Robert Steinberger-Wilckens

List of Publications by Year
in descending order

121	2,461	186209 28	233338 45
papers	citations	h-index	g-index

123	123	123	2869
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	One-dimensional nanostructured electrocatalysts for polymer electrolyte membrane fuel cellsâ€"A review. Applied Catalysis B: Environmental, 2016, 199, 292-314.	10.8	160
2	Worldwide SOFC Technology Overview and Benchmark. International Journal of Applied Ceramic Technology, 2005, 2, 482-492.	1.1	138
3	Recent results in JÃ¼lich solid oxide fuel cell technology development. Journal of Power Sources, 2013, 241, 477-485.	4.0	115
4	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
5	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
6	Disruptive innovations: The case for hydrogen fuel cells and battery electric vehicles. International Journal of Hydrogen Energy, 2013, 38, 15438-15451.	3.8	78
7	PtPd nanowire arrays supported on reduced graphene oxide as advanced electrocatalysts for methanol oxidation. Carbon, 2014, 79, 346-353.	5.4	71
8	Consumer attitudes to fuel cell vehicles post trial in the United Kingdom. International Journal of Hydrogen Energy, 2016, 41, 6171-6179.	3.8	66
9	A simple approach for PtNiâ€"MWCNT hybrid nanostructures as high performance electrocatalysts for the oxygen reduction reaction. Journal of Materials Chemistry A, 2014, 2, 692-698.	5.2	59
10	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
11	GO-nafion composite membrane development for enabling intermediate temperature operation of polymer electrolyte fuel cell. International Journal of Hydrogen Energy, 2020, 45, 5526-5534.	3.8	56
12	Realistic costs of wind-hydrogen vehicle fuel production. International Journal of Hydrogen Energy, 2007, 32, 1492-1499.	3.8	54
13	Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. Fuel Cells, 2007, 7, 204-210.	1.5	52
14	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
15	Fuel cell added value for early market applications. Journal of Power Sources, 2015, 287, 297-306.	4.0	46
16	A review of Solid Oxide Fuel Cell cathode materials with respect to their resistance to the effects of chromium poisoning. Solid State Ionics, 2020, 354, 115410.	1.3	45
17	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
18	Temperature-controlled growth of single-crystal Pt nanowire arrays for high performance catalyst electrodes in polymer electrolyte fuel cells. Applied Catalysis B: Environmental, 2015, 164, 389-395.	10.8	42

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19	Ceria-Co-Cu-based SOFC anode for direct utilisation of methane or ethanol as fuels. International Journal of Hydrogen Energy, 2020, 45, 5297-5308.	3.8	42
20	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
21	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
22	Characterization of Ni-cermet degradation phenomena I. Long term resistivity monitoring, image processing and X-ray fluorescence analysis. Journal of Power Sources, 2015, 286, 414-426.	4.0	39
23	Methodological analysis of palm oil biodiesel life cycle studies. Renewable and Sustainable Energy Reviews, 2018, 94, 694-704.	8.2	36
24	CeO2Co3O4CuO 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
25	Plasma nitriding induced growth of Pt-nanowire arrays as high performance electrocatalysts for fuel cells. Scientific Reports, 2014, 4, 6439.	1.6	33
26	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
27	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
28	Evaluation of fuel diversity in Solid Oxide Fuel Cell system. International Journal of Hydrogen Energy, 2018, 43, 23475-23487.	3.8	31
29	The Development of Current Collection in Micro-Tubular Solid Oxide Fuel Cellsâ€"A Review. Applied Sciences (Switzerland), 2021, 11, 1077.	1.3	27
30	Power fluctuations in spatially dispersed wind turbine systems. Solar Energy, 1993, 50, 297-305.	2.9	24
31	Gas Diffusion Layer Materials and their Effect on Polymer Electrolyte Fuel Cell Performance â€“ Ex Situ and In Situ Characterization. Fuel Cells, 2014, 14, 735-741.	1.5	24
32	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
33	The Effect of Clamping Pressure on Gas Diffusion Layer Performance in Polymer Electrolyte Fuel Cells. Fuel Cells, 2015, 15, 802-812.	1.5	22
34	Electrochemical and thermal characterization of doped ceria electrolyte with lanthanum and zirconium. Ceramics International, 2018, 44, 6493-6499.	2.3	22
35	Ex-situ experimental benchmarking of solid oxide fuel cell metal interconnects. Journal of Power Sources, 2019, 437, 226900.	4.0	22
36	Corrosion behaviour of nitrided ferritic stainless steels for use in solid oxide fuel cell devices. Corrosion Science, 2020, 165, 108414.	3.0	22

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37	H2FC SUPERGEN: An overview of the Hydrogen and Fuel Cell research across the UK. International Journal of Hydrogen Energy, 2015, 40, 5534-5543.	3.8	21
38	Novel materials for solid oxide fuel cells cathodes and oxygen separation membranes: Fundamentals of oxygen transport and performance. Carbon Resources Conversion, 2020, 3, 112-121.	3.2	21
39	In-situ experimental benchmarking of solid oxide fuel cell metal interconnect solutions. Journal of Power Sources, 2020, 461, 228163.	4.0	21
40	Mobile phone infrastructure development: Lessons for the development of a hydrogen infrastructure. International Journal of Hydrogen Energy, 2014, 39, 8185-8193.	3.8	20
41	Cathodic materials for intermediate-temperature solid oxide fuel cells based on praseodymium nickelates-cobaltites. Russian Journal of Electrochemistry, 2014, 50, 669-679.	0.3	20
42	Comparative study of solid oxide fuel cell coupled absorption refrigeration system for green and sustainable refrigerated transportation. Applied Thermal Engineering, 2020, 179, 115597.	3.0	20
43	Study of FePt deposited reduced graphene oxide's utility as a catalyst towards oxygen reduction and methanol oxidation reactions. RSC Advances, 2015, 5, 36993-36998.	1.7	19
44	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
45	Evolution of gas diffusion layer structures for aligned Pt nanowire electrodes in PEMFC applications. Electrochimica Acta, 2018, 279, 99-107.	2.6	18
46	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
47	Coupling of engine exhaust and fuel cell exhaust with vapour absorption refrigeration/air conditioning systems for transport applications: A review. Thermal Science and Engineering Progress, 2020, 18, 100550.	1.3	18
48	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
49	Formulation of spinel based inkjet inks for protective layer coatings in SOFC interconnects. Journal of Colloid and Interface Science, 2020, 579, 82-95.	5.0	17
50	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
51	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2011, 35, 53-60.	0.3	15
52	Real-SOFC - A Joint European Effort to Improve SOFC Durability. ECS Transactions, 2009, 25, 43-56.	0.3	14
53	Nickelâ€“molybdenum catalysts for combined solid oxide fuel cell internal steam and dry reforming. Chemical Engineering Science, 2021, 232, 116341.	1.9	14
54	X-ray diffraction study on the effects of hydrogen on Pd60Cu40 wt% foil membranes. Journal of Membrane Science, 2018, 545, 266-274.	4.1	13

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55	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2009, 25, 213-220.	0.3	12
56	Electrochemical performance of novel NGCO-LSCF composite cathode for intermediate temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2020, 45, 21714-21721.	3.8	12
57	Analysis of current collection in micro-tubular solid oxide fuel cells: An empirical and mathematical modelling approach for minimised ohmic polarisation. Journal of Power Sources, 2021, 494, 229780.	4.0	11
58	European SOFC R&D - Status and Trends. ECS Transactions, 2009, 25, 3-10.	0.3	10
59	Status of Light Weight Cassette Design of SOFC. ECS Transactions, 2015, 68, 209-220.	0.3	10
60	Improved Performance and Durability of Anode Supported SOFC Operating on Biogas. ECS Transactions, 2015, 68, 2503-2513.	0.3	10
61	Evaluating the drop of electrochemical performance of Ni/ YSZ and Ni/ ScSZ solid oxide fuel cells operated with dry biogas. International Journal of Energy Research, 2021, 45, 6405-6417.	2.2	10
62	Carbon-Tolerant Ni/ScCeSZ via Aqueous Tape Casting for IT- SOFCs. ECS Transactions, 2017, 78, 1417-1425.	0.3	9
63	Lanthanum nickelates and their application in Solid Oxide Cells â€“ The LaNi1-xFexO3 system and other ABO3-type nickelates. Solid State Ionics, 2021, 373, 115799.	1.3	9
64	Real-SOFC - A Joint European Effort in Understanding SOFC Degradation. ECS Transactions, 2007, 7, 67-76.	0.3	8
65	Realising Reliable, Durable, Energy Efficient and Cost Effective SOFC Systems (Real-SOFC). Fuel Cells, 2009, 9, 783-784.	1.5	8
66	Catalyst development for indirect internal reforming (IIR) of methane by partial oxidation. International Journal of Hydrogen Energy, 2020, 45, 5285-5296.	3.8	8
67	Effects of Sn doping on the manufacturing, performance and carbon deposition of Ni/ScSZ cells in solid oxide fuel cells. International Journal of Hydrogen Energy, 2020, 45, 27575-27586.	3.8	8
68	Evaluation of inkjet-printed spinel coatings on standard and surface nitrided ferritic stainless steels for interconnect application in solid oxide fuel cell devices. Ceramics International, 2022, 48, 20456-20466.	2.3	8
69	European SOFC Technology - Status and Trends. ECS Transactions, 2011, 35, 19-29.	0.3	7
70	Influence of novel anode design on the performance and coke resistance towards methane directly-fed solid oxide fuel cells. Ceramics International, 2020, 46, 5368-5379.	2.3	7
71	Internal current collection and thermofluidynamic enhancement in a microtubular SOFC. International Journal of Heat and Mass Transfer, 2021, 173, 121255.	2.5	7
72	Fiveâ€layer reverse tape casting of ITâ€SOFC. International Journal of Applied Ceramic Technology, 2022, 19, 289-298.	1.1	7

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73	Not cost minimisation but added value maximisation. International Journal of Hydrogen Energy, 2003, 28, 763-770.	3.8	6
74	Microcracking in electron beam deposited scandia-stabilised zirconia electrolyte. Journal of Power Sources, 2009, 194, 950-960.	4.0	6
75	The numerical investigation of a planar single chamber solid oxide fuel cell performance with a focus on the support types. International Journal of Hydrogen Energy, 2020, 45, 7077-7087.	3.8	6
76	Influence of reduction conditions of NiO on its mechanical and electrical properties. Journal of Electrochemical Science and Engineering, 2016, 6, 113.	1.6	6
77	Status of Solid Oxide Fuel Cell Development at Forschungszentrum JÃ¼lich. Procedia Engineering, 2012, 44, 407-408.	1.2	5
78	Properties of Spinel Protective Coatings Prepared Using Wet Powder Spraying for SOFC Interconnects. ECS Transactions, 2015, 68, 1581-1587.	0.3	5
79	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
80	Performance degradation and failure mechanisms of fuel cell materials. , 2008, , 425-465.		4
81	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
82	Introduction to Fuel Cell Basics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2017, , 1-29.	0.3	4
83	Internal Current Collection in Microtubular SOFCs: Minimisation of Contact Resistance via Brazing and Plating. ECS Transactions, 2019, 91, 533-548.	0.3	4
84	Formation of Conductive Oxide Scale on 33NK and 47ND Interconnector Alloys for Solid Oxide Fuel Cells. Energies, 2019, 12, 4795.	1.6	4
85	Novel study on microbial fuel cells via a comprehensive bibliometric and dynamic approach. Reviews on Environmental Health, 2021, .	1.1	4
86	Recent Results of Stack Development at Forschungszentrum JÃ¼lich. , 2005, , 123-134.		4
87	Oxygen surface exchange properties and electrochemical activity of lanthanum nickelates. Journal of Solid State Chemistry, 2022, 312, 123228.	1.4	4
88	Modelling a Methane Fed Solid Oxide Fuel Cell With Anode Recirculation System. ECS Transactions, 2013, 57, 2831-2839.	0.3	3
89	Coupling and Modeling an SOFC System with a High-Performing Metal Hydride Storage. ECS Transactions, 2013, 57, 243-253.	0.3	3
90	Control system design for micro-tubular solid oxide fuel cells. International Journal of Low-Carbon Technologies, 2015, 10, 441-445.	1.2	3

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91	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
92	Nickel-Free SOFC Anode for Ethanol Electrocatalysis. ECS Transactions, 2019, 91, 1673-1682.	0.3	3
93	Biogas as alternative SOFC fuel: Research and implementation. IOP Conference Series: Earth and Environmental Science, 2020, 476, 012088.	0.2	3
94	Simultaneous Domestic Wastewater Treatment and Electricity Generation in Microbial Fuel Cell with Mn(IV) Oxide Addition. ChemistrySelect, 2021, 6, 369-375.	0.7	3
95	Structural features and gas tightness of EB-PVD 1Ce10ScSZ electrolyte films. Materials Science-Poland, 2012, 30, 170-179.	0.4	2
96	Modelling Microstructural and Chemical Degradation of Ferritic Stainless Steels for SOFC Interconnects. ECS Transactions, 2017, 78, 1565-1574.	0.3	2
97	Residual stress distribution in solid oxide fuel cells: anode-electrolyte and anode-electrolyte-cathode systems. SN Applied Sciences, 2020, 2, 1.	1.5	2
98	Development of a novel electroless deposited nickel braze for micro-tubular solid oxide fuel cell current collector contacting. Journal of Advanced Joining Processes, 2021, 4, 100070.	1.5	2
99	Reducing Degradation Effects in SOFC Stacks Manufactured at Forschungszentrum Julich - Approaches and Results. , 0, , 65-77.		2
100	Solid Oxide Fuel Cells. Green Energy and Technology, 2012, , 109-122.	0.4	1
101	Thermal Integration of SOFC and Plate Heat Exchanger Desorber. ECS Transactions, 2015, 68, 221-239.	0.3	1
102	A Thermo Fluid and Thermo Mechanical Modelling of a Microtubular Solid Oxide Fuel Cell Stack for Unmanned Aerial Vehicles. ECS Transactions, 2015, 68, 3133-3141.	0.3	1
103	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
104	Double Layered CeO2-Co3O4-CuO Based Anode for Direct Utilisation of Methane or Ethanol in SOFC. ECS Transactions, 2017, 78, 1343-1351.	0.3	1
105	Catalytic Reforming System Suitable for Transportation Applications. Fuel Cells, 2018, 18, 535-542.	1.5	1
106	Understanding the effect of water transport on the thermal expansion properties of the perovskites BaFe0.6Co0.3Nb0.1O3â˜Î´ and BaCo0.7Yb0.2Bi0.1O3â˜Î´. Journal of Materials Science, 2020, 55, 13590-13604.	1.7	1
107	Scattered and linked microcracks in solid oxide fuel cell electrolyte. Journal of Power Sources, 2020, 450, 227701.	4.0	1
108	Hydrogen As a Means of Transporting and Balancing Wind Power Production. , 2005, , 505-521.		0

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109	On nucleation and growth mechanisms of EBPVD zirconia films on porous NiO-ZrO<inf>2</inf> substrate. , 2012, , .		0
110	High-Temperature Fuel Cell Plants and Applications. Green Energy and Technology, 2012, , 145-162.	0.4	0
111	Optimization of Water-Based Cathode Inks for Solid Oxide Fuel Cells. ECS Transactions, 2013, 57, 2057-2063.	0.3	0
112	Development of Modelling and Testing for Analysis of Degradation in Solid Oxide Fuel Cells. ECS Transactions, 2015, 68, 1879-1887.	0.3	0
113	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
114	Ceramic fuel cells for space vehicles. KosmÃ¬Ä•na Nauka Ã¬ TehnologÃ¬Ã¢, 2009, 15, 5-15.	0.1	0
115	Chapter 11. Products, Not Technology: Some Thoughts on Market Introduction Processes. RSC Energy and Environment Series, 2010, , 307-332.	0.2	0
116	Performance measurement of the upgraded Microcab-H4 with academic drive cycle. Communications in Science and Technology, 2016, 1, .	0.4	0
117	Solid Oxide Fuel Cells, Sustainability Aspects. , 2018, , 1-49.		0
118	Solid Oxide Fuel Cells: Sustainability Aspects. , 2019, , 733-780.		0
119	Solid oxide fuel cells in hybrid systems. , 2020, , 47-74.		0
120	Classification of solid oxide fuel cells. , 2020, , 17-46.		0
121	PEFC System Reactant Gas Supply Management and Anode Purging Strategy: An Experimental Approach. Energies, 2022, 15, 288.	1.6	0