

Yuya Tachikawa

List of Publications by Year in descending order

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56
papers

631
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57
all docs

57
docs citations

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times ranked

623
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Effect of proton-conduction in electrolyte on electric efficiency of multi-stage solid oxide fuel cells. <i>Scientific Reports</i> , 2015, 5, 12640. | 3.3 | 69 |
| 2 | SOFC Durability against Standby and Shutdown Cycling. <i>Journal of the Electrochemical Society</i> , 2014, 161, F850-F860. | 2.9 | 62 |
| 3 | SOFC anodes impregnated with noble metal catalyst nanoparticles for high fuel utilization. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 8502-8518. | 7.1 | 58 |
| 4 | Exchange Current Density of Solid Oxide Fuel Cell Electrodes. <i>ECS Transactions</i> , 2011, 35, 1007-1014. | 0.5 | 43 |
| 5 | Simulation of SOFC performance using a modified exchange current density for pre-reformed methane-based fuels. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6912-6925. | 7.1 | 39 |
| 6 | 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. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 16722-16730. | 7.1 | 35 |
| 7 | Anode gas recirculation for improving the performance and cost of a 5-kW solid oxide fuel cell system. <i>Journal of Power Sources</i> , 2016, 325, 229-237. | 7.8 | 32 |
| 8 | 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. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 17539-17547. | 7.1 | 30 |
| 9 | Correlating Cathode Microstructure with PEFC Performance Using FIB-SEM and TEM. <i>Journal of the Electrochemical Society</i> , 2017, 164, F928-F934. | 2.9 | 27 |
| 10 | Accelerated Durability Testing of Fuel Cell Stacks for Commercial Automotive Applications: A Case Study. <i>Journal of the Electrochemical Society</i> , 2022, 169, 044523. | 2.9 | 22 |
| 11 | Study of the solid-state reaction at the interface between lanthanoid-doped ceria and yttria-stabilized zirconia for solid-oxide fuel cell applications. <i>Solid State Ionics</i> , 2015, 282, 1-6. | 2.7 | 20 |
| 12 | High-pressure C-H-O diagrams: Fuel composition, carbon deposition, and open circuit voltage of pressurized SOFCs. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30769-30786. | 7.1 | 19 |
| 13 | Oxidation-induced degradation and performance fluctuation of solid oxide fuel cell Ni anodes under simulated high fuel utilization conditions. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 9386-9399. | 7.1 | 19 |
| 14 | Alternative Ni-Impregnated Mixed Ionic-Electronic Conducting Anode for SOFC Operation at High Fuel Utilization. <i>Journal of the Electrochemical Society</i> , 2017, 164, F3055-F3063. | 2.9 | 17 |
| 15 | Suppression of Leakage Current in Proton-Conducting BaZr _{0.8} Y _{0.2} O _{3-δ} Electrolyte by Forming Hole-Blocking Layer. <i>Journal of the Electrochemical Society</i> , 2020, 167, 084515. | 2.9 | 16 |
| 16 | A solid polymer water electrolysis system utilizing natural circulation. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 16263-16274. | 7.1 | 13 |
| 17 | Proposal of ultra-high-efficiency zero-emission power generation systems. <i>Journal of Power Sources</i> , 2020, 448, 227459. | 7.8 | 13 |
| 18 | Degradation of SOFCs by Various Impurities: Impedance Spectroscopy and Microstructural Analysis. <i>ECS Transactions</i> , 2017, 78, 1253-1260. | 0.5 | 11 |

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|----|--|-----|-----------|
| 19 | Exchange current density of reversible solid oxide cell electrodes. International Journal of Hydrogen Energy, 2022, 47, 16626-16639. | 7.1 | 9 |
| 20 | In Operando Visualization of SOFC Electrodes by Thermography and Visible Light Imaging. ECS Electrochemistry Letters, 2015, 4, F61-F64. | 1.9 | 7 |
| 21 | Oxidation-Induced Degradation of SOFC Ni Anodes at High Fuel Utilizations. ECS Transactions, 2015, 68, 1345-1352. | 0.5 | 7 |
| 22 | Characterization of yttrium-doped ceria with various yttrium concentrations as cathode interlayers of SOFCs. Ionics, 2017, 23, 95-103. | 2.4 | 6 |
| 23 | Modified Energy Efficiencies of Proton-Conducting SOFCs with Partial Conductions of Oxide Ions and Holes. Fuel Cells, 2019, 19, 503-511. | 2.4 | 6 |
| 24 | New Applications of SOFC-MGT Hybrid Power Generation System for Low-Carbon Society. ECS Transactions, 2017, 78, 197-208. | 0.5 | 5 |
| 25 | Improved Redox Cycling Durability in Alternative Ni Alloy-Based SOFC Anodes. Journal of the Electrochemical Society, 2020, 167, 124517. | 2.9 | 5 |
| 26 | 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 |
| 27 | Process Analysis for Achieving Highly Enhanced Total Efficiency on Multi-Stage Fuel Supplied SOFC System. ECS Transactions, 2015, 68, 3107-3113. | 0.5 | 4 |
| 28 | 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 |
| 29 | DRT Analysis of Solid Oxide Electrolysis Cells: Polarization Resistance of Fuel Electrodes. ECS Transactions, 2021, 103, 1981-1989. | 0.5 | 4 |
| 30 | 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 |
| 31 | Relationship between Electrochemical Properties and Electrolyte Partial Conductivities of Proton-Conducting Ceramic Fuel Cells. ECS Transactions, 2017, 78, 441-450. | 0.5 | 3 |
| 32 | 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 |
| 33 | Smart Fuel Cell Demonstration Project: A Challenge to Realize SOFC-Powered Campus. ECS Transactions, 2015, 68, 171-178. | 0.5 | 2 |
| 34 | Glass Shape Change during Firing for Improving the Seal of Planar SOFCs. ECS Transactions, 2017, 78, 1731-1737. | 0.5 | 2 |
| 35 | Alternative SOFC Anode Materials with Ion-Conducting and Electron-Conducting Backbones for Higher Fuel Utilization. ECS Transactions, 2017, 78, 1179-1187. | 0.5 | 2 |
| 36 | Reversible Solid Oxide Cells: Durability of Fuel Electrodes Against Voltage Cycling. ECS Transactions, 2021, 103, 375-382. | 0.5 | 2 |

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|----|--|-----|-----------|
| 37 | Preparation of Model SOFCs with Proton-Conducting Electrolyte on Metal Support Using Pulse Laser Deposition. ECS Transactions, 2021, 103, 2033-2040. | 0.5 | 2 |
| 38 | 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 |
| 39 | A FIB-SEM Study on Correlations between PEFC Electrocatalyst Microstructure and Cell Performance. ECS Transactions, 2015, 69, 709-714. | 0.5 | 1 |
| 40 | Preparation of Iridium-SnO ₂ /VGCF Electrocatalysts for Water Electrolysis. ECS Transactions, 2016, 75, 1129-1135. | 0.5 | 1 |
| 41 | Fuel Composition in Pressurized SOFCs. ECS Transactions, 2017, 78, 2497-2504. | 0.5 | 1 |
| 42 | Exchange Current Density of Solid Oxide Electrolysis Cell Electrodes. ECS Transactions, 2021, 103, 2007-2016. | 0.5 | 1 |
| 43 | Redox Durability of Ni-Co Alloy Cermets for SOFCs. ECS Transactions, 2021, 103, 1549-1556. | 0.5 | 1 |
| 44 | Finite Element Analysis of a Two-Dimensional Sandwich Model for Inspection of Fuel Cell Inside Characteristics (Thermal Engineering). 880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2009, 75, 1357-1362. | 0.2 | 0 |
| 45 | 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 |
| 46 | 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 |
| 47 | In-Plane Distribution of Carbon Deposition on SOFCs. ECS Transactions, 2013, 57, 1593-1598. | 0.5 | 0 |
| 48 | Visualization of SOFC Anode by Dual Imaging Method Using Infrared and Visible Light Cameras. ECS Transactions, 2015, 68, 1115-1120. | 0.5 | 0 |
| 49 | Effect of Exchange Current Density on Current Distribution at Planar-Type SOFC Anodes. ECS Transactions, 2017, 78, 1523-1531. | 0.5 | 0 |
| 50 | 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 |
| 51 | Alternative Ni-Alloy Cermets for SOFCs. ECS Transactions, 2019, 91, 1889-1896. | 0.5 | 0 |
| 52 | SOFC Anodes Impregnated with Noble Metal Catalyst Nanoparticles for High Fuel Utilization. ECS Transactions, 2019, 91, 1905-1913. | 0.5 | 0 |
| 53 | Numerical Study on Biogas Refining System Combined with Proton-Conducting Solid Oxide Electrolyzer. ECS Transactions, 2021, 103, 845-851. | 0.5 | 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 | 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 |
| 56 | 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 |