Sebastian Molin

List of Publications by Year
in descending order

91	1,870	279798	330143
papers	citations	23 h-index	37 g-index

92	92	92	1298
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluation of porous 430L stainless steel for SOFC operation at intermediate temperatures. Journal of Power Sources, 2008, 181, 31-37.	7.8	94
2	Comparison of iron and copper doped manganese cobalt spinel oxides as protective coatings for solid oxide fuel cell interconnects. Journal of Power Sources, 2017, 372, 145-156.	7.8	85
3	Electrophoretic deposition of Mn1.5Co1.5O4 on metallic interconnect and interaction with glass-ceramic sealant for solid oxide fuel cells application. Journal of Power Sources, 2015, 280, 379-386.	7.8	78
4	Low temperature processed MnCo2O4 and MnCo1.8Fe0.2O4 as effective protective coatings for solid oxide fuel cell interconnects at 750ÂÂ°C. Journal of Power Sources, 2016, 336, 408-418.	7.8	68
5	Microstructural and electrical characterization of Mn-Co spinel protective coatings for solid oxide cell interconnects. Journal of the European Ceramic Society, 2017, 37, 4781-4791.	5.7	66
6	Structural and electrical properties of Sr(Ti, Fe)O3-Î´ materials for SOFC cathodes. Journal of Electroceramics, 2012, 28, 80-87.	2.0	56
7	Status report on high temperature fuel cells in Poland â€“ Recent advances and achievements. International Journal of Hydrogen Energy, 2017, 42, 4366-4403.	7.1	55
8	High temperature oxidation behavior of SUS430 SOFC interconnects with Mn-Co spinel coating in air. Journal of Alloys and Compounds, 2019, 787, 1327-1335.	5.5	49
9	Influence of electropolymerization conditions on the morphological and electrical properties of PEDOT film. Electrochimica Acta, 2015, 176, 156-161.	5.2	46
10	Sintering of MnCo2O4 coatings prepared by electrophoretic deposition. Materials Letters, 2018, 213, 394-398.	2.6	43
11	Electrophoretic co-deposition of Fe2O3 and Mn1,5Co1,5O4: Processing and oxidation performance of Fe-doped Mn-Co coatings for solid oxide cell interconnects. Journal of the European Ceramic Society, 2019, 39, 3768-3777.	5.7	42
12	In-situ Cu-doped MnCo-spinel coatings for solid oxide cell interconnects processed by electrophoretic deposition. Ceramics International, 2019, 45, 19148-19157.	4.8	41
13	High temperature oxidation of porous alloys for solid oxide fuel cell applications. Solid State Ionics, 2010, 181, 1214-1220.	2.7	40
14	Effect of pre-oxidation on the oxidation resistance of Crofer 22 APU. Corrosion Science, 2018, 138, 189-199.	6.6	40
15	High-temperature oxidation of the Crofer 22â€H ferritic steel with Mn1.45Co1.45Fe0.1O4 and Mn1.5Co1.5O4 spinel coatings under thermal cycling conditions and its properties. Materials Chemistry and Physics, 2019, 225, 227-238.	4.0	39
16	Oxidation study of coated Crofer 22 APU steel in dry oxygen. Journal of Power Sources, 2014, 251, 488-495.	7.8	37
17	MnxCo3-xO4 spinel oxides as efficient oxygen evolution reaction catalysts in alkaline media. International Journal of Hydrogen Energy, 2020, 45, 14867-14879.	7.1	35
18	Evaluation of 316L porous stainless steel for SOFC support. Journal of the European Ceramic Society, 2009, 29, 757-762.	5.7	33

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19	Mn-Co spinel coatings on Crofer 22 APU by electrophoretic deposition: Up scaling, performance in SOFC stack at 850 Â°C and compositional modifications. Journal of the European Ceramic Society, 2021, 41, 4496-4504.	5.7	31
20	Applications of spin coating of polymer precursor and slurry suspensions for Solid Oxide Fuel Cell fabrication. Journal of Power Sources, 2009, 194, 10-15.	7.8	28
21	Solid oxide fuel cells with Ni-infiltrated perovskite anode. Solid State Ionics, 2012, 221, 11-14.	2.7	27
22	Protective coatings for stainless steel for SOFC applications. Journal of Solid State Electrochemistry, 2009, 13, 1695-1700.	2.5	25
23	THE ROLE OF THIN FUNCTIONAL LAYERS IN SOLID OXIDE FUEL CELLS. Electrochimica Acta, 2016, 204, 136-145.	5.2	25
24	Effect of interconnect coating procedure on solid oxide fuel cell performance. Materials Letters, 2020, 259, 126898.	2.6	24
25	High temperature corrosion evaluation and lifetime prediction of porous Fe22Cr stainless steel in air in temperature range 700â€“900 Â°C. Corrosion Science, 2021, 189, 109589.	6.6	24
26	Joining of ceramic Ba0.5Sr0.5Co0.8Fe0.2O3 membranes for oxygen production to high temperature alloys. Journal of Membrane Science, 2016, 506, 11-21.	8.2	23
27	Microstructure and Electrical Properties of Fe,Cu Substituted (Co,Mn)3O4 Thin Films. Crystals, 2017, 7, 185.	2.2	21
28	Co-deposition of CuO and Mn1.5Co1.5O4 powders on Crofer22APU by electrophoretic method: Structural, compositional modifications and corrosion properties. Materials Letters, 2018, 218, 329-333.	2.6	21
29	Electrochemical properties of porous Sr0.86Ti0.65Fe0.35O3 oxygen electrodes in solid oxide cells: Impedance study of symmetrical electrodes. International Journal of Hydrogen Energy, 2019, 44, 1827-1838.	7.1	21
30	Iron doped manganese cobaltite spinel coatings produced by electrophoretic co-deposition on interconnects for solid oxide cells: Microstructural and electrical characterization. Journal of Power Sources, 2020, 455, 227910.	7.8	21
31	Influence of Gd deposition on the oxidation behavior and electrical properties of a layered system consisting of Crofer 22 APU and MnCo2O4 spinel. International Journal of Hydrogen Energy, 2021, 46, 6775-6791.	7.1	21
32	Evaluation of electrodeposited Mnâ€Co protective coatings on Crofer 22 <scp>APU</scp> steel. International Journal of Applied Ceramic Technology, 2018, 15, 349-360.	2.1	19
33	Ceria Based Protective Coatings for Steel Interconnects Prepared by Spray Pyrolysis. Procedia Engineering, 2014, 98, 93-100.	1.2	18
34	Determination of the bonding strength in solid oxide fuel cellsâ€™ interfaces by Schwickerath crack initiation test. Journal of the European Ceramic Society, 2017, 37, 3565-3578.	5.7	18
35	Recent advances on spinel-based protective coatings for solid oxide cell metallic interconnects produced by electrophoretic deposition. Materials Letters, 2021, 286, 129229.	2.6	17
36	Interaction of yttria stabilized zirconia electrolyte with Fe2O3 and Cr2O3. Journal of Power Sources, 2009, 194, 20-24.	7.8	16

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37	Optimization of microstructure and properties of acceptor-doped barium cerate. Solid State Ionics, 2012, 225, 245-249.	2.7	16
38	Investigation of the bonding strength and bonding mechanisms of SOFCs interconnectorâ€“electrode interfaces. Materials Letters, 2016, 162, 250-253.	2.6	16
39	High-temperature kinetics study of 430L steel powder oxidized in air at 600â€“850 Â°C. Corrosion Science, 2019, 149, 100-107.	6.6	16
40	Electrical properties of Y0.08Sr0.92Ti0.92Nb0.08 O3â˜Î´ after reduction in different reducing conditions. Journal of Alloys and Compounds, 2009, 473, 496-499.	5.5	15
41	The comparison of SrTi0.98Nb0.02O3â€“Î´-CeO2 and SrTi0.98Nb0.02O3â€“Î´-YSZ composites for use in SOFC anodes. Journal of Electroceramics, 2012, 28, 132-138.	2.0	15
42	Investigation of functional layers of solid oxide fuel cell anodes for synthetic biogas reforming. Solid State Ionics, 2013, 251, 70-77.	2.7	15
43	High Temperature Oxidation of Ferritic Steels for Solid Oxide Electrolysis Stacks. ECS Transactions, 2013, 50, 11-20.	0.5	15
44	High temperature corrosion and corrosion protection of porous Ni22Cr alloys. Surface and Coatings Technology, 2015, 261, 385-390.	4.8	15
45	Electrochemical synthesis of 3D nano-/micro-structured porous polypyrrole. Materials Letters, 2016, 183, 397-400.	2.6	15
46	Modeling of Ni Diffusion Induced Austenite Formation in Ferritic Stainless Steel Interconnects. Journal of the Electrochemical Society, 2017, 164, F1005-F1010.	2.9	15
47	Improved performance of LaNi0.6Fe0.4O3 solid oxide fuel cell cathode by application of a thin interface cathode functional layer. Materials Letters, 2017, 189, 252-255.	2.6	14
48	The effect of Fe on chemical stability and oxygen evolution performance of high surface area SrTix-1FexO3-Î´ mixed ionic-electronic conductors in alkaline media. International Journal of Hydrogen Energy, 2021, 46, 28575-28590.	7.1	14
49	Electrophoretic co-deposition of Mn1.5Co1.5O4, Fe2O3 and CuO: Unravelling the effect of simultaneous addition of Cu and Fe on the microstructural, thermo-mechanical and corrosion properties of in-situ modified spinel coatings for solid oxide cell interconnects. Journal of the European Ceramic Society, 2022, 42, 3271-3281.	5.7	14
50	Coatings for improvement of high temperature corrosion resistance of porous alloys. Journal of the European Ceramic Society, 2011, 31, 2707-2710.	5.7	13
51	Diffusion of Nickel into Ferritic Steel Interconnects of Solid Oxide Fuel/Electrolysis Stacks. ECS Transactions, 2013, 57, 2245-2252.	0.5	13
52	Spray pyrolysis of doped-ceria barrier layers for solid oxide fuel cells. Surface and Coatings Technology, 2017, 313, 168-176.	4.8	13
53	Investigation of electrophoretic deposition as a method for coating complex shaped steel parts in solid oxide cell stacks. Surface and Coatings Technology, 2019, 380, 125093.	4.8	13
54	Processing of Ce0.8Gd0.2O2-Î´ barrier layers for solid oxide cells: The effect of preparation method and thickness on the interdiffusion and electrochemical performance. Journal of the European Ceramic Society, 2020, 40, 5626-5633.	5.7	13

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55	Preparation and characterisation of iron substituted Mn1.7Cu1.3-xFexO4 spinel oxides (x = 0, 0.1, 0.3,) Tj ETQq1 1 0.784314 rgBT /Ov	5.7	13
56	Effectiveness of a dual surface modification of metallic interconnects for application in energy conversion devices. International Journal of Hydrogen Energy, 2022, 47, 6295-6311.	7.1	13
57	Perovskites in Solid Oxide Fuel Cells. Solid State Phenomena, 0, 183, 65-70.	0.3	12
58	Manganeseâ€“Cobalt Based Spinel Coatings Processed by Electrophoretic Deposition Method: The Influence of Sintering on Degradation Issues of Solid Oxide Cell Oxygen Electrodes at 750 Â°C. Materials, 2021, 14, 3836.	2.9	12
59	Conductivity improvement of Ce0.8Gd0.2O1.9 solid electrolyte. Journal of Rare Earths, 2009, 27, 655-660.	4.8	11
60	Structure and electrical properties of ceramic proton conductors obtained with molten-salt and solid-state synthesis methods. Journal of Non-Crystalline Solids, 2010, 356, 1976-1979.	3.1	11
61	Assesment of (Mn,Co)₃3O₄powders for possible coating material for SOFC/SOEC interconnects. IOP Conference Series: Materials Science and Engineering, 2016, 104, 012017.	0.6	11
62	Effective yttrium based coating for steel interconnects of solid oxide cells: Corrosion evaluation in steam-hydrogen atmosphere. Journal of Power Sources, 2019, 440, 226814.	7.8	11
63	Electro-chemo-mechanical properties in nanostructured Ca-doped ceria (CDC) by field assisted sintering. Scripta Materialia, 2020, 187, 183-187.	5.2	11
64	Stainless Steel/Yttria Stabilized Zirconia Composite Supported Solid Oxide Fuel Cell. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	10
65	Low temperature deposition of dense MnCo2O4 protective coatings for steel interconnects of solid oxide cells. Journal of the European Ceramic Society, 2018, 38, 4576-4579.	5.7	10
66	Improvement of Oxygen Electrode Performance of Intermediate Temperature Solid Oxide Cells by Spray Pyrolysis Deposited Active Layers. Advanced Materials Interfaces, 2021, 8, 2002227.	3.7	10
67	The Effect of Cobalt Incorporation into Nickelâ€“Iron Oxide/(oxy)hydroxide Catalyst on Electrocatalytic Performance Toward Oxygen Evolution Reaction. Energy Technology, 2021, 9, 2100688.	3.8	10
68	Synthesis of acceptorâ€doped Baâ€Ceâ€Zrâ€O perovskites. Crystal Research and Technology, 2010, 45, 1251-1257.	1.3	9
69	Physicochemical properties of Mn1.45Co1.45Cu0.1O4 spinel coating deposited on the Crofer 22 H ferritic steel and exposed to high-temperature oxidation under thermal cycling conditions. Journal of Thermal Analysis and Calorimetry, 2022, 147, 5649-5666.	3.6	9
70	Deposition and Electrical and Structural Properties of La0.6Sr0.4CoO3 Thin Films for Application in High-Temperature Electrochemical Cells. Journal of Electronic Materials, 2019, 48, 5428-5441.	2.2	8
71	Study of oxygen electrode reactions on symmetrical porous SrTi0.30Fe0.70O3-Î´ electrodes on Ce0.8Gd0.2O1.9 electrolyte at 800ÂÂ°Câ€“500ÂÂ°C. Electrochimica Acta, 2020, 346, 136285.	5.2	8
72	The Influence of Iron Doping on Performance of SrTi_{1-X}Fe_xO_{3-Î´} Perovskite Oxygen Electrode for SOFC. ECS Transactions, 2019, 91, 1299-1307.	0.5	7

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73	Solid oxide fuel and electrolysis cells. , 2020, , 387-547.		7
74	Electrical conductivity of nanostructured acceptor-doped ceria fabricated by spark plasma sintering (SPS). Materials Letters, 2020, 279, 128513.	2.6	7
75	Morphology changes in Fe-Cr porous alloys upon high-temperature oxidation quantified by X-ray tomographic microscopy. Materials and Design, 2022, 215, 110492.	7.0	7
76	The Influence of the Electrodeposition Parameters on the Properties of Mn-Co-Based Nanofilms as Anode Materials for Alkaline Electrolysers. Materials, 2020, 13, 2662.	2.9	6
77	Modeling of Ni Diffusion Induced Austenite Formation in Ferritic Stainless Steel Interconnects. ECS Transactions, 2015, 68, 1691-1700.	0.5	5
78	Gigantic electro-chemo-mechanical properties of nanostructured praseodymium doped ceria. Nanoscale, 2021, 13, 7583-7589.	5.6	5
79	High Temperature Corrosion Evaluation of Porous Hastelloy X Alloy in Air and Humidified Hydrogen Atmospheres. Journal of the Electrochemical Society, 2016, 163, C296-C302.	2.9	4
80	Evaluation of Praseodymium and Gadolinium Doped Ceria as a Possible Barrier Layer Material for Solid Oxide Cells. ECS Transactions, 2019, 91, 1165-1172.	0.5	4
81	Preparation of Hydrogen Electrodes of Solid Oxide Cells by Infiltration: Effects of the Preparation Procedure on the Resulting Microstructure. Materials, 2020, 13, 131.	2.9	4
82	Effect of sintering temperature on electrochemical performance of porous SrTi1-xFexO3-Î´ (xâ€‰=â€‰0.35, 0.5,) Tj ETQq0 0 0 rgBT /O	2.5	4
83	Microporous N-Doped Carbon Obtained from Salt Melt Pyrolysis of Chitosan toward Supercapacitor and Oxygen Reduction Catalysts. Nanomaterials, 2022, 12, 1162.	4.1	4
84	Application of wet powder spraying for anode supported solid oxide fuel cell with a perovskite SrTi_{0.98}Nb_{0.02}O_{3-Î´}anode. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2736-2741.	1.8	3
85	Influence of yttria surface modification on high temperature corrosion of porous Ni22Cr alloy. International Journal of Applied Ceramic Technology, 2018, 15, 361-369.	2.1	3
86	Glass-ceramic sealants and steel interconnects: Accelerated interfacial stability and reactivity tests at high temperature. Materials and Design, 2021, 212, 110259.	7.0	3
87	The influence of thermal treatment on electrocatalytic properties of Mn-Co nanofilms on nickel foam toward oxygen evolution reaction activity. Materials Letters, 2020, 258, 126759.	2.6	2
88	Chemical Interaction between Perovskite La0.6Sr0.4FeO3and Super-Ionic Zr0.84Y0.16Ox. Acta Physica Polonica A, 2008, 114, 135-141.	0.5	2
89	Glass-ceramic joining of Fe22Cr porous alloy to Crofer22APU: interfacial issues and mechanical properties. Ceramics International, 2022, 48, 28519-28527.	4.8	2
90	Metal Supported Solid Oxide Fuel Cells - Selected Aspects. IOP Conference Series: Materials Science and Engineering, 2011, 18, 132004.	0.6	1

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91	FABRICATION AND CHARACTERIZATION OF ANODE SUPPORTED SOLID OXIDE FUEL CELLS. Functional Materials Letters, 2011, 04, 161-164.	1.2	1