

Robert Steinberger-Wilckens

List of Publications by Year in descending order

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121
papers

2,461
citations

186209

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233338

45
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123
all docs

123
docs citations

123
times ranked

2869
citing authors

#	ARTICLE	IF	CITATIONS
1	Five-layer reverse tape casting of IT-SOFC. <i>International Journal of Applied Ceramic Technology</i> , 2022, 19, 289-298.	1.1	7
2	PEFC System Reactant Gas Supply Management and Anode Purging Strategy: An Experimental Approach. <i>Energies</i> , 2022, 15, 288.	1.6	0
3	Evaluation of inkjet-printed spinel coatings on standard and surface nitrided ferritic stainless steels for interconnect application in solid oxide fuel cell devices. <i>Ceramics International</i> , 2022, 48, 20456-20466.	2.3	8
4	Oxygen surface exchange properties and electrochemical activity of lanthanum nickelates. <i>Journal of Solid State Chemistry</i> , 2022, 312, 123228.	1.4	4
5	Nickel-molybdenum catalysts for combined solid oxide fuel cell internal steam and dry reforming. <i>Chemical Engineering Science</i> , 2021, 232, 116341.	1.9	14
6	Evaluating the drop of electrochemical performance of Ni/YSZ and Ni/ScSZ solid oxide fuel cells operated with dry biogas. <i>International Journal of Energy Research</i> , 2021, 45, 6405-6417.	2.2	10
7	Simultaneous Domestic Wastewater Treatment and Electricity Generation in Microbial Fuel Cell with Mn(IV) Oxide Addition. <i>ChemistrySelect</i> , 2021, 6, 369-375.	0.7	3
8	The Development of Current Collection in Micro-Tubular Solid Oxide Fuel Cells—A Review. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1077.	1.3	27
9	Analysis of current collection in micro-tubular solid oxide fuel cells: An empirical and mathematical modelling approach for minimised ohmic polarisation. <i>Journal of Power Sources</i> , 2021, 494, 229780.	4.0	11
10	Novel study on microbial fuel cells via a comprehensive bibliometric and dynamic approach. <i>Reviews on Environmental Health</i> , 2021, .	1.1	4
11	Internal current collection and thermofluidynamic enhancement in a microtubular SOFC. <i>International Journal of Heat and Mass Transfer</i> , 2021, 173, 121255.	2.5	7
12	Development of a novel electroless deposited nickel braze for micro-tubular solid oxide fuel cell current collector contacting. <i>Journal of Advanced Joining Processes</i> , 2021, 4, 100070.	1.5	2
13	Lanthanum nickelates and their application in Solid Oxide Cells – The LaNi _{1-x} FexO ₃ system and other ABO ₃ -type nickelates. <i>Solid State Ionics</i> , 2021, 373, 115799.	1.3	9
14	GO-nafion composite membrane development for enabling intermediate temperature operation of polymer electrolyte fuel cell. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 5526-5534.	3.8	56
15	Ceria-Co-Cu-based SOFC anode for direct utilisation of methane or ethanol as fuels. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 5297-5308.	3.8	42
16	Catalyst development for indirect internal reforming (IIR) of methane by partial oxidation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 5285-5296.	3.8	8
17	Influence of novel anode design on the performance and coke resistance towards methane directly-fed solid oxide fuel cells. <i>Ceramics International</i> , 2020, 46, 5368-5379.	2.3	7
18	Novel materials for solid oxide fuel cells cathodes and oxygen separation membranes: Fundamentals of oxygen transport and performance. <i>Carbon Resources Conversion</i> , 2020, 3, 112-121.	3.2	21

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19	A review of Solid Oxide Fuel Cell cathode materials with respect to their resistance to the effects of chromium poisoning. <i>Solid State Ionics</i> , 2020, 354, 115410.	1.3	45
20	Effects of Sn doping on the manufacturing, performance and carbon deposition of Ni/ScSZ cells in solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27575-27586.	3.8	8
21	Electrochemical performance of novel NGCO-LSCF composite cathode for intermediate temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 21714-21721.	3.8	12
22	Formulation of spinel based inkjet inks for protective layer coatings in SOFC interconnects. <i>Journal of Colloid and Interface Science</i> , 2020, 579, 82-95.	5.0	17
23	Biogas as alternative SOFC fuel: Research and implementation. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 476, 012088.	0.2	3
24	Understanding the effect of water transport on the thermal expansion properties of the perovskites $\text{BaFe}_{0.6}\text{Co}_{0.3}\text{Nb}_{0.1}\text{O}_{3-\delta}$ and $\text{BaCo}_{0.7}\text{Yb}_{0.2}\text{Bi}_{0.1}\text{O}_{3-\delta}$. <i>Journal of Materials Science</i> , 2020, 55, 13590-13604.	1.7	1
25	Comparative study of solid oxide fuel cell coupled absorption refrigeration system for green and sustainable refrigerated transportation. <i>Applied Thermal Engineering</i> , 2020, 179, 115597.	3.0	20
26	Residual stress distribution in solid oxide fuel cells: anode-electrolyte and anode-electrolyte-cathode systems. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	2
27	Corrosion behaviour of nitrated ferritic stainless steels for use in solid oxide fuel cell devices. <i>Corrosion Science</i> , 2020, 165, 108414.	3.0	22
28	The numerical investigation of a planar single chamber solid oxide fuel cell performance with a focus on the support types. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7077-7087.	3.8	6
29	Scattered and linked microcracks in solid oxide fuel cell electrolyte. <i>Journal of Power Sources</i> , 2020, 450, 227701.	4.0	1
30	In-situ experimental benchmarking of solid oxide fuel cell metal interconnect solutions. <i>Journal of Power Sources</i> , 2020, 461, 228163.	4.0	21
31	Coupling of engine exhaust and fuel cell exhaust with vapour absorption refrigeration/air conditioning systems for transport applications: A review. <i>Thermal Science and Engineering Progress</i> , 2020, 18, 100550.	1.3	18
32	Solid oxide fuel cells in hybrid systems. , 2020, , 47-74.		0
33	Classification of solid oxide fuel cells. , 2020, , 17-46.		0
34	Ex-situ experimental benchmarking of solid oxide fuel cell metal interconnects. <i>Journal of Power Sources</i> , 2019, 437, 226900.	4.0	22
35	Nickel-Free SOFC Anode for Ethanol Electrocatalysis. <i>ECS Transactions</i> , 2019, 91, 1673-1682.	0.3	3
36	Internal Current Collection in Microtubular SOFCs: Minimisation of Contact Resistance via Brazing and Plating. <i>ECS Transactions</i> , 2019, 91, 533-548.	0.3	4

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37	The Effect of Pre-Heat Treatment of AluChrom 318 on the Corrosion Behaviour and Cr Evaporation in SOFC Cathode Air Pre-Heater. ECS Transactions, 2019, 91, 2253-2260.	0.3	0
38	A computational fluid dynamics and finite element analysis design of a microtubular solid oxide fuel cell stack for fixed wing mini unmanned aerial vehicles. International Journal of Hydrogen Energy, 2019, 44, 8519-8532.	3.8	18
39	Electrochemical Performance and Carbon Resistance Comparison between Tin, Copper and Silver-Doped Nickel/Yttria-Stabilized Zirconia Anodes SOFCs Operated with Biogas. Journal of the Electrochemical Society, 2019, 166, F393-F398.	1.3	17
40	Formation of Conductive Oxide Scale on 33NK and 47ND Interconnector Alloys for Solid Oxide Fuel Cells. Energies, 2019, 12, 4795.	1.6	4
41	Solid Oxide Fuel Cells: Sustainability Aspects. , 2019, , 733-780.		0
42	CeO ₂ Co ₃ O ₄ CuO anode for direct utilisation of methane or ethanol in solid oxide fuel cells. International Journal of Hydrogen Energy, 2018, 43, 6340-6351.	3.8	34
43	Electrochemical and thermal characterization of doped ceria electrolyte with lanthanum and zirconium. Ceramics International, 2018, 44, 6493-6499.	2.3	22
44	Influence of temperature and pressure on surface modified Pd-Cu alloy foils for hydrogen purification applications. Thin Solid Films, 2018, 646, 83-91.	0.8	3
45	X-ray diffraction study on the effects of hydrogen on Pd ₆₀ Cu ₄₀ wt% foil membranes. Journal of Membrane Science, 2018, 545, 266-274.	4.1	13
46	Evaluation of fuel diversity in Solid Oxide Fuel Cell system. International Journal of Hydrogen Energy, 2018, 43, 23475-23487.	3.8	31
47	Evolution of gas diffusion layer structures for aligned Pt nanowire electrodes in PEMFC applications. Electrochimica Acta, 2018, 279, 99-107.	2.6	18
48	Methodological analysis of palm oil biodiesel life cycle studies. Renewable and Sustainable Energy Reviews, 2018, 94, 694-704.	8.2	36
49	Catalytic Reforming System Suitable for Transportation Applications. Fuel Cells, 2018, 18, 535-542.	1.5	1
50	Solid Oxide Fuel Cells, Sustainability Aspects. , 2018, , 1-49.		0
51	Introduction to Fuel Cell Basics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2017, , 1-29.	0.3	4
52	Modelling Microstructural and Chemical Degradation of Ferritic Stainless Steels for SOFC Interconnects. ECS Transactions, 2017, 78, 1565-1574.	0.3	2
53	Effect of Alloy Composition on the Oxidation Behaviour and Cr Vaporisation of High-Cr Steels for SOFC Cathode Air Preheater. ECS Transactions, 2017, 78, 1641-1651.	0.3	1
54	Double Layered CeO ₂ -Co ₃ O ₄ -CuO Based Anode for Direct Utilisation of Methane or Ethanol in SOFC. ECS Transactions, 2017, 78, 1343-1351.	0.3	1

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55	Carbon-Tolerant Ni/ScCeSZ via Aqueous Tape Casting for IT- SOFCs. ECS Transactions, 2017, 78, 1417-1425.	0.3	9
56	The effect of chemical composition on high temperature behaviour of Fe and Cu doped Mn-Co spinels. Ceramics International, 2017, 43, 2829-2835.	2.3	31
57	Cu-Mn-Co oxides as protective materials in SOFC technology: The effect of chemical composition on mechanochemical synthesis, sintering behaviour, thermal expansion and electrical conductivity. Journal of the European Ceramic Society, 2017, 37, 661-669.	2.8	40
58	Barriers to the adoption of fuel cell vehicles: A qualitative investigation into early adopters attitudes. Transportation Research, Part A: Policy and Practice, 2017, 95, 166-182.	2.0	49
59	Coupling of a Solid Oxide Fuel Cell Auxiliary Power Unit with a Vapour Absorption Refrigeration System for Refrigerated Truck Application. Fuel Cells, 2016, 16, 273-293.	1.5	19
60	Consumer attitudes to fuel cell vehicles post trial in the United Kingdom. International Journal of Hydrogen Energy, 2016, 41, 6171-6179.	3.8	66
61	New approaches towards novel composite and multilayer membranes for intermediate temperature-polymer electrolyte fuel cells and direct methanol fuel cells. Journal of Power Sources, 2016, 316, 139-159.	4.0	110
62	Comparing high-end and low-end early adopters of battery electric vehicles. Transportation Research, Part A: Policy and Practice, 2016, 88, 40-57.	2.0	80
63	Three-dimensional catalyst electrodes based on PtPd nanodendrites for oxygen reduction reaction in PEFC applications. Applied Catalysis B: Environmental, 2016, 187, 108-114.	10.8	59
64	One-dimensional nanostructured electrocatalysts for polymer electrolyte membrane fuel cells – A review. Applied Catalysis B: Environmental, 2016, 199, 292-314.	10.8	160
65	Methane internal reforming in solid oxide fuel cells with anode off-gas recirculation. International Journal of Hydrogen Energy, 2016, 41, 553-561.	3.8	16
66	Influence of reduction conditions of NiO on its mechanical and electrical properties. Journal of Electrochemical Science and Engineering, 2016, 6, 113.	1.6	6
67	Performance measurement of the upgraded Microcab-H4 with academic drive cycle. Communications in Science and Technology, 2016, 1, .	0.4	0
68	Improving the design of gas diffusion layers for intermediate temperature polymer electrolyte fuel cells using a sensitivity analysis: A multiphysics approach. International Journal of Hydrogen Energy, 2015, 40, 16745-16759.	3.8	4
69	The Effect of Clamping Pressure on Gas Diffusion Layer Performance in Polymer Electrolyte Fuel Cells. Fuel Cells, 2015, 15, 802-812.	1.5	22
70	Changing the fate of Fuel Cell Vehicles: Can lessons be learnt from Tesla Motors?. International Journal of Hydrogen Energy, 2015, 40, 1625-1638.	3.8	43
71	Status of Light Weight Cassette Design of SOFC. ECS Transactions, 2015, 68, 209-220.	0.3	10
72	Effects of thin film Pd deposition on the hydrogen permeability of Pd 60 Cu 40 wt% alloy membranes. Journal of Membrane Science, 2015, 493, 580-588.	4.1	32

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73	Fuel cell added value for early market applications. <i>Journal of Power Sources</i> , 2015, 287, 297-306.	4.0	46
74	Study of FePt deposited reduced graphene oxide's utility as a catalyst towards oxygen reduction and methanol oxidation reactions. <i>RSC Advances</i> , 2015, 5, 36993-36998.	1.7	19
75	Characterization of Ni-cermet degradation phenomena I. Long term resistivity monitoring, image processing and X-ray fluorescence analysis. <i>Journal of Power Sources</i> , 2015, 286, 414-426.	4.0	39
76	H2FC SUPERGEN: An overview of the Hydrogen and Fuel Cell research across the UK. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 5534-5543.	3.8	21
77	Properties of Spinel Protective Coatings Prepared Using Wet Powder Spraying for SOFC Interconnects. <i>ECS Transactions</i> , 2015, 68, 1581-1587.	0.3	5
78	Development of Modelling and Testing for Analysis of Degradation in Solid Oxide Fuel Cells. <i>ECS Transactions</i> , 2015, 68, 1879-1887.	0.3	0
79	Thermal Integration of SOFC and Plate Heat Exchanger Desorber. <i>ECS Transactions</i> , 2015, 68, 221-239.	0.3	1
80	A Thermo Fluid and Thermo Mechanical Modelling of a Microtubular Solid Oxide Fuel Cell Stack for Unmanned Aerial Vehicles. <i>ECS Transactions</i> , 2015, 68, 3133-3141.	0.3	1
81	Improved Performance and Durability of Anode Supported SOFC Operating on Biogas. <i>ECS Transactions</i> , 2015, 68, 2503-2513.	0.3	10
82	Control system design for micro-tubular solid oxide fuel cells. <i>International Journal of Low-Carbon Technologies</i> , 2015, 10, 441-445.	1.2	3
83	Temperature-controlled growth of single-crystal Pt nanowire arrays for high performance catalyst electrodes in polymer electrolyte fuel cells. <i>Applied Catalysis B: Environmental</i> , 2015, 164, 389-395.	10.8	42
84	Mobile phone infrastructure development: Lessons for the development of a hydrogen infrastructure. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8185-8193.	3.8	20
85	Cathodic materials for intermediate-temperature solid oxide fuel cells based on praseodymium nickelates-cobaltites. <i>Russian Journal of Electrochemistry</i> , 2014, 50, 669-679.	0.3	20
86	A simple approach for PtNi@MWCNT hybrid nanostructures as high performance electrocatalysts for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2014, 2, 692-698.	5.2	59
87	PtPd nanowire arrays supported on reduced graphene oxide as advanced electrocatalysts for methanol oxidation. <i>Carbon</i> , 2014, 79, 346-353.	5.4	71
88	Gas Diffusion Layer Materials and their Effect on Polymer Electrolyte Fuel Cell Performance – Ex Situ and In Situ Characterization. <i>Fuel Cells</i> , 2014, 14, 735-741.	1.5	24
89	Plasma nitriding induced growth of Pt-nanowire arrays as high performance electrocatalysts for fuel cells. <i>Scientific Reports</i> , 2014, 4, 6439.	1.6	33
90	Modelling a Methane Fed Solid Oxide Fuel Cell With Anode Recirculation System. <i>ECS Transactions</i> , 2013, 57, 2831-2839.	0.3	3

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91	Disruptive innovations: The case for hydrogen fuel cells and battery electric vehicles. International Journal of Hydrogen Energy, 2013, 38, 15438-15451.	3.8	78
92	Coupling and Modeling an SOFC System with a High-Performing Metal Hydride Storage. ECS Transactions, 2013, 57, 243-253.	0.3	3
93	Optimization of Water-Based Cathode Inks for Solid Oxide Fuel Cells. ECS Transactions, 2013, 57, 2057-2063.	0.3	0
94	Recent results in Jülich solid oxide fuel cell technology development. Journal of Power Sources, 2013, 241, 477-485.	4.0	115
95	On nucleation and growth mechanisms of EBPVD zirconia films on porous NiO-ZrO ₂ substrate. , 2012, , .		0
96	Status of Solid Oxide Fuel Cell Development at Forschungszentrum Jülich. Procedia Engineering, 2012, 44, 407-408.	1.2	5
97	Solid Oxide Fuel Cells. Green Energy and Technology, 2012, , 109-122.	0.4	1
98	High-Temperature Fuel Cell Plants and Applications. Green Energy and Technology, 2012, , 145-162.	0.4	0
99	Structural features and gas tightness of EB-PVD 1Ce10ScSZ electrolyte films. Materials Science-Poland, 2012, 30, 170-179.	0.4	2
100	European SOFC Technology - Status and Trends. ECS Transactions, 2011, 35, 19-29.	0.3	7
101	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2011, 35, 53-60.	0.3	15
102	Chapter 11. Products, Not Technology: Some Thoughts on Market Introduction Processes. RSC Energy and Environment Series, 2010, , 307-332.	0.2	0
103	Real-SOFC - A Joint European Effort to Improve SOFC Durability. ECS Transactions, 2009, 25, 43-56.	0.3	14
104	European SOFC R&D - Status and Trends. ECS Transactions, 2009, 25, 3-10.	0.3	10
105	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2009, 25, 213-220.	0.3	12
106	Realising Reliable, Durable, Energy Efficient and Cost Effective SOFC Systems (Real-SOFC). Fuel Cells, 2009, 9, 783-784.	1.5	8
107	Microcracking in electron beam deposited scandia-stabilised zirconia electrolyte. Journal of Power Sources, 2009, 194, 950-960.	4.0	6
108	Ceramic fuel cells for space vehicles. Kosmãna Nauka ã Tehnologã, 2009, 15, 5-15.	0.1	0

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109	Molecular speciation of sulfur in solid oxide fuel cell anodes with X-ray absorption spectroscopy. Journal of Power Sources, 2008, 183, 564-570.	4.0	23
110	Performance degradation and failure mechanisms of fuel cell materials. , 2008, , 425-465.		4
111	Real-SOFC - A Joint European Effort in Understanding SOFC Degradation. ECS Transactions, 2007, 7, 67-76.	0.3	8
112	Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. Fuel Cells, 2007, 7, 204-210.	1.5	52
113	Realistic costs of wind-hydrogen vehicle fuel production. International Journal of Hydrogen Energy, 2007, 32, 1492-1499.	3.8	54
114	Overview of the Development of Solid Oxide Fuel Cells at Forschungszentrum Juelich. International Journal of Applied Ceramic Technology, 2006, 3, 470-476.	1.1	40
115	Hydrogen As a Means of Transporting and Balancing Wind Power Production. , 2005, , 505-521.		0
116	Worldwide SOFC Technology Overview and Benchmark. International Journal of Applied Ceramic Technology, 2005, 2, 482-492.	1.1	138
117	Recent Results of Stack Development at Forschungszentrum Jülich. , 2005, , 123-134.		4
118	Not cost minimisation but added value maximisation. International Journal of Hydrogen Energy, 2003, 28, 763-770.	3.8	6
119	Power fluctuations in spatially dispersed wind turbine systems. Solar Energy, 1993, 50, 297-305.	2.9	24
120	The effects of Sn infiltration on dry reforming of biogas at solid oxide fuel cell operating conditions over Ni-YSZ catalysts. IOP Conference Series: Materials Science and Engineering, 0, 509, 012064.	0.3	5
121	Reducing Degradation Effects in SOFC Stacks Manufactured at Forschungszentrum Julich - Approaches and Results. , 0, , 65-77.		2