

Yuya Tachikawa

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

631
citations

623734

14
h-index

610901

24
g-index

57
all docs

57
docs citations

57
times ranked

623
citing authors

#	ARTICLE	IF	CITATIONS
1	Exchange current density of reversible solid oxide cell electrodes. International Journal of Hydrogen Energy, 2022, 47, 16626-16639.	7.1	9
2	Accelerated Durability Testing of Fuel Cell Stacks for Commercial Automotive Applications: A Case Study. Journal of the Electrochemical Society, 2022, 169, 044523.	2.9	22
3	Exchange Current Density of Solid Oxide Electrolysis Cell Electrodes. ECS Transactions, 2021, 103, 2007-2016.	0.5	1
4	Reversible Solid Oxide Cells: Durability of Fuel Electrodes Against Voltage Cycling. ECS Transactions, 2021, 103, 375-382.	0.5	2
5	DRT Analysis of Solid Oxide Electrolysis Cells: Polarization Resistance of Fuel Electrodes. ECS Transactions, 2021, 103, 1981-1989.	0.5	4
6	Redox Durability of Ni-Co Alloy Cermet Anodes for SOFCs. ECS Transactions, 2021, 103, 1549-1556.	0.5	1
7	Numerical Study on Biogas Refining System Combined with Proton-Conducting Solid Oxide Electrolyzer. ECS Transactions, 2021, 103, 845-851.	0.5	0
8	Preparation of Model SOFCs with Proton-Conducting Electrolyte on Metal Support Using Pulse Laser Deposition. ECS Transactions, 2021, 103, 2033-2040.	0.5	2
9	Proposal of ultra-high-efficiency zero-emission power generation systems. Journal of Power Sources, 2020, 448, 227459.	7.8	13
10	Suppression of Leakage Current in Proton-Conducting $\text{BaZr}_{0.8}\text{Y}_{0.2}\text{O}_{3-\delta}$ Electrolyte by Forming Hole-Blocking Layer. Journal of the Electrochemical Society, 2020, 167, 084515.	2.9	16
11	Visualization and mechanical strength of glass seal in planar type solid oxide fuel cells. International Journal of Hydrogen Energy, 2020, 45, 21754-21766.	7.1	4
12	Simulation of SOFC performance using a modified exchange current density for pre-reformed methane-based fuels. International Journal of Hydrogen Energy, 2020, 45, 6912-6925.	7.1	39
13	Improved Redox Cycling Durability in Alternative Ni Alloy-Based SOFC Anodes. Journal of the Electrochemical Society, 2020, 167, 124517.	2.9	5
14	Alternative Ni-Alloy Cermet Anode Materials for SOFCs. ECS Transactions, 2019, 91, 1889-1896.	0.5	0
15	SOFC Anodes Impregnated with Noble Metal Catalyst Nanoparticles for High Fuel Utilization. ECS Transactions, 2019, 91, 1905-1913.	0.5	0
16	Leakage Current and Chemical Potential Profile in Proton-Conducting Bi-Layered Solid Oxide Electrolyte with BZY and Hole-Blocking Layers. ECS Transactions, 2019, 91, 1009-1018.	0.5	3
17	Modified Energy Efficiencies of Proton-Conducting SOFCs with Partial Conductions of Oxide Ions and Holes. Fuel Cells, 2019, 19, 503-511.	2.4	6
18	Oxidation-induced degradation and performance fluctuation of solid oxide fuel cell Ni anodes under simulated high fuel utilization conditions. International Journal of Hydrogen Energy, 2019, 44, 9386-9399.	7.1	19

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19	SOFC anodes impregnated with noble metal catalyst nanoparticles for high fuel utilization. International Journal of Hydrogen Energy, 2019, 44, 8502-8518.	7.1	58
20	Physicochemical properties of Ba(Zr,Ce)O _{3-δ} -based proton-conducting electrolytes for solid oxide fuel cells in terms of chemical stability and electrochemical performance. International Journal of Hydrogen Energy, 2017, 42, 16722-16730.	7.1	35
21	Alternative Ni-Impregnated Mixed Ionic-Electronic Conducting Anode for SOFC Operation at High Fuel Utilization. Journal of the Electrochemical Society, 2017, 164, F3055-F3063.	2.9	17
22	Relationship between Electrochemical Properties and Electrolyte Partial Conductivities of Proton-Conducting Ceramic Fuel Cells. ECS Transactions, 2017, 78, 441-450.	0.5	3
23	New Applications of SOFC-MGT Hybrid Power Generation System for Low-Carbon Society. ECS Transactions, 2017, 78, 197-208.	0.5	5
24	Glass Shape Change during Firing for Improving the Seal of Planar SOFCs. ECS Transactions, 2017, 78, 1731-1737.	0.5	2
25	Effect of Exchange Current Density on Current Distribution at Planar-Type SOFC Anodes. ECS Transactions, 2017, 78, 1523-1531.	0.5	0
26	Fuel Composition in Pressurized SOFCs. ECS Transactions, 2017, 78, 2497-2504.	0.5	1
27	Effect of Carbon-Neutral Fuel Fed Solid Oxide Fuel Cell System on CO ₂ Emission Reduction. ECS Transactions, 2017, 78, 2563-2568.	0.5	0
28	Degradation of SOFCs by Various Impurities: Impedance Spectroscopy and Microstructural Analysis. ECS Transactions, 2017, 78, 1253-1260.	0.5	11
29	Alternative SOFC Anode Materials with Ion ⁺ and Electron ⁻ Conducting Backbones for Higher Fuel Utilization. ECS Transactions, 2017, 78, 1179-1187.	0.5	2
30	Correlating Cathode Microstructure with PEFC Performance Using FIB-SEM and TEM. Journal of the Electrochemical Society, 2017, 164, F928-F934.	2.9	27
31	High-pressure C-H-O diagrams: Fuel composition, carbon deposition, and open circuit voltage of pressurized SOFCs. International Journal of Hydrogen Energy, 2017, 42, 30769-30786.	7.1	19
32	Characterization of yttrium-doped ceria with various yttrium concentrations as cathode interlayers of SOFCs. Ionics, 2017, 23, 95-103.	2.4	6
33	Physicochemical properties of proton-conductive Ba(Zr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1})O _{3-δ} solid electrolyte in terms of electrochemical performance of solid oxide fuel cells. International Journal of Hydrogen Energy, 2016, 41, 17539-17547.	7.1	30
34	Preparation of Iridium-SnO ₂ /VGCF Electrocatalysts for Water Electrolysis. ECS Transactions, 2016, 75, 1129-1135.	0.5	1
35	Anode gas recirculation for improving the performance and cost of a 5-kW solid oxide fuel cell system. Journal of Power Sources, 2016, 325, 229-237.	7.8	32
36	A FIB-SEM Study on Correlations between PEFC Electrocatalyst Microstructure and Cell Performance. ECS Transactions, 2015, 69, 709-714.	0.5	1

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37	Effect of proton-conduction in electrolyte on electric efficiency of multi-stage solid oxide fuel cells. Scientific Reports, 2015, 5, 12640.	3.3	69
38	Smart Fuel Cell Demonstration Project: A Challenge to Realize SOFC-Powered Campus. ECS Transactions, 2015, 68, 171-178.	0.5	2
39	Visualization of SOFC Anode by Dual Imaging Method Using Infrared and Visible Light Cameras. ECS Transactions, 2015, 68, 1115-1120.	0.5	0
40	Study of the solid-state reaction at the interface between lanthanoid-doped ceria and yttria-stabilized zirconia for solid-oxide fuel cell applications. Solid State Ionics, 2015, 282, 1-6.	2.7	20
41	A Parametric Study of SOFC Performances with Multi-Stage Electrochemical Oxidation for Enhancement of Electric Efficiency. ECS Transactions, 2015, 68, 1961-1968.	0.5	3
42	In Operando Visualization of SOFC Electrodes by Thermography and Visible Light Imaging. ECS Electrochemistry Letters, 2015, 4, F61-F64.	1.9	7
43	Oxidation-Induced Degradation of SOFC Ni Anodes at High Fuel Utilizations. ECS Transactions, 2015, 68, 1345-1352.	0.5	7
44	Process Analysis for Achieving Highly Enhanced Total Efficiency on Multi-Stage Fuel Supplied SOFC System. ECS Transactions, 2015, 68, 3107-3113.	0.5	4
45	SOFC Durability against Standby and Shutdown Cycling. Journal of the Electrochemical Society, 2014, 161, F850-F860.	2.9	62
46	A solid polymer water electrolysis system utilizing natural circulation. International Journal of Hydrogen Energy, 2014, 39, 16263-16274.	7.1	13
47	J0610205 CAE Analysis of Surface Structure Effect for Hydrocarbon Reforming on SOFC Anode. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _J0610205-_J0610205-.	0.0	0
48	Numerical analysis on multi-component flow in SOFC stack for highly efficient operation. The Proceedings of the Computational Mechanics Conference, 2014, 2014.27, 106-107.	0.0	0
49	Computational Study of Performance Drop Phenomena Based on Sulfur Adsorption and Desorption Model in Planar-Type SOFCs. ECS Transactions, 2013, 57, 2841-2848.	0.5	0
50	In-Plane Distribution of Carbon Deposition on SOFCs. ECS Transactions, 2013, 57, 1593-1598.	0.5	0
51	Influence of Cathode Polarization on the Chromium Poisoning of SOFC Cathodes Consisting of LSM, LSCF and LNF. ECS Transactions, 2013, 50, 21-25.	0.5	4
52	Exchange Current Density of Solid Oxide Fuel Cell Electrodes. ECS Transactions, 2011, 35, 1007-1014.	0.5	43
53	Numerical Analysis of a Three-Dimensional Sandwich Model for Investigating the Effect of Using the Pore Size Distribution. Journal of Computational Science and Technology, 2010, 4, 89-104.	0.4	0
54	J0802-1-2 Computational Analysis by Finite Element Method about a Water-Proton Transportation in Polymer Electrolyte Membrane. The Proceedings of the JSME Annual Meeting, 2010, 2010.7, 199-200.	0.0	0

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55	Finite Element Analysis of a Two-Dimensional Sandwich Model for the Inspection of Fuel Cell Internal Characteristics. Journal of Computational Science and Technology, 2009, 3, 488-498.	0.4	1
56	Finite Element Analysis of a Two-Dimensional Sandwich Model for Inspection of Fuel Cell Inside Characteristics(Thermal Engineering). 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2009, 75, 1357-1362.	0.2	0