

Pang-Chieh Sui

List of Publications by Year in descending order

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51
papers

1,388
citations

361413

20
h-index

345221

36
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all docs

51
docs citations

51
times ranked

861
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of recycling spent lithium-ion battery cathode materials using hydrometallurgical treatments. <i>Journal of Energy Storage</i> , 2021, 35, 102217.	8.1	167
2	Pore Scale Simulation of Transport and Electrochemical Reactions in Reconstructed PEMFC Catalyst Layers. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1434.	2.9	157
3	Pore scale modeling of a proton exchange membrane fuel cell catalyst layer: Effects of water vapor and temperature. <i>Journal of Power Sources</i> , 2011, 196, 3195-3203.	7.8	86
4	Determination of effective transport properties in a PEMFC catalyst layer using different reconstruction algorithms. <i>Journal of Power Sources</i> , 2012, 208, 354-365.	7.8	63
5	Computational modeling of air-breathing microfluidic fuel cells with flow-over and flow-through anodes. <i>Journal of Power Sources</i> , 2014, 259, 15-24.	7.8	62
6	Modeling of PEM Fuel Cell Catalyst Layers: Status and Outlook. <i>Electrochemical Energy Reviews</i> , 2019, 2, 428-466.	25.5	60
7	Effects of ionomer and dispersion methods on rheological behavior of proton exchange membrane fuel cell catalyst layer ink. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 29430-29441.	7.1	49
8	Microstructure reconstruction of the gas diffusion layer and analyses of the anisotropic transport properties. <i>Energy Conversion and Management</i> , 2021, 241, 114293.	9.2	45
9	Pore-scale modeling of gas diffusion layers: Effects of compression on transport properties. <i>Journal of Power Sources</i> , 2021, 496, 229822.	7.8	44
10	A self-humidifying acidic/alkaline bipolar membrane fuel cell. <i>Journal of Power Sources</i> , 2015, 299, 273-279.	7.8	43
11	Computational modeling of alkaline air-breathing microfluidic fuel cells with an array of cylinder anodes. <i>Journal of Power Sources</i> , 2015, 288, 150-159.	7.8	33
12	Coupled stress-strain and transport in proton exchange membrane fuel cell with metallic bipolar plates. <i>Applied Energy</i> , 2019, 251, 113316.	10.1	33
13	Cell Interaction Phenomena in Polymer Electrolyte Fuel Cell Stacks. <i>Journal of the Electrochemical Society</i> , 2008, 155, B704.	2.9	32
14	Two-phase computational modelling of a membraneless microfluidic fuel cell with a flow-through porous anode. <i>Journal of Power Sources</i> , 2019, 420, 88-98.	7.8	32
15	Decision-making of compressed natural gas station siting for public transportation: Integration of multi-objective optimization, fuzzy evaluating, and radar charting. <i>Energy</i> , 2017, 140, 11-17.	8.8	25
16	PEM fuel cell CL characterization using a standalone FIB and SEM: Experiments and simulation. <i>Electrochimica Acta</i> , 2012, 85, 322-331.	5.2	24
17	Solid Mechanics Simulation of Reconstructed Gas Diffusion Layers for PEMFCs. <i>Journal of the Electrochemical Society</i> , 2019, 166, F377-F385.	2.9	24
18	Synchrotron X-ray Radiography and Tomography of Vanadium Redox Flow Batteries' Cell Design, Electrolyte Flow Geometry, and Gas Bubble Formation. <i>ChemSusChem</i> , 2020, 13, 3154-3165.	6.8	24

#	ARTICLE	IF	CITATIONS
19	Pore-scale modeling of oxygen transport in the catalyst layer of air-breathing cathode in membraneless microfluidic fuel cells. <i>Applied Energy</i> , 2020, 277, 115536.	10.1	23
20	Modeling and multi-objective optimization of integrated MED+TVC desalination system and gas power plant for waste heat harvesting. <i>Computers and Chemical Engineering</i> , 2021, 149, 107294.	3.8	23
21	Numerical and Experimental Analyses on Deviated Concentration Loss with Alkaline Anion-Exchange Membrane Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24276-24281.	3.1	22
22	Theoretical design strategies of bipolar membrane fuel cell with enhanced self-humidification behavior. <i>Journal of Power Sources</i> , 2016, 307, 358-367.	7.8	22
23	Stochastically Modeled Gas Diffusion Layers: Effects of Binder and Polytetrafluoroethylene on Effective Gas Diffusivity. <i>Journal of the Electrochemical Society</i> , 2021, 168, 014514.	2.9	19
24	Effect of Dispersion Method and Catalyst on the Crack Morphology and Performance of Catalyst Layer of PEMFC. <i>Journal of the Electrochemical Society</i> , 2021, 168, 114506.	2.9	18
25	Multiscale modeling of an angled gas diffusion layer for polymer electrolyte membrane fuel cells: Performance enhancing for aviation applications. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 20702-20714.	7.1	17
26	Evaluating the interfacial reaction kinetics of the bipolar membrane interface in the bipolar membrane fuel cell. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11217.	2.8	15
27	Flow sharing and turbulence phenomena in proton exchange membrane fuel cell stack headers. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30306-30318.	7.1	15
28	Mesoscopic modeling and characterization of the porous electrodes for vanadium redox flow batteries. <i>Journal of Energy Storage</i> , 2020, 32, 101782.	8.1	15
29	Combined macroscopic and pore scale modeling of direct contact membrane distillation with micro-porous hydrophobic membranes. <i>Desalination</i> , 2021, 514, 115171.	8.2	15
30	A numerical investigation on the effects of water inlet location and channel surface properties on water transport in PEMFC cathode channels. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 16220-16229.	7.1	14
31	Predicting the interaction between nanoparticles in shear flow using lattice Boltzmann method and Derjaguin+Landau+Verwey+Overbeek (DLVO) theory. <i>Physics of Fluids</i> , 2020, 32, .	4.0	13
32	Pore-Scale Characterization and Simulation of Porous Electrode Material for Vanadium Redox Flow Battery: Effects of Compression on Transport Properties. <i>Journal of the Electrochemical Society</i> , 2020, 167, 110545.	2.9	13
33	Pore-scale modeling of mass transport in the air-breathing cathode of membraneless microfluidic fuel cells. <i>International Journal of Heat and Mass Transfer</i> , 2022, 188, 122590.	4.8	13
34	Transition of heavy-duty trucks from diesel to hydrogen fuel cells: Opportunities, challenges, and recommendations. <i>International Journal of Energy Research</i> , 2022, 46, 11718-11729.	4.5	13
35	A numerical study on preconditioning and partitioning schemes for reactive transport in a PEMFC catalyst layer. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 905-916.	6.6	12
36	Using an ILU/Deflation Preconditioner for Simulation of a PEM Fuel Cell Cathode Catalyst Layer. <i>Communications in Computational Physics</i> , 2013, 14, 537-573.	1.7	11

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37	Experimental validation of pore-scale models for gas diffusion layers. <i>Journal of Power Sources</i> , 2022, 536, 231515.	7.8	10
38	Modeling of heat and mass transfer in direct contact membrane distillation: effect of counter diffusion velocity. , 0, 216, 71-82.		9
39	Performance Evaluation of a Hydrogen-Based Clean Energy Hub with Electrolyzers as a Self-Regulating Demand Response Management Mechanism. <i>Energies</i> , 2017, 10, 1211.	3.1	8
40	Multiphase and Pore Scale Modeling on Catalyst Layer of High-Temperature Polymer Electrolyte Membrane Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2021, 168, 054521.	2.9	8
41	Electrodialysis of Lithium Sulphate Solution: Model Development and Validation. <i>Journal of the Electrochemical Society</i> , 2022, 169, 053508.	2.9	8
42	Integration of Direct-Contact Membrane Distillation with Flat-Plate Solar Collector versus Proton-Exchange Membrane Fuel Cell: Dynamic Simulations and Comparative Analysis. <i>Journal of Energy Engineering - ASCE</i> , 2022, 148, .	1.9	7
43	Microstructure reconstruction using fiber tracking technique and pore-scale simulations of heterogeneous gas diffusion layer. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 20218-20231.	7.1	7
44	A multiscale study on the effect of compression on lithium-ion battery separators. <i>Journal of Energy Storage</i> , 2022, 54, 105255.	8.1	7
45	Numerical Investigation of Flowfield in PEM Fuel Cell Stack Headers. <i>Energy Procedia</i> , 2012, 29, 102-111.	1.8	6
46	Numerical and Experimental Investigations of Bipolar Membrane Fuel Cells: 3D Model Development and Effect of Gas Channel Width. <i>Journal of the Electrochemical Society</i> , 2018, 165, F994-F1001.	2.9	5
47	Numerical Investigations on the Ultrasonic Atomization of Catalyst Inks for Proton Exchange Membrane Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2021, 168, 034502.	2.9	5
48	High-density and low-density gas diffusion layers for proton exchange membrane fuel cells: Comparison of mechanical and transport properties. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 22532-22544.	7.1	5
49	Electrodialysis of a Lithium Sulphate Solution: An Experimental Investigation. <i>Journal of the Electrochemical Society</i> , 2022, 169, 063515.	2.9	4
50	Addition of hydrogen refueling for fuel cell bus fleet to existing natural gas stations: A case study in Wuhan, China. <i>International Journal of Energy Research</i> , 2019, 43, 7557.	4.5	2
51	Online survey data of public subjective well-being on high occupancy vehicle lane in China. <i>Data in Brief</i> , 2017, 15, 862-867.	1.0	1