

Maria Balaguer

List of Publications by Year in descending order

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43
papers

1,055
citations

430874

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32
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all docs

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docs citations

43
times ranked

1059
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen production via microwave-induced water splitting at low temperature. <i>Nature Energy</i> , 2020, 5, 910-919.	39.5	89
2	Structural-Transport Properties Relationships on $\text{Ce}_{1-x}\text{Ln}_x\text{O}_{2+\delta}$ System (Ln = Gd, La, Tb, Pr, Eu, Er, Yb). <i>Tj. Ceram. Soc. Jpn.</i> 2010, 77, 1000-1007.	10.0	107
3	Fast Oxygen Separation Through SO_2 - and CO_2 -Stable Dual-Phase Membrane Based on NiFe_2O_4 - $\text{Ce}_{0.8}\text{Tb}_{0.2}\text{O}_{2-\delta}$. <i>Chemistry of Materials</i> , 2013, 25, 4986-4993.	6.7	79
4	Study of the Transport Properties of the Mixed Ionic Electronic Conductor $\text{Ce}_{1-x}\text{Tb}_x\text{O}_{2+\delta}$ + Co ($x = 0.1, 0.2$) and Evaluation As Oxygen-Transport Membrane. <i>Chemistry of Materials</i> , 2011, 23, 2333-2343.	6.7	66
5	Particular Transport Properties of NiFe_2O_4 Thin Films at High Temperatures. <i>Journal of Physical Chemistry C</i> , 2014, 118, 24266-24273.	3.1	53
6	Enhanced Oxygen Separation through Robust Freeze-Cast Bilayered Dual-Phase Membranes. <i>ChemSusChem</i> , 2014, 7, 2554-2561.	6.8	52
7	SOFC composite cathodes based on LSM and co-doped cerias ($\text{Ce}_{0.8}\text{Gd}_{0.1}\text{X}_{0.1}\text{O}_{2-\delta}$, X = Gd, Cr, Mg, Bi, Ce). <i>Journal of Power Sources</i> , 2013, 223, 214-220.	7.8	48
8	Hydrogen separation through tailored dual phase membranes with nominal composition $\text{BaCe}_{0.8}\text{Eu}_{0.2}\text{O}_{3-\delta}:\text{Ce}_{0.8}\text{Y}_{0.2}\text{O}_{2-\delta}$ at intermediate temperatures. <i>Scientific Reports</i> , 2016, 6, 34773.	3.3	46
9	Influence of Microstructure and Surface Activation of Dual-Phase Membrane $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2+\delta}$ - FeCo_2O_4 on Oxygen Permeation. <i>Journal of the American Ceramic Society</i> , 2016, 99, 349-355.	3.8	44
10	Bulk transport and oxygen surface exchange of the mixed ionic-electronic conductor $\text{Ce}_{1-x}\text{Tb}_x\text{O}_{2+\delta}$ ($x = 0.1, 0.2, 0.5$). <i>Journal of Materials Chemistry A</i> , 2013, 1, 10234.	10.3	40
11	Dual-Phase Oxygen Transport Membranes for Stable Operation in Environments Containing Carbon Dioxide and Sulfur Dioxide. <i>ChemSusChem</i> , 2015, 8, 4242-4249.	6.8	40
12	A review on dual-phase oxygen transport membranes: from fundamentals to commercial deployment. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2152-2195.	10.3	31
13	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.	8.2	29
14	Dual-phase membrane based on $\text{LaCo}_{0.2}\text{Ni}_{0.4}\text{Fe}_{0.4}\text{O}_{3-x}-\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2+x}$ composition for oxygen permeation under CO_2/SO_2 -rich gas environments. <i>Journal of Membrane Science</i> , 2018, 548, 117-124.	8.2	26
15	Rare Earth-doped Ceria Catalysts for ODHE Reaction in a Catalytic Modified MIEC Membrane Reactor. <i>ChemCatChem</i> , 2012, 4, 2102-2111.	3.7	24
16	Catalyst Screening for Oxidative Coupling of Methane Integrated in Membrane Reactors. <i>Frontiers in Materials</i> , 2018, 5, .	2.4	24
17	Engineering microstructure and redox properties in the mixed conductor $\text{Ce}_{0.9}\text{Pr}_{0.1}\text{O}_{2+\delta}$ + Co 2 mol%. <i>Dalton Transactions</i> , 2014, 43, 4305-4312.	3.3	22
18	Oxygen transport membranes in a biomass/coal combined strategy for reducing CO_2 emissions: Permeation study of selected membranes under different CO_2 -rich atmospheres. <i>Catalysis Today</i> , 2015, 257, 221-228.	4.4	20

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19	Structure and water uptake in $\text{BaLnCo}_2\text{O}_6$ (Ln =La, Pr, Nd, Sm, Gd, Tb and Dy). <i>Acta Materialia</i> , 2020, 199, 297-310.	7.9	18
20	Mixed Proton-Electron Conducting Chromite Electrocatalysts as Anode Materials for LWO-Based Solid Oxide Fuel Cells. <i>ChemSusChem</i> , 2012, 5, 2155-2158.	6.8	17
21	Quenching of porous silicon photoluminescence by molecular oxygen and dependence of this phenomenon on storing media and method of preparation of pSi photosensitizer. <i>Journal of Nanoparticle Research</i> , 2010, 12, 2907-2917.	1.9	16
22	Elastic properties of freeze-cast $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_3$. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1651-1657.	5.7	16
23	High performance anodes with tailored catalytic properties for $\text{La}_{5.6}\text{WO}_{11.4}$ based proton conducting fuel cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3004.	10.3	15
24	High-Temperature Structural and Electrical Properties of $\text{BaLnCo}_2\text{O}_6$ Perovskites. <i>Materials</i> , 2020, 13, 4044.	2.9	15
25	Boosting methane partial oxidation on ceria through exsolution of robust Ru nanoparticles. <i>Materials Advances</i> , 2021, 2, 2924-2934.	5.4	15
26	Oxygen permeation and stability of $\text{CaTi}_{0.73}\text{Fe}_{0.18}\text{Mg}_{0.09}\text{O}_3$ oxygen-transport membrane. <i>Journal of Membrane Science</i> , 2017, 524, 56-63.	8.2	13
27	Catalytic surface promotion of highly active $\text{La}_{0.85}\text{Sr}_{0.15}\text{Cr}_{0.8}\text{Ni}_{0.2}\text{O}_3$ anodes for $\text{La}_{5.6}\text{WO}_{11.4}$ based proton conducting fuel cells. <i>Applied Catalysis B: Environmental</i> , 2014, 147, 203-207.	20.2	12
28	Electric and magnetic properties of lanthanum barium cobaltite. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1809-1818.	3.8	12
29	Creep behavior of porous $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_3$ substrate material for oxygen separation application. <i>Journal of the European Ceramic Society</i> , 2018, 38, 1702-1710.	5.7	11
30	Mixed Ionic-Electronic Conduction in $\text{NiFe}_{2}\text{O}_4$ - $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_2$ Nanocomposite Thin Films for Oxygen Separation. <i>ChemSusChem</i> , 2018, 11, 2818-2827.	6.8	11
31	Durability and photophysical properties of surfactant-covered porous silicon particles in aqueous suspensions. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 2585-2588.	1.8	10
32	Development and understanding of $\text{La}_{0.85}\text{Sr}_{0.15}\text{Cr}_{1-x}\text{Ni}_x\text{O}_3$ anodes for $\text{La}_{5.6}\text{WO}_{11.4}$ -based Proton Conducting Solid Oxide Fuel Cells. <i>Journal of Power Sources</i> , 2014, 258, 98-107.	7.8	9
33	Improving the performance of oxygen transport membranes in simulated oxy-fuel power plant conditions by catalytic surface enhancement. <i>Journal of Membrane Science</i> , 2019, 580, 307-315.	8.2	9
34	Influence of preparation and storage conditions on photoluminescence of porous silicon powder with embedded Si nanocrystals. <i>Journal of Nanoparticle Research</i> , 2008, 10, 1241-1249.	1.9	7
35	Tailoring Electrocatalytic Properties of Solid Oxide Fuel Cell Composite Cathodes Based on $(\text{La}_{0.8}\text{Sr}_{0.2})_{0.95}\text{MnO}_{3+\delta}$ and Doped Cerias $\text{Ce}_{1-x}\text{Ln}_x\text{O}_2$ (Ln=Gd, La, Er, Pr, Tb and $x=0.1$ -0.2). <i>Fuel Cells</i> , 2017, 17, 100-107.	2.4	7
36	Characterization and Optimization of $\text{La}_{0.97}\text{Ni}_{0.5}\text{Co}_{0.5}\text{O}_3$ -Based Air-Electrodes for Solid Oxide Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 2784-2792.	5.1	7

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37	Catalytic Oxide-Ion Conducting Materials for Surface Activation of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} Membranes. <i>ChemistrySelect</i> , 2017, 2, 2949-2955.	1.5	5
38	In Situ Raman Characterization of SOFC Materials in Operational Conditions: A Doped Ceria Study. <i>Membranes</i> , 2020, 10, 148.	3.0	5
39	Progress in Ce _{0.8} Gd _{0.2} O _{2-δ} protective layers for improving the CO ₂ stability of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} O ₂ -transport membranes. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3747-3752.	4.9	5
40	Nano Suspension of Porous Silicon in Water: Two Methods of Material Preparation and Modification by Surfactants. <i>ECS Transactions</i> , 2007, 6, 63-70.	0.5	2
41	Porous Silicon for Photosensitized Formation of Singlet Oxygen in Water and in Simulated Body Fluid: Two Methods of Modification by Undecylenic Acid. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 3455-3461.	0.9	2
42	Optimization of SOFC Composite Cathodes Based on LSM and Doped Cerias Ce _{0.8} Ln _{0.2} O _{2-δ} (Ln = Gd, Er, Tb) Tj ETQg0 0 0 rgBT /Overlo	2.9	2
43	Evaluation of Er Doped CeO _{2-δ} as Oxygen Transport Membrane. <i>Membranes</i> , 2022, 12, 172.	3.0	2