Liang An

List of Publications by Year
in descending order

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71	2,765	218381	182168
papers	citations	26 h-index	51 g-index

72	72	72	3184
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recycling of lithium-ion batteries: Recent advances and perspectives. Journal of Power Sources, 2018, 399, 274-286.	4.0	587
2	Aqueous metal-air batteries: Fundamentals and applications. Energy Storage Materials, 2020, 27, 478-505.	9.5	221
3	Advances in three-dimensional graphene-based materials: configurations, preparation and application in secondary metal (Li, Na, K, Mg, Al)-ion batteries. Energy and Environmental Science, 2019, 12, 2030-2053.	15.6	163
4	The dual role of hydrogen peroxide in fuel cells. Science Bulletin, 2015, 60, 55-64.	4.3	98
5	Tin-based materials as versatile anodes for alkali (earth)-ion batteries. Journal of Power Sources, 2018, 395, 41-59.	4.0	98
6	Machine learning for advanced energy materials. Energy and AI, 2021, 3, 100049.	5.8	96
7	An effective hybrid organic/inorganic inhibitor for alkaline aluminum-air fuel cells. Electrochimica Acta, 2017, 248, 478-485.	2.6	90
8	An alkaline direct ethanol fuel cell with a cation exchange membrane. Energy and Environmental Science, 2011, 4, 2213.	15.6	85
9	High-performance optofluidic membrane microreactor with a mesoporous CdS/TiO 2 /SBA-15@carbon paper composite membrane for the CO 2 photoreduction. Chemical Engineering Journal, 2017, 316, 911-918.	6.6	73
10	Modeling and Simulation of Flow Batteries. Advanced Energy Materials, 2020, 10, 2000758.	10.2	66
11	Charge carriers in alkaline direct oxidation fuel cells. Energy and Environmental Science, 2012, 5, 7536.	15.6	63
12	Carbon-free sustainable energy technology: Direct ammonia fuel cells. Journal of Power Sources, 2020, 476, 228454.	4.0	61
13	Polymer Electrolyte Membranes for Vanadium Redox Flow Batteries: Fundamentals and Applications. Progress in Energy and Combustion Science, 2021, 85, 100926.	15.8	61
14	Hydrogen-Location-Sensitive Modulation of the Redox Reactivity for Oxygen-Deficient TiO₂. Journal of the American Chemical Society, 2019, 141, 8407-8411.	6.6	59
15	An optofluidic planar microreactor for photocatalytic reduction of CO2 in alkaline environment. Energy, 2017, 120, 276-282.	4.5	54
16	Performance characteristics of a passive direct ethylene glycol fuel cell with hydrogen peroxide as oxidant. Applied Energy, 2019, 250, 846-854.	5.1	51
17	A cost-effective and chemically stable electrode binder for alkaline-acid direct ethylene glycol fuel cells. Applied Energy, 2020, 258, 114060.	5.1	45
18	Performance of a hybrid direct ethylene glycol fuel cell. International Journal of Energy Research, 2019, 43, 2583-2591.	2.2	42

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19	Multifunctional Separator with Porous Carbon/Multiâ€Walled Carbon Nanotube Coating for Advanced Lithiumâ˜Sulfur Batteries. ChemElectroChem, 2018, 5, 71-77.	1.7	38
20	Enhancing high-voltage performance of LiNi0.5Co0.2Mn0.3O2 cathode material via surface modification with lithium-conductive Li3Fe2(PO4)3. Journal of Alloys and Compounds, 2019, 773, 519-526.	2.8	32
21	A micro photocatalytic fuel cell with an air-breathing, membraneless and monolithic design. Science Bulletin, 2016, 61, 1699-1710.	4.3	31
22	A cascading gradient pore microstructured photoanode with enhanced photoelectrochemical and photocatalytic activities. Journal of Catalysis, 2016, 344, 411-419.	3.1	29
23	Bifunctional Electrocatalysts for Oxygen Reduction and Borohydride Oxidation Reactions Using Ag₃Sn Nanointermetallic for the Ensemble Effect. ACS Applied Materials & Interfaces, 2017, 9, 35701-35711.	4.0	28
24	Highly Flexible and Ultraprecise Manipulation of Light-Levitated Femtoliter/Picoliter Droplets. Journal of Physical Chemistry Letters, 2019, 10, 1068-1077.	2.1	28
25	Mathematical modeling of direct ethylene glycol fuel cells incorporating the effect of the competitive adsorption. Applied Thermal Engineering, 2019, 147, 1115-1124.	3.0	27
26	Advances and Challenges in Photoelectrochemical Redox Batteries for Solar Energy Conversion and Storage. Advanced Energy Materials, 2022, 12, .	10.2	27
27	Layered Spongy-like O-Doped g-C₃N₄: An Efficient Non-Metal Oxygen Reduction Catalyst for Alkaline Fuel Cells. Journal of the Electrochemical Society, 2017, 164, F354-F363.	1.3	26
28	A microfluidic all-vanadium photoelectrochemical cell for solar energy storage. Electrochimica Acta, 2017, 258, 842-849.	2.6	26
29	Flow Batteries: Modeling and Simulation of Flow Batteries (Adv. Energy Mater. 31/2020). Advanced Energy Materials, 2020, 10, 2070133.	10.2	26
30	A direct ethylene glycol fuel cell stack as air-independent power sources for underwater and outer space applications. Journal of Power Sources, 2019, 437, 226944.	4.0	25
31	AgSn intermetallics as highly selective and active oxygen reduction electrocatalysts in membraneless alkaline fuel cells. Journal of Power Sources, 2018, 404, 106-117.	4.0	22
32	Engineering the Band Gap States of the Rutile TiO₂(110) Surface by Modulating the Active Heteroatom. Angewandte Chemie - International Edition, 2018, 57, 8550-8554.	7.2	20
33	Multi-Scaled Porous Fe-N/C Nanofibrous Catalysts for the Cathode Electrodes of Direct Methanol Fuel Cells. Journal of the Electrochemical Society, 2017, 164, F1556-F1565.	1.3	19
34	Energizing Fuel Cells with an Electrically Rechargeable Liquid Fuel. Cell Reports Physical Science, 2020, 1, 100102.	2.8	18
35	Organic Electrolytes Recycling From Spent Lithiumâ€Ion Batteries. Global Challenges, 2022, 6, .	1.8	18
36	Toward CO₂ utilization for direct power generation using an integrated system consisting of CO₂ photoreduction with 3D TiO₂/Ni-foam and a photocatalytic fuel cell. Journal of Materials Chemistry A, 2019, 7, 6275-6284.	5.2	17

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37	Optofluidics-Based Membrane Microreactor for Wastewater Treatment by Photocatalytic Ozonation. Industrial & Engineering Chemistry Research, 2016, 55, 8627-8635.	1.8	16
38	Two-Dimensional Layered SnO₂ Nanosheets for Ambient Ammonia Synthesis. ACS Applied Energy Materials, 2020, 3, 6735-6742.	2.5	16
39	Integrated Porous Cathode made of Pure Perovskite Lanthanum Nickel Oxide for Nonaqueous Lithiumâ€“Oxygen Batteries. Energy Technology, 2015, 3, 1093-1100.	1.8	15
40	A micro membrane-less photoelectrochemical cell for hydrogen and electricity generation in the presence of methanol. Electrochimica Acta, 2017, 245, 549-560.	2.6	15
41	Enhanced oxygen discharge with structured mesh channel in proton exchange membrane electrolysis cell. Applied Energy, 2022, 323, 119651.	5.1	15
42	Mathematical modeling of direct formate fuel cells incorporating the effect of ion migration. International Journal of Heat and Mass Transfer, 2021, 164, 120629.	2.5	14
43	A visible-light responsive micro photocatalytic fuel cell with laterally arranged electrodes. Applied Thermal Engineering, 2018, 143, 193-199.	3.0	12
44	A Passive Fuel Cell Fed with an Electrically Rechargeable Liquid Fuel. ACS Applied Materials & Interfaces, 2021, 13, 48795-48800.	4.0	12
45	A membrane electrode assembled photoelectrochemical cell with a solar-responsive cadmium sulfide-zinc sulfide-titanium dioxide/mesoporous silica photoanode. Journal of Power Sources, 2017, 371, 96-105.	4.0	11
46	Performance characteristics of a passive direct formate fuel cell. International Journal of Energy Research, 2019, 43, 7433.	2.2	11
47	One-dimensional TiO2 nanotube array photoanode for a microfluidic all-vanadium photoelectrochemical cell for solar energy storage. Catalysis Science and Technology, 2020, 10, 4352-4361.	2.1	11
48	Numerical Simulation on Interface Dynamics of Core Coalescence of Double-Emulsion Droplets. Industrial & Engineering Chemistry Research, 2020, 59, 21248-21260.	1.8	11
49	Anion-Exchange Membrane Electrode Assembled Photoelectrochemical Cell with a Visible Light Responsive Photoanode for Simultaneously Treating Wastewater and Generating Electricity. Industrial & Engineering Chemistry Research, 2020, 59, 137-145.	1.8	10
50	Ion Transport Characteristics in Membranes for Direct Formate Fuel Cells. Frontiers in Chemistry, 2020, 8, 765.	1.8	10
51	In-situ formation of bismuth nanoparticles on nickel foam for ambient ammonia synthesis via electrocatalytic nitrogen reduction. Journal of Alloys and Compounds, 2021, 875, 160006.	2.8	10
52	Water flooding behavior in flow cells for ammonia production via electrocatalytic nitrogen reduction. Fundamental Research, 2022, 2, 757-763.	1.6	10
53	Engineering the Band Gap States of the Rutile TiO 2 (110) Surface by Modulating the Active Heteroatom. Angewandte Chemie, 2018, 130, 8686-8690.	1.6	9
54	Performance characteristics of a liquid e-fuel cell. Applied Energy, 2021, 297, 117145.	5.1	9

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55	A computational model of a liquid e-fuel cell. Journal of Power Sources, 2021, 501, 230023.	4.0	8
56	Characteristics of the IR Laser Photothermally Induced Phase Change in Microchannels with Different Depths. Industrial & Engineering Chemistry Research, 2016, 55, 8450-8459.	1.8	7
57	A liquid e-fuel cell operating at â˜20ÂÂ°C. Journal of Power Sources, 2021, 506, 230198.	4.0	7
58	Operation of liquid e-fuel cells using air as oxidant. Applied Energy, 2022, 311, 118677.	5.1	7
59	Ultralow loading FeCoNi alloy nanoparticles decorated carbon mat for hydrogen peroxide reduction reaction and its application in direct ethylene glycol fuel cells. International Journal of Energy Research, 2022, 46, 13820-13831.	2.2	7
60	A discrete regenerative fuel cell mediated by ammonia for renewable energy conversion and storage. Applied Energy, 2022, 322, 119463.	5.1	7
61	Catalytic performance of a pyrolyzed graphene supported Feâ€“Nâ€“C composite and its application for acid direct methanol fuel cells. RSC Advances, 2016, 6, 90797-90805.	1.7	6
62	A Flexible Smart Monitoring System for the Conservation of Textile Relics. Advanced Functional Materials, 2021, 31, 2106088.	7.8	5
63	Manipulation of Electrode Composition for Effective Water Management in Fuel Cells Fed with an Electrically Rechargeable Liquid Fuel. ACS Applied Materials & Interfaces, 2022, 14, 18600-18606.	4.0	5
64	Spatially resolved electrochemical performance and temperature distribution of a segmented solid oxide fuel cell under various hydrogen dilution ratios and electrical loadings. Journal of Power Sources, 2022, 536, 231477.	4.0	5
65	Three-dimensional porous electrodes for direct formate fuel cells. Science China Technological Sciences, 2021, 64, 705-718.	2.0	4
66	Nafion membranes for e-fuel cell applications. International Journal of Green Energy, 0, , 1-7.	2.1	4
67	Boosting electrocatalytic nitrogen reduction to ammonia in alkaline media. International Journal of Energy Research, 2021, 45, 19634-19644.	2.2	3
68	Revealing the sodiumâ€storage performance enhancement of adsorptionâ€type carbon materials after ammonia treatment: Active nitrogen dopants or specific surface area?. International Journal of Energy Research, 2021, 45, 7447-7456.	2.2	2
69	Membranes for vanadium-air redox flow batteries. , 2022, , 155-175.		1
70	High Value-Added Products From Recycling of Spent Lithium-Ion Batteries. , 2019, , 141-159.		0
71	A Flexible Smart Monitoring System for the Conservation of Textile Relics (Adv. Funct. Mater. 48/2021). Advanced Functional Materials, 2021, 31, .	7.8	0