Joongmyeon Bae

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Highly active and stable catalyst with exsolved PtRu alloy nanoparticles for hydrogen production via commercial diesel reforming. Applied Catalysis B: Environmental, 2022, 316, 121645.	20.2	14
2	Pt/CeO2 catalyst synthesized by combustion method for dehydrogenation of perhydro-dibenzyltoluene as liquid organic hydrogen carrier: Effect of pore size and metal dispersion. International Journal of Hydrogen Energy, 2021, 46, 5520-5529.	7.1	49
3	Rapid start-up strategy of 1 kWe diesel reformer by solid oxide fuel cell integration. International Journal of Hydrogen Energy, 2021, 46, 26575-26581.	7.1	13
4	Deep-learning- and reinforcement-learning-based profitable strategy of a grid-level energy storage system for the smart grid. Journal of Energy Storage, 2021, 41, 102868.	8.1	18
5	Comparative energetic studies on liquid organic hydrogen carrier: A net energy analysis. Renewable and Sustainable Energy Reviews, 2021, 150, 111447.	16.4	30
6	On-site hydrogen production using heavy naphtha by maximizing the hydrogen output of a membrane reactor system. Journal of Power Sources, 2021, 508, 230332.	7.8	7
7	Kinetic modeling of diesel autothermal reforming for fuel cell auxiliary power units. Chemical Engineering Journal, 2021, 424, 130564.	12.7	7
8	Development of a PrBaMn2O5+δ-La0.8Sr0.2Ga0.85Mg0.15O3-δ composite electrode by scaffold infiltration for reversible solid oxide fuel cell applications. International Journal of Hydrogen Energy, 2020, 45, 1748-1758.	7.1	11
9	Development of a high-energy-density portable/mobile hydrogen energy storage system incorporating an electrolyzer, a metal hydride and a fuel cell. Applied Energy, 2020, 259, 114175.	10.1	62
10	Start-up strategy of a diesel reformer using the decomposition heat of hydrogen peroxide for subsea applications. Journal of Power Sources, 2020, 448, 227465.	7.8	10
11	Scalable fabrication process of thin-film solid oxide fuel cells with an anode functional layer design and a sputtered electrolyte. International Journal of Hydrogen Energy, 2020, 45, 33980-33992.	7.1	14
12	Thermal stability characteristics of high-power, large-capacity, reserve thermal batteries with pure Li and Li(Si) anodes. Electrochimica Acta, 2020, 353, 136612.	5.2	16
13	Design of 20 Nm3/h Class Liquid Organic Hydrogen Carrier System Integrated with Electrolyzer and Fuel Cell. ECS Transactions, 2020, 96, 149-156.	0.5	2
14	Connected evaluation of polymer electrolyte membrane fuel cell with dehydrogenation reactor of liquid organic hydrogen carrier. International Journal of Hydrogen Energy, 2020, 45, 13398-13405.	7.1	20
15	Thermal design of a hydrogen storage system using La(Ce)Ni5. International Journal of Hydrogen Energy, 2020, 45, 8742-8749.	7.1	5
16	Influence of the start-up rate on the electrochemical impedance of a low-temperature solid oxide fuel cell fabricated by reactive sputtering. Thin Solid Films, 2019, 689, 137445.	1.8	5
17	Reliable sealing design of metal-based solid oxide fuel cell stacks for transportation applications. International Journal of Hydrogen Energy, 2019, 44, 30280-30292.	7.1	15
18	Development of Thin-Film Solid Oxide Fuel Cells Supported on Anode/Metal Substrates. ECS Transactions, 2019, 91, 931-939.	0.5	2

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19	Long-term durability of La0.75Sr0.25Cr0.5Mn0.5Oâ^'3 as a fuel electrode of solid oxide electrolysis cells for co-electrolysis. Journal of CO2 Utilization, 2019, 31, 192-197.	6.8	19
20	Evaluation of metal-supported solid oxide fuel cells (MS-SOFCs) fabricated at low temperature (â^¼1,000°C) using wet chemical coating processes and a catalyst wet impregnation method. International Journal of Hydrogen Energy, 2018, 43, 3786-3796.	7.1	28
21	Pressurized diesel fuel processing using hydrogen peroxide for the fuel cell power unit in low-oxygen environments. Journal of Power Sources, 2018, 380, 37-45.	7.8	16
22	Application of electroless plating process for multiscale Ni-La0.8Sr0.2Ga0.8Mg0.2O3-σ SOFC anode fabrication. International Journal of Hydrogen Energy, 2018, 43, 6400-6405.	7.1	3
23	Investigation of electrospun Ba0.5Sr0.5Co0.8Fe0.2O3â~δ-Gd0.1Ce0.9O1.95 cathodes for enhanced interfacial adhesion. International Journal of Hydrogen Energy, 2018, 43, 21535-21546.	7.1	18
24	Development and evaluation of a 3-cell stack of metal-based solid oxide fuel cells fabricated via a sinter-joining method for auxiliary power unit applications. International Journal of Hydrogen Energy, 2018, 43, 16215-16229.	7.1	11
25	A novel sol–gel coating method for fabricating dense layers on porous surfaces particularly for metal-supported SOFC electrolyte. International Journal of Hydrogen Energy, 2017, 42, 6220-6230.	7.1	21
26	Exhaust gas fuel reforming for hydrogen production with CGO-based precious metal catalysts. Chemical Engineering Science, 2017, 163, 206-214.	3.8	8
27	A Simple Descriptor to Rapidly Screen CO Oxidation Activity on Rare-Earth Metal-Doped CeO2: From Experiment to First-Principles. ACS Applied Materials & Interfaces, 2017, 9, 15449-15458.	8.0	59
28	Pre-reforming of higher hydrocarbons contained associated gas using a pressurized reactor with a Ni 19.5 -Ru 0.05 /CGO catalyst. Chemical Engineering Science, 2017, 168, 15-22.	3.8	13
29	Negative Effects of Dopants on Copper–Ceria Catalysts for CO Preferential Oxidation Under the Presence of CO2 and H2O. Catalysis Letters, 2017, 147, 2987-3003.	2.6	15
30	Fabrication of Metal-Supported Solid Oxide Fuel Cells by Sinter-Joining Method with Silver Bonding Layer. ECS Transactions, 2017, 78, 2039-2044.	0.5	3
31	Development and Evaluation of 3-Layer Metal Supported Solid Oxide Fuel Cell Short Stack. ECS Transactions, 2017, 78, 2045-2050.	0.5	7
32	Evaluation of Ag-doped (MnCo)3O4 spinel as a solid oxide fuel cell metallic interconnect coating material. International Journal of Hydrogen Energy, 2017, 42, 29511-29517.	7.1	21
33	Fabrication of solid oxide fuel cells (SOFCs) by solvent-controlled co-tape casting technique. International Journal of Hydrogen Energy, 2017, 42, 1648-1660.	7.1	32
34	Electrochemical properties and durability of in-situ composite cathodes with SmBa0.5Sr0.5Co2O5+l̂´ for metal supported solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 1212-1220.	7.1	13
35	Fuel Processor Lifetime and Reliability in Solid Oxide Fuel Cells. , 2017, , 145-171.		3
36	Liquid fuel processing for hydrogen production: A review. International Journal of Hydrogen Energy, 2016, 41, 19990-20022.	7.1	89

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37	Development of a thermally self-sustaining kWe-class diesel reformer using hydrogen peroxide for hydrogen production in low-oxygen environments. Journal of Power Sources, 2016, 326, 341-348.	7.8	20
38	Autothermal reforming of dimethyl ether with CGO-based precious metal catalysts. Journal of Power Sources, 2016, 307, 351-357.	7.8	13
39	Structural and electrochemical properties of interconnect integrated solid oxide fuel cell. Materials Research Bulletin, 2016, 82, 126-129.	5.2	0
40	Performance analysis of Cu, Sn and Rh impregnated NiO/CGO91 anode for butane internal reforming SOFC at intermediate temperature. Renewable Energy, 2015, 83, 483-490.	8.9	22
41	Three-Dimensional Numerical Analysis of Solid Oxide Electrolysis Cells Steam Electrolysis Operation for Hydrogen Production. Journal of Fuel Cell Science and Technology, 2015, 12, .	0.8	4
42	Ni–Me/Ce0.9Gd0.1O2â^'x (Me: Rh, Pt and Ru) catalysts for diesel pre-reforming. International Journal of Hydrogen Energy, 2015, 40, 3207-3216.	7.1	36
43	Electrochemical analysis of Pr0.3Sr0.7CoxB(1â~'x)O3â~'Î~ (B=Fe, Mn; x=0, 0.3, 0.5, 0.7, and 1) as cathode materials for intermediate temperature SOFCs. Solid State Ionics, 2015, 272, 45-52.	2.7	10
44	Diesel autothermal reforming with hydrogen peroxide for low-oxygen environments. Applied Energy, 2015, 156, 99-106.	10.1	35
45	Start-up strategy and operational tests of gasoline fuel processor for auxiliary power unit. International Journal of Hydrogen Energy, 2015, 40, 4101-4110.	7.1	12
46	Study on Possibility of Diesel Reforming with Hydrogen Peroxide in Low-Oxygen Environments. Korean Chemical Engineering Research, 2015, 53, 584-589.	0.2	0
47	3-Dimensional Numerical Analysis of Solid Oxide Electrolysis Cells (SOEC) Steam Electrolysis Operation for Hydrogen Production. , 2014, , .		0
48	Numerical analysis of a 20-kW e biogas steam reformer in PEMFC applications. International Journal of Hydrogen Energy, 2014, 39, 19485-19493.	7.1	3
49	Fabrication and operation of a 6ÂkWe class interconnector-type anode-supported tubular solid oxide fuel cell stack. International Journal of Hydrogen Energy, 2014, 39, 12884-12893.	7.1	6
50	La0.8Sr0.2Cr0.95Ru0.05O3â^'x and Sm0.8Ba0.2Cr0.95Ru0.05O3â^'x as partial oxidation catalysts for diesel. International Journal of Hydrogen Energy, 2014, 39, 4938-4946.	7.1	19
51	A diesel-driven, metal-based solid oxide fuel cell. Journal of Power Sources, 2014, 250, 98-104.	7.8	23
52	Characteristics of nano La0.6Sr0.4Co0.2Fe0.8O3â^îÎ-infiltrated La0.8Sr0.2Ga0.8Mg0.2O3â^îÎ scaffold cathode for enhanced oxygen reduction. International Journal of Hydrogen Energy, 2013, 38, 13399-13407.	7.1	18
53	Computational analysis of operating temperature, hydrogen flow rate and anode thickness in anode-supported flat-tube solid oxide fuel cells. Renewable Energy, 2013, 54, 63-69.	8.9	6
54	Effects of infiltrated Sr and Mn doped LaCrO3 on porous La0.8Sr0.2Ga0.8Mg0.2O3-δ scaffolds used as anodes in solid oxide fuel cells. Solid State Ionics, 2013, 249-250, 26-33.	2.7	13

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55	Coupled transport and kinetics in the mixing region for hydrocarbon autothermal reforming applications. International Journal of Hydrogen Energy, 2013, 38, 16140-16151.	7.1	7
56	Visualization of flooding in a single cell and stacks by using a newly-designed transparent PEMFC. International Journal of Hydrogen Energy, 2012, 37, 422-435.	7.1	82
57	Characterization of electrochemical reaction and thermo-fluid flow in metal-supported solid oxide fuel cell stacks with various manifold designs. International Journal of Hydrogen Energy, 2012, 37, 1717-1730.	7.1	28
58	Investigation of gas-phase reactions in the mixing region for hydrocarbon autothermal reforming applications. International Journal of Hydrogen Energy, 2012, 37, 7545-7553.	7.1	8
59	Analysis of chemical, electrochemical reactions and thermo-fluid flow in methane-feed internal reforming SOFCs: Part II-temperature effect. International Journal of Hydrogen Energy, 2012, 37, 8532-8555.	7.1	23
60	Analysis of chemical, electrochemical reactions and thermo-fluid flow in methane-feed internal reforming SOFCs: Part I – Modeling and effect of gas concentrations. International Journal of Hydrogen Energy, 2012, 37, 8512-8531.	7.1	28
61	A diesel fuel processor for stable operation of solid oxide fuel cells system: II. Integrated diesel fuel processor for the operation of solid oxide fuel cells. International Journal of Hydrogen Energy, 2012, 37, 9228-9236.	7.1	24
62	A numerical study on anode thickness and channel diameter of anode-supported flat-tube solid oxide fuel cells. Renewable Energy, 2012, 42, 180-185.	8.9	16
63	Development of a self-sustaining kWe-class integrated diesel fuel processing system for solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 10302-10310.	7.1	23
64	The current density and temperature distributions of anode-supported flat-tube solid oxide fuel cells affected by various channel designs. International Journal of Hydrogen Energy, 2011, 36, 9936-9944.	7.1	16
65	Performance of solid oxide electrolysis cell having bi-layered electrolyte during steam electrolysis and carbon dioxide electrolysis. Current Applied Physics, 2011, 11, S223-S228.	2.4	52
66	Effect of calcination temperature on electrochemical properties of cathodes for solid oxide fuel cells. Solid State Ionics, 2011, 192, 595-598.	2.7	15
67	Electrochemical simulation using material properties of a ceramic electrode and electrolyte. Current Applied Physics, 2011, 11, S219-S222.	2.4	18
68	Anodic behavior of 8Y2O3–ZrO2/NiO cermet using an anode-supported electrode. International Journal of Hydrogen Energy, 2011, 36, 689-705.	7.1	21
69	Electrochemical performance of unsintered Ba0.5Sr0.5Co0.8Fe0.2O3â^', La0.6Sr0.4Co0.8Fe0.2O3â^', and La0.8Sr0.2MnO3â^' cathodes for metal-supported solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 3138-3146.	7.1	45
70	A numerical study on the heat and mass transfer characteristics of metal-supported solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 3167-3178.	7.1	16
71	Electrochemical performance of solid oxide electrolysis cell electrodes under high-temperature coelectrolysis of steam and carbon dioxide. Journal of Power Sources, 2011, 196, 7161-7168.	7.8	161
72	Metal-supported solid oxide fuel cells with barium-containing in-situ cathodes. Solid State Ionics, 2011, 192, 387-393.	2.7	22

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73	Parallel Manifold Effects on the Heat and Mass Transfer Characteristics of Metal-Supported Solid Oxide Fuel Cell Stacks. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	4
74	Numerical Simulation of Operating Parameters in a Methane Fueled Steam Reforming Reactor. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	2
75	Numerical Analysis of Heat and Mass Transfer in Metal-Supported Solid Oxide Fuel Cells. , 2010, , .		1
76	Numerical Analysis of a Steam Reformer Coupled With a Combustion Burner. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	10
77	La 0.8 Sr 0.2 Co 1 â^' x Mn x O 3 Cathode and Its Application to Metal-Supported Solid Oxide Fuel Cells. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	2
78	The Tests of 1â€,kWe Diesel Reformer and Solid Oxide Fuel Cell System. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	3
79	Effects of low hydrocarbons on the solid oxide fuel cell anode. Journal of Solid State Electrochemistry, 2010, 14, 1793-1800.	2.5	15
80	Effect of unsintered gadolinium-doped ceria buffer layer on performance of metal-supported solid oxide fuel cells using unsintered barium strontium cobalt ferrite cathode. Journal of Power Sources, 2010, 195, 6420-6427.	7.8	47
81	Performance of solid oxide electrolysis cells based on composite La0.8Sr0.2MnO3â~Î^ – yttria stabilized zirconia and Ba0.5Sr0.5Co0.8Fe0.2O3â~Î^ oxygen electrodes. International Journal of Hydrogen Energy, 2010, 35, 3958-3966.	7.1	92
82	Long-term performance of anode-supported SOFC integrated with metal interconnect by joining process. International Journal of Hydrogen Energy, 2010, 35, 4285-4291.	7.1	30
83	Fast performance degradation of SOFC caused by cathode delamination in long-term testing. International Journal of Hydrogen Energy, 2010, 35, 8670-8677.	7.1	99
84	Interconnect-integrated solid oxide fuel cell with high temperature sinter-joining process. International Journal of Hydrogen Energy, 2010, 35, 11878-11889.	7.1	17
85	Performance of SOFC coupled with n-C4H10 autothermal reformer: Carbon deposition and development of anode structure. International Journal of Hydrogen Energy, 2010, 35, 12346-12358.	7.1	48
86	A diesel fuel processor for stable operation of solid oxide fuel cells system: I. Introduction to post-reforming for the diesel fuel processor. Catalysis Today, 2010, 156, 49-57.	4.4	27
87	The effect of time-periodic heat flux oscillations in the steam reformer. Current Applied Physics, 2010, 10, S77-S80.	2.4	Ο
88	Numerical Analysis of the Heat and Mass Transfer Characteristics in an Autothermal Methane Reformer. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	7
89	Performance Analysis of Butane Direct Internal Reforming SOFC at Intermediate Temperature. , 2010, , .		0
90	Electrochemical Investigation of Composite Cathodes with SmBa _{0.5} Sr _{0.5} Co ₂ O _{5+Î′} Cathodes for Intermediate Temperature-Operating Solid Oxide Fuel Cell. Chemistry of Materials, 2010, 22, 883-892.	6.7	115

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91	Metal-supported Solid Oxide Fuel Cell with Diesel Reformer. ECS Transactions, 2009, 25, 711-718.	0.5	4
92	Electrochemical Property of Cr-containing Cathode Materials for Metal-supported Solid Oxide Fuel Cell. ECS Transactions, 2009, 25, 2909-2914.	0.5	3
93	Study of activity and effectiveness factor of noble metal catalysts for water–gas shift reaction. International Journal of Hydrogen Energy, 2009, 34, 870-876.	7.1	28
94	Heat flux analysis of a cylindrical steam reformer by a modified Nusselt number. International Journal of Hydrogen Energy, 2009, 34, 1828-1834.	7.1	13
95	Suppression of ethylene-induced carbon deposition in diesel autothermal reforming. International Journal of Hydrogen Energy, 2009, 34, 1844-1851.	7.1	72
96	Structural and electrochemical properties of Pr0.3Sr0.7Co0.3Fe0.7O3â^' cathode for IT-SOFC. International Journal of Hydrogen Energy, 2009, 34, 6852-6860.	7.1	29
97	Fabrication of multi-layered solid oxide fuel cells using a sheet joining process. International Journal of Hydrogen Energy, 2009, 34, 6861-6868.	7.1	4
98	Evaluation of the net water transport through electrolytes in Proton Exchange Membrane Fuel Cell. Journal of Power Sources, 2009, 191, 390-399.	7.8	14
99	Self-sustained operation of a kWe-class kerosene-reforming processor for solid oxide fuel cells. Journal of Power Sources, 2009, 192, 360-366.	7.8	43
100	Cathode reaction mechanism of porous-structured Sm0.5Sr0.5CoO3â^'δ and Sm0.5Sr0.5CoO3â^'δ/Sm0.2Ce0.8O1.9 for solid oxide fuel cells. Journal of Power Sources, 2009, 193, 431-440.	7.8	55
101	Structural, thermal and electrochemical properties of layered perovskite SmBaCo2O5+d, a potential cathode material for intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2009, 194, 704-711.	7.8	111
102	Advanced Electrochemical Properties of LnBa[sub 0.5]Sr[sub 0.5]Co[sub 2]O[sub 5+Î] (Ln=Pr, Sm, and) Tj ETQ	q0 <u>9 9</u> rgE	BT /Qverlock 1
103	Fabrication and characterization of metal-supported solid oxide fuel cells. Journal of Power Sources, 2008, 176, 62-69.	7.8	47
104	Oxidation-resistant thin film coating on ferritic stainless steel by sputtering for solid oxide fuel cells. Thin Solid Films, 2008, 516, 6432-6437.	1.8	48
105	Improved configuration of supported nickel catalysts in a steam reformer for effective hydrogen production from methane. Journal of Power Sources, 2008, 180, 506-515.	7.8	40
106	The micro-reactor testing of catalysts and fuel delivery apparatuses for diesel autothermal reforming. Catalysis Today, 2008, 136, 249-257.	4.4	28
107	Characteristics of ABO3 and A2BO4 (A Sm, Sr; B Co, Fe, Ni) samarium oxide system as cathode materials for intermediate temperature-operating solid oxide fuel cell. Solid State Ionics, 2008, 179, 1570-1574.	2.7	65
108	Cathodic behavior of La0.8Sr0.2Co1â ``xMnxO3â ``δ perovskite oxide on YSZ electrolyte for intermediate temperature-operating solid oxide fuel cells. Solid State Ionics, 2008, 179, 1465-1469.	2.7	16

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109	Performance analysis of cobalt-based cathode materials for solid oxide fuel cell. Solid State Ionics, 2008, 179, 1490-1496.	2.7	40
110	Effect of effective areas on ionic conductivity in dense composite material composed of ionic and electronic conductors for solid oxide fuel cells. Solid State Ionics, 2008, 179, 2031-2036.	2.7	3
111	Effects of ethylene on carbon formation in diesel autothermal reforming. International Journal of Hydrogen Energy, 2008, 33, 4780-4788.	7.1	98
112	Electrochemical Investigation of LSGMC-Composite Cathodes on LSGM-Substrate. ECS Transactions, 2008, 13, 165-180.	0.5	1
113	Effect of Anode-Off Gas Recirculation at Solid Oxide Fuel Cell System. , 2008, , .		1
114	Oxygen Reduction Mechanism at Sm0.5Sr0.5CoO3â^î/Sm0.2Ce0.8O1.9 Composite Cathode for Solid Oxide Fuel Cell. , 2008, , .		0
115	Preparatory Tests for 1kW Diesel-Powered SOFC Systems. , 2008, , .		1
116	Small stack performance of intermediate temperature-operating solid oxide fuel cells using stainless steel interconnects and anode-supported single cell. Journal of Power Sources, 2007, 172, 100-107.	7.8	29
117	Performance improvement of diesel autothermal reformer by applying ultrasonic injector for effective fuel delivery. Journal of Power Sources, 2007, 172, 845-852.	7.8	51
118	Performance comparison of autothermal reforming for liquid hydrocarbons, gasoline and diesel for fuel cell applications. Journal of Power Sources, 2006, 163, 538-546.	7.8	139
119	Autothermal reforming study of diesel for fuel cell application. Journal of Power Sources, 2006, 159, 1283-1290	7.8	106