Yu Luo

List of Publications by Year
in descending order

101 papers	3,784 citations	109321 35 h-index	138484 58 g-index
102 all docs	102 docs citations	102 times ranked	2594 citing authors

#	Article	IF	Citations
1	Hydrogen production from ammonia decomposition over Ni/CeO2 catalyst: Effect of CeO2 morphology. Journal of Rare Earths, 2023, 41, 1014-1021.	4.8	13
2	Numerical simulation and thermal stress analysis of direct internal reforming SOFCs. International Journal of Green Energy, 2022, 19, 399-409.	3.8	8
3	Highly-integrated and Cost-efficient Ammonia-fueled fuel cell system for efficient power generation: A comprehensive system optimization and Techno-Economic analysis. Energy Conversion and Management, 2022, 251, 114917.	9.2	20
4	Defect-induced pyrochlore Pr2Zr2O7 cathode rich in oxygen vacancies for direct ammonia solid oxide fuel cells. Journal of Power Sources, 2022, 520, 230847.	7.8	11
5	Optimized coupling of ammonia decomposition and electrochemical oxidation in a tubular direct ammonia solid oxide fuel cell for high-efficiency power generation. Applied Energy, 2022, 307, 118158.	10.1	19
6	Developing an ultrafine Ba0.5Sr0.5Co0.8Fe0.2O3-Î´ cathode for efficient solid oxide fuel cells. Ceramics International, 2022, 48, 11419-11427.	4.8	18
7	Facile Synthesis and <scp>Highâ€Value</scp> Utilization of Ammonia. Chinese Journal of Chemistry, 2022, 40, 953-964.	4.9	14
8	Challenges and Opportunities of Ru-Based Catalysts toward the Synthesis and Utilization of Ammonia. ACS Catalysis, 2022, 12, 3938-3954.	11.2	67
9	Electronic metal-support interaction enhanced ammonia decomposition efficiency of perovskite oxide supported ruthenium. Chemical Engineering Science, 2022, 257, 117719.	3.8	18
10	Distributed hybrid system and prospect of the future Energy Internet. , 2021, , 9-39.		3
11	Bridging a bi-directional connection between electricity and fuels in hybrid multienergy systems. , 2021, , 41-84.		12
12	Ammonia: a clean and efficient energy carrier for distributed hybrid system. , 2021, , 141-177.		0
13	Hydrogen Production via Waterâ€“Gas Shift Reaction by Cu/SiO₂ Catalyst: A Case Study of CeO₂ Doping. Energy & Fuels, 2021, 35, 3521-3528.	5.1	13
14	A Cationic Polymerization Strategy to Design Sulfonated Microâ€“Mesoporous Polymers as Efficient Adsorbents for Ammonia Capture and Separation. Macromolecules, 2021, 54, 7010-7020.	4.8	16
15	Ru-Based Catalysts for Ammonia Decomposition: A Mini-Review. Energy & Fuels, 2021, 35, 11693-11706.	5.1	89
16	Spatial Confinement of Electron-Rich Ni Nanoparticles for Efficient Ammonia Decomposition to Hydrogen Production. ACS Catalysis, 2021, 11, 10345-10350.	11.2	49
17	Site-oriented design of spinel MgxNiMn2-xO4-Î´ as cathode material of intermediate-temperature direct ammonia solid oxide fuel cell. Journal of Power Sources, 2021, 503, 230020.	7.8	26
18	Lithium/bismuth co-functionalized phosphotungstic acid catalyst for promoting dinitrogen electroreduction with high Faradaic efficiency. Cell Reports Physical Science, 2021, 2, 100557.	5.6	11

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19	Triggering in-plane defect cluster on MoS2 for accelerated dinitrogen electroreduction to ammonia. Journal of Energy Chemistry, 2021, 62, 359-366.	12.9	40
20	Engineering of Ce3+-O-Ni structures enriched with oxygen vacancies via Zr doping for effective generation of hydrogen from ammonia. Chemical Engineering Science, 2021, 245, 116818.	3.8	15
21	Geometric structure distribution and oxidation state demand of cations in spinel NixFe1-xCo2O4 composite cathodes for solid oxide fuel cells. Chemical Engineering Journal, 2021, 425, 131822.	12.7	36
22	Power balance and dynamic stability of a distributed hybrid energy system. , 2021, , 179-206.		0
23	Stabilization of intermittent renewable energy using power-to-X. , 2021, , 113-140.		0
24	Gas sensing properties of amperometric NH3 sensors based on Sm2Zr2O7 solid electrolyte and SrM2O4 (Mâ€¯=â€¯Sm, La, Gd, Y) sensing electrodes. Sensors and Actuators B: Chemical, 2020, 303, 127220.	7.8	16
25	Pressurized tubular solid oxide H₂O/CO₂ coelectrolysis cell for direct powerâ€toâ€methane. AICHE Journal, 2020, 66, e16896.	3.6	17
26	Unraveling the Role of Cu⁰ and Cu⁺ Sites in Cu/SiO₂ Catalysts for Waterâ€Gas Shift Reaction. ChemCatChem, 2020, 12, 4672-4679.	3.7	13
27	Geometric synergy of Steam/Carbon dioxide Co-electrolysis and methanation in a tubular solid oxide Electrolysis cell for direct Power-to-Methane. Energy Conversion and Management, 2020, 208, 112570.	9.2	11
28	Cu/Fe3O4 catalyst for water gas shift reaction: Insight into the effect of Fe2+ and Fe3+ distribution in Fe3O4. International Journal of Hydrogen Energy, 2020, 45, 8456-8465.	7.1	19
29	A novel solar system integrating concentrating photovoltaic thermal collectors and variable effect absorption chiller for flexible co-generation of electricity and cooling. Energy Conversion and Management, 2020, 206, 112506.	9.2	21
30	Techno-economic analysis and comprehensive optimization of anon-sitehydrogen refuelling station system using ammonia: hybrid hydrogen purification with both high H₂purity and high recovery. Sustainable Energy and Fuels, 2020, 4, 3006-3017.	4.9	46
31	Theoretical modeling of a pressurized tubular reversible solid oxide cell for methane production by co-electrolysis. Applied Energy, 2020, 268, 114927.	10.1	8
32	Effects of magnetically induced flow on electrochemical reacting processes in a liquid metal battery. Journal of Power Sources, 2019, 438, 226926.	7.8	12
33	Flat-chip flame fuel cell operated on a catalytically enhanced porous media combustor. Energy Conversion and Management, 2019, 196, 443-452.	9.2	16
34	Performance analysis of a reversible solid oxide cell system based on multi-scale hierarchical solid oxide cell modelling. Energy Conversion and Management, 2019, 196, 484-496.	9.2	31
35	Mechanism of rate-limiting step switchover for reversible solid oxide cells in H2/H2O atmosphere. Electrochimica Acta, 2019, 326, 135003.	5.2	7
36	Theoretical Modeling of methane production in pressurized micro-tubular R-SOFC. Energy Procedia, 2019, 158, 2164-2169.	1.8	5

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37	Coupling ammonia catalytic decomposition and electrochemical oxidation for solid oxide fuel cells: A model based on elementary reaction kinetics. Journal of Power Sources, 2019, 423, 125-136.	7.8	37
38	Dynamic analysis of a micro CHP system based on flame fuel cells. Energy Conversion and Management, 2018, 163, 268-277.	9.2	29
39	Exergy analysis of an integrated solid oxide electrolysis cell-methanation reactor for renewable energy storage. Applied Energy, 2018, 215, 371-383.	10.1	66
40	Elementary reaction modeling of reversible CO/CO2 electrochemical conversion on patterned nickel electrodes. Journal of Power Sources, 2018, 379, 298-308.	7.8	13
41	Power-to-Gas Energy Storage by Reversible Solid Oxide Cell for Distributed Renewable Power Systems. Journal of Energy Engineering - ASCE, 2018, 144, .	1.9	14
42	Synchronous enhancement of H2O/CO2 co-electrolysis and methanation for efficient one-step power-to-methane. Energy Conversion and Management, 2018, 165, 127-136.	9.2	26
43	A flame fuel cell stack powered by a porous media combustor. International Journal of Hydrogen Energy, 2018, 43, 22595-22603.	7.1	14
44	Numerical simulation of cell-to-cell performance variation within a syngas-fuelled planar solid oxide fuel cell stack. Applied Thermal Engineering, 2017, 114, 653-662.	6.0	37
45	Biogas-fueled flame fuel cell for micro-combined heat and power system. Energy Conversion and Management, 2017, 148, 701-707.	9.2	45
46	Recent advances in high-temperature carbonâ€“air fuel cells. Energy and Environmental Science, 2017, 10, 460-490.	30.8	98
47	Dynamic Processes of Mode Switching in Reversible Solid Oxide Fuel Cells. Journal of Energy Engineering - ASCE, 2017, 143, .	1.9	23
48	Mutual information for evaluating renewable power penetration impacts in a distributed generation system. Energy, 2017, 141, 290-303.	8.8	7
49	Reversible H 2 /H 2 O electrochemical conversion mechanisms on the patterned nickel electrodes. International Journal of Hydrogen Energy, 2017, 42, 25130-25142.	7.1	21
50	Mechanism for reversible CO/CO2 electrochemical conversion on a patterned nickel electrode. Journal of Power Sources, 2017, 366, 93-104.	7.8	17
51	Exergy Efficiency Analysis of a Power-to-Methane System Coupling Water Electrolysis and Sabatier Reaction. ECS Transactions, 2017, 78, 2965-2973.	0.5	3
52	Reaction Mechanism and Rate-Determining Step Speculation of Reversible CO/CO2Electrochemical Conversion on the Nickel Patterned Electrodes. ECS Transactions, 2017, 78, 1085-1093.	0.5	1
53	Reversible solid oxide fuel cell for natural gas/renewable hybrid power generation systems. Journal of Power Sources, 2017, 340, 60-70.	7.8	46
54	Strategy for Renewable Energy Storage in a Dynamic Distributed Generation System. Energy Procedia, 2017, 105, 4458-4463.	1.8	8

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55	Exergy Efficiency Analysis of a Power-to-Methane System Coupling Water Electrolysis and Sabatier Reaction. ECS Meeting Abstracts, 2017, , .	0.0	0
56	Reaction Mechanism and Rate-Determining Step Speculation of Reversible CO/CO2 Electrochemical Conversion on the Nickel Patterned Electrodes. ECS Meeting Abstracts, 2017, , .	0.0	0
57	Start-up and operation characteristics of a flame fuel cell unit. Applied Energy, 2016, 178, 415-421.	10.1	38
58	Power and heat co-generation by micro-tubular flame fuel cell on aÂporous media burner. Energy, 2016, 109, 117-123.	8.8	36
59	Elementary reaction modeling and experimental characterization of solid oxide direct carbon-assisted steam electrolysis cells. Solid State Ionics, 2016, 295, 78-89.	2.7	9
60	A bifunctional solid oxide electrolysis cell for simultaneous CO₂ utilization and synthesis gas production. Chemical Communications, 2016, 52, 13687-13690.	4.1	10
61	Carbon monoxide/carbon dioxide electrochemical conversion on patterned nickel electrodes operating in fuel cell and electrolysis cell modes. International Journal of Hydrogen Energy, 2016, 41, 3762-3773.	7.1	16
62	Performance assessment and optimization of a heat pipe thermal management system for fast charging lithium ion battery packs. International Journal of Heat and Mass Transfer, 2016, 92, 893-903.	4.8	119
63	Mechanistic modeling of NO electrochemical reduction in a micro-tubular cell: Effects of CO2/H2O components and electrochemical promotion. Chemical Engineering Journal, 2015, 280, 1-8.	12.7	4
64	Numerical simulation and experimental characterization of the performance evolution of a liquid antimony anode fuel cell. Journal of Power Sources, 2015, 284, 536-546.	7.8	9
65	Numerical analyses on optimizing a heat pipe thermal management system for lithium-ion batteries during fast charging. Applied Thermal Engineering, 2015, 86, 281-291.	6.0	275
66	Experimental Characterization and Theoretical Modeling of Methane Production by H₂O/CO₂Co-Electrolysis in a Tubular Solid Oxide Electrolysis Cell. Journal of the Electrochemical Society, 2015, 162, F1129-F1134.	2.9	23
67	Dynamic electro-thermal modeling of co-electrolysis of steam and carbon dioxide in a tubular solid oxide electrolysis cell. Energy, 2015, 89, 637-647.	8.8	42
68	Methane Synthesis Characteristics of H₂O/CO₂ Co-Electrolysis in Tubular Solid Oxide Electrolysis Cells. ECS Transactions, 2015, 68, 3465-3474.	0.5	4
69	Theoretical modeling of NO electrochemical reduction on multifunctional layer electrode by alternating/direct current electrolysis. Electrochimica Acta, 2015, 152, 202-215.	5.2	2
70	Carbon deposition on patterned nickel/yttria stabilized zirconia electrodes for solid oxide fuel cell/solid oxide electrolysis cell modes. Journal of Power Sources, 2015, 276, 26-31.	7.8	57
71	Elementary reaction modeling of solid oxide electrolysis cells: Main zones for heterogeneous chemical/electrochemical reactions. Journal of Power Sources, 2015, 273, 1-13.	7.8	34
72	Comprehensive modeling of tubular solid oxide electrolysis cell for co-electrolysis of steam and carbon dioxide. Energy, 2014, 70, 420-434.	8.8	96

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73	An approximate analytical model of reduction of carbon dioxide in solid oxide electrolysis cell by regular and singular perturbation methods. Electrochimica Acta, 2014, 139, 190-200.	5.2	5
74	An electro-thermal model and its application on a spiral-wound lithium ion battery with porous current collectors. Electrochimica Acta, 2014, 121, 143-153.	5.2	21
75	Effect of thermal contact resistances on fast charging of large format lithium ion batteries. Electrochimica Acta, 2014, 134, 327-337.	5.2	102
76	A micro tri-generation system based on direct flame fuel cells for residential applications. International Journal of Hydrogen Energy, 2014, 39, 5996-6005.	7.1	49
77	Using potassium catalytic gasification to improve the performance ofÂsolid oxide direct carbon fuel cells: Experimental characterization and elementary reaction modeling. Journal of Power Sources, 2014, 252, 130-137.	7.8	38
78	Theoretical modeling of air electrode operating in SOFC mode and SOEC mode: The effects of microstructure and thickness. International Journal of Hydrogen Energy, 2014, 39, 13738-13750.	7.1	54
79	Elementary reaction modeling and experimental characterization of solid oxide fuel-assisted steam electrolysis cells. International Journal of Hydrogen Energy, 2014, 39, 10359-10373.	7.1	39
80	Carbon deposition on nickel cermet anodes of solid oxide fuel cells operating on carbon monoxide fuel. Journal of Power Sources, 2013, 225, 1-8.	7.8	34
81	Elementary reaction modeling of CO2/H2O co-electrolysis cell considering effects of cathode thickness. Journal of Power Sources, 2013, 243, 118-130.	7.8	64
82	Experimental characterization and elementary reaction modeling ofÂsolid oxide electrolyte direct carbon fuel cell. Journal of Power Sources, 2013, 243, 159-171.	7.8	27
83	Performance and methane production characteristics of H2Oâ€“CO2 co-electrolysis in solid oxide electrolysis cells. International Journal of Hydrogen Energy, 2013, 38, 11104-11109.	7.1	128
84	Simulation and evaluation of capacity recovery methods for spiral-wound lithium ion batteries. Journal of Power Sources, 2013, 243, 779-789.	7.8	21
85	Experimental characterization and modeling of the electrochemical reduction of CO2 in solid oxide electrolysis cells. Electrochimica Acta, 2013, 88, 644-653.	5.2	92
86	Electro-thermal cycle life model for lithium iron phosphate battery. Journal of Power Sources, 2012, 217, 509-518.	7.8	135
87	Simulation of EIS spectra and polarization curves based on Ni/YSZ patterned anode elementary reaction models. International Journal of Hydrogen Energy, 2012, 37, 1037-1043.	7.1	14
88	Electro-thermal modeling and experimental validation for lithium ion battery. Journal of Power Sources, 2012, 199, 227-238.	7.8	334
89	Mechanism for carbon direct electrochemical reactions in a solid oxide electrolyte direct carbon fuel cell. Journal of Power Sources, 2011, 196, 754-763.	7.8	69
90	Experimental characterization and mechanistic modeling of carbon monoxide fueled solid oxide fuel cell. Journal of Power Sources, 2011, 196, 5526-5537.	7.8	47

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91	Elementary reaction kinetic model of an anode-supported solid oxide fuel cell fueled with syngas. Journal of Power Sources, 2010, 195, 2266-2282.	7.8	49
92	A multi-level simulation platform of natural gas internal reforming solid oxide fuel cellâ€“gas turbine hybrid generation system: Part I. Solid oxide fuel cell model library. Journal of Power Sources, 2010, 195, 4871-4892.	7.8	46
93	Performance improvement of direct carbon fuel cell by introducing catalytic gasification process. Journal of Power Sources, 2010, 195, 4660-4666.	7.8	108
94	Multi-level simulation platform of SOFCâ€“GT hybrid generation system. International Journal of Hydrogen Energy, 2010, 35, 2894-2899.	7.1	48
95	Simulation of Electrochemical Impedance Spectra of Solid Oxide Fuel Cells Using Transient Physical Models. Journal of the Electrochemical Society, 2008, 155, B270.	2.9	33
96	A General Approach for Electrochemical Impedance Spectroscopy Simulation using Transient Mechanistic SOFC Model. ECS Transactions, 2007, 7, 1889-1899.	0.5	5
97	Numerical modeling of an anode-supported SOFC button cell considering anodic surface diffusion. Journal of Power Sources, 2007, 164, 639-648.	7.8	113
98	Modeling of an anode-supported Ni-YSZ|Ni-ScSZ|ScSZ| LSM-ScSZ multiple layers SOFC cell. Journal of Power Sources, 2007, 172, 246-252.	7.8	32
99	Modeling of an anode-supported Niâ€“YSZ|Niâ€“ScSZ|ScSZ|LSMâ€“ScSZ multiple layers SOFC cell. Journal of Power Sources, 2007, 172, 235-245.	7.8	75
100	Direct ammonia solid oxide fuel cells based on spinel ACo2O4 (A=Zn, Fe, Ni) composite cathodes at intermediate temperature. International Journal of Green Energy, 0, , 1-10.	3.8	1
101	Influences of Hydrogen-Natural Gas Mixtures on The Performance of An Internal Reforming Solid Oxide Fuel Cell Unit: A Simulation Study. Journal of the Electrochemical Society, 0, , .	2.9	0