

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

35
g-index

44
all docs

44
docs citations

44
times ranked

846
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Oxygen permeation through tape-cast asymmetric all-La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O ₃ membranes. Journal of Membrane Science, 2013, 447, 297-305.	4.1	120
3	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
4	Manufacturing and performance of advanced supported Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ (BSCF) oxygen transport membranes. Journal of Membrane Science, 2013, 433, 121-125.	4.1	86
5	Towards the fabrication of La _{0.98-x} Sr _x Co _{0.2} Fe _{0.8} O ₃ perovskite-type oxygen transport membranes. Journal of the European Ceramic Society, 2014, 34, 3741-3748.	2.8	49
6	Oxygen transport through supported Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ membranes. Separation and Purification Technology, 2014, 121, 60-67.	3.9	46
7	Influence of Microstructure and Surface Activation of Dual-Phase Membrane Ce _{0.8} Gd _{0.2} O ₂ FeCo ₂ O ₄ on Oxygen Permeation. Journal of the American Ceramic Society, 2016, 99, 349-355.	1.9	44
8	Electronic conductivity of Ce _{0.8} Gd _{0.2} Pr _x O ₂ and influence of added CoO. Physica Status Solidi (B): Basic Research, 2011, 248, 314-322.	0.7	42
9	Structural and functional properties of SrTi _{1-x} Fe _x O ₃ (0 ≤ x ≤ 1) for the use as oxygen transport membrane. Separation and Purification Technology, 2015, 147, 414-421.	3.9	41
10	A review on dual-phase oxygen transport membranes: from fundamentals to commercial deployment. Journal of Materials Chemistry A, 2022, 10, 2152-2195.	5.2	31
11	Comparison of freeze-dried and tape-cast support microstructure on high-flux oxygen transport membrane performance. Journal of Membrane Science, 2018, 564, 218-226.	4.1	29
12	Co and Fe co-doping influence on functional properties of SrTiO ₃ for use as oxygen transport membranes. Journal of the European Ceramic Society, 2018, 38, 5058-5066.	2.8	26
13	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
14	Joining of ceramic Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ membranes for oxygen production to high temperature alloys. Journal of Membrane Science, 2016, 506, 11-21.	4.1	23
15	Mechanical properties and lifetime predictions of dense SrTi _{1-x} Fe _x O ₃ (x = 0.25, 0.35, 0.5). Journal of the European Ceramic Society, 2017, 37, 2629-2636.	2.8	23
16	Creep behavior of porous La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O ₃ oxygen transport membrane supports. Ceramics International, 2015, 41, 4064-4069.	2.3	22
17	Structural and chemical stability of high performance Ce _{0.8} Gd _{0.2} O ₂ FeCo ₂ O ₄ dual phase oxygen transport membranes. Journal of Membrane Science, 2017, 544, 278-286.	4.1	21
18	Stability and sintering of MgO as a substrate material for Lanthanum Tungstate membranes. Journal of the European Ceramic Society, 2017, 37, 671-677.	2.8	20

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19	Mechanical properties of pure and doped cerium oxide. Journal of the European Ceramic Society, 2015, 35, 1539-1547.	2.8	19
20	Influence of support layer resistance on oxygen fluxes through asymmetric membranes based on perovskite-type oxides SrTi1-Fe O3-. Journal of Membrane Science, 2020, 596, 117704.	4.1	18
21	Design and fabrication of large-sized planar oxygen transport membrane components for direct integration in oxy-combustion processes. Separation and Purification Technology, 2019, 220, 89-101.	3.9	17
22	Supported Oxygen Transport Membranes for Oxyfuel Power Plants. Advances in Science and Technology, 0, , .	0.2	16
23	Expansion behaviour of (Gd, Pr)-substituted CeO2 in dependence on temperature and oxygen partial pressure. Solid State Ionics, 2015, 283, 56-67.	1.3	16
24	Ceramic Membranes: Materials – Components – Potential Applications. ChemBioEng Reviews, 2019, 6, 198-208.	2.6	14
25	Creep behavior of porous La0.6Sr0.4Co0.2Fe0.8O3-Î substrate material for oxygen separation application. Journal of the European Ceramic Society, 2018, 38, 1702-1710.	2.8	11
26	Strength and elastic modulus of lanthanum strontium cobalt ferrite membrane materials. Ceramics International, 2015, 41, 1355-1360.	2.3	10
27	Application of Thin-Film Manufacturing Technologies to Solid Oxide Fuel Cells and Gas Separation Membranes. International Journal of Applied Ceramic Technology, 2013, 10, 421-427.	1.1	8
28	Stability aspects of porous Ba0.5Sr0.5Co0.8Fe0.2O3-Î. Ceramics International, 2014, 40, 7395-7399.	2.3	8
29	(Invited) The Role of Solid-Gas Electrochemical Interfaces for Mixed Ionic Electronic Conducting Oxygen Transport Membranes. ECS Transactions, 2015, 66, 21-33.	0.3	7
30	Scanning probe microscopy polarization experiments with polycrystalline Ce0.8Gd0.2-ÎxPrxO2-Î and Ce0.8Y0.2O2-Î single crystals at room temperature. Solid State Ionics, 2016, 288, 325-330.	1.3	7
31	Creep behaviour of dense and porous SrTi0.75Fe0.25O3-Î for oxygen transport membranes and substrates. Journal of the European Ceramic Society, 2018, 38, 5067-5073.	2.8	7
32	Micromechanical Characterization of Ce 0.8 Gd 0.2 O 2-Î – FeCo 2 O 4 Dual Phase Oxygen Transport Membranes. Advanced Engineering Materials, 2020, 22, 1901558.	1.6	7
33	Development and Proof of Concept of a Compact Metallic Reactor for MIEC Ceramic Membranes. Membranes, 2021, 11, 541.	1.4	7
34	Analysis of Charge Transport in Ce0.8Gd0.2-xPrxO2-Î at T% 600Â°C. Journal of the Electrochemical Society, 2017, 164, H491-H496.	1.3	6
35	Microstructure and anisotropic mechanical properties of freeze dried SrTi0.75Fe0.25O3-Î for oxygen transport membrane substrates. Journal of the European Ceramic Society, 2018, 38, 2774-2783.	2.8	5
36	Tape-casting and freeze-drying gadolinia-doped ceria composite membranes for carbon dioxide permeation. Journal of Membrane Science, 2022, 648, 120355.	4.1	5

#	ARTICLE	IF	CITATIONS
37	Asymmetric LSCF Membranes Utilizing Commercial Powders. <i>Materials</i> , 2020, 13, 614.	1.3	3
38	New Generation of LSCF Oxygen Transport Membranes. <i>Procedia Engineering</i> , 2012, 44, 1552-1553.	1.2	2
39	Influence of flue gas components on the chemical properties of the ceramic materials (Co-)Ce _{0,8} Gd _{0,2} xPrxO ₂ ~ŷ. <i>IOP Conference Series: Materials Science and Engineering</i> , 2011, 18, 072005.	0.3	1
40	Mem-brain Gas Separation Membranes for Energy-efficient Processes. <i>Procedia Engineering</i> , 2012, 44, 1554-1556.	1.2	0
41	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
42	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