Yutaka Tabe

List of Publications by Year
in descending order

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		361413	434195
95	1,016	20	31
papers	citations	h-index	g-index

96	96	96	859
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of effective measures for power fluctuation mitigation of geographically distributed wind and solar power. Mechanical Engineering Journal, 2022, , .	0.4	1
2	Study on water transport in hydrophilic gas diffusion layers for improving the flooding performance of polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2021, 46, 7464-7474.	7.1	5
3	Ice Formation from a Supercooled State and Water Transport through Ionomers during PEFC Cold Startup. Journal of the Electrochemical Society, 2021, 168, 064502.	2.9	3
4	Experimental Evaluation of PEFC Catalyst Layer Structure to Reduce Oxygen Transport Resistances. ECS Transactions, 2021, 104, 175-183.	0.5	2
5	Effects of Condensed Water on Oxygen Transport Resistance Components Separated By the Limiting Current Analysis in PEFC. ECS Transactions, 2021, 104, 83-92.	0.5	0
6	Experimental Evaluation of PEFC Catalyst Layer Structure to Reduce Oxygen Transport Resistances. ECS Meeting Abstracts, 2021, MA2021-02, 1057-1057.	0.0	0
7	Effects of Condensed Water on Oxygen Transport Resistance Components Separated By the Limiting Current Analysis in PEFC. ECS Meeting Abstracts, 2021, MA2021-02, 1028-1028.	0.0	0
8	Analysis of conditions for the power transmission and distribution company to select high shares of variable renewable energy and minimize the total social cost of power supply. The Proceedings of the International Conference on Power Engineering (ICOPE), 2021, 2021.15, 2021-0169.	0.0	0
9	Performance evaluation of redox flow batteries using major parameters summarizing effects of structure and operation conditions. Transactions of the JSME (in Japanese), 2020, 86, 20-00108-20-00108.	0.2	0
10	Analysis of Water Transport in Anisotropic Gas Diffusion Layers for Improved Flooding Performance of PEFC. Journal of the Electrochemical Society, 2019, 166, F627-F636.	2.9	9
11	Control of the Balance between Vapor and Heat Transfer for the Reduction of Oxygen Transport Resistance in High Current Density PEFC Operation. ECS Transactions, 2019, 92, 213-221.	0.5	2
12	Water Transport in Gas Diffusion Layer of PEFC with Wettability Distribution in Thickness Direction. ECS Transactions, 2019, 92, 205-212.	0.5	4
13	Spurious velocity from the cutoff and magnification equation in free energy-based LBM for two-phase flow with a large density ratio. Computers and Mathematics With Applications, 2019, 78, 1166-1181.	2.7	10
14	Water Transport in Gas Diffusion Layer of PEFC with Wettability Distribution in Thickness Direction. ECS Meeting Abstracts, 2019, , .	0.0	0
15	Control of the Balance between Vapor and Heat Transfer for the Reduction of Oxygen Transport Resistance in High Current Density PEFC Operation. ECS Meeting Abstracts, 2019, , .	0.0	0
16	Effect of Electrode Structure and Electrolyte Flow on Performance of Redox Flow Battery. ECS Meeting Abstracts, 2019, , .	0.0	0
17	Development of Graphene-Based PEFC Catalyst Layer for Reduction of Oxygen Transport Resistance. ECS Meeting Abstracts, 2019, , .	0.0	0
18	Water Transport in PEFC Cold Startup with Temperature Rise Simulating Adiabatic Condition. ECS Meeting Abstracts, 2019, , .	0.0	0

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19	Study on PEFC Gas Diffusion Layer with Designed Wettability Pattern Tolerant to Flooding. ECS Transactions, 2018, 86, 111-118.	0.5	3
20	Experimental Analysis of Oxygen Transport Resistance for Different Types of Ionomer in PEFC Catalyst. ECS Transactions, 2018, 86, 141-150.	0.5	6
21	Experimental Study on the Balance between Microscopic Water Production and Temperature Rise during Cold Startup in PEFC. ECS Transactions, 2018, 86, 89-96.	0.5	5
22	Analysis of Oxygen Transport Resistances in the Catalyst Layers with Different Carbon Supports in PEFC. ECS Transactions, 2018, 86, 171-178.	0.5	2
23	Analysis of Water Transport inside Hydrophilic Carbon Fiber Micro-Porous Layers with High-Performance Operation in PEFC. Journal of the Electrochemical Society, 2018, 165, F484-F491.	2.9	20
24	Scale model experiments for evaluation of liquid water transport in the gas diffusion layer of PEFCs. Journal of Thermal Science and Technology, 2018, 13, JTST0025-JTST0025.	1.1	4
25	Study on PEFC Gas Diffusion Layer with Designed Wettability Pattern Tolerant to Flooding. ECS Meeting Abstracts, 2018, , .	0.0	0
26	Experimental Study on the Balance between Microscopic Water Production and Temperature Rise During Cold Startup in PEFC. ECS Meeting Abstracts, 2018, , .	0.0	0
27	Analysis of Oxygen Transport Resistances in the Catalyst Layers with Different Carbon Supports in PEFC. ECS Meeting Abstracts, 2018, , .	0.0	0
28	Optimum option of selecting Energy Supply Infrastructures for Power Generation in Zambia. The Proceedings of Conference of Hokkaido Branch, 2018, 2018.56, 432.	0.0	0
29	Experimental Analysis of Oxygen Transport Resistance for Different Types of Ionomer in PEFC Catalyst. ECS Meeting Abstracts, 2018, , .	0.0	0
30	Study on wettability effect in water transport in gas diffusion layer of PEFC by scale model experiment and LBM simulation. The Proceedings of Conference of Hokkaido Branch, 2018, 2018.56, 114.	0.0	0
31	Large Scale LBM Simulation of Condensed Water Transport in Gas Diffusion Layer and Separator of Polymer Electrolyte Fuel Cell. The Proceedings of Mechanical Engineering Congress Japan, 2018, 2018, J0310102.	0.0	0
32	Study on wettability effect in water transport in gas diffusion layer of PEFC by scale model experiment and LBM simulation. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2018, 2018.9, 31am3PN85.	0.0	0
33	Effect of cost reduction in power sources on large-scale penetration of wind and solar power in Hokkaido. , 2017, , .		0
34	Study on Gas Diffusion Layer Structure Tolerant to Flooding in PEFC by Scale Model Experiment and LBM Simulation. ECS Transactions, 2017, 80, 123-131.	0.5	5
35	Experimental Evaluation of Dominant Transport Resistances of Oxygen in Catalyst Layers of PEFC. ECS Transactions, 2017, 80, 205-214.	0.5	6
36	Analysis of Oxygen Transport Resistance Components and Water Transport Phenomena with Hydrophilic and Hydrophobic MPL in PEFC. ECS Transactions, 2017, 80, 335-344.	0.5	4

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37	Large scale simulation of liquid water transport in a gas diffusion layer of polymer electrolyte membrane fuel cells using the lattice Boltzmann method. Journal of Power Sources, 2017, 361, 133-143.	7.8	40
38	Analysis on conditions for directing customer selection of networked CHP system toward optimum for social cost and CO₂ reduction. Transactions of the JSME (in Japanese), 2017, 83, 16-00430-16-00430.	0.2	0
39	Effects of active species transport on current density distribution and performance in redox flow battery. Transactions of the JSME (in Japanese), 2017, 83, 16-00458-16-00458.	0.2	1
40	Experimental Evaluation of Dominant Transport Resistances of Oxygen in Catalyst Layers of PEFC. ECS Meeting Abstracts, 2017, , .	0.0	0
41	Graphene reinforced Nafion^{Â®} based proton exchange membrane for polymer electrolyte membrane fuel cells. The Proceedings of Mechanical Engineering Congress Japan, 2017, 2017, J0620205.	0.0	0
42	Analysis of Oxygen Transport Resistance Components and Water Transport Phenomena with Hydrophilic and Hydrophobic MPL in PEFC. ECS Meeting Abstracts, 2017, , .	0.0	0
43	Study on Gas Diffusion Layer Structure Tolerant to Flooding in PEFC by Scale Model Experiment and LBM Simulation. ECS Meeting Abstracts, 2017, , .	0.0	0
44	Cost and CO₂ reduction effect of distributed CHPs cooperatively networked by grids. Transactions of the JSME (in Japanese), 2016, 82, 15-00442-15-00442.	0.2	1
45	Ice Formation Processes in PEM Fuel Cell Catalyst Layers during Cold Startup Analyzed by Cryo-SEM. Journal of the Electrochemical Society, 2016, 163, F1139-F1145.	2.9	36
46	Improving gas diffusivity with bi-porous flow-field in polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2016, 41, 13180-13189.	7.1	27
47	Water Transport and PEFC Performance with Different Interface Structure between Micro-Porous Layer and Catalyst Layer. Journal of the Electrochemical Society, 2016, 163, F359-F366.	2.9	33
48	Monolayer Graphene for proton exchange membrane and catalyst layer in PEM fuel cells. The Proceedings of Conference of Hokkaido Branch, 2016, 2016.54, 107-108.	0.0	0
49	Removal of Shape Deformation in the Free Energy Based Lattice Boltzmann Method for Large Density Ratio. , 2015, , .		0
50	Reduction of spurious velocity in the free-energy-based lattice Boltzmann method for large density ratio. Journal of Thermal Science and Technology, 2015, 10, JTST0004-JTST0004.	1.1	4
51	Analysis of Cathode Catalyst Layer Structure and Oxygen Transport Resistance Depending on Fabrication Condition in PEFC. ECS Transactions, 2015, 69, 773-781.	0.5	0
52	Impact of micro-porous layer on liquid water distribution at the catalyst layer interface and cell performance in a polymer electrolyte membrane fuel cell. Journal of Power Sources, 2015, 287, 422-430.	7.8	41
53	Pore-scale water transport investigation for polymer electrolyte membrane (PEM) fuel cells. Sustainable Energy Developments, 2015, , 1-35.	0.3	0
54	Observation of water transport in the micro-porous layer of a polymer electrolyte fuel cell with a freezing method and cryo-scanning electron microscope. Electrochemistry Communications, 2014, 41, 72-75.	4.7	24

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55	Optimizing geographical distribution of wind power plants in Hokkaido to minimize power reduction risk. Transactions of the JSME (in Japanese), 2014, 80, TEP0092-TEP0092.	0.2	1
56	Performance characteristics and internal phenomena of polymer electrolyte membrane fuel cell with porous flow field. Journal of Power Sources, 2013, 238, 21-28.	7.8	31
57	Numerical Simulation of Condensed Water Behavior in Gas Diffusion Layers of PEFC Using the Lattice Boltzmann Method. , 2013, , .		0
58	Effect of Interfacial Structure between Micro-Porous Layer and Catalyst Layer on Water Transport in PEFC. ECS Transactions, 2013, 58, 1383-1390.	0.5	1
59	J061043 Influence of material and structure of PEFC porous channel on thermal and water management. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J061043-1-_J061043-4.	0.0	0
60	The Appropriate Blend Proportional Factor Value of Two Staggered Grids Used in the Free Energy Based LBM With Large Density Ratio. , 2013, , .		1
61	Analysis of Performance Characteristics and Internal Phenomena of PEFC with Porous Flow Field. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2012, 78, 1151-1159.	0.2	2
62	Analysis of Ice Formation Process in Cathode Catalyst Layer of PEFC at Cold Start. Energy Procedia, 2012, 28, 20-27.	1.8	19
63	Gas Channel Optimisation for PEM Fuel Cell using the Lattice Boltzmann Method. Energy Procedia, 2012, 28, 125-133.	1.8	24
64	Two phase flow simulation in a channel of a polymer electrolyte membrane fuel cell using the lattice Boltzmann method. Journal of Power Sources, 2012, 199, 85-93.	7.8	34
65	Effect of GDL deformation on the pressure drop of polymer electrolyte fuel cell separator channel. Journal of Power Sources, 2012, 202, 100-107.	7.8	15
66	Cold start characteristics and freezing mechanism dependence on start-up temperature in a polymer electrolyte membrane fuel cell. Journal of Power Sources, 2012, 208, 366-373.	7.8	120
67	CI2-3 Numerical Simulation of the Effect of Enhanced Combustion Zone Mixing on NOx Reduction by Decreasing Residence-Time-Scales in High Temperature Zones in Diesel Engines(CI: Compression Ignition) Tj ETQq1 1 0.784314 rgBT /O Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2012, 2012.8, 212-217.	0.1	0
68	J056025 Analysis and Experiments of Major Parameters in Catalyst Layer Structure Affecting on PEFC Performance. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _J056025-1-_J056025-3.	0.0	0
69	Role of Micro-Porous Layer for Water Transfer Phenomena in PEFC. ECS Transactions, 2011, 41, 431-438.	0.5	11
70	Ice Formation and Current Distribution in the Catalyst Layer of PEM Fuel Cell at Cold Start. ECS Transactions, 2011, 41, 733-740.	0.5	10
71	Analysis of Dominant Effects of Structure and Properties in Cathode Catalyst Layer on PEFC Performance. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 301-312.	0.2	1
72	Effect of Temperature on Cold Start Characteristics of PEFC and the Freezing Mechanism. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 160-167.	0.2	0

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73	Performance and liquid water distribution in PEFCs with different anisotropic fiber directions of the GDL. Journal of Power Sources, 2011, 196, 2584-2594.	7.8	49
74	Effects of Cathode Catalyst Layer Structure and Properties Dominating Polymer Electrolyte Fuel Cell Performance. Journal of the Electrochemical Society, 2011, 158, B1246.	2.9	38
75	Decision of the Best Blend Proportional Factor Value of Two Staggered Grids Used in LBM for PEFC Simulation. , 2011, , .		1
76	Liquid Water and Gas Flow Simulation in a Channel of PEM Fuel Cells Using the Lattice Boltzmann Method. , 2010, , .		0
77	Analysis of Major Parameters in Catalyst Layer Structure Affecting on PEFC Performance. ECS Transactions, 2010, 33, 1199-1206.	0.5	0
78	Performance Characteristics and Liquid Water Transport in PEFC with Porous Separator. ECS Transactions, 2010, 33, 1347-1353.	0.5	0
79	Microscopic Observation of Freezing Phenomena in PEM Fuel Cell at Cold Start. ECS Transactions, 2009, 25, 773-779.	0.5	6
80	Numerical simulation of liquid water and gas flow in a channel and a simplified gas diffusion layer model of polymer electrolyte membrane fuel cells using the lattice Boltzmann method. Journal of Power Sources, 2009, 193, 24-31.	7.8	78
81	Basic evaluation of separator type specific phenomena of polymer electrolyte membrane fuel cell by the measurement of water condensation characteristics and current density distribution. Journal of Power Sources, 2009, 193, 416-424.	7.8	22
82	MS3-3: High-Speed Diesel Combustion Model for Transient Simulation of After-Treatment Systems(MS:) Tj ETQq0 0 0 rgBT /Overlock 10 Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2008, 2008.7, 695-702.	0.1	0
83	G211 Analysis of CO_2 Emission in Prospective Distributed Energy Systems with CGS and Heat Pump. The Proceedings of the Thermal Engineering Conference, 2007, 2007, 399-400.	0.0	0
84	Mapping Method to Evaluate CO2 Reduction and Economy of Cogeneration Systems. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2006, 72, 469-476.	0.2	0
85	Effect of cathode separator structure on performance characteristics of free-breathing PEMFCs. Journal of Power Sources, 2006, 162, 58-65.	7.8	41
86	B141 Analysis of CHP Effectiveness for Different Power Plant Efficiencies. The Proceedings of the Thermal Engineering Conference, 2006, 2006, 59-60.	0.0	0
87	Effect of Cathode Separator Structures on Performance Characteristics of Free-breathing PEMFCs. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2005, 71, 2808-2815.	0.2	0
88	Massive CO2 clathrate hydrate growth at a high-polar-energy surface. Journal of Crystal Growth, 2000, 220, 180-184.	1.5	21
89	MRI Measurement of Hydrate Growth and an Application to Advanced CO₂ Sequestration Technology. Annals of the New York Academy of Sciences, 2000, 912, 246-253.	3.8	53
90	Measurement of CO2 Hydrate Film Thickness Based on Mass Transport Mechanism.. Journal of Chemical Engineering of Japan, 2000, 33, 612-616.	0.6	2

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91	Mass transport phenomena of liquid CO2 with hydrate. Waste Management, 1998, 17, 353-360.	7.4	11
92	CO2 clathrate-hydrate formation and its mechanism by molecular dynamics simulation. Energy Conversion and Management, 1997, 38, S301-S306.	9.2	27
93	Numerical simulation for dissolution of liquid CO2 droplets covered with clathrate film in intermediate depth of ocean. Energy Conversion and Management, 1997, 38, S313-S318.	9.2	9
94	Dissolution rate of liquid CO2 in pressurized water flows and the effect of clathrate films. Energy, 1997, 22, 285-293.	8.8	45
95	Measurement of CO2 diffusion coefficient and application of LIF in pressurized water. Energy, 1997, 22, 363-367.	8.8	45