

Falk Schulze-KÄppers

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

1,256
citations

430442

18
h-index

360668

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docs citations

44
times ranked

846
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on dual-phase oxygen transport membranes: from fundamentals to commercial deployment. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2152-2195.	5.2	31
2	Tape-casting and freeze-drying gadolinia-doped ceria composite membranes for carbon dioxide permeation. <i>Journal of Membrane Science</i> , 2022, 648, 120355.	4.1	5
3	Performance study of asymmetric oxygen transport membranes with vertically channelled pores by phase inversion tape casting. <i>Open Ceramics</i> , 2022, 9, 100248.	1.0	0
4	Development and Proof of Concept of a Compact Metallic Reactor for MIEC Ceramic Membranes. <i>Membranes</i> , 2021, 11, 541.	1.4	7
5	Influence of support layer resistance on oxygen fluxes through asymmetric membranes based on perovskite-type oxides SrTi ₁ -Fe O ₃ . <i>Journal of Membrane Science</i> , 2020, 596, 117704.	4.1	18
6	Micromechanical Characterization of Ce _{0.8} Gd _{0.2} O ₂ •Î´•â€“FeCo ₂ O ₄ Dual Phase Oxygen Transport Membranes. <i>Advanced Engineering Materials</i> , 2020, 22, 1901558.	1.6	7
7	Asymmetric LSCF Membranes Utilizing Commercial Powders. <i>Materials</i> , 2020, 13, 614.	1.3	3
8	Design and fabrication of large-sized planar oxygen transport membrane components for direct integration in oxy-combustion processes. <i>Separation and Purification Technology</i> , 2019, 220, 89-101.	3.9	17
9	Ceramic Membranes: Materials â€“ Components â€“ Potential Applications. <i>ChemBioEng Reviews</i> , 2019, 6, 198-208.	2.6	14
10	Microstructure and anisotropic mechanical properties of freeze dried SrTi _{0.75} Fe _{0.25} O ₃ •Î´• for oxygen transport membrane substrates. <i>Journal of the European Ceramic Society</i> , 2018, 38, 2774-2783.	2.8	5
11	Creep behavior of porous La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O ₃ •Î´• substrate material for oxygen separation application. <i>Journal of the European Ceramic Society</i> , 2018, 38, 1702-1710.	2.8	11
12	Creep behaviour of dense and porous SrTi _{0.75} Fe _{0.25} O ₃ •Î´• for oxygen transport membranes and substrates. <i>Journal of the European Ceramic Society</i> , 2018, 38, 5067-5073.	2.8	7
13	Co and Fe co-doping influence on functional properties of SrTiO ₃ for use as oxygen transport membranes. <i>Journal of the European Ceramic Society</i> , 2018, 38, 5058-5066.	2.8	26
14	Comparison of freeze-dried and tape-cast support microstructure on high-flux oxygen transport membrane performance. <i>Journal of Membrane Science</i> , 2018, 564, 218-226.	4.1	29
15	Mechanical properties and lifetime predictions of dense SrTi _{1-x} Fe _x O ₃ •Î´• (x = 0.25, 0.35, 0.5). <i>Journal of the European Ceramic Society</i> , 2017, 37, 2629-2636.	2.8	23
16	Analysis of Charge Transport in Ce _{0.8} Gd _{0.2-x} Pr _x O ₂ •Î´• at Tâ‰‰ 600Â°C. <i>Journal of the Electrochemical Society</i> , 2017, 164, H491-H496.	1.3	6
17	Structural and chemical stability of high performance Ce _{0.8} Gd _{0.2} O ₂ •Î´• â€“ FeCo ₂ O ₄ dual phase oxygen transport membranes. <i>Journal of Membrane Science</i> , 2017, 544, 278-286.	4.1	21
18	Stability and sintering of MgO as a substrate material for Lanthanum Tungstate membranes. <i>Journal of the European Ceramic Society</i> , 2017, 37, 671-677.	2.8	20

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19	Influence of Microstructure and Surface Activation of Dual-Phase Membrane $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-\delta}$ / $\text{FeCo}_{2}\text{O}_{4}$ on Oxygen Permeation. <i>Journal of the American Ceramic Society</i> , 2016, 99, 349-355.	1.9	44
20	Scanning probe microscopy polarization experiments with polycrystalline $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{Pr}_x\text{O}_{2-\delta}$ and $\text{Ce}_{0.8}\text{Y}_{0.2}\text{O}_{2-\delta}$ single crystals at room temperature. <i>Solid State Ionics</i> , 2016, 288, 325-330.	1.3	7
21	Joining of ceramic $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_3$ membranes for oxygen production to high temperature alloys. <i>Journal of Membrane Science</i> , 2016, 506, 11-21.	4.1	23
22	(Invited) The Role of Solid-Gas Electrochemical Interfaces for Mixed Ionic Electronic Conducting Oxygen Transport Membranes. <i>ECS Transactions</i> , 2015, 66, 21-33.	0.3	7
23	Expansion behaviour of (Gd, Pr)-substituted CeO_2 in dependence on temperature and oxygen partial pressure. <i>Solid State Ionics</i> , 2015, 283, 56-67.	1.3	16
24	Structural and functional properties of $\text{SrTi}_{1-x}\text{Fe}_x\text{O}_{3-\delta}$ ($0 \leq x \leq 1$) for the use as oxygen transport membrane. <i>Separation and Purification Technology</i> , 2015, 147, 414-421.	3.9	41
25	Creep behavior of porous $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ oxygen transport membrane supports. <i>Ceramics International</i> , 2015, 41, 4064-4069.	2.3	22
26	Mechanical properties of pure and doped cerium oxide. <i>Journal of the European Ceramic Society</i> , 2015, 35, 1539-1547.	2.8	19
27	Strength and elastic modulus of lanthanum strontium cobalt ferrite membrane materials. <i>Ceramics International</i> , 2015, 41, 1355-1360.	2.3	10
28	Towards the fabrication of $\text{La}_{0.98}\text{Sr}_x\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ perovskite-type oxygen transport membranes. <i>Journal of the European Ceramic Society</i> , 2014, 34, 3741-3748.	2.8	49
29	Stability aspects of porous $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_3$. <i>Ceramics International</i> , 2014, 40, 7395-7399.	2.3	8
30	Oxygen transport through supported $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_3$ membranes. <i>Separation and Purification Technology</i> , 2014, 121, 60-67.	3.9	46
31	Application of Thin-Film Manufacturing Technologies to Solid Oxide Fuel Cells and Gas Separation Membranes. <i>International Journal of Applied Ceramic Technology</i> , 2013, 10, 421-427.	1.1	8
32	Manufacturing and performance of advanced supported $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_3$ (BSCF) oxygen transport membranes. <i>Journal of Membrane Science</i> , 2013, 433, 121-125.	4.1	86
33	Oxygen permeation through tape-cast asymmetric all- $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ membranes. <i>Journal of Membrane Science</i> , 2013, 447, 297-305.	4.1	120
34	Mem-brain Gas Separation Membranes for Energy-efficient Processes. <i>Procedia Engineering</i> , 2012, 44, 1554-1556.	1.2	0
35	New Generation of LSCF Oxygen Transport Membranes. <i>Procedia Engineering</i> , 2012, 44, 1552-1553.	1.2	2
36	Development of Thin-Film Manufacturing Technologies for Solid Oxide Fuel Cells and Gas Separation Membranes. <i>Additional Conferences (Device Packaging HiTEC HiTEN & CICMT)</i> , 2012, 2012, 000277-000280.	0.2	0

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37	Influence of flue gas components on the chemical properties of the ceramic materials (Co-)Ce _{0.8} Gd _{0.2} xPrxO ₂ . IOP Conference Series: Materials Science and Engineering, 2011, 18, 072005.	0.3	1
38	Ultrahigh oxygen permeation flux through supported Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ membranes. Journal of Membrane Science, 2011, 377, 198-205.	4.1	310
39	Electronic conductivity of Ce _{0.8} Gd _{0.2} xPrxO ₂ and influence of added CoO. Physica Status Solidi (B): Basic Research, 2011, 248, 314-322.	0.7	42
40	Influence of sintering conditions on microstructure and oxygen permeation of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ (BSCF) oxygen transport membranes. Journal of Membrane Science, 2010, 359, 102-109.	4.1	99
41	Supported Oxygen Transport Membranes for Oxyfuel Power Plants. Advances in Science and Technology, 0, , .	0.2	16
42	Tape Casting as a Multi Purpose Shaping Technology for Different Applications in Energy Issues. Materials Science Forum, 0, 706-709, 1035-1040.	0.3	23