqueous Redox Flow Batteries. Joule, 2019, 3, 149-163.	11.7	184
38	Two electron utilization of methyl viologen anolyte in nonaqueous organic redox flow battery. Journal of Energy Chemistry, 2018, 27, 1326-1332.	7.1	98
39	Electrolyzer Design for Flexible Decoupled Water Splitting and Organic Upgrading with Electron Reservoirs. CheM, 2018, 4, 637-649.	5.8	130
40	A Sulfonate-Functionalized Viologen Enabling Neutral Cation Exchange, Aqueous Organic Redox Flow Batteries toward Renewable Energy Storage. ACS Energy Letters, 2018, 3, 663-668.	8.8	209
41	InnenrÃ¼cktitelbild: A Ï€â€Conjugation Extended Viologen as a Twoâ€Electron Storage Anolyte for Total Organic Aqueous Redox Flow Batteries (Angew. Chem. 1/2018). Angewandte Chemie, 2018, 130, 365-365.	1.6	0
42	A Ï€â€Conjugation Extended Viologen as a Twoâ€Electron Storage Anolyte for Total Organic Aqueous Redox Flow Batteries. Angewandte Chemie, 2018, 130, 237-241.	1.6	171
43	Metal-Free Electrocatalytic Aerobic Hydroxylation of Arylboronic Acids. Organic Letters, 2018, 20, 361-364.	2.4	29
44	Improved radical stability of viologen anolytes in aqueous organic redox flow batteries. Chemical Communications, 2018, 54, 6871-6874.	2.2	140
45	A Ï€â€Conjugation Extended Viologen as a Twoâ€Electron Storage Anolyte for Total Organic Aqueous Redox Flow Batteries. Angewandte Chemie - International Edition, 2018, 57, 231-235.	7.2	230
46	Electrocatalytic CO2 reduction catalyzed by nitrogenase MoFe and FeFe proteins. Bioelectrochemistry, 2018, 120, 104-109.	2.4	41
47	Tandem Solar Flow Batteries for Conversion, Storage, and Utilization of Solar Energy. CheM, 2018, 4, 2488-2490.	5.8	5
48	Tertiary Mg/MgCl₂/AlCl₃ Inorganic Mg²⁺ Electrolytes with Unprecedented Electrochemical Performance for Reversible Mg Deposition. ACS Energy Letters, 2017, 2, 1197-1202.	8.8	91
49	MgCl₂/AlCl₃electrolytes for reversible Mg deposition/stripping: electrochemical conditioning or not?. Journal of Materials Chemistry A, 2017, 5, 12718-12722.	5.2	67
50	Recent advances on MgCl2 based electrolytes for rechargeable Mg batteries. Energy Storage Materials, 2017, 8, 184-188.	9.5	52
51	Long-Cycling Aqueous Organic Redox Flow Battery (AORFB) toward Sustainable and Safe Energy Storage. Journal of the American Chemical Society, 2017, 139, 1207-1214.	6.6	488
52	Unraveling pH dependent cycling stability of ferricyanide/ferrocyanide in redox flow batteries. Nano Energy, 2017, 42, 215-221.	8.2	210
53	Boosting the energy efficiency and power performance of neutral aqueous organic redox flowÂbatteries. Journal of Materials Chemistry A, 2017, 5, 22137-22145.	5.2	71
54	Chemistry and Electrochemical Performance of Mg Electrolytes for Rechargeable Mg Batteries: A Study of Mg Powder Scavenger. ECS Transactions, 2017, 80, 343-348.	0.3	5

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55	Designer Two-Electron Storage Viologen Anolyte Materials for Neutral Aqueous Organic Redox Flow Batteries. CheM, 2017, 3, 961-978.	5.8	268
56	A Total Organic Aqueous Redox Flow Battery Employing a Low Cost and Sustainable Methyl Viologen Anolyte and 4â€HOâ€TEMPO Catholyte. Advanced Energy Materials, 2016, 6, 1501449.	10.2	480
57	Radical Compatibility with Nonaqueous Electrolytes and Its Impact on an Allâ€Organic Redox Flow Battery. Angewandte Chemie - International Edition, 2015, 54, 8684-8687.	7.2	271
58	Iron Complexes Bearing Diphosphine Ligands with Positioned Pendant Amines as Electrocatalysts for the Oxidation of H₂. Organometallics, 2015, 34, 2747-2764.	1.1	37
59	A fundamental study on the [(Î¼-Cl)₃Mg₂(THF)₆]⁺ dimer electrolytes for rechargeable Mg batteries. Chemical Communications, 2015, 51, 2312-2315.	2.2	53
60	Nanocomposite polymer electrolyte for rechargeable magnesium batteries. Nano Energy, 2015, 12, 750-759.	8.2	121
61	Influence of the Density Functional and Basis Set on the Relative Stabilities of Oxygenated Isomers of Diiron Models for the Active Site of [FeFe]-Hydrogenase. Journal of Chemical Theory and Computation, 2015, 11, 205-214.	2.3	13
62	Redox active iron nitrosyl units in proton reduction electrocatalysis. Nature Communications, 2014, 5, 3684.	5.8	58
63	TEMPOâ€Based Catholyte for Highâ€Energy Density Nonaqueous Redox Flow Batteries. Advanced Materials, 2014, 26, 7649-7653.	11.1	387
64	A facile approach using MgCl2 to formulate high performance Mg2+ electrolytes for rechargeable Mg batteries. Journal of Materials Chemistry A, 2014, 2, 3430.	5.2	197
65	Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Feâ€Hâ‹…â‹…â‹…Hâ€N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie - International Edition, 2014, 53, 5300-5304.	7.2	102
66	Frontispiece: Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Fe-Hâ‹…â‹…â‹…H-N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	7.2	0
67	Electrochemical oxidation of H₂ catalyzed by ruthenium hydride complexes bearing P₂N₂ ligands with pendant amines as proton relays. Energy and Environmental Science, 2014, 7, 3630-3639.	15.6	20
68	Iron Complexes for the Electrocatalytic Oxidation of Hydrogen: Tuning Primary and Secondary Coordination Spheres. ACS Catalysis, 2014, 4, 1246-1260.	5.5	47
69	Cobalt Complexes Containing Pendant Amines in the Second Coordination Sphere as Electrocatalysts for H₂ Production. Organometallics, 2014, 33, 5820-5833.	1.1	66
70	Electrochemically stable cathode current collectors for rechargeable magnesium batteries. Journal of Materials Chemistry A, 2014, 2, 2473-2477.	5.2	77
71	Highly Reversible Mg Insertion in Nanostructured Bi for Mg Ion Batteries. Nano Letters, 2014, 14, 255-260.	4.5	257
72	An iron complex with pendent amines as a molecular electrocatalyst for oxidation of hydrogen. Nature Chemistry, 2013, 5, 228-233.	6.6	218

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73	Two Pathways for Electrocatalytic Oxidation of Hydrogen by a Nickel Bis(diphosphine) Complex with Pendant Amines in the Second Coordination Sphere. Journal of the American Chemical Society, 2013, 135, 9700-9712.	6.6	119
74	Conformational Dynamics and Proton Relay Positioning in Nickel Catalysts for Hydrogen Production and Oxidation. Organometallics, 2013, 32, 7034-7042.	1.1	36
75	Coordination Chemistry in magnesium battery electrolytes: how ligands affect their performance. Scientific Reports, 2013, 3, 3130.	1.6	157
76	Synthesis, Characterization, and Reactivity of Fe Complexes Containing Cyclic Diazadiphosphine Ligands: The Role of the Pendant Base in Heterolytic Cleavage of H₂. Journal of the American Chemical Society, 2012, 134, 6257-6272.	6.6	91
77	Facile Thermal Wâ€“W Bond Homolysis in the N-Heterocyclic Carbene Containing Tungsten Dimer [CpW(CO)₂(IMe)]₂. Organometallics, 2012, 31, 1775-1789.	1.1	20
78	Dinuclear Metalloradicals Featuring Unsupported Metalâ€“Metal Bonds. Angewandte Chemie - International Edition, 2012, 51, 8361-8364.	7.2	15
79	Directing Protons to the Dioxygen Ligand of a Ruthenium(II) Complex with Pendent Amines in the Second Coordination Sphere. Angewandte Chemie - International Edition, 2011, 50, 10936-10939.	7.2	25
80	Analysis of a Pentacoordinate Iron Dicarbonyl as Synthetic Analogue of the Hmd or Monoâ€Iron Hydrogenase Active Site. Chemistry - A European Journal, 2010, 16, 3083-3089.	1.7	69
81	Synthesis and MÃ¶ssbauer Characterization of Octahedral Iron(II) Carbonyl Complexes FeI₂(CO)₃L and FeI₂(CO)₂L₂: Developing Models of the [Fe]-H₂ase Active Site. Inorganic Chemistry, 2009, 48, 11283-11289.	1.9	75
82	Influence of Sulf-Oxygenation on CO/L Substitution and Fe(CO)₃ Rotation in Thiolate-Bridged Diiron Complexes. Inorganic Chemistry, 2009, 48, 8393-8403.	1.9	24
83	Sulfur Oxygenates of Biomimetics of the Diiron Subsite of the [FeFe]-Hydrogenase Active Site: Properties and Oxygen Damage Repair Possibilities. Journal of the American Chemical Society, 2009, 131, 8296-8307.	6.6	69
84	Regioselective 12CO/13CO exchange activity of a mixed-valent Fe(ii)Fe(i) model of the Hox state of [FeFe]-hydrogenase. Chemical Communications, 2008, , 1563.	2.2	26
85	CO-Migration in the Ligand Substitution Process of the Chelating Diphosphite Diiron Complex (Î¼-pdt)[Fe(CO)₃][Fe(CO){(EtO)₂PN(Me)P(OEt)₂}]. Inorganic Chemistry, 2008, 47, 6948-6955.	1.9	50
86	Series of Mixed Valent Fe(II)Fe(I) Complexes That Model the H_{ox} State of [FeFe]Hydrogenase: Redox Properties, Density-Functional Theory Investigation, and Reactivities with Extrinsic CO. Inorganic Chemistry, 2008, 47, 7009-7024.	1.9	111
87	A Mixed-Valent, Fe(II)Fe(I), Diiron Complex Reproduces the Unique Rotated State of the [FeFe]Hydrogenase Active Site. Journal of the American Chemical Society, 2007, 129, 7008-7009.	6.6	284
88	Synthesis of Carboxylic Acid-Modified [FeFe]-Hydrogenase Model Complexes Amenable to Surface Immobilization. Organometallics, 2007, 26, 3976-3984.	1.1	115
89	Preparation, structures and electrochemical property of phosphine substituted diiron azadithiolates relevant to the active site of Fe-only hydrogenases. Journal of Inorganic Biochemistry, 2007, 101, 506-513.	1.5	37
90	Synthesis, Structures and Electrochemical Properties of Nitro- and Amino-Functionalized Diiron Azadithiolates as Active Site Models of Fe-Only Hydrogenases. Chemistry - A European Journal, 2005, 11, 803-803.	1.7	0

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91	Synthesis, Structures and Electrochemical Properties of Nitro- and Amino-Functionalized Diiron Azadithiolates as Active Site Models of Fe-Only Hydrogenases. Chemistry - A European Journal, 2004, 10, 4474-4479.	1.7	83
92	Multipleâ€Site Concerted Protonâ^'Electron Transfer in a Manganeseâ€Based Complete Functional Model for the [FeFe]â€Hydrogenase. Angewandte Chemie, 0, , .	1.6	2