Liangfei Xu

List of Publications by Year
in descending order

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138	4,476	101384	114278
papers	citations	36 h-index	63 g-index

143	143	143	2618
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-objective optimization of a semi-active battery/supercapacitor energy storage system for electric vehicles. Applied Energy, 2014, 135, 212-224.	5.1	275
2	Approximate Pontryaginâ€™s minimum principle applied to the energy management of plug-in hybrid electric vehicles. Applied Energy, 2014, 115, 174-189.	5.1	241
3	Multi-objective energy management optimization and parameter sizing for proton exchange membrane hybrid fuel cell vehicles. Energy Conversion and Management, 2016, 129, 108-121.	4.4	214
4	Optimization for a fuel cell/battery/capacity tram with equivalent consumption minimization strategy. Energy Conversion and Management, 2017, 134, 59-69.	4.4	195
5	Multi-objective component sizing based on optimal energy management strategy of fuel cell electric vehicles. Applied Energy, 2015, 157, 664-674.	5.1	159
6	Cell state-of-charge inconsistency estimation for LiFePO4 battery pack in hybrid electric vehicles using mean-difference model. Applied Energy, 2013, 111, 571-580.	5.1	158
7	Application of Pontryagin's Minimal Principle to the energy management strategy of plugin fuel cell electric vehicles. International Journal of Hydrogen Energy, 2013, 38, 10104-10115.	3.8	150
8	Adaptive supervisory control strategy of a fuel cell/battery-powered city bus. Journal of Power Sources, 2009, 194, 360-368.	4.0	119
9	Energy management and component sizing for a fuel cell/battery/supercapacitor hybrid powertrain based on two-dimensional optimization algorithms. Energy, 2019, 177, 386-396.	4.5	116
10	Optimal vehicle control strategy of a fuel cell/battery hybrid city bus. International Journal of Hydrogen Energy, 2009, 34, 7323-7333.	3.8	114
11	Optimal sizing of plug-in fuel cell electric vehicles using models of vehicle performance and system cost. Applied Energy, 2013, 103, 477-487.	5.1	111
12	Power management strategy for vehicular-applied hybrid fuel cell/battery power system. Journal of Power Sources, 2009, 191, 542-549.	4.0	106
13	On-line equalization for lithium-ion battery packs based on charging cell voltages: Part 1. Equalization based on remaining charging capacity estimation. Journal of Power Sources, 2014, 247, 676-686.	4.0	104
14	A reconstructed fuel cell life-prediction model for a fuel cell hybrid city bus. Energy Conversion and Management, 2018, 156, 723-732.	4.4	102
15	Multi-mode control strategy for fuel cell electric vehicles regarding fuel economy and durability. International Journal of Hydrogen Energy, 2014, 39, 2374-2389.	3.8	95
16	Model-based temperature regulation of a PEM fuel cell system on a city bus. International Journal of Hydrogen Energy, 2015, 40, 13566-13575.	3.8	83
17	Real time optimal energy management strategy targeting at minimizing daily operation cost for a plug-in fuel cell city bus. International Journal of Hydrogen Energy, 2012, 37, 15380-15392.	3.8	82
18	A novel diagnostic methodology for fuel cell stack health: Performance, consistency and uniformity. Energy Conversion and Management, 2019, 185, 611-621.	4.4	75

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19	Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. IEEE Transactions on Transportation Electrification, 2019, 5, 1294-1305.	5.3	65
20	Fuel cell system degradation analysis of a Chinese plug-in hybrid fuel cell city bus. International Journal of Hydrogen Energy, 2016, 41, 15295-15310.	3.8	64
21	Performance comparison of two fuel cell hybrid buses with different powertrain and energy management strategies. Journal of Power Sources, 2006, 163, 467-479.	4.0	60
22	Proton exchange membrane fuel cell system diagnosis based on the multivariate statistical method. International Journal of Hydrogen Energy, 2011, 36, 9896-9905.	3.8	56
23	Analytical calculation and evaluation of water transport through a proton exchange membrane fuel cell based on a one-dimensional model. Energy, 2016, 111, 869-883.	4.5	55
24	On-line equalization for lithium-ion battery packs based on charging cell voltages: Part 2. Fuzzy logic equalization. Journal of Power Sources, 2014, 247, 460-466.	4.0	53
25	Comprehensive analysis of galvanostatic charge method for fuel cell degradation diagnosis. Applied Energy, 2018, 212, 1321-1332.	5.1	52
26	Power distribution strategy of a dual-engine system for heavy-duty hybrid electric vehicles using dynamic programming. Energy, 2021, 215, 118851.	4.5	52
27	Modeling and simulation of parallel DC/DC converters for online AC impedance estimation of PEM fuel cell stack. International Journal of Hydrogen Energy, 2016, 41, 3004-3014.	3.8	50
28	Nonlinear dynamic mechanism modeling of a polymer electrolyte membrane fuel cell with dead-ended anode considering mass transport and actuator properties. Applied Energy, 2018, 230, 106-121.	5.1	48
29	Comparison of self-humidification effect on polymer electrolyte membrane fuel cell with anodic and cathodic exhaust gas recirculation. International Journal of Hydrogen Energy, 2020, 45, 3108-3122.	3.8	48
30	Study on voltage clamping and self-humidification effects of pem fuel cell system with dual recirculation based on orthogonal test method. International Journal of Hydrogen Energy, 2018, 43, 16268-16278.	3.8	47
31	Design of durability test protocol for vehicular fuel cell systems operated in power-follow mode based on statistical results of on-road data. Journal of Power Sources, 2018, 377, 59-69.	4.0	44
32	Performance prediction of proton exchange membrane fuel cell engine thermal management system using 1D and 3D integrating numerical simulation. International Journal of Hydrogen Energy, 2018, 43, 1736-1748.	3.8	41
33	Online management of lithium-ion battery based on time-triggered controller area network for fuel-cell hybrid vehicle applications. Journal of Power Sources, 2010, 195, 3338-3343.	4.0	40
34	Active fault tolerance control system of fuel cell hybrid city bus. International Journal of Hydrogen Energy, 2010, 35, 12510-12520.	3.8	38
35	Energy flow modeling and real-time control design basing on mean values for maximizing driving mileage of a fuel cell bus. International Journal of Hydrogen Energy, 2015, 40, 15052-15066.	3.8	37
36	Energy management of plug-in hybrid electric vehicles with unknown trip length. Journal of the Franklin Institute, 2015, 352, 500-518.	1.9	37

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37	Faults diagnosis for PEM fuel cell system based on multi-sensor signals and principle component analysis method. International Journal of Hydrogen Energy, 2017, 42, 18524-18531.	3.8	37
38	A new approach to online AC impedance measurement at high frequency of PEM fuel cell stack. International Journal of Hydrogen Energy, 2017, 42, 19156-19169.	3.8	35
39	Performance analysis of proton-exchange membrane fuel cell stacks used in Beijing urban-route buses trial project. International Journal of Hydrogen Energy, 2010, 35, 3841-3847.	3.8	34
40	A review of the applications of fuel cells in microgrids: opportunities and challenges. BMC Energy, 2019, 1, .	6.3	34
41	Experimental study on dual recirculation of polymer electrolyte membrane fuel cell. International Journal of Hydrogen Energy, 2017, 42, 18551-18559.	3.8	33
42	A cell interaction phenomenon in a multi-cell stack under one cell suffering fuel starvation. Energy Conversion and Management, 2018, 174, 465-474.	4.4	32
43	Hysteresis of output voltage and liquid water transport in gas diffusion layer of polymer electrolyte fuel cells. Energy Conversion and Management, 2019, 185, 169-182.	4.4	32
44	Adaptive estimation of road slope and vehicle mass of fuel cell vehicle. ETransportation, 2019, 2, 100023.	6.8	31
45	Modeling of Fuel Cell Cold Start and Dimension Reduction Simplification Method. Journal of the Electrochemical Society, 2020, 167, 044501.	1.3	31
46	Model-based estimation of liquid saturation in cathode gas diffusion layer and current density difference under proton exchange membrane fuel cell flooding. International Journal of Hydrogen Energy, 2015, 40, 14187-14201.	3.8	29
47	Parameter extraction and uncertainty analysis of a proton exchange membrane fuel cell system based on Monte Carlo simulation. International Journal of Hydrogen Energy, 2017, 42, 2309-2326.	3.8	29
48	A multipoint voltage-monitoring method for fuel cell inconsistency analysis. Energy Conversion and Management, 2018, 177, 572-581.	4.4	29
49	Comparison study on life-cycle costs of different trams powered by fuel cell systems and others. International Journal of Hydrogen Energy, 2016, 41, 16577-16591.	3.8	28
50	Robust control of internal states in a polymer electrolyte membrane fuel cell air-feed system by considering actuator properties. International Journal of Hydrogen Energy, 2017, 42, 13171-13191.	3.8	27
51	Dynamic Programming Algorithm for minimizing operating cost of a PEM fuel cell vehicle. , 2012, , .		26
52	Model-based fuel pressure regulation algorithm for a hydrogen-injected PEM fuel cell engine. International Journal of Hydrogen Energy, 2015, 40, 14942-14951.	3.8	24
53	Development of a PEM Fuel Cell City Bus with a Hierarchical Control System. Energies, 2016, 9, 417.	1.6	24
54	Sliding-mode-based temperature regulation of a proton exchange membrane fuel cell test bench. International Journal of Hydrogen Energy, 2017, 42, 11745-11757.	3.8	24

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55	Carbon corrosion induced fuel cell accelerated degradation warning: From mechanism to diagnosis. Electrochimica Acta, 2021, 389, 138627.	2.6	24
56	A comparative study of equivalent circuit model and distribution of relaxation times for fuel cell impedance diagnosis. International Journal of Energy Research, 2021, 45, 15948-15961.	2.2	22
57	All-condition economy evaluation method for fuel cell systems: System efficiency contour map. ETransportation, 2021, 9, 100127.	6.8	22
58	Parameter extraction of polymer electrolyte membrane fuel cell based on quasi-dynamic model and periphery signals. Energy, 2017, 122, 675-690.	4.5	21
59	Nonlinear observation of internal states of fuel cell cathode utilizing a high-order sliding-mode algorithm. Journal of Power Sources, 2017, 356, 56-71.	4.0	21
60	Modeling and analysis of internal water transfer behavior of PEM fuel cell of large surface area. International Journal of Hydrogen Energy, 2017, 42, 18540-18550.	3.8	21
61	Bluetooth wireless monitoring, diagnosis and calibration interface for control system of fuel cell bus in Olympic demonstration. Journal of Power Sources, 2009, 186, 478-484.	4.0	20
62	Methodology of designing durability test protocol for vehicular fuel cell system operated in soft run mode based on statistic results of on-road data. International Journal of Hydrogen Energy, 2017, 42, 29840-29851.	3.8	19
63	Mechanistic insight into the accelerated decay of fuel cells from catalyst-layer structural failure. Energy Conversion and Management, 2021, 227, 113568.	4.4	19
64	Optimal warm-up control strategy of the PEMFC system on a city bus aimed at improving efficiency. International Journal of Hydrogen Energy, 2017, 42, 11632-11643.	3.8	17
65	Comparison of daily operation strategies for a fuel cell/battery tram. International Journal of Hydrogen Energy, 2017, 42, 18532-18539.	3.8	16
66	Interactions between a polymer electrolyte membrane fuel cell and boost converter utilizing a multiscale model. Journal of Power Sources, 2018, 395, 237-250.	4.0	16
67	Dynamic modeling of Pt degradation and mitigation strategies in polymer electrolyte membrane fuel cells. ETransportation, 2022, 12, 100171.	6.8	16
68	Proton exchange membrane fuel cell system diagnosis based on the signed directed graph method. Journal of Power Sources, 2011, 196, 5881-5888.	4.0	15
69	Real-Time Estimation of Vehicle Mass and Road Grade Based on Multi-Sensor Data Fusion. , 2013, , .		15
70	Wheel Slip Control Using Sliding-Mode Technique and Maximum Transmissible Torque Estimation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	15
71	Modeling of membrane electrode assembly of PEM fuel cell to analyze voltage losses inside. Energy, 2017, 139, 277-288.	4.5	14
72	A prognostic-based dynamic optimization strategy for a degraded solid oxide fuel cell. Sustainable Energy Technologies and Assessments, 2020, 39, 100682.	1.7	14

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73	Dynamic modeling of chemical membrane degradation in polymer electrolyte fuel cells: Effect of pinhole formation. Journal of Power Sources, 2021, 487, 229367.	4.0	14
74	Research on a battery test profile based on road test data from hybrid fuel cell buses. Journal of Power Sources, 2012, 209, 30-39.	4.0	13
75	Polymer electrolyte membrane fuel cell transient voltage characteristic considering liquid water imbibition and drainage in gas diffusion layer. Journal of Power Sources, 2021, 493, 229683.	4.0	13
76	On-Board Liquid Hydrogen Cold Energy Utilization System for a Heavy-Duty Fuel Cell Hybrid Truck. World Electric Vehicle Journal, 2021, 12, 136.	1.6	13
77	Control-oriented modeling of gas purging process on the cathode of polymer electrolyte membrane fuel cell during shutting down. International Journal of Hydrogen Energy, 2017, 42, 18584-18594.	3.8	12
78	Modeling and experimental study of PEM fuel cell transient response for automotive applications. Tsinghua Science and Technology, 2009, 14, 639-645.	4.1	11
79	Anode state observation of polymer electrolyte membrane fuel cell based on unscented Kalman filter and relative humidity sensor before flooding. Renewable Energy, 2021, 168, 1294-1307.	4.3	11
80	The uniformity and consistency analysis of a fuel cell stack with multipoint voltage-monitoring method. Energy Procedia, 2019, 158, 2118-2125.	1.8	10
81	Power management and economic estimation of fuel cell hybrid vehicle using fuzzy logic. , 2009, , .		9
82	A semiempirical dynamic model of reversible open circuit voltage drop in a PEM fuel cell. International Journal of Energy Research, 2019, 43, 2550-2561.	2.2	9
83	A reducedâ€dimension dynamic model of a protonâ€exchange membrane fuel cell. International Journal of Energy Research, 2021, 45, 18002-18017.	2.2	9
84	Pseudo-Steady State of High-frequency Resistance for Polymer Electrolyte Membrane Fuel Cell: Effect of In-Plane Heterogeneity. Journal of the Electrochemical Society, 2021, 168, 084509.	1.3	7
85	Optimal sizing of fuel cell electric vehicle powertrain considering multiple objectives. , 2020, , .		7
86	Self-Humidification of a Polymer Electrolyte Membrane Fuel Cell System With Cathodic Exhaust Gas Recirculation. Journal of Electrochemical Energy Conversion and Storage, 2018, 15, .	1.1	6
87	Constructing representative driving cycle for heavy duty vehicle based on Markov chain method considering road slope. Energy and AI, 2021, 6, 100115.	5.8	6
88	Closed Loop Control Algorithm of Fuel Cell Output Power for a City Bus. SAE International Journal of Alternative Powertrains, 2013, 2, 74-81.	0.8	5
89	Modeling and Simulation of a Hybrid Fuel Cell System and Energy Management Strategy. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2009, 45, 141.	0.7	5
90	Technical assessment and feasibility validation of liquid hydrogen storage and supply system for heavy-duty fuel cell truck. , 2020, , .		5

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91	Control algorithm of fuel cell/battery hybrid vehicular power system. , 2008, , .		4
92	Characteristic Analysis of Fuel Cell Decay Based on Actual Vehicle Operating Conditions. , 2021, , .		4
93	Parameter Identification and Control Strategy Optimization of Hybrid Fuel Cell Powertrain. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2009, 45, 56.	0.7	4
94	A comprehensive overpotential analysis of highâ€power density fuel cell: channel/rid width design. International Journal of Energy Research, 2022, 46, 10998-11010.	2.2	4
95	A Time-triggered CAN Network and Test Platform for Fuel Cell Bus. , 2008, , .		3
96	Design and validation of an embedded signal analyzer for AC impedance identification of PEM fuel cell. , 2016, , .		3
97	Modeling and Experiment Validation of the DC/DC Converter for Online AC Impedance Identification of the Lithium-Ion Battery. SAE International Journal of Alternative Powertrains, 0, 6, 233-245.	0.8	3
98	Numerical modeling and performance prediction of water transport for PEM fuel cell. Energy Procedia, 2019, 158, 2256-2265.	1.8	3
99	A Distributed Real-Time Control System for PEM Fuel Cell Engine. , 2009, , .		2
100	Influence of powertrain parameters on vehicle performance of a fuel cell / battery city bus. World Electric Vehicle Journal, 2010, 4, 143-150.	1.6	2
101	Integration of PEM fuel cell/battery powertrain: EMI noises and power split strategy. , 2011, , .		2
102	Traction Control System for EV Based on Modified Maximum Transmissible Torque Estimation. , 2013, , .		2
103	The Cruising Range Analysis of Heavy-duty Fuel Cell Vehicles with Liquid Hydrogen Storage and Supply Systems Based on Dynamic Programming. , 2021, , .		2
104	Design, integration and performance analysis of an 80kW automotive fuel cell system. , 2020, , .		2
105	Experimental Study and Performance Analysis on High Power Fuel Cell System. , 2020, , .		2
106	Modeling and control of air system for PEMFC system. , 2009, , .		1
107	MEMS and J2ME based acceleration real-time measurement and monitoring system for fuel cell city bus. , 2009, , .		1
108	Hierarchical control of vehicular fuel cell / battery hybrid powertrain. World Electric Vehicle Journal, 2010, 4, 133-142.	1.6	1

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109	Economic operating characteristics of permanent magnet synchronous motor in electric vehicle. , 2012, , .		1
110	An assessment of PHEV energy management strategies using driving range data collected in Beijing. , 2013, , .		1
111	Optimized Torque Distribution Strategy for In-Wheel-Drive Electric Vehicles to Reduce Tire Wear. , 2015, , .		1
112	An Economy Evaluation Method for Fuel Cell Hybrid Powertrain System. , 2019, , .		1
113	Energy Management of a Dual-Engine System for Hybrid Heavy-Duty Vehicles. , 2019, , .		1
114	Hardware-in-the-loop Simulation of Electronic Differential Moment Power Steering Control Strategy for Multi-axle Vehicle. , 2019, , .		1
115	Simulation analysis of fuel economy of a fuel cell/battery passive hybrid power system for commercial vehicles. , 2021, , .		1
116	Analysis of fuel cell impedance characteristics at high current density based on distribution of relaxation times. , 2020, , .		1
117	Feedforward and Feedback Integrated Control for Handling Characteristics Adjustment of Multi-axle Heavy-duty Vehicles Using Independent-drive Electric Wheels. , 2021, , .		1
118	Design and Performance Analysis of Multi-axle Independent-drive Heavy-duty Fuel Cell Vehicles. , 2021, , .		1
119	Systematic Fuel Reduction Strategies of Series Hybrid Transit Bus. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	0
120	Application and study of novel electronic technologies on vehicle control system of fuel cell bus. , 2008, , .		0
121	Influence of Bus Voltage on Motor Torque and Efficiency in Fuel Cell Hybrid Powertrain. Journal of Highway and Transportation Research and Development (English Edition), 2009, 4, 112-116.	0.2	0
122	A New Generation of Fuel Cell Hybrid Powertrain for Public Traffic. , 2010, , .		0
123	A distributed control system for an automatic mechanical transmission of a fuel cell city bus. , 2012, , .		0
124	Research on the control of the generating system in the walking machines. , 2014, , .		0
125	Design of a multi-channel gas sampling system for fuel cell with dead-ended anode configuration. , 2016, , .		0
126	A Study on Optimal Speed Trajectory during Engine Start for Minimum Torsional Vibration*. , 2019, , .		0

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127	Modelling a polymer electrolyte membrane fuel cell system with anodic and cathodic exhaust gas recirculation. , 2019, , .		0
128	Study on Sensitivity of Internal States to Operating Conditions within PEM Fuel Cell. , 2019, , .		0
129	Adoptive Control of Injector for Polymer Electrolyte Membrane Fuel Cell Hydrogen Feeding System. , 2021, , .		0
130	Performance Analysis of Automotive Fuel Cell during Activation Period. , 2021, , .		0
131	Modeling and control of air system for fuel cell system. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2008, 44, 112.	0.7	0
132	Decoupling Control Strategy for Cathode System of Proton Exchange Membrane Fuel Cell Engine. , 2020, , .		0
133	A comparative study on capillary pressure correlations of water transport in PEMFC gas diffusion layer. , 2020, , .		0
134	Optimization of channel dimensions and gas diffusion layer thickness based on mass transfer characteristics of proton exchange membrane fuel cell. , 2020, , .		0
135	Modeling of Pt Degradation in Polymer Electrolyte Fuel Cells: Effect of Electrode Potential Cycles. , 2021, , .		0
136	A Design of Air System Control Algorithm for Full Power Fuel Cell Vehicles. , 2021, , .		0
137	Optimization of gas feeding operations for polymer electrolyte membrane fuel cell with the co-flow feeding gas mode. , 2020, , .		0
138	Experimental study on metallic bipolar plates fuel cell system with high power density. , 2020, , .		0