

Hiroshi Iwai

List of Publications by Year in descending order

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24
papers

1,087
citations

567281

15
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610901

24
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24
all docs

24
docs citations

24
times ranked

749
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of SOFC anode microstructure based on dual beam FIB-SEM technique. Journal of Power Sources, 2010, 195, 955-961.	7.8	374
2	Quantitative evaluation of solid oxide fuel cell porous anode microstructure based on focused ion beam and scanning electron microscope technique and prediction of anode overpotentials. Journal of Power Sources, 2011, 196, 4555-4563.	7.8	132
3	Numerical simulation of intermediate-temperature direct-internal-reforming planar solid oxide fuel cell. Energy, 2011, 36, 2225-2234.	8.8	87
4	Mesoscale-structure control at anode/electrolyte interface in solid oxide fuel cell. Journal of Power Sources, 2011, 196, 98-109.	7.8	60
5	Comprehensive understanding of the active thickness in solid oxide fuel cell anodes using experimental, numerical and semi-analytical approach. Journal of Power Sources, 2014, 267, 503-514.	7.8	55
6	Selection of suitable operating conditions for planar anode-supported direct-internal-reforming solid-oxide fuel cell. Journal of Power Sources, 2012, 204, 14-24.	7.8	46
7	A corrugated mesoscale structure on electrodeâ€“electrolyte interface for enhancing cell performance in anode-supported SOFC. Journal of Power Sources, 2011, 196, 7442-7449.	7.8	43
8	Three-Dimensional Simulation of SOFC Anode Polarization Characteristics Based on Sub-Grid Scale Modeling of Microstructure. Journal of the Electrochemical Society, 2012, 159, B315-B323.	2.9	43
9	Power generation enhancement of solid oxide fuel cell by cathodeâ€“electrolyte interface modification in mesoscale assisted by level set-based optimization calculation. Journal of Power Sources, 2011, 196, 3485-3495.	7.8	40
10	Microextrusion printing for increasing electrodeâ€“electrolyte interface in anode-supported solid oxide fuel cells. Journal of Power Sources, 2020, 450, 227682.	7.8	32
11	Exchange current model for (La _{0.8} Sr _{0.2}) _{0.95} MnO ₃ (LSM) porous cathode for solid oxide fuel cells. Journal of Power Sources, 2016, 315, 63-69.	7.8	28
12	Chromium poisoning in (La,Sr)MnO ₃ cathode: Three-dimensional simulation of a solid oxide fuel cell. Journal of Power Sources, 2016, 326, 331-340.	7.8	25
13	Quasi-three-dimensional numerical simulation of a solid oxide fuel cell short stack: Effects of flow configurations including air-flow alternation. Journal of Power Sources, 2018, 400, 135-146.	7.8	24
14	Experimental investigation of temperature distribution of planar solid oxide fuel cell: Effects of gas flow, power generation, and direct internal reforming. International Journal of Hydrogen Energy, 2020, 45, 25227-25239.	7.1	21
15	Effect of characteristic lengths of electron, ion, and gas diffusion on electrode performance and electrochemical reaction area in a solid oxide fuel cell. Heat Transfer - Asian Research, 2012, 41, 700-718.	2.8	19
16	Measurement of transient temperature distribution behavior of a planar solid oxide fuel cell: Effect of instantaneous switching of power generation and direct internal reforming. Journal of Power Sources, 2021, 482, 229070.	7.8	17
17	Mechanism of improved electrochemical performance of anode-supported solid oxide fuel cells by mesostructural modification of electrodeâ€“electrolyte interface. Journal of Power Sources, 2021, 506, 230107.	7.8	12
18	Prediction of electrochemical characteristics of practical-size solid oxide fuel cells based on database of unit cell performance. Applied Energy, 2021, 283, 116305.	10.1	9

#	ARTICLE	IF	CITATIONS
19	Charge-transfer distribution model applicable to stack simulation of solid oxide fuel cells. Heat and Mass Transfer, 2018, 54, 2425-2432.	2.1	7
20	Effect of total pressure difference on counter transport of gases with different molecular weights through solid oxide fuel cell anode. Journal of Power Sources, 2022, 542, 231811.	7.8	5
21	Formulation of steam-methane reforming rate in Ni-YSZ porous anode of solid oxide fuel cells. Heat and Mass Transfer, 2018, 54, 2497-2505.	2.1	3
22	Experimental study of methane partial oxidation on Ni-YSZ anode of solid oxide fuel cells. Heat and Mass Transfer, 2018, 54, 2267-2274.	2.1	2
23	Multipoint temperature measurement using serially connected resistor-capacitor parallel circuits by impedance spectroscopy. Sensors and Actuators A: Physical, 2021, 331, 113051.	4.1	2
24	Grid-shape electrical circuit assembled with resistance temperature detectors for multipoint temperature measurement of solid oxide fuel cells. Journal of Power Sources, 2022, 530, 231293.	7.8	1