

Electrical properties of the grain boundaries of oxygen ion conductor zirconia and ceria

Progress in Materials Science

51, 151-210

DOI: [10.1016/j.pmatsci.2005.07.001](https://doi.org/10.1016/j.pmatsci.2005.07.001)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Improvement of Grain-Boundary Conduction in Gadolinia-Doped Ceria by the Addition of CaO. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, A399.	2.2	30
2	Radical nanomedicine. <i>Nanomedicine</i> , 2006, 1, 399-412.	1.7	142
3	Electrolytes for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2006, 162, 30-40.	4.0	791
4	Effect of grain size distribution on the grain boundary electrical response of 2D and 3D polycrystals. <i>Solid State Ionics</i> , 2006, 177, 3117-3121.	1.3	10
5	The effect of segregated transition metal ions on the grain boundary resistivity of gadolinium doped ceria: Alteration of the space charge potential. <i>Solid State Ionics</i> , 2006, 177, 3075-3080.	1.3	103
6	Nanoscale Effects on the Ionic Conductivity of Highly Doped Bulk Nanometric Cerium Oxide. <i>Advanced Functional Materials</i> , 2006, 16, 2363-2368.	7.8	79
7	A Mechanism for the Fast Ionic Transport in Nanostructured Oxide-Ion Solid Electrolytes. <i>Advanced Materials</i> , 2006, 18, 3005-3009.	11.1	65
8	Dielectric relaxation mechanism of single crystal and polycrystal bismuth germanate. <i>Journal of Applied Physics</i> , 2007, 102, .	1.1	12
9	Mitigation of Highly Resistive Grain-Boundary Phase in Gadolinia-Doped Ceria by the Addition of SrO. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, B91.	2.2	29
11	Electrochemical impedance analysis of solid oxide fuel cell electrolyte using kinetic Monte Carlo technique. <i>Solid State Ionics</i> , 2007, 178, 195-205.	1.3	48
12	Enhancement of grain-boundary conduction in gadolinia-doped ceria by the scavenging of highly resistive siliceous phase. <i>Acta Materialia</i> , 2007, 55, 4807-4815.	3.8	74
13	Ionic conductivity and its temperature dependence of atmospheric plasma-sprayed yttria stabilized zirconia electrolyte. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2007, 137, 24-30.	1.7	112
14	Ionic conductivity in directionally solidified Al ₂ O ₃ /ZrO ₂ (3% mol Y ₂ O ₃) near eutectic composites. <i>Solid State Ionics</i> , 2007, 178, 239-247.	1.3	11
15	A brief review of the ionic conductivity enhancement for selected oxide electrolytes. <i>Journal of Power Sources</i> , 2007, 172, 493-502.	4.0	299
16	Mechanical and electrical properties of Al ₂ O ₃ /Ce _{0.8} Y _{0.2} O _{1.9} composite electrolytes. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2007, 145, 85-90.	1.7	9
17	Technological development of hydrogen production by solid oxide electrolyzer cell (SOEC). <i>International Journal of Hydrogen Energy</i> , 2008, 33, 2337-2354.	3.8	576
18	Local electrical and dielectric properties of nanocrystalline yttria-stabilized zirconia. <i>Journal of Materials Science</i> , 2008, 43, 4684-4692.	1.7	52
19	Optical absorption in ZrO ₂ -x-C nanocomposite films on polymer substrates: application of an effective medium theory. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 3376-3382.	0.8	2

#	ARTICLE	IF	CITATIONS
20	Blocking Effect in High Purity Nanostructured Cubic Zirconia Ceramics. <i>Fuel Cells</i> , 2008, 8, 313-321.	1.5	14
21	Growth and structure of epitaxial Ce _{0.8} Sm _{0.2} O _{1.9} by oxygen-plasma-assisted molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2008, 310, 2450-2456.	0.7	21
22	Influence of through-lamella grain growth on ionic conductivity of plasma-sprayed yttria-stabilized zirconia as an electrolyte in solid oxide fuel cells. <i>Journal of Power Sources</i> , 2008, 176, 31-38.	4.0	63
23	Effect of CaO concentration on enhancement of grain-boundary conduction in gadolinia-doped ceria. <i>Journal of Power Sources</i> , 2008, 183, 518-523.	4.0	61
24	Electrical properties of Mg-doped Gd _{0.1} Ce _{0.9} O _{1.95} under different sintering conditions. <i>Journal of Power Sources</i> , 2008, 183, 498-505.	4.0	32
25	Estimation of the surface potential in superionic oxide conductors using the Stern model. <i>Solid State Ionics</i> , 2008, 179, 783-787.	1.3	8
26	Structural study and proton transport of bulk nanograined Y-doped BaZrO ₃ oxide protonics materials. <i>Solid State Ionics</i> , 2008, 179, 236-242.	1.3	99
27	Design of Electroceramics for Solid Oxides Fuel Cell Applications: Playing with Ceria. <i>Journal of the American Ceramic Society</i> , 2008, 91, 1037-1051.	1.9	221
28	The Brick Layer Model Revisited: Introducing the Nano-Grain Composite Model. <i>Journal of the American Ceramic Society</i> , 2008, 91, 1733-1746.	1.9	121
29	Preparation and properties of Y ³⁺ and Ca ²⁺ co-doped ceria electrolyte materials for ITSOFC. <i>Solid State Sciences</i> , 2008, 10, 1179-1184.	1.5	14
30	Proton and oxide ion conductivity in grain boundaries and grain interior of Ca-doped Er ₂ Ti ₂ O ₇ with Si-impurities. <i>Solid State Ionics</i> , 2008, 179, 1849-1853.	1.3	18
31	Conductivity of Oriented Samaria-Doped Ceria Thin Films Grown by Oxygen-Plasma-Assisted Molecular Beam Epitaxy. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, B76.	2.2	13
32	Oxygen surface exchange studies in thin film Gd-doped ceria. <i>Applied Physics Letters</i> , 2008, 92, 243109.	1.5	35
33	Effects of grain modification on the dielectric properties of A _{0.03} Ti _{0.10} Ni _{0.87} O ₂ ^(A:K⁺,Mg²⁺,Y³⁺) ceramics. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	11
34	Temperature-dependent interfacial carrier transport in low-dimensional oxides using ionic conductor-insulator (YDZ-SiO ₂) superlattices. <i>Journal of Applied Physics</i> , 2008, 104, 124314.	1.1	8
35	YSZ-Based Oxygen Sensors and the Use of Nanomaterials: A Review from Classical Models to Current Trends. <i>Journal of Sensors</i> , 2009, 2009, 1-15.	0.6	40
36	Probing Diffusion Kinetics with Secondary Ion Mass Spectrometry. <i>MRS Bulletin</i> , 2009, 34, 907-914.	1.7	75
37	Surface and Bulk Defect Equilibria in Strontium-Doped Lanthanum Cobalt Iron Oxide. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1242.	1.3	39

#	ARTICLE	IF	CITATIONS
38	Impedance spectroscopy analysis of zirconia:8 mol% yttria solid electrolytes with graphite pore former. <i>Journal of Materials Research</i> , 2009, 24, 1780-1784.	1.2	15
39	Ionic conductivity of plasma-sprayed nanocrystalline yttria-stabilized zirconia electrolyte for solid oxide fuel cells. <i>Scripta Materialia</i> , 2009, 60, 1023-1026.	2.6	21
40	Highly resistive intergranular phases in solid electrolytes: an overview. <i>Monatshefte für Chemie</i> , 2009, 140, 1081-1094.	0.9	23
41	The intrinsic origin of the grain-boundary resistance in Sr-doped LaGaO ₃ . <i>Monatshefte für Chemie</i> , 2009, 140, 1053-1057.	0.9	10
42	Structural and electrical properties of grain boundaries in Ce _{0.85} Gd _{0.15} O _{1.925} solid electrolyte modified by addition of transition metal ions. <i>Journal of Power Sources</i> , 2009, 194, 2-9.	4.0	44
43	Relaxation studies of spray deposited Bi ₂ Co _{0.1} V _{0.9} O _{5.35} solid electrolyte thin films on stainless steel substrate. <i>Ionics</i> , 2009, 15, 453-458.	1.2	2
44	Transference Numbers for In-plane Carrier Conduction in Thin Film Nanostructured Gadolinia-Doped Ceria Under Varying Oxygen Partial Pressure. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2400-2403.	1.9	9
45	Atomistic calculation of association energy in doped ceria. <i>Solid State Ionics</i> , 2009, 180, 13-17.	1.3	66
46	Interfacial protonic conduction in ceramics. <i>Journal of the European Ceramic Society</i> , 2009, 29, 2429-2437.	2.8	32
47	Synthesis, sintering and electrical properties of yttria-calcia-doped ceria. <i>Journal of the European Ceramic Society</i> , 2009, 29, 2559-2565.	2.8	17
48	An experimental investigation into micro-fabricated solid oxide fuel cells with ultra-thin La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃ cathodes and yttria-doped zirconia electrolyte films. <i>Journal of Power Sources</i> , 2009, 186, 252-260.	4.0	77
49	Mixed conduction behavior in nanostructured lanthanum gallate. <i>Electrochemistry Communications</i> , 2009, 11, 962-964.	2.3	12
50	Surface and bulk oxygen non-stoichiometry and bulk chemical expansion in gadolinium-doped cerium oxide. <i>Acta Materialia</i> , 2009, 57, 3596-3605.	3.8	90
51	Improvement of Grain-Boundary Conduction in SiO ₂ -Doped GDC by BaO Addition. <i>Journal of the Electrochemical Society</i> , 2009, 156, B891.	1.3	17
52	Effect of sintering additive and low temperature on the electrode polarization of CGO. <i>Journal of Alloys and Compounds</i> , 2009, 467, 533-538.	2.8	17
53	Atomistic modelling of adsorption and segregation at inorganic solid interfaces. <i>Molecular Simulation</i> , 2009, 35, 584-608.	0.9	22
54	The formation of equilibrium space-charge zones at grain boundaries in the perovskite oxide SrTiO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 9939.	1.3	191
55	Interface-mediated ultrafast carrier conduction in oxide thin films and superlattices for energy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2009, 27, 1126-1134.	0.9	25

#	ARTICLE	IF	CITATIONS
56	Defect studies of nanocrystalline zirconia powders and sintered ceramics. <i>Physical Review B</i> , 2010, 81, .	1.1	68
57	Electrical properties of samaria-doped ceria electrolytes from highly active powders. <i>Electrochimica Acta</i> , 2010, 55, 4529-4535.	2.6	39
58	Charge carriers in grain boundaries of 0.5% Sr-doped LaNbO ₄ . <i>Solid State Ionics</i> , 2010, 181, 104-109.	1.3	61
59	Electrical properties of YSZ/Al ₂ O ₃ composite and YSZ/Al ₂ O ₃ interface studied by impedance spectroscopy and finite element modelling. <i>Solid State Ionics</i> , 2010, 181, 783-789.	1.3	16
60	Influence of porosity on the bulk and grain-boundary electrical properties of Gd-doped ceria. <i>Solid State Ionics</i> , 2010, 181, 1033-1042.	1.3	81
61	The grain boundary effect on dysprosium doped ceria. <i>Solid State Ionics</i> , 2010, 181, 1665-1673.	1.3	51
62	Electrical properties of ceria Co-doped with Sm ³⁺ and Nd ³⁺ . <i>Journal of Power Sources</i> , 2010, 195, 969-976.	4.0	56
63	Electrical properties of grain boundaries and size effects in samarium-doped ceria. <i>Journal of Power Sources</i> , 2010, 195, 6486-6490.	4.0	45
65	Phase-transformation and grain-growth kinetics in yttria-stabilized tetragonal zirconia polycrystal doped with a small amount of alumina. <i>Journal of the European Ceramic Society</i> , 2010, 30, 1679-1690.	2.8	41
66	Effect of oxide additives on the sintering behavior and electrical properties of strontium- and magnesium-doped lanthanum gallate. <i>Journal of the European Ceramic Society</i> , 2010, 30, 2593-2601.	2.8	14
67	Thermal conductivities of YSZ/Al ₂ O ₃ composites. <i>Journal of the European Ceramic Society</i> , 2010, 30, 3111-3116.	2.8	64
68	Enhanced ionic transport in fine-grained scandia-stabilized zirconia ceramics. <i>Journal of Power Sources</i> , 2010, 195, 3402-3406.	4.0	22
69	Improved electrical conductivity of Ce _{0.9} Gd _{0.1} O _{1.95} and Ce _{0.9} Sm _{0.1} O _{1.95} by co-doping. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3018-3022.	3.8	37
70	Electrical transport at low temperatures in dense nanocrystalline Gd-doped ceria. <i>Solid State Ionics</i> , 2010, 181, 20-26.	1.3	37
71	Grain core and grain boundary electrical/dielectric properties of yttria-doped tetragonal zirconia polycrystal (TZP) nanoceramics. <i>Solid State Ionics</i> , 2010, 181, 276-284.	1.3	34
72	Space charge theory applied to the grain boundary impedance of proton conducting BaZr _{0.9} Y _{0.1} O ₃ . <i>Solid State Ionics</i> , 2010, 181, 268-275.	1.3	219
73	Co-doped ceria-based solid solution in the CeO ₂ -M ₂ O ₃ -CaO, M=Sm, Gd system. <i>Electrochimica Acta</i> , 2010, 55, 4387-4394.	2.6	33
74	Fabrication and Characterizations of YSZ Electrolyte Films for SOFC. <i>Key Engineering Materials</i> , 0, 434-435, 705-709.	0.4	5

#	ARTICLE	IF	CITATIONS
75	Ionic conductivity of nanocrystalline yttria-stabilized zirconia: Grain boundary and size effects. <i>Physical Review B</i> , 2010, 81, .	1.1	82
76	Resistance switching in polycrystalline BiFeO ₃ thin films. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	139
77	Dislocation structures and strain fields in [111] low-angle tilt grain boundaries in zirconia bicrystals. <i>Journal of Electron Microscopy</i> , 2010, 59, S117-S121.	0.9	16
78	SiO ₂ -Tolerant Grain-Boundary Conduction in Sr- and Mg-Doped Lanthanum Gallate. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, B28.	2.2	6
79	Comparison of Structural and Electrical Properties of Barium Zirconate Pellets and Thin Films. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1582.	1.3	16
80	Oxide-ion and proton conducting electrolyte materials for clean energy applications: structural and mechanistic features. <i>Chemical Society Reviews</i> , 2010, 39, 4370.	18.7	748
81	The Grain Boundary Conduction Property of Highly Dense and Nanostructured Yttrium-Doped Zirconia. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, K49.	2.2	13
82	Study on rare earth electrolyte of SDC. <i>Journal of Rare Earths</i> , 2010, 28, 914-916.	2.5	9
85	Atomistic Modeling of Solid Oxide Fuel Cells. <i>Annual Reports in Computational Chemistry</i> , 2010, , 201-234.	0.9	2
86	Protonic conductivity of nano-structured yttria-stabilized zirconia: dependence on grain size. <i>Journal of Materials Chemistry</i> , 2010, 20, 990-994.	6.7	59
87	Room-temperature protonic conduction in nanocrystalline films of yttria-stabilized zirconia. <i>Journal of Materials Chemistry</i> , 2010, 20, 6235.	6.7	46
88	Strong immobilization of charge carriers near the surface of a solid oxide electrolyte. <i>Journal of Materials Chemistry</i> , 2010, 20, 3855.	6.7	21
89	Unusual decrease in conductivity upon hydration in acceptor doped, microcrystalline ceria. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 6442.	1.3	25
90	Stability and Structural Evolution of Ce ^{IV} _{1-x} Ln ^{III} _x O ₂ Solid Solutions: A Coupled ¹ / ₄ -Raman/XRD Approach. <i>Inorganic Chemistry</i> , 2011, 50, 7150-7161.	1.9	109
91	On the origin of the blocking effect of grain-boundaries on proton transport in yttrium-doped barium zirconates. <i>Journal of Materials Chemistry</i> , 2011, 21, 5435.	6.7	89
92	Direct evidence of potential barriers at grain boundaries in Y-doped BaZrO ₃ from dc-bias dependence measurements. <i>Journal of Materials Chemistry</i> , 2011, 21, 16517.	6.7	80
93	Influence of Crystallization State and Microstructure on the Chemical Durability of Cerium-Neodymium Mixed Oxides. <i>Inorganic Chemistry</i> , 2011, 50, 9059-9072.	1.9	60
94	Nanometric La _{0.9} Sr _{0.1} Ga _{0.8} Mg _{0.2} O _{3-x} ceramic prepared by low-pressure reactive spark-plasma-sintering. <i>Journal of Alloys and Compounds</i> , 2011, 509, 2535-2539.	2.8	9

#	ARTICLE	IF	CITATIONS
95	Comparative study of Ce _{0.85} Sm _{0.075} Nd _{0.075} O ₂ electrolyte synthesized by different routes. Journal of Alloys and Compounds, 2011, 509, 8720-8727.	2.8	7
96	Influence of Lithium Oxide Addition on the Sintering Behavior and Electrical Conductivity of Gadolinia Doped Ceria. Journal of Materials Science and Technology, 2011, 27, 460-464.	5.6	40
97	Materials Development and Microstructure Design for Solid Electrolyte Fuel Cells. Hyomen Kagaku, 2011, 32, 93-98.	0.0	0
98	Temperature Dependence of Effective Grain Core/Single Crystal Dielectric Constants for Acceptor-Doped Oxygen Ion Conductors. Journal of the American Ceramic Society, 2011, 94, 508-515.	1.9	14
99	The role of SiO ₂ and sintering temperature on the grain boundary properties of Ce _{0.8} Sm _{0.2} O ₂ . Journal of Power Sources, 2011, 196, 8383-8390.	4.0	26
100	Sintering and conductivity of BaCe _{0.9} Y _{0.1} O _{2.95} synthesized by the sol-gel method. Journal of Power Sources, 2011, 196, 9238-9245.	4.0	16
101	Insight into the grain boundary effect on the ionic transport of yttria-stabilized zirconia at elevated temperatures from a molecular modeling perspective. Journal of Power Sources, 2011, 196, 9322-9330.	4.0	25
102	A significant improvement of the processing and electric properties of CeO ₂ co-doped with Ca and Sm by mechanosynthesis. Journal of Power Sources, 2011, 196, 10543-10549.	4.0	23
103	Can we achieve significantly higher ionic conductivity in nanostructured zirconia?. Scripta Materialia, 2011, 65, 96-101.	2.6	69
104	Positron annihilation study of yttria-stabilized zirconia nanopowders containing Cr ₂ O ₃ additive. Journal of Physics: Conference Series, 2011, 265, 012020.	0.3	6
105	Composite solid electrolytes: recent advances and design strategies. Journal of Solid State Electrochemistry, 2011, 15, 367-389.	1.2	63
106	Effects of rapid process on the conductivity of multiple elements doped ceria-based electrolyte. Journal of Power Sources, 2011, 196, 1704-1711.	4.0	16
107	Low-temperature sintering and electrical properties of strontium- and magnesium-doped lanthanum gallate with V ₂ O ₅ additive. Journal of Power Sources, 2011, 196, 2971-2978.	4.0	11
108	LCAO calculation of water adsorption on (001) surface of Y-doped BaZrO ₃ . Solid State Ionics, 2011, 188, 25-30.	1.3	8
109	Microstructural characterization and electrical properties of spray pyrolyzed conventionally sintered or hot-pressed BaZrO ₃ and BaZr _{0.9} Y _{0.1} O ₃ . Solid State Ionics, 2011, 182, 32-40.	1.3	41
110	The separation of grain and grain boundary impedance in thin yttria stabilized zirconia (YSZ) layers. Solid State Ionics, 2011, 185, 32-41.	1.3	94
111	Studies on grain boundary effects in spray deposited BICOVOX 0.1 films on platinum-coated stainless steel substrate. Ionics, 2011, 17, 69-74.	1.2	2
112	A Molecular Dynamics Study on the Oxygen Diffusion in Doped Fluorites: The Effect of the Dopant Distribution. Fuel Cells, 2011, 11, 26-37.	1.5	42

#	ARTICLE	IF	CITATIONS
113	Influence of rare-earth doping on the microstructure and conductivity of BaCe _{0.9} Ln _{0.1} O _{3-δ} proton conductors. Journal of Power Sources, 2011, 196, 3461-3469.	4.0	123
114	Bulk conduction and relaxation in [(ZrO ₂) _{1-x} (CeO ₂) _x] _{0.92} (Y ₂ O ₃) _{0.08} (0 \leq x \leq 1) solid solutions at intermediate temperatures. Journal of Power Sources, 2011, 196, 4943-4949.	4.0	18
115	Fabrication and performance of Ce _{0.85} Sm _{0.15} O _{1.925-δ} Fe ₂ O ₃ electrolytes in IT-SOFCs. Solid State Ionics, 2011, 192, 510-514.	1.3	45
116	Role of nanostructured WO ₃ in ion-conducting sensors for the detection of NO _x in exhaust gases from lean combustion engines. Solid State Ionics, 2011, 184, 83-87.	1.3	27
117	XPS and impedance spectroscopy of some oxygen vacancy conducting solid electrolyte ceramics. Solid State Ionics, 2011, 188, 36-40.	1.3	18
118	Theoretical analysis of space charge layer formation at metal/ionic conductor interfaces. Solid State Ionics, 2011, 183, 20-25.	1.3	28
119	Positron annihilation study of defect distribution in 8YSZ nanostructure. Solid State Ionics, 2011, 190, 67-74.	1.3	3
120	Gd-doping effect on performance of HfO ₂ based resistive switching memory devices using implantation approach. Applied Physics Letters, 2011, 98, .	1.5	165
121	Structural evolution of amorphous thin films of titanium dioxide. , 2011, , .		5
122	A Review of the Implications of Silica in Solid Oxide Fuel Cells. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	12
123	Excessive grain boundary conductivity of spin-spray deposited ferrite/non-magnetic multilayer. Journal of Applied Physics, 2012, 111, 07A512.	1.1	11
124	Local resistive switching of Nd doped BiFeO ₃ thin films. Applied Physics Letters, 2012, 100, .	1.5	28
125	Preparation and Properties of Ni-Doped Ce _{0.85} Sm _{0.15} O _{1.925-δ} Ceramics for Use as Electrolytes in IT-SOFCs. Advanced Materials Research, 2012, 608-609, 941-944.	0.3	0
126	Kinetics of Structural and Microstructural Changes at the Solid/Solution Interface during Dissolution of Cerium(IV)-Neodymium(III) Oxides. Journal of Physical Chemistry C, 2012, 116, 12027-12037.	1.5	16
127	Defect Studies of Ytria Stabilized Zirconia with Chromia Additive. Physics Procedia, 2012, 35, 134-139.	1.2	10
128	Enhanced ionic conductivity of Sm, Gd-doped ceria induced by modification of powder synthesis procedure. Ceramics International, 2012, 38, 5461-5468.	2.3	17
129	Improved electrical properties after post annealing of Ba _{0.7} Sr _{0.3} TiO ₃ thin films for MIM capacitor applications. Applied Physics A: Materials Science and Processing, 2012, 109, 731-736.	1.1	7
130	Synthesis, characterization and solid state electrical properties of 1-D coordination polymer of the type [C _x Ni _{1-x} (dadb)Å \cdot yH ₂ O] _n . Journal of Solid State Chemistry, 2012, 196, 471-481.	1.4	11

#	ARTICLE	IF	CITATIONS
131	Effect of transition metal oxides doping on Ce _{0.9} Sm _{0.05} Nd _{0.05} O _{1.95} solid electrolyte materials. Journal of Advanced Ceramics, 2012, 1, 150-156.	8.9	8
132	Current-voltage characteristics of grain boundaries in polycrystalline Sr-doped LaGaO ₃ . Physical Chemistry Chemical Physics, 2012, 14, 9047.	1.3	8
133	Surface proton conductivity of dense nanocrystalline YSZ. Journal of Materials Chemistry, 2012, 22, 11208.	6.7	35
134	Grain Boundaries in a Lithium Aluminum Titanium Phosphate-Type Fast Lithium Ion Conducting Glass Ceramic: Microstructure and Nonlinear Ion Transport Properties. Journal of Physical Chemistry C, 2012, 116, 22675-22678.	1.5	50
135	Doped zirconia and ceria-based electrolytes for solid oxide fuel cells: a review. Nanomaterials and Energy, 2012, 1, 27-45.	0.1	46
136	Grain boundary's conductivity in heavily yttrium doped ceria. Solid State Ionics, 2012, 222-223, 31-37.	1.3	28
137	Nanostructured ceria-based materials: synthesis, properties, and applications. Energy and Environmental Science, 2012, 5, 8475.	15.6	984
138	Effect of Ca ²⁺ or Mg ²⁺ additions on the electrical properties of yttria doped ceria electrolyte system. Journal of Alloys and Compounds, 2012, 525, 184-190.	2.8	11
139	Novel high-performance solid oxide fuel cells with bulk ionic conductance dominated thin-film electrolytes. Journal of Power Sources, 2012, 218, 157-162.	4.0	106
140	Oxygen ion conductivity of (Yb _{0.9-x} Tb _x Ca _{0.1}) ₂ Ti ₂ O ₇ solid solutions. Inorganic Materials, 2012, 48, 1126-1130.	0.2	0
141	Atomic structure of a $\sqrt{3} [110]/(111)$ grain boundary in CeO ₂ . Applied Physics Letters, 2012, 100, .	1.5	22
142	Thermionic emission of protons across a grain boundary in 5 mol% Y-doped SrZrO ₃ , a hydrogen pump. International Journal of Hydrogen Energy, 2012, 37, 12432-12437.	3.8	9
143	Grain boundary conductivity of heterogeneous ceria gadolinia. Electrochimica Acta, 2012, 85, 116-121.	2.6	12
144	The grain and grain boundary impedance of sol-gel prepared thin layers of yttria stabilized zirconia (YSZ). Solid State Ionics, 2012, 225, 732-736.	1.3	16
145	Ionic and electronic conductivity of 3 mol% Fe ₂ O ₃ -substituted cubic Y-stabilized ZrO ₂ . Solid State Ionics, 2012, 226, 53-58.	1.3	13
146	Parallel-sheets model analysis of space charge layer formation at metal/ionic conductor interfaces. Solid State Ionics, 2012, 226, 62-70.	1.3	9
147	Electrical conductivity of Sm-doped CeO ₂ electrolyte produced by two-step sintering. Solid State Ionics, 2012, 227, 80-85.	1.3	20
148	Synthesis and characterization of Th _{1-x} Ln _x O _{2-x/2} mixed-oxides. Materials Research Bulletin, 2012, 47, 4017-4025.	2.7	51

#	ARTICLE	IF	CITATIONS
149	Oxygen vacancy segregation and space-charge effects in grain boundaries of dry and hydrated BaZrO ₃ . Applied Physics Letters, 2012, 100, .	1.5	52
150	Dissolution of Cerium(IV)–Lanthanide(III) Oxides: Comparative Effect of Chemical Composition, Temperature, and Acidity. Inorganic Chemistry, 2012, 51, 3868-3878.	1.9	44
151	Influence of microstructure on the cross-plane oxygen ion conductivity of yttria stabilized zirconia thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1414-1422.	0.8	34
152	Oxide Ion Transport in Donor-Doped (Pb)(Zr)(Ti) Surface Diffusion Properties. Journal of the American Ceramic Society, 2012, 95, 1692-1700.	1.9	15
153	Grain boundary resistance of fast lithium ion conductors: Comparison between a lithium-ion conductive Li–Al–Ti–P–O-type glass ceramic and a Li _{1.5} Al _{0.5} Ge _{1.5} P ₃ O ₁₂ ceramic. Electrochemistry Communications, 2012, 14, 25-28.	2.3	113
154	Nanodomain formation and distribution in Gd-doped ceria. Materials Research Bulletin, 2012, 47, 763-767.	2.7	16
155	Multiparametric study of Th _{1-x} Ln _x O _{2-x/2} mixed oxides dissolution in nitric acid media. Journal of Nuclear Materials, 2012, 429, 237-244.	1.3	22
156	Enhanced ionic conductivity of Ce _{0.8} Sm _{0.2} O _{2-δ} by Sr addition. Journal of Power Sources, 2012, 208, 225-231.	4.0	27
157	Increased ionic conductivity in microwave hydrothermally synthesized rare-earth doped ceria Ce _{1-x} R _x O _{2-x/2} . Journal of Power Sources, 2012, 209, 163-171.	4.0	56
158	Conductivity study of dense BaZr _{0.9} Y _{0.1} O _{3-δ} obtained by spark plasma sintering. Solid State Ionics, 2012, 213, 36-41.	1.3	42
159	Tailoring phase stability and electrical conductivity of Sr _{0.02} La _{0.98} Nb _{1-x} Ta _x O ₄ for intermediate temperature fuel cell proton conducting electrolytes. Solid State Ionics, 2012, 216, 6-10.	1.3	11
160	Electronically blocking grain boundaries in donor doped cerium dioxide. Solid State Ionics, 2012, 215, 45-51.	1.3	29
161	Advanced synthesis of materials for intermediate-temperature solid oxide fuel cells. Progress in Materials Science, 2012, 57, 804-874.	16.0	372
162	Low temperature sintering of LaNbO ₄ proton conductors from freeze-dried precursors. Journal of the European Ceramic Society, 2012, 32, 1235-1244.	2.8	20
163	Electrical properties of La ₂ Mo ₂ O ₉ /Al ₂ O ₃ nanocomposites fabricated by microwave sintering method. Journal of the European Ceramic Society, 2012, 32, 3239-3247.	2.8	4
164	Oxygen Surface Exchange at Grain Boundaries of Oxide Ion Conductors. Advanced Functional Materials, 2012, 22, 965-971.	7.8	127
165	Scanning Microwave Microscopy Characterization of Spin-Spray-Deposited Ferrite/Nonmagnetic Films. Journal of Electronic Materials, 2012, 41, 530-534.	1.0	8
166	Electrolytes for solid oxide fuel cells. Wiley Interdisciplinary Reviews: Energy and Environment, 2013, 2, 52-72.	1.9	52

#	ARTICLE	IF	CITATIONS
167	Investigation into the effect of Si doping on the performance of Sr _{1-x} Ca _x MnO _{3-δ} SOFC cathode materials. Dalton Transactions, 2013, 42, 5421.	1.6	23
168	First-principles study of compensation mechanisms in negatively charged LaGaO ₃ /MgAl ₂ O ₄ heterostructure. Journal of Applied Physics, 2013, 114, 043705.	1.1	12
169	CERIA AND ITS USE IN SOLID OXIDE CELLS AND OXYGEN MEMBRANES. Catalytic Science Series, 2013, , 623-782.	0.6	11
170	Lithium ion conduction in Li ₅ La ₃ Ta ₂ O ₁₂ and Li ₇ La ₃ Ta ₂ O ₁₃ garnet-type materials. Journal of Electroceramics, 2013, 30, 258-265.	0.8	24
171	Local electrical conduction in polycrystalline La-doped BiFeO ₃ thin films. Nanotechnology, 2013, 24, 225702.	1.3	18
172	Densification and lithium ion conductivity of garnet-type Li ₇ La ₃ Ta ₂ O ₁₃ /La ₃ Zr ₂ O ₇ /Ta ₂ O ₅ (LTTQ) composite. Journal of Applied Physics, 2013, 114, 043705.	1.3	14
173	On the variability of oxygen exchange kinetics of platinum model electrodes on yttria stabilized zirconia. Solid State Ionics, 2013, 247-248, 56-65.	1.3	14
174	Radiation Effects on LiNbO ₃ Memristors for Neuromorphic Computing Applications. IEEE Transactions on Nuclear Science, 2013, 60, 4555-4562.	1.2	15
175	Chemical Solution Deposition of Functional Oxide Thin Films. , 2013, , .		139
176	Degradation of NASICON-Type Materials in Contact with Lithium Metal: Formation of Mixed Conducting Interphases (MCI) on Solid Electrolytes. Journal of Physical Chemistry C, 2013, 117, 21064-21074.	1.5	411
177	Oxygen diffusion in niobia-doped zirconia as surrogate for oxide film on Zr-Nb alloy: AC impedance analysis. Journal of Nuclear Materials, 2013, 443, 608-613.	1.3	1
178	Characterization of PCFC Electrolytes Deposited by Reactive Magnetron Sputtering; Comparison with Ceramic Bulk Samples. Fuel Cells, 2013, 13, 549-555.	1.5	8
179	¹ H-NMR measurements of proton mobility in nano-crystalline YSZ. Physical Chemistry Chemical Physics, 2013, 15, 19825.	1.3	16
180	Neodymium-doped ceria nanomaterials: facile low-temperature synthesis and excellent electrical properties for IT-SOFCs. RSC Advances, 2013, 3, 6290.	1.7	6
181	Investigation into the effect of Si doping on the performance of SrFeO _{3-δ} SOFC electrode materials. Journal of Materials Chemistry A, 2013, 1, 11834.	5.2	53
182	Enhanced electrical conductivity of La ₂ Mo _{1.4} W _{0.6} O ₉ ceramic prepared by laser rapid solidification method. Journal of Power Sources, 2013, 226, 334-339.	4.0	8
183	Densification and properties of bulk nanocrystalline functional ceramics with grain size below 50nm. Journal of the European Ceramic Society, 2013, 33, 1045-1066.	2.8	112
184	Highly active Sm _{0.2} Ce _{0.8} O _{1.9} powders of very low apparent density derived from mixed cerium sources. Journal of Power Sources, 2013, 229, 277-284.	4.0	14

#	ARTICLE	IF	CITATIONS
185	Enhanced grain-boundary conduction in polycrystalline Ce _{0.8} Gd _{0.2} O _{1.9} by zinc oxide doping: Scavenging of resistive impurities. <i>Journal of Power Sources</i> , 2013, 230, 161-168.	4.0	21
186	Peculiar size effect in nanocrystalline BaTiO ₃ . <i>Acta Materialia</i> , 2013, 61, 1748-1756.	3.8	22
187	Evaluation of chemical stability, thermal expansion coefficient, and electrical properties of solid state and wet-chemical synthesized Y and Mn-codoped CeO ₂ for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2013, 243, 458-471.	4.0	15
188	Microanalysis of a Grain Boundary's Blocking Effect in Lanthanum Silicate Electrolyte for Intermediate-Temperature Solid Oxide Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 5307-5313.	4.0	9
189	Influence of the precursor pyrolysis temperature on the microstructure and conductivity of Gd-doped ceria materials. <i>Journal of the European Ceramic Society</i> , 2013, 33, 1825-1832.	2.8	3
190	Size Effects on the Electrical Conductivity of Ceria: Achieving Low Space Charge Potentials in Nanocrystalline Thin Films. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22560-22568.	1.5	25
191	Study on GDC-LSGM composite electrolytes for intermediate-temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 11392-11397.	3.8	15
192	Preparation of superionic ceramics by spark plasma method. <i>Medziagotyra</i> , 2013, 19, .	0.1	0
193	Impedance Spectroscopy and Dielectric Properties of Flash Versus Conventionally Sintered Yttria-Doped Zirconia Electroceramics Viewed at the Microstructural Level. <i>Journal of the American Ceramic Society</i> , 2013, 96, 3760-3767.	1.9	84
194	Influence of Zinc Oxide on the Conductivity of Ceria. <i>Journal of the Electrochemical Society</i> , 2013, 160, F1081-F1087.	1.3	19
195	Origin of Space Charge in Grain Boundaries of Proton-Conducting BaZrO ₃ . <i>Fuel Cells</i> , 2013, 13, 19-28.	1.5	51
196	Influence of Line Defects on the Electrical Properties of Single Crystal TiO ₂ . <i>Advanced Functional Materials</i> , 2013, 23, 1798-1806.	7.8	67
197	The effect of Pr co-doping on the densification and electrical properties of Sr-LaAlO ₃ . <i>Materials Research</i> , 2013, 16, 982-989.	0.6	7
198	Redox Behavior of Ceria Nanoparticles. <i>Recent Patents on Materials Science</i> , 2014, 7, 37-49.	0.5	2
199	Characterization of NASICON-type Na solid electrolyte ceramics by impedance spectroscopy. <i>Functional Materials Letters</i> , 2014, 07, 1440002.	0.7	7
200	Challenges of nanostructuring and functional properties for selected bulk materials obtained by reactive spark plasma sintering. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FB22.	0.8	9
201	Microscopic Model of Intergrain Boundary Junction. <i>Procedia Engineering</i> , 2014, 98, 111-114.	1.2	0
202	Ionic Conduction Behavior in Sm _x Nd _{0.15-x} Ce _{0.85} O _{2-δ} . <i>Solid State Ionics</i> , 2014, 263, 190-196.	1.3	31

#	ARTICLE	IF	CITATIONS
203	Equivalence of AC and DC electric field on retarding grain growth in yttria-stabilized zirconia. <i>Scripta Materialia</i> , 2014, 72-73, 33-34.	2.6	16
204	Microstructure and ionic conductivity of SrTiO ₃ heterogeneously doped YSZ composite ceramics. <i>Solid State Ionics</i> , 2014, 258, 61-66.	1.3	7
205	A Schottky barrier based model for the grain size effect on oxygen ion conductivity of acceptor-doped ZrO ₂ and CeO ₂ . <i>International Journal of Hydrogen Energy</i> , 2014, 39, 14334-14341.	3.8	19
206	Ceria co-doped with calcium (Ca) and strontium (Sr): a potential candidate as a solid electrolyte for intermediate temperature solid oxide fuel cells. <i>Ionics</i> , 2014, 20, 45-54.	1.2	39
207	Field assisted sintering of ceramic constituted by alumina and yttria stabilized zirconia. <i>Journal of the European Ceramic Society</i> , 2014, 34, 2435-2442.	2.8	85
208	Investigation into the effect of Si doping on the cell symmetry and performance of Sr _{1-x} Y _x Ca _y FeO _{3-δ} SOFC cathode materials. <i>Journal of Solid State Chemistry</i> , 2014, 213, 132-137.	1.4	22
209	Sm ³⁺ and Sr ²⁺ co-doped ceria prepared by citrate-nitrate auto-combustion method. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 543-551.	3.8	57
210	Studies on structural, morphological and electrical properties of Ce _{0.8} Ln _{0.2} O _{2-δ} (Ln=Y ³⁺ , Gd ³⁺ , Sm ³⁺). <i>Tj ETQq1 1 0.784314 rgBT Compounds</i> , 2014, 585, 594-601.	2.8	56
211	Directional solidification of ZrO ₂ -BaZrO ₃ composites with mixed protonic-oxide ionic conductivity. <i>Solid State Ionics</i> , 2014, 262, 654-658.	1.3	4
212	Numerical calculations of space charge layer effects in nanocrystalline ceria. Part I: comparison with the analytical models and derivation of improved analytical solutions. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10214-10231.	1.3	28
213	Effects of the fabrication process on the grain-boundary resistance in BaZr _{0.9} Y _{0.1} O _{3-δ} . <i>Journal of Materials Chemistry A</i> , 2014, 2, 16107-16115.	5.2	73
214	Electrical properties of nanometric CGO-thin films prepared by electron-beam physical vapour deposition. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7410.	5.2	7
215	A linear diffusion model for ion current across blocking grain boundaries in oxygen-ion and proton conductors. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 14961-14968.	1.3	18
216	The effects of transition metal oxide doping on the sintering of cerium gadolinium oxide. <i>Acta Materialia</i> , 2014, 81, 128-140.	3.8	25
217	Impedance spectroscopy of pellets made from yttria stabilized zirconia nanoparticles generated via CW and pulsed mode of laser vaporization method. <i>Ceramics International</i> , 2014, 40, 14677-14685.	2.3	9
218	Effects of grain-boundary diffusions and modifications on the electrical conductivities of YSZ coatings with columnar microstructure. <i>Solid State Ionics</i> , 2014, 268, 48-53.	1.3	6
219	Role of iron addition on grain boundary conductivity of pure and samarium doped cerium oxide. <i>RSC Advances</i> , 2014, 4, 44367-44376.	1.7	25
220	Contribution of the space charge to the grain boundary energy in yttria-stabilized zirconia. <i>Journal of Materials Science</i> , 2014, 49, 6074-6080.	1.7	16

#	ARTICLE	IF	CITATIONS
221	Influence of Gd ³⁺ and Dy ³⁺ co-doping and sintering regime on enhancement of electrical conductivity of ceria-based solid electrolyte. <i>Ionics</i> , 2014, 20, 1407-1417.	1.2	8
222	Electrical Conductivity of Er ₂ O ₃ -Doped c-ZrO ₂ Ceramics. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 349-355.	1.2	10
223	Relationship between lattice mismatch and ionic conduction of grain boundary in YSZ. <i>Progress in Natural Science: Materials International</i> , 2014, 24, 83-86.	1.8	15
224	TPR, XRD and XPS characterisation of ceria-based materials synthesized by freeze-drying precursor method. <i>Ceramics International</i> , 2014, 40, 6807-6814.	2.3	22
225	Evaluation of Li ₂ O as an efficient sintering aid for gadolinia-doped ceria electrolyte for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2014, 261, 255-263.	4.0	72
226	Influence of Co ₃ O ₄ addition on the ionic conductivity and microstructural properties of yttria-stabilized zirconia (8YSZ). <i>International Journal of Materials Research</i> , 2014, 105, 577-583.	0.1	8
228	Paving the way to nanoionics: atomic origin of barriers for ionic transport through interfaces. <i>Scientific Reports</i> , 2015, 5, 17229.	1.6	35
229	Proton Hydration and Transport Properties in Proton-Conducting Ceramics: Fundamentals and Highlights. <i>Proton Hydration and Transport Properties in Proton-Conducting Ceramics: Fundamentals and Highlights.</i> , 2015, , 1-72.		1
230	Atomic-resolution STEM-EDS mapping of grain boundary solute segregation in yttria-stabilized zirconia. <i>Microscopy and Microanalysis</i> , 2015, 21, 2283-2284.	0.2	1
231	B11-O-04 Atomic-resolution STEM-EDS investigation of grain boundary solute segregation behavior in yttria-stabilized zirconia. <i>Microscopy (Oxford, England)</i> , 2015, 64, i12.1-i12.	0.7	0
232	Hierarchically nanostructured CeO ₂ films with superhydrophilicity and corrosion resistance by coupling of surface topography and oxygen vacancies. <i>Materials Chemistry and Physics</i> , 2015, 160, 406-412.	2.0	12
233	Defects, impurities, and transport phenomenon in oxide crystals. , 2015, , 209-229.		1
234	Effects of La _{0.9} Sr _{0.1} Ga _{0.9} Mg _{0.1} O ₃ on the microstructure and ionic conductivity of purity/impure Ce _{0.8} Nd _{0.2} O _{1.9} electrolytes. <i>RSC Advances</i> , 2015, 5, 103541-103546.	1.7	3
235	Enhanced superhydrophilicity and thermal stability of ITO surface with patterned ceria coatings. <i>Applied Surface Science</i> , 2015, 329, 11-16.	3.1	6
236	Progress in material selection for solid oxide fuel cell technology: A review. <i>Progress in Materials Science</i> , 2015, 72, 141-337.	16.0	1,143
237	Densification Behavior and Space Charge Blocking Effect of Bi ₂ O ₃ and Gd ₂ O ₃ Co-doped CeO ₂ as Electrolyte for Solid Oxide Fuel Cells. <i>Electrochimica Acta</i> , 2015, 161, 129-136.	2.6	41
238	X-ray absorption spectroscopy based investigation of local structure in yttria stabilized zirconia nanoparticles generated by laser evaporation method: Effect of pulsed vs CW mode of laser operation. <i>Ceramics International</i> , 2015, 41, 5909-5915.	2.3	2
239	Impedance spectroscopy study of the unipolar and bipolar resistive switching states of atomic layer deposited polycrystalline ZrO ₂ thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 751-766.	0.8	20

#	ARTICLE	IF	CITATIONS
240	Advanced Impedance Spectroscopy Study of the Influence of the Crystalline Structure on the Ionic Conduction of Thin Solid-State Electrolytes. ECS Transactions, 2015, 68, 395-403.	0.3	0
241	Interfacial engineering of solid electrolytes. Journal of Materiomics, 2015, 1, 22-32.	2.8	45
242	Mechanical and electrical properties of low SWNT content 3YTZP composites. Journal of the European Ceramic Society, 2015, 35, 2351-2359.	2.8	11
243	Grain boundary blocking of ionic conductivity in nanocrystalline yttria-doped ceria thin films. Scripta Materialia, 2015, 104, 45-48.	2.6	36
244	Electronic Conductivity in Yttria-Stabilized Zirconia under a Small $\Delta\phi$ Bias. Chemistry of Materials, 2015, 27, 1552-1558.	3.2	81
245	Enhancing grain boundary ionic conductivity in mixed ionic-electronic conductors. Nature Communications, 2015, 6, 6824.	5.8	195
246	Sr ²⁺ -Gd ³⁺ co-doped CeO ₂ : A cost-effective variant for IT-SOFC electrolytes. Ceramics International, 2015, 41, 9122-9130.	2.3	28
247	The effects of Co and Cr on the electrical conductivity of cerium gadolinium oxide. Solid State Ionics, 2015, 282, 54-62.	1.3	25
248	An Approach To Enhance the CO ₂ Tolerance of Fluorite-Perovskite Dual-Phase Oxygen-Transporting Membrane. Chemistry of Materials, 2015, 27, 7820-7826.	3.2	56
249	Microwave synthesis & sintering of Sm and Ca co-doped ceria ceramics. International Journal of Hydrogen Energy, 2015, 40, 15640-15651.	3.8	24
250	Yttrium segregation and oxygen diffusion along high-symmetry grain boundaries in YSZ. Journal of Alloys and Compounds, 2015, 622, 708-713.	2.8	17
251	Enhanced ionic conductivity in pyrochlore and fluorite mixed phase yttrium-doped lanthanum zirconate. Journal of Power Sources, 2015, 273, 290-297.	4.0	26
252	Cerium Oxide Nanostructures and their Applications. , 0, , .		48
253	The Sulphur Poisoning Behaviour of Gadolinia Doped Ceria Model Systems in Reducing Atmospheres. Materials, 2016, 9, 649.	1.3	21
254	The Effect of Co and Zn Addition on Densification and Electrical Properties of Ceria-Based Nanopowders. Materials Research, 2016, 19, 1057-1063.	0.6	4
255	Critical Role of Grain Boundaries for Ion Migration in Formamidinium and Methylammonium Lead Halide Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600330.	10.2	360
256	Preparation of Li ₆ Zr ₂ O ₇ Nanofibers with High Li ⁺ Ion Conductivity by Electrospinning. International Journal of Applied Ceramic Technology, 2016, 13, 579-583.	1.1	9
257	Atomic structures and oxygen dynamics of CeO ₂ grain boundaries. Scientific Reports, 2016, 6, 20288.	1.6	61

#	ARTICLE	IF	CITATIONS
258	Field-enhanced ion transport in solids: Reexamination with molecular dynamics simulations. <i>Physical Review B</i> , 2016, 94, .	1.1	42
259	Solid electrolytes: main prospects of research and development. <i>Russian Chemical Reviews</i> , 2016, 85, 1255-1276.	2.5	89
260	Synthesis, microstructure, and electric properties of $\text{CaZr}_{0.9}\text{Y}_{0.1}\text{O}_{3-\delta}$ films obtained on porous $\text{SrTi}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ supports. <i>Russian Journal of Electrochemistry</i> , 2016, 52, 1057-1063.	0.3	5
261	Reprint of "Biomimetic apatite coating on yttria-stabilized tetragonal zirconia utilizing femtosecond laser surface processing". <i>Surface and Coatings Technology</i> , 2016, 307, 1144-1151.	2.2	3
262	Synthesis & characterization of Dy and Ca Co-doped ceria based solid electrolytes for IT-SOFCs. <i>Journal of Alloys and Compounds</i> , 2016, 684, 683-690.	2.8	48
263	Biomimetic apatite coating on yttria-stabilized tetragonal zirconia utilizing femtosecond laser surface processing. <i>Surface and Coatings Technology</i> , 2016, 296, 88-95.	2.2	24
264	Effects of NiO on the conductivity of $\text{Ce}_{0.85}\text{Sm}_{0.15}\text{O}_{1.925}$ and on electrochemical properties of the cathode/electrolyte interface. <i>Journal of Power Sources</i> , 2016, 320, 86-93.	4.0	11
265	Grain size effect on impedance and modulus properties of $(\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3)_{1-x}(\text{BaZrO}_3)_x$ ceramics. <i>Materials Research Express</i> , 2016, 3, 056301.	1.0	10
266	Doping effect of copper ion (Cu^{2+}) on the conductivity behaviour of ceria ($\text{Ce}_{1-x}\text{Cu}_x\text{O}_{1-x}$) electrolyte. <i>RSC Advances</i> , 2016, 6, 49883-49890.	1.7	4
267	Effect of sintering conditions on the electrical-transport properties of the SrZrO_3 -based protonic ceramic electrolyser membrane. <i>Journal of Power Sources</i> , 2016, 331, 435-444.	4.0	17
268	Effect of the applied electric field on the microstructure and electrical properties of flash-sintered 3YSZ ceramics. <i>Ceramics International</i> , 2016, 42, 19066-19070.	2.3	17
269	Long-term tests of $\text{Ni-Zr}_{0.9}\text{Sc}_{0.1}\text{O}_{1.95}$ anode impregnated with CeO_2 in $\text{H}_2/\text{H}_2\text{O}$ gas mixtures. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 17577-17584.	3.8	23
270	Effect of holding time on the microstructure and properties of flash-sintered Y_2O_3 -doped ZrO_2 . <i>Ceramics International</i> , 2016, 42, 17442-17446.	2.3	27
271	Synthesis and electrochemical performance of $\text{Ce}_{1-x}\text{Y}_x\text{O}_{2-x/2}$ solid electrolytes: The potential of microwave sintering. <i>Solid State Ionics</i> , 2016, 294, 67-72.	1.3	13
272	High Temperature Proton Conductors - Fundamentals and Functionalities. , 0, 8, 31-79.		28
273	Dielectric relaxations in $\text{Ba}_{0.85}\text{Sr}_{0.15}\text{TiO}_3$ thin films deposited on Pt/Ti/SiO ₂ /Si substrates by sol-gel method. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 11299-11307.	1.1	15
275	Atomically ordered solute segregation behaviour in an oxide grain boundary. <i>Nature Communications</i> , 2016, 7, 11079.	5.8	105
276	Evaluation of grain boundary plane distribution in yttria stabilized polycrystalline zirconia based on 3D EBSD analysis. <i>Materials Characterization</i> , 2016, 122, 137-141.	1.9	7

#	ARTICLE	IF	CITATIONS
277	Effect of Li ₂ O additions upon the crystal structure, sinterability and electrical properties of yttria stabilized zirconia electrolyte. RSC Advances, 2016, 6, 106555-106562.	1.7	5
278	Direct Visualization of the Grain Boundary Solute Segregation in Oxide Material at Atomic Resolution Using STEM-EDS. Microscopy and Microanalysis, 2016, 22, 1340-1341.	0.2	0
279	Bipolar Resistive Switching Behavior in Sol-Gel MgTiNiO _x Memory Device. IEEE Journal of the Electron Devices Society, 2016, 4, 321-327.	1.2	17
280	Microstructure and electrical properties of Sr _{1-x} Na _x SiO ₃ /2 ceramics prepared by SPS process. Ionics, 2016, 22, 2087-2093.	1.2	6
281	Finite element modelling of the ionic conductivity of acceptor doped ceria. Journal of the European Ceramic Society, 2016, 36, 1983-1994.	2.8	9
282	Review Materials Degradation of Solid Oxide Electrolysis Cells. Journal of the Electrochemical Society, 2016, 163, F3070-F3083.	1.3	162
283	Improving SiO ₂ impurity tolerance of Ce _{0.8} Sm _{0.2} O _{1.9} : Synergy of CaO and ZnO in scavenging grain-boundary resistive phases. Journal of Power Sources, 2016, 324, 582-588.	4.0	18
284	Isn't the space-charge potential in ceria-based solid electrolytes largely overestimated?. Physical Chemistry Chemical Physics, 2016, 18, 19787-19791.	1.3	17
285	YSZ thin films with minimized grain boundary resistivity. Physical Chemistry Chemical Physics, 2016, 18, 10486-10491.	1.3	21
286	Tuning the Properties of Nanoceria by Applying Force: Stress-Induced Ostwald Ripening. Journal of Physical Chemistry C, 2016, 120, 14337-14344.	1.5	9
287	Impact of microstructure on oxygen semi-permeation performance of perovskite membranes: Understanding of oxygen transport mechanisms. Journal of Power Sources, 2016, 324, 774-779.	4.0	19
288	Electrical properties of reduced 3YTZP ceramics consolidated by spark plasma sintering. Ceramics International, 2016, 42, 6713-6719.	2.3	7
289	Sodium ion transport in polymorphic scandium NASICON analog Na ₃ Sc ₂ (PO ₄) ₃ with new dielectric spectroscopy approach for current-constriction effects. Solid State Ionics, 2016, 289, 55-71.	1.3	21
290	Thermally-Induced Dopant Segregation Effects on the Space Charge Layer and Ionic Conductivity of Nanocrystalline Gadolinia-Doped Ceria. Journal of the Electrochemical Society, 2016, 163, F919-F926.	1.3	25
291	Effect of cation dopant radius on the hydrothermal stability of tetragonal zirconia: Grain boundary segregation and oxygen vacancy annihilation. Acta Materialia, 2016, 106, 48-58.	3.8	85
292	Scanning probe microscopy polarization experiments with polycrystalline Ce _{0.8} Gd _{0.2} Pr _x O ₂ and Ce _{0.8} Y _{0.2} single crystals at room temperature. Solid State Ionics, 2016, 288, 325-330.	1.3	7
293	Experimental testing and FEM calculation of impedance spectra of thermal barrier coatings: Effect of measuring conditions. Corrosion Science, 2016, 107, 155-171.	3.0	8
294	Rate determining steps of fuel oxidation over CeO ₂ impregnated Ni-YSZ in H ₂ + H ₂ O + CO + CO ₂ ambient. Electrochimica Acta, 2016, 199, 108-115.	2.6	35

#	ARTICLE	IF	CITATIONS
295	A perspective on low-temperature solid oxide fuel cells. Energy and Environmental Science, 2016, 9, 1602-1644.	15.6	698
296	Development of Thermoelectric Fibers for Miniature Thermoelectric Devices. Journal of Electronic Materials, 2016, 45, 1412-1418.	1.0	22
297	Continuum modeling of size effects on the composition and stresses in nanoparticles of ionic solids with application to ceria. Journal of the Mechanics and Physics of Solids, 2016, 88, 1-11.	2.3	5
298	Applications of STEM-EELS to complex oxides. Materials Science in Semiconductor Processing, 2017, 65, 49-63.	1.9	35
299	Origin of the low grain boundary conductivity in lithium ion conducting perovskites: $\text{Li}_{3-x}\text{La}_{0.67x}\text{TiO}_3$. Physical Chemistry Chemical Physics, 2017, 19, 5880-5887.	1.3	100
300	Critical analysis of aqueous tape casting, sintering, and characterization of planar Yttria-Stabilized Zirconia electrolytes for SOFC. International Journal of Applied Ceramic Technology, 2017, 14, 413-423.	1.1	15
301	Electrical-field induced nonlinear conductive behavior in dense zirconia ceramic. Journal of Materials Science and Technology, 2017, 33, 897-900.	5.6	43
302	Grain-Boundary Engineering for Aging and Slow-Crack-Growth Resistant Zirconia. Journal of Dental Research, 2017, 96, 774-779.	2.5	17
303	Phase stability and ionic conductivity of cubic $x\text{Nb}_2\text{O}_5-(11-x)\text{Sc}_2\text{O}_3-\text{ZrO}_2$ ($0 \leq x \leq 4$). Journal of Alloys and Compounds, 2017, 703, 643-651.	2.8	18
304	Disorder-induced transition from grain boundary to bulk dominated ionic diffusion in pyrochlores. Nanoscale, 2017, 9, 6826-6836.	2.8	8
305	Ion conduction and redistribution at grain boundaries in oxide systems. Progress in Materials Science, 2017, 89, 252-305.	16.0	143
306	Unusual properties of a model of an intergrain boundary in solid oxide ceramic electrolytes. Solid State Ionics, 2017, 302, 25-29.	1.3	2
307	The effects of lattice strain, dislocations, and microstructure on the transport properties of YSZ films. Physical Chemistry Chemical Physics, 2017, 19, 14319-14336.	1.3	42
308	Thin film proton conducting membranes for micro-solid oxide fuel cells by chemical solution deposition. Thin Solid Films, 2017, 636, 446-457.	0.8	11
309	Tunable transport property of oxygen ion in metal oxide thin film: Impact of electrolyte orientation on conductivity. Scientific Reports, 2017, 7, 3450.	1.6	11
310	Preparation and conductive properties of single phase $\text{Ba}_{1-x}\text{K}_x\text{Ce}_{0.8}\text{Y}_{0.2}\text{O}_3$ perovskite oxides. Electrochimica Acta, 2017, 245, 417-423.	2.6	11
311	Effect of MgO addition and grain size on the electrical properties of $\text{Ce}_{0.9}\text{Gd}_{0.1}\text{O}_{1.95}$ electrolyte for IT-SOFCs. International Journal of Hydrogen Energy, 2017, 42, 11735-11744.	3.8	24
312	Nanoceramics: Fundamentals and Advanced Perspectives. , 2017, , 1-20.		2

#	ARTICLE	IF	CITATIONS
313	Enhanced ionic conductivity in electroceramics by nanoscale enrichment of grain boundaries with high solute concentration. <i>Nanoscale</i> , 2017, 9, 17293-17302.	2.8	36
314	Size effect in nanocrystalline lithium-ion conducting perovskite: $\text{Li}_0.30\text{La}_0.57\text{TiO}_3$. <i>Solid State Ionics</i> , 2017, 310, 38-43.	1.3	31
315	Optimisation of oxide-ion conductivity in acceptor-doped $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ perovskite: approaching the limit?. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21658-21662.	5.2	82
316	Direct Observation of Oxygen Vacancy Distribution across Yttria-Stabilized Zirconia Grain Boundaries. <i>ACS Nano</i> , 2017, 11, 11376-11382.	7.3	57
317	Probing Charge-State Distribution at Grain Boundaries Varied with Dopant Concentration for Ceria Ceramics. <i>Journal of Physical Chemistry C</i> , 2017, 121, 20407-20412.	1.5	11
318	New insights into the 6H-type hexagonal perovskite solid solution BaTiO_3 : Influence of acceptor and donor doping on crystal structure and electrical properties. <i>Solid State Ionics</i> , 2017, 310, 154-165.	1.3	5
319	Revisiting the Temperature Dependent Ionic Conductivity of Yttria Stabilized Zirconia (YSZ). <i>Journal of the Electrochemical Society</i> , 2017, 164, F790-F803.	1.3	109
320	One pot synthesized zirconia nanoparticles embedded in amino functionalized amorphous carbon for electrochemical immunosensor. <i>Journal of Electroanalytical Chemistry</i> , 2017, 807, 59-69.	1.9	28
321	Synthesis and characterization of high ionic conductivity ScSZ core/shell nanocomposites. <i>Journal of Rare Earths</i> , 2017, 35, 567-573.	2.5	11
322	Electric field assisted sintering of electroceramics and in situ analysis by impedance spectroscopy. <i>Journal of Electroceramics</i> , 2017, 38, 24-42.	0.8	23
323	Nanoionics. <i>Topics in Applied Physics</i> , 2017, , 277-309.	0.4	0
324	Experimental Probes for Ion Dynamics. <i>Topics in Applied Physics</i> , 2017, , 61-88.	0.4	0
325	Structural Characteristics and Electrical Conductivity of Spark Plasma Sintered Ytterbia Co-doped Scandia Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 2017, 100, 204-214.	1.9	19
326	Investigation of microstructure and electrical properties of Sm doped ceria thin films. <i>Solid State Ionics</i> , 2017, 302, 165-172.	1.3	4
327	Increased electrical conductivity and the mechanism of samarium-doped ceria/ Al_2O_3 nanocomposite electrolyte. <i>Journal of the American Ceramic Society</i> , 2017, 100, 686-696.	1.9	14
328	The effect of NiO addition on the grain boundary behavior and electrochemical performance of Gd-doped ceria solid electrolyte under different sintering conditions. <i>Journal of the European Ceramic Society</i> , 2017, 37, 419-425.	2.8	24
329	Correlated Electron Microscopy across Length Scales to Elucidate Structural, Electrical and Chemical Properties of Oxide Grain Boundaries. <i>Microscopy and Microanalysis</i> , 2017, 23, 334-335.	0.2	0
330	Interface Effects on the Ionic Conductivity of Doped Ceria-Yttria-Stabilized Zirconia Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 14160-14169.	4.0	22

#	ARTICLE	IF	CITATIONS
331	The system of mobile ions in lattice models: Screening effects, thermodynamic and electrophysical properties. <i>Journal of Molecular Liquids</i> , 2018, 270, 183-190.	2.3	6
332	Unique redox properties in defective CeO _{2-x} nanocrystallines synthesized by laser melting. <i>Science China Materials</i> , 2018, 61, 1078-1084.	3.5	5
333	Platinum microelectrodes on gadolinia doped ceria single crystals – bulk properties and electrode kinetics. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8294-8301.	1.3	7
334	Effect of sintering aids on the densification and electrical properties of SiO ₂ containing Ce _{0.8} Sm _{0.2} O _{1.9} ceramic. <i>Journal of the European Ceramic Society</i> , 2018, 38, 2553-2561.	2.8	10
335	Conductive Nature of Grain Boundaries in Nanocrystalline Stabilized Bi ₂ O ₃ Thin-Film Electrolyte. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6269-6275.	4.0	11
336	Grain boundary scavenging through reactive sintering of strontium and iron in samarium doped ceria electrolyte for ITSOFC applications. <i>Materials Research Bulletin</i> , 2018, 100, 446-457.	2.7	18
337	Protons in cubic yttria-stabilized zirconia: Binding sites and migration pathways. <i>Solid State Ionics</i> , 2018, 315, 116-125.	1.3	9
338	Ionic conductivities and high resolution microscopic evaluation of grain and grain boundaries of cerium-based codoped solid electrolytes. <i>Ceramics International</i> , 2018, 44, 13699-13705.	2.3	7
339	Protonic surface conduction controlled by space charge of intersecting grain boundaries in porous ceramics. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8265-8270.	5.2	30
340	Blocking effect in promising proton conductors based on Ba ₃ Ca _{1.18} Nb _{1.82-x} R _x O _{9-δ} (R = Y ³⁺ , Gd ³⁺) Tj ETQq1 1 0.784314 rg BT	2.3	12
341	The exceptionally large height of the potential barrier at the grain boundary of a LaGaO ₃ -based solid solution deduced from a linear diffusion model. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8719-8723.	1.3	5
342	Atomistic Simulation of Interfaces in Materials of Solid State Ionics. <i>Crystallography Reports</i> , 2018, 63, 1-25.	0.1	3
343	Recent Developments in Oxide-Based Ionic Conductors: Bulk Materials, Nanoionics, and Their Memory Applications. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2018, 43, 47-82.	6.8	20
344	Influence of microstructural characteristics on ionic conductivity of ceria based ceramic solid electrolytes. <i>Ceramics International</i> , 2018, 44, 2138-2145.	2.3	13
345	The influence of stresses on ageing kinetics of 3Y- and 4Y- stabilized zirconia. <i>Journal of the European Ceramic Society</i> , 2018, 38, 753-760.	2.8	18
346	High frequency impedance spectroscopy study on Gd-doped CeO ₂ thin films. <i>Ionics</i> , 2018, 24, 1153-1159.	1.2	3
347	Impedance and modulus spectroscopic analysis of single phase BaZrO ₃ ceramics for SOFC application. <i>Ionics</i> , 2018, 24, 1161-1171.	1.2	28
348	Equimolar Yttria-Stabilized Zirconia and Samaria-Doped Ceria Solid Solutions. <i>Ceramics</i> , 2018, 1, 343-352.	1.0	2

#	ARTICLE	IF	CITATIONS
349	Effects of Thickness on the Electrical Conductivity of Sputtered YSZ Film with Nanocrystalline Columnar Microstructure. Journal Wuhan University of Technology, Materials Science Edition, 2018, 33, 1344-1349.	0.4	2
350	Structure and electrical conductivity of Ta doped La ₂ Mo ₂ O ₉ oxide ion conductors. Journal of Applied Physics, 2018, 124, .	1.1	3
351	Effects of intergranular barrier fluctuations on the electrical conductivity of polycrystalline semiconductors. Solid State Ionics, 2018, 326, 200-204.	1.3	4
352	Sodium-ion conduction in Na ₂ Zn ₂ TeO ₆ solid electrolytes. Journal of Power Sources, 2018, 402, 513-518.	4.0	32
353	A Strategy to Mitigate Grain Boundary Blocking in Nanocrystalline Zirconia. Journal of Physical Chemistry C, 2018, 122, 26344-26352.	1.5	8
354	Progress in solid electrolytes toward realizing solid-state lithium batteries. Journal of Power Sources, 2018, 394, 74-85.	4.0	208
355	Assessment of the Effect of Transition Metal Oxide Addition on the Conductivity of Commercial Gd-Doped Ceria. Journal of the Electrochemical Society, 2018, 165, F533-F542.	1.3	13
356	Effect of isovalent doping on grain boundary conductivity for La ₂ Mo ₂ O ₉ oxide ion conductor: A distribution function of relaxation times approach. Solid State Ionics, 2018, 323, 37-43.	1.3	17
357	Electrochemical ionic interfaces. , 2018, , 79-106.		3
358	Nanoionics and interfaces for energy and information technologies. , 2018, , 409-439.		4
359	Localization of Yttrium Segregation within YSZ Grain Boundary Dislocation Cores. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800349.	0.8	10
360	Effect of sintering aid MoO ₃ on the microstructure and ionic conductivity of ceria- and lanthanum gallate-based electrolytes. Phase Transitions, 2018, 91, 1277-1288.	0.6	0
361	Applicability of a linear diffusion model to determination of the height of the potential barrier at the grain boundaries of Fe-doped SrTiO ₃ . Physical Chemistry Chemical Physics, 2018, 20, 19250-19256.	1.3	3
362	Epitaxial 8YSZ/Y ₂ Zr ₂ O ₇ multilayers: a conductivity and strain study. Physical Chemistry Chemical Physics, 2018, 20, 19995-20003.	1.3	2
363	Molecular Dynamics Studies on the Lithium Ion Conduction Behaviors Depending on Tilted Grain Boundaries with Various Symmetries in Garnet-Type Li ₇ La ₃ Zr ₂ O ₁₂ . Journal of Physical Chemistry C, 2018, 122, 21755-21762.	1.5	31
364	La ³⁺ -doped CeO ₂ system: Negating the myths with a tailor-made ceramic. Scripta Materialia, 2018, 157, 138-141.	2.6	8
365	Use of the time constant related parameter τ_{\max} to calculate the activation energy of bulk conduction in ferroelectrics. Journal of Materials Chemistry C, 2018, 6, 9258-9268.	2.7	20
366	Grain size effect on the electrical conductivity of submicron Sm-heavily-doped ceria. Ceramics International, 2018, 44, 21507-21513.	2.3	11

#	ARTICLE	IF	CITATIONS
367	Charged interfaces: electrochemical and mechanical effects. Energy and Environmental Science, 2018, 11, 1993-2000.	15.6	34
368	Strain and interfaces for metal oxide-based memristive devices. , 2018, , 301-327.		2
369	Imaging dopant distribution across complete phase transformation by TEM and upconversion emission. Nanoscale, 2019, 11, 16743-16754.	2.8	9
370	Doped Ceria for Solid Oxide Fuel Cells. , 2019, , .		5
371	The effect of space-charge formation on the grain-boundary energy of an ionic solid. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180430.	1.6	20
372	Structure and electrical properties of YSZ-rGO composites and YSZ ceramics, obtained from composite powder. Electrochimica Acta, 2019, 320, 134573.	2.6	25
373	Electrical properties of gadolinia doped ceria electrolytes fabricated by infiltration aided sintering. Solid State Ionics, 2019, 340, 115020.	1.3	9
374	The role of dopant segregation on the oxygen vacancy distribution and oxygen diffusion in CeO ₂ grain boundaries *. JPhys Energy, 2019, 1, 042005.	2.3	12
375	Grain-Controlled Gadolinia-Doped Ceria (GDC) Functional Layer for Interface Reaction Enhanced Low-Temperature Solid Oxide Fuel Cells. ACS Applied Materials & Interfaces, 2019, 11, 41338-41346.	4.0	8
376	Effects of intergranular capacitance and resistance dispersion on polycrystalline semiconductor impedance. Solid State Ionics, 2019, 343, 115076.	1.3	6
377	Electrical properties of Ce _{0.9} Gd _{0.1} O _{2-δ} ceramics with different grain size uniformity. Materials Research Express, 2019, 6, 115554.	0.8	1
378	Grains, grain boundaries and total ionic conductivity of 10Sc1CeSZ and 8YSZ solid electrolytes affected by crystalline structure and dopant content. Materials Today: Proceedings, 2019, 6, 79-85.	0.9	14
379	Oxygen Defects and Surface Chemistry of Reducible Oxides. Frontiers in Materials, 2019, 6, .	1.2	64
380	Phase stability and conductivity in the pseudo ternary system of xYb ₂ O ₃ -(12-x)Sc ₂ O ₃ -88ZrO ₂ (0 ≤ x ≤ 5). Solid State Ionics, 2019, 332, 93-101.	1.3	19
381	Structure and ionic conductivity of ZrO ₂ (MgO)/CaO-Al ₂ O ₃ bilayer system used as solid electrolyte for sulfur sensor. Materials Research Bulletin, 2019, 117, 113-119.	2.7	13
382	2D oxides on metal materials: concepts, status, and perspectives. Physical Chemistry Chemical Physics, 2019, 21, 11510-11536.	1.3	37
383	Effect of oxygen defects blocking barriers on gadolinium doped ceria (GDC) electro-chemo-mechanical properties. Acta Materialia, 2019, 174, 53-60.	3.8	34
384	Toward nanograined gadolinia doped ceria via two-step sintering at ultralow temperature and its electrical conductivity. Ceramics International, 2019, 45, 14153-14159.	2.3	4

#	ARTICLE	IF	CITATIONS
385	Gd _{0.2} Ce _{0.8} O _{1.9} /Y _{0.16} Zr _{0.84} O _{1.92} nanocomposite thin films for low temperature ionic conductivity. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 132, 162-171.	1.9	5
386	Review: recent progress in low-temperature proton-conducting ceramics. <i>Journal of Materials Science</i> , 2019, 54, 9291-9312.	1.7	141
387	Grain boundary segregation and its influences on ionic conduction properties of scandia doped zirconia electrolytes. <i>Journal of Rare Earths</i> , 2019, 37, 645-651.	2.5	18
388	Understanding CeO ₂ -Based Nanostructures through Advanced Electron Microscopy in 2D and 3D. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1800287.	1.2	22
389	Terbium Substituted Lanthanum Orthoniobate: Electrical and Structural Properties. <i>Crystals</i> , 2019, 9, 91.	1.0	8
390	Divalent cations modified grain boundary scavenging in samarium doped ceria electrolyte for solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2019, 792, 1068-1078.	2.8	17
391	Preparation and conductive properties of double perovskite Ba ₃ Sr ₁ +Ta ₂ O ₉ and application for hydrogen sensor. <i>Journal of Alloys and Compounds</i> , 2019, 792, 759-769.	2.8	17
392	Joint Impedance Spectroscopy Analysis of 10Sc1CeSZ and 8YSZ Solid Electrolytes for SOFC. <i>Powder Metallurgy and Metal Ceramics</i> , 2019, 57, 723-730.	0.4	3
393	Phase Ratio, Dielectric, Ferroelectric, and Magnetic Properties of BCTZ Ceramics with CuO Doping Synthesized by the Solid State Combustion Technique. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800803.	0.8	6
394	The effect of short-range interaction and correlations on the charge and electric field distribution in a model solid electrolyte. <i>Solid State Ionics</i> , 2019, 335, 156-163.	1.3	4
395	Charged grain boundary transitions in ionic ceramics for energy applications. <i>Npj Computational Materials</i> , 2019, 5, .	3.5	31
396	Effect of a DC bias on the conductivity of gadolinia doped ceria thin films. <i>Electrochimica Acta</i> , 2019, 303, 275-283.	2.6	2
397	Impedance spectroscopy of Al/AlN/n-Si metal-insulator-semiconductor (MIS) structures. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	15
398	Complete Mechanistic Elucidation of Current-Voltage Characteristics of Grain Boundaries in a Proton-Conducting Solid Electrolyte. <i>Journal of Physical Chemistry C</i> , 2019, 123, 4396-4400.	1.5	4
399	Microstructure and electrical conductivity of Ce _{0.85} Y _{0.15} O _{1.925} -Al ₂ O ₃ composite ceramics. <i>Ceramics International</i> , 2019, 45, 24851-24857.	2.3	0
400	Ionic conductivity of space charge layers in acceptor doped ceria. <i>Journal of the European Ceramic Society</i> , 2019, 39, 432-441.	2.8	9
401	Effect of divalent cation addition on structure, conductivity and grain boundary properties in La doped ceria oxygen ion conductors. <i>Ceramics International</i> , 2019, 45, 5751-5760.	2.3	13
402	Effect of grain boundary and H ₂ atmosphere on electrical conductivity of bulk a-La ₂ Mo ₂ O ₉ studied by impedance and x-ray photoelectron spectroscopy. <i>Materials Research Express</i> , 2019, 6, 035505.	0.8	0

#	ARTICLE	IF	CITATIONS
403	Rapid surface kinetics enhancement via flash light sintering for low-temperature solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2019, 778, 337-344.	2.8	7
404	The interplay and impact of strain and defect association on the conductivity of rare-earth substituted ceria. <i>Acta Materialia</i> , 2019, 166, 447-458.	3.8	33
405	Effect of grain size on the electrical properties of strontium and magnesium doped lanthanum gallate electrolytes. <i>Journal of Alloys and Compounds</i> , 2019, 777, 244-251.	2.8	17
406	Separators and electrolytes for rechargeable batteries: Fundamentals and perspectives. <i>Physical Sciences Reviews</i> , 2019, 4, .	0.8	0
407	The role of TiO ₂ on the microstructure and the electrochemical behavior of Ce _{0.8} Gd _{0.2} O _{2-δ} for solid oxide fuel cell electrolyte. <i>Journal of Alloys and Compounds</i> , 2019, 780, 711-717.	2.8	8
408	A brief review on ceria based solid electrolytes for solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2019, 781, 984-1005.	2.8	159
409	Structure-property correlations for the surfactant-free faceted nanocrystals of Ce _{1-x} Zr _x O ₂ and their bulk ceramics. <i>Materials Research Bulletin</i> , 2019, 112, 38-45.	2.7	4
410	Hollow Micro/Nanostructured Ceria-Based Materials: Synthetic Strategies and Versatile Applications. <i>Advanced Materials</i> , 2019, 31, e1800592.	11.1	87
411	Nanocomposite Alkali-Ion Solid Electrolytes. , 2019, , 393-434.		3
412	Low oxygen partial pressure increases grain boundary ion conductivity in Gd-doped ceria thin films. <i>JPhys Energy</i> , 2020, 2, 014002.	2.3	7
413	Studies on structural, morphological, and electrical properties of Ga ³⁺ and Cu ²⁺ co-doped ceria ceramics as solid electrolyte for IT-SOFCs. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 24014-24025.	3.8	18
414	Analyzing the grain-boundary resistance of oxide-ion conducting electrolytes: Poisson-Cahn vs Poisson-Boltzmann theories. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5-22.	1.9	27
415	Solvent-deficient method lowers grain-boundary resistivity of doped ceria. <i>Journal of the American Ceramic Society</i> , 2020, 103, 819-830.	1.9	4
416	The grain-boundary resistance of CeO ₂ ceramics: A combined microscopy-spectroscopy-simulation study of a dilute solution. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1755-1764.	1.9	10
417	A review of defect structure and chemistry in ceria and its solid solutions. <i>Chemical Society Reviews</i> , 2020, 49, 554-592.	18.7	298
418	Interfacial stability and ionic conductivity enhanced by dopant segregation in eutectic ceramics: the role of Gd segregation in doped CeO ₂ /CoO and CeO ₂ /NiO interfaces. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2591-2601.	5.2	5
419	Effects of MgO additions on the electrical conduction behavior of a CeO ₂ -based electrolyte prepared by SPS process. <i>Ceramics International</i> , 2020, 46, 9622-9628.	2.3	2
420	Performance of GDC with alkali metal carbonates as sintering aids. <i>Solid State Ionics</i> , 2020, 346, 115221.	1.3	8

#	ARTICLE	IF	CITATIONS
421	Investigation of in-situ oxygen vacancies dissociation mechanism and associated atomic scale reshuffling during oxy-ion migration in nanostructured co-doped ceria. <i>Solid State Ionics</i> , 2020, 345, 115157.	1.3	15
422	Comparison of solid oxide fuel cell (SOFC) electrolyte materials for operation at 500°C. <i>Solid State Ionics</i> , 2020, 344, 115138.	1.3	85
423	Microstructure and electrical conductivity of Ce _{0.9} Gd _{0.1} O _{1.95} -MgO composite electrolyte. <i>Ionics</i> , 2020, 26, 2413-2419.	1.2	0
424	Multioxide phase-based nanocomposite electrolyte (M@SDC where M= Zn ²⁺ / Ba ²⁺ / La ³⁺ /Zr ²⁺ / Al ³⁺) materials. <i>Ceramics International</i> , 2020, 46, 6882-6888.	2.3	4
425	Insight into impurity scavenging effect of gadolinium-doped ceria electrolytes. <i>Ceramics International</i> , 2020, 46, 7218-7222.	2.3	5
426	Densification and electrical conductivity of Fe and Mn-doped Ce _{0.83} Sm _{0.085} Nd _{0.085} O ₂ by solid-liquid method. <i>International Journal of Applied Ceramic Technology</i> , 2020, 17, 2716-2724.	1.1	3
427	Cation diffusion in polycrystalline thin films of monoclinic HfO ₂ deposited by atomic layer deposition. <i>APL Materials</i> , 2020, 8, .	2.2	7
428	Long-Term Conductivity Stability of Metastable Tetragonal Phases in 1-yb2o3-xSc2o3-(99-x)ZrO2 (x =) Tj, EJTQq1 1 0.784314r	1.5	14
429	New Data-Driven Interacting-Defect Model Describing Nanoscopic Grain Boundary Compositions in Ceramics. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23619-23625.	1.5	5
430	Acidity of surface-infiltrated binary oxides as a sensitive descriptor of oxygen exchange kinetics in mixed conducting oxides. <i>Nature Catalysis</i> , 2020, 3, 913-920.	16.1	52
431	Electro-chemo-mechanical properties in nanostructured Ca-doped ceria (CDC) by field assisted sintering. <i>Scripta Materialia</i> , 2020, 187, 183-187.	2.6	11
432	Oxygen Surface Exchange and Tracer Diffusion in Differently Oriented Thin Films of Gd-Doped CeO ₂ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 36768-36777.	4.0	6
433	Atomistic Insights into the Role of Grain Boundary in Ionic Conductivity of Polycrystalline Solid-State Electrolytes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26241-26248.	1.5	11
434	Processing and conduction properties of Gd-doped ceria electrolytes with ZnO semiconductor. <i>Solid State Ionics</i> , 2020, 358, 115505.	1.3	2
435	Diffusion of Cation Impurities through Ceria Grain Boundaries. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000688.	1.9	5
436	Revisiting ionic conductivity of rare earth doped ceria: Dependency on different factors. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25139-25166.	3.8	43
437	Validation of defect association energy on modulating oxygen ionic conductivity in low temperature solid oxide fuel cell. <i>Journal of Power Sources</i> , 2020, 480, 229106.	4.0	10
438	Review of solid oxide fuel cell materials: cathode, anode, and electrolyte. <i>Energy Transitions</i> , 2020, 4, 113-126.	3.6	137

#	ARTICLE	IF	CITATIONS
439	Proteic solâ€gel synthesis of Gd-doped ceria: a comprehensive structural, chemical, microstructural and electrical analysis. <i>Journal of Materials Science</i> , 2020, 55, 16864-16878.	1.7	12
440	Superionic Conductivity in Ceria-Based Heterostructure Composites for Low-Temperature Solid Oxide Fuel Cells. <i>Nano-Micro Letters</i> , 2020, 12, 178.	14.4	29
441	Electrical conductivity of nanostructured acceptor-doped ceria fabricated by spark plasma sintering (SPS). <i>Materials Letters</i> , 2020, 279, 128513.	1.3	7
442	Quantifying leakage fields at ionic grain boundaries using off-axis electron holography. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	2
443	Potential jumps at transport bottlenecks cause instability of nominally ionic solid electrolytes in electrochemical cells. <i>Acta Materialia</i> , 2020, 199, 264-277.	3.8	38
444	Enhanced ionic conductivity and thermal shock resistance of MgO stabilized ZrO ₂ doped with Y ₂ O ₃ . <i>Ceramics International</i> , 2020, 46, 19835-19842.	2.3	27
445	Assessing common approximations in space charge modelling to estimate the proton resistance across grain boundaries in Y-doped BaZrO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11891-11902.	1.3	7
446	Grain-boundary diffusion of cations in fluorite-type oxides is faster but not always easier. <i>Acta Materialia</i> , 2020, 195, 383-391.	3.8	23
447	Electrical properties and conduction mechanisms of K, Ga co-substituted Na _{0.5} Bi _{0.5} TiO ₃ ferroelectrics. <i>Ceramics International</i> , 2020, 46, 22321-22329.	2.3	17
448	Disagreements between space charge models and grain boundary impedance data in yttrium-substituted barium zirconate. <i>Solid State Ionics</i> , 2020, 353, 115369.	1.3	13
449	Effect of cold sintering process (CSP) on the electro-chemo-mechanical properties of Gd-doped ceria (GDC). <i>Journal of the European Ceramic Society</i> , 2020, 40, 5612-5618.	2.8	20
450	Influence of rare-earth doping on the structural and dielectric properties of orthoferrite La _{0.5} Ru _{0.5} FeO ₃ ceramics synthesized under high pressure. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155859.	2.8	17
451	Atomic origin of spin-valve magnetoresistance at the SrRuO ₃ grain boundary. <i>National Science Review</i> , 2020, 7, 755-762.	4.6	12
452	Impact of liquid sodium corrosion on microstructure and electrical properties of yttrium-doped thoria prepared by co-precipitation. <i>Corrosion Science</i> , 2020, 171, 108721.	3.0	4
453	An unusual frequency dispersion of the dielectric permittivity maxima at temperatures around the tetragonalâ€cubic phase transition of methylammonium lead iodide. <i>Journal of Applied Physics</i> , 2020, 127, 244103.	1.1	6
454	The Effect of Transition Metal Oxide Addition on the Conductivity of Commercially Available Gd-Doped Ceria. <i>Journal of the Electrochemical Society</i> , 2020, 167, 044507.	1.3	17
455	The Relation of Microstructure, Materials Properties and Impedance of SOFC Electrodes: A Case Study of Ni/GDC Anodes. <i>Energies</i> , 2020, 13, 987.	1.6	30
456	Multiscale modeling of the ionic conductivity of acceptor doped ceria. <i>Journal of the European Ceramic Society</i> , 2020, 40, 2404-2416.	2.8	6

#	ARTICLE	IF	CITATIONS
457	Solid oxide fuel cell: Materials for anode, cathode and electrolyte. International Journal of Hydrogen Energy, 2020, 45, 23988-24013.	3.8	123
458	A case study of ceramic processing: Microstructural development and electrical properties of Ce _{0.8} Gd _{0.2} O _{1.9} . Ceramics International, 2020, 46, 12318-12328.	2.3	4
459	Variability and origins of grain boundary electric potential detected by electron holography and atom-probe tomography. Nature Materials, 2020, 19, 887-893.	13.3	72
460	Enhancing the ionic conductivity in the ceria-based electrolytes for intermediate temperature solid oxide fuel cells. , 2020, , 113-163.		2
461	Enhancing the sinterability and electrical properties of BaZr _{0.1} Ce _{0.7} Y _{0.2} O ₃ proton-conducting ceramic electrolyte. Journal of the American Ceramic Society, 2021, 104, 329-342.	1.9	25
462	A thermal perspective of flash sintering: The effect of AC current ramp rate on microstructure evolution. Journal of the European Ceramic Society, 2021, 41, 2807-2817.	2.8	26
463	Thermodynamically consistent variational principles for charged interfaces. Acta Materialia, 2021, 205, 116525.	3.8	9
464	Inorganic Solid Electrolytes for All-Solid-State Sodium Batteries: Fundamentals and Strategies for Battery Optimization. Advanced Functional Materials, 2021, 31, 2008165.	7.8	55
465	Innovative improvement of sintered ceramic electrolytes by salt infiltration. Ceramics International, 2021, 47, 5079-5090.	2.3	4
466	Zirconium oxide and the crystallinity hallows. Journal of the Australian Ceramic Society, 2021, 57, 225-236.	1.1	7
467	Influences of sintering temperature on the electrical conductivity of GDC-50vol%MgO composite ceramics: the role of the GDC/MgO heterogeneous interface. Ionics, 2021, 27, 269-277.	1.2	0
468	Fluoride-ion Conductivity Analysis of Yb-F-S Multiple-anion Compounds. Chemistry Letters, 2021, 50, 120-123.	0.7	2
469	Elucidating the nature of grain boundary resistance in lithium lanthanum titanate. Journal of Materials Chemistry A, 2021, 9, 6487-6498.	5.2	44
470	Effect of sintering temperature on the microstructure and conductivity of Na _{0.54} Bi _{0.46} Ti _{0.99} Mg _{0.01} O _{3-δ} . Solid State Ionics, 2021, 360, 115547.	1.3	5
471	One-pot thermal synthesis of Ceria/Montmorillonite composite for the removal of hexavalent chromium from aqueous system. Surfaces and Interfaces, 2021, 22, 100914.	1.5	2
472	Indirect characterization of point defects in proton irradiated ceria. Materialia, 2021, 15, 101019.	1.3	16
473	Influences of Bi _{0.75} Y _{0.25} O _{1.5} addition on the microstructure and ionic conductivity of Ce _{0.8} Y _{0.2} O _{1.9} ceramics. International Journal of Applied Ceramic Technology, 2021, 18, 1153-1163.	1.1	0
474	Tysonite-type solid state electrolyte for fluoride ion batteries: Highly dense thin film by PVD processing. Journal of Alloys and Compounds, 2021, 862, 158683.	2.8	10

#	ARTICLE	IF	CITATIONS
475	Conductivity and microstructural evaluation of SGDC solid electrolytes synthesized by Pechini and controlled precipitation. <i>Boletin De La Sociedad Espanola De Ceramica Y Vidrio</i> , 2022, 61, 541-551.	0.9	3
476	Electrical properties of Ca-doped ceria electrolytes prepared by proteic sol-gel route and by solid-state reaction using mollusk shells. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 17374-17387.	3.8	7
477	A Critical Examination of the Mott-Schottky Model of Grain-Boundary Space-Charge Layers in Oxide-Ion Conductors. <i>Journal of the Electrochemical Society</i> , 2021, 168, 056504.	1.3	12
478	Electrical conductivity of Y ₂ O ₃ -doped CeO ₂ based composite ceramics by spark plasma sintering: The effects of a second phase of CeAlO ₃ . <i>Solid State Ionics</i> , 2021, 365, 115653.	1.3	1
479	A Review of Grain Boundary and Heterointerface Characterization in Polycrystalline Oxides by (Scanning) Transmission Electron Microscopy. <i>Crystals</i> , 2021, 11, 878.	1.0	12
481	Effect of Reduced Atmosphere Sintering on Blocking Grain Boundaries in Rare-Earth Doped Ceria. <i>Inorganics</i> , 2021, 9, 63.	1.2	2
482	Review on silicate and borosilicate-based glass sealants and their interaction with components of solid oxide fuel cell. <i>International Journal of Energy Research</i> , 2021, 45, 20559-20582.	2.2	31
483	Surface segregation of 3 mol % yttria-doped tetragonal zirconia particle studied by atomic-resolution scanning transmission electron microscopy-energy-dispersive X-ray spectroscopy. <i>Journal of the Ceramic Society of Japan</i> , 2021, 129, 561-565.	0.5	4
484	Understanding the Impact of Microstructure on Charge Transport in Polycrystalline Materials Through Impedance Modelling. <i>Journal of the Electrochemical Society</i> , 2021, 168, 090516.	1.3	13
485	Influence of the Sputtering Technique and Thermal Annealing on YSZ Thin Films for Oxygen Sensing Applications. <i>Coatings</i> , 2021, 11, 1165.	1.2	3
486	Ordered domain engineering and physical property modification of Ba(Co _{1/3} Nb _{2/3})O ₃ complex perovskite ceramics. <i>Journal of the American Ceramic Society</i> , 2022, 105, 1159-1172.	1.9	8
487	Oxygen vacancy migration and its lattice structural origin in A-site non-stoichiometric bismuth sodium titanate perovskites. <i>Journal of Materiomics</i> , 2022, 8, 719-729.	2.8	36
488	Electrochemical characteristics of grain boundaries in gadolinium and aluminum co-doped ceria and ceria-alumina composites. <i>Solid State Ionics</i> , 2021, 371, 115771.	1.3	1
491	Prospects of Nanostructured ZrO ₂ as a Point-of-Care Diagnostics. <i>Advanced Structured Materials</i> , 2017, , 285-305.	0.3	6
492	Sintering behavior and thermal conductivity of Y ₂ O ₃ fully stabilized HfO ₂ ceramics. <i>Rare Metals</i> , 2021, 40, 1255-1266.	3.6	17
493	In vitro cyclic fatigue and hydrothermal aging lifetime assessment of yttria-stabilized zirconia dental ceramics. <i>Journal of the European Ceramic Society</i> , 2020, 40, 4647-4654.	2.8	6
494	Enhanced Electromechanical Response in Sm and Nd Co-doped Ceria. <i>Materialia</i> , 2020, 12, 100728.	1.3	13
495	CHAPTER 2. Novel Synthetic Techniques for Nanomaterials. <i>RSC Detection Science</i> , 0, , 35-57.	0.0	2

#	ARTICLE	IF	CITATIONS
496	Condutividade elétrica de CeO ₂ -10 mol% Gd ₂ O ₃ - x mol% Sm ₂ O ₃ (0 < x < 2). Ceramica, 2013, 59, 235-241.	0.3	4
497	A Superior Description of AC Behavior in Polycrystalline Solid Electrolytes with Current-Constriction Effects. Journal of the Korean Ceramic Society, 2016, 53, 150-161.	1.1	13
498	Absence of Distinctively High Grain-Boundary Impedance in Polycrystalline Cubic Bismuth Oxide. Journal of the Korean Ceramic Society, 2017, 54, 413-421.	1.1	8
499	Degradation Comparison of Cyclic and Linear Siloxane Contamination on Solid Oxide Fuel Cells Ni-YSZ Anode. Frontiers in Energy Research, 2021, 9, .	1.2	4
500	Grain-Boundary Conduction in Solid Oxide Electrolyte. Journal of the Korean Ceramic Society, 2007, 44, 683-689.	1.1	0
501	Eletrólitos de ceria dopada com Gd ₂ O ₃ para pilhas a combustível de gás líquido. Revista Materia, 2009, 14, 1076-1087.	0.1	0
502	Microstructure evolution model of zirconia solid electrolyte based on AC impedance model analysis. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 098102.	0.2	0
504	Conducting Oxide Thin Films. , 2013, , 621-654.		1
505	Grain-Boundary Conductivity. , 2014, , 950-954.		0
506	Microstructural Aspects of Ionic Conductivity in Nanocrystalline Zirconia. , 2015, , 1-24.		0
507	Atomic-Resolution STEM-EDS Mapping of Grain Boundary Solute Segregation in Yttria-Stabilized Zirconia. Microscopy and Microanalysis, 2015, 21, 2281-2282.	0.2	0
508	Microstructural Aspects of Ionic Conductivity in Nanocrystalline Zirconia. , 2016, , 819-847.		0
509	Chapter 4 The Local Structure of SOFC Materials Investigated by X-Ray Absorption Spectroscopy. , 2016, , 91-124.		0
510	31/4 Žé...âCE-ç%©âž<â...”â°â1/2“é»æ±â«âšâšâ,ç•CEéçæšç~%. Electrochemistry, 2017, 85, 597-600.	0.6	0
511	Grain boundaries and their influence on the properties of polycrystalline materials. Part 2.. Metaloznavstvo Ta Obrobka Metalův, 2018, 86, 56-65.	0.1	0
512	Samarium-Doped Ceria/Yttria-Stabilized Zirconia Composite Prepared by Solid State Reaction. Chemistry and Chemical Technology, 2018, 12, 434-440.	0.2	0
513	pyscses: a PYthon Space-Charge Site-Explicit Solver. Journal of Open Source Software, 2019, 4, 1209.	2.0	0
514	Solute Segregation Behavior in Ceramic Grain Boundaries Investigated by Atomic-Resolution Scanning Transmission Electron Microscopy. Materia Japan, 2019, 58, 576-579.	0.1	0

#	ARTICLE	IF	CITATIONS
515	Electrical and Mechanical Properties of Zirconia-Graphene Composites. <i>Reviews on Advanced Materials and Technologies</i> , 2020, 2, 27-41.	0.1	2
516	Anomalous electrical performance of A-site double-bivalent-doped Bi _{0.49} Na _{0.5} TiO ₃ - ceramics from nominal oxygen deficiency to excess. <i>Ceramics International</i> , 2022, 48, 5210-5216.	2.3	15
517	Space Charge Layer Evolution at Yttria-Stabilized Zirconia Grain Boundaries Upon Operation of Solid Oxide Fuel Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
518	Tuning the ceria interfaces inside the dual phase oxygen transport membranes. <i>Acta Materialia</i> , 2022, 226, 117603.	3.8	3
519	Impact of impurities on the fabrication and performances of yttrium-doped thoria electrolyte ceramics. <i>Journal of Nuclear Materials</i> , 2022, 560, 153499.	1.3	2
520	Engineering of atomic-scale flexoelectricity at grain boundaries. <i>Nature Communications</i> , 2022, 13, 216.	5.8	14
521	Low temperature synthesis of Li _{0.33} La _{0.55} TiO ₃ solid electrolyte with Al ³⁺ doping by a modified Pechini method. <i>Ionics</i> , 2022, 28, 1739-1751.	1.2	6
522	Silica: ubiquitous poison of metal oxide interfaces. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2618-2636.	5.2	9
523	Defect Chemistry of Individual Grains with and without Grain Boundaries of Al-Doped Ceria Determined Using Well-Defined Microelectrodes. <i>Journal of Physical Chemistry C</i> , 2022, 126, 2737-2746.	1.5	1
524	Electrical conductivity behavior of ZrO ₂ -MgO-Y ₂ O ₃ ceramic: effect of heat treatment temperature. <i>Journal of the Australian Ceramic Society</i> , 2022, 58, 421.	1.1	4
525	Combining electrochemical and quantitative elemental analysis to investigate the sulfur poisoning process of ceria thin film fuel electrodes. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1840-1851.	5.2	2
526	Molecular dynamics study of oxygen-ion diffusion in yttria-stabilized zirconia grain boundaries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2567-2579.	5.2	11
527	Oxygen diffusion at the {111} and {110} surfaces of yttrium doped ceria.. <i>Solid State Ionics</i> , 2022, 374, 115834.	1.3	1
528	Communicationâ€”A Fast and Accurate Numerical Technique for Impedance Spectroscopy of Microstructures. <i>Journal of the Electrochemical Society</i> , 0, , .	1.3	0
529	Effect of precursor powder uniformity on structure and electrical properties of gadolinium-doped cerium oxide ceramics. <i>Processing and Application of Ceramics</i> , 2022, 16, 42-47.	0.4	1
530	Structure and Transport Characteristics of Single-Crystal and Ceramic ZrO ₂ â€”Y ₂ O ₃ Solid Electrolytes. <i>Russian Journal of Electrochemistry</i> , 2022, 58, 105-113.	0.3	1
531	Enhancement of Conductivity in Phase Pure and Doped Ceria for Fuel Cell Applications. <i>Journal of Electronic Materials</i> , 2022, 51, 2545-2551.	1.0	1
532	Oxygen Diffusion in Ceramic Mixed Conducting La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} : The Role of Grain and Twin Boundaries. <i>Journal of the Electrochemical Society</i> , 2022, 169, 044513.	1.3	1

#	ARTICLE	IF	CITATIONS
533	Nanoscale chemistry and ion segregation in zirconia-based ceramic at grain boundaries by atom probe tomography. <i>Scripta Materialia</i> , 2022, 213, 114603.	2.6	5
534	Mesoporous single-crystalline SrNbO ₂ N: Expediting charge transportation to advance solar water splitting. <i>Nano Energy</i> , 2022, 95, 107059.	8.2	22
535	Defects in oxide crystals: nanoscale and interfacial effects. , 2022, , 199-229.		0
536	Effect of Current Density on the Microstructure and Mechanical Properties of 3YSZ/Al ₂ O ₃ Composites by Flash Sintering. <i>Materials</i> , 2022, 15, 3110.	1.3	4
537	Characteristics of Li ₂ CO ₃ as sintering aid for Ce _{0.8} Sm _{0.2} O _{2-δ} electrolyte in solid oxide fuel cells. <i>Korean Journal of Chemical Engineering</i> , 2022, 39, 1796-1804.	1.2	6
538	Enhancement of the electrochemical performance in MgO stabilized ZrO ₂ oxygen sensors by co-doping trivalent metal oxides. <i>Current Applied Physics</i> , 2022, 39, 133-139.	1.1	4
539	The in situ generated emerging phase inside dual phase oxygen transport membranes. <i>Acta Materialia</i> , 2022, 234, 118034.	3.8	3
540	K ₂ CO ₃ /Al ₂ O ₃ Composite Pellet as Room-Temperature NO ₂ Sensor. , 2022, 6, 1-4.		2
541	Grain boundary conduction behaviors of ultra-fine grained CeO ₂ /BaCeO ₃ based electrolytes. <i>Ceramics International</i> , 2022, 48, 25314-25321.	2.3	4
542	Electrical conductivity of gadolinium and yttria co-doped ceria with Ca, Fe, La, & Sr addition: as electrolytes for solid oxide fuel cells. <i>Journal of Materials Science: Materials in Electronics</i> , 0, , .	1.1	0
543	Zirconia-Based Nanomaterials for Alternative Energy Application: Concept of Research in Smart Laboratory. <i>Arabian Journal for Science and Engineering</i> , 0, , .	1.7	1
544	Optimization of particle size, dispersity, and conductivity of 8Åmol% Y ₂ O ₃ doped tetragonal zirconia polycrystalline nanopowder prepared by modified sol-gel method via activated carbon absorption. <i>Journal of the European Ceramic Society</i> , 2022, 42, 5831-5841.	2.8	7
545	Composite solid electrolyte based on (Ca ²⁺ , Al ³⁺)-infiltrated ZrO ₂ (MgO) for direct sulfur determination in the liquid iron. <i>Materials Today Chemistry</i> , 2022, 25, 100989.	1.7	0
546	Converting Brownmillerite to Alternate Layers of Oxygen-Deficient and Conductive Nano-Sheets with Enhanced Thermoelectric Properties. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	5
547	Research progress on space charge layer effect in lithium-ion solid-state battery. <i>Science China Technological Sciences</i> , 2022, 65, 2246-2258.	2.0	4
548	Space charge layer evolution at yttria-stabilized zirconia grain boundaries upon operation of solid oxide fuel cells. <i>Acta Materialia</i> , 2022, 237, 118179.	3.8	4
549	Failure analysis of solid oxide fuel cells nickel-yttria stabilized zirconia anode under siloxane contamination. <i>Electrochimica Acta</i> , 2022, 428, 140922.	2.6	2
550	High Performance of SDC Composite Electrolyte Using Natural Gas as a Fuel for Low Temperature SOFC. , 2022, 2, 132-138.		0

#	ARTICLE	IF	CITATIONS
551	Evaluating the impact of substrate deposition on optical properties of perovskite barium strontium titanate ($\text{Ba}_{0.5}\text{Sr}_{0.5}\text{TiO}_3$) thin films prepared by pulsed laser deposition technique. <i>European Physical Journal D</i> , 2022, 76, .	0.6	4
552	Comprehensive characterization of irradiation induced defects in ceria: Impact of point defects on vibrational and optical properties. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	1
553	Biogenic silicate glass-ceramics: Physical, dielectric, and electrical properties. <i>Bioresource Technology Reports</i> , 2022, 19, 101176.	1.5	4
554	Chemical oscillation at the grain boundary of aliovalently-doped solid-oxide electrolytes. <i>Acta Materialia</i> , 2022, 240, 118300.	3.8	1
555	Resistive Modeling of a Novel $\text{K}_{2}\text{CO}_3/\text{Al}_2\text{O}_3$ Nanostructure as a Solid Electrolyte NO_2 Sensor. <i>ACS Applied Nano Materials</i> , 2022, 5, 12746-12755.	2.4	0
556	Role of salts on the electrical performance of ceria-based electrolytes: An overview. <i>Frontiers in Materials</i> , 0, 9, .	1.2	0
557	Effect of MgO and Fe_2O_3 dual sintering aids on the microstructure and electrochemical performance of the solid state $\text{Gd}_{0.2}\text{Ce}_{0.8}\text{O}_{2-\delta}$ electrolyte in intermediate-temperature solid oxide fuel cells. <i>Frontiers in Chemistry</i> , 0, 10, .	1.8	0
558	A facile method to synthesize $\text{BaZr}_{0.1}\text{Ce}_{0.7}\text{Y}_{0.1}\text{b}_{0.1}\text{O}_{3-\delta}$ (BZCYb) nanopowders for the application on highly conductive proton-conducting electrolytes. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 40054-40066.	3.8	11
559	The enhanced electrical performance and grain boundary conduction mechanism of zirconia-bismuth oxide electrolytes for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2023, 554, 232339.	4.0	4
560	Study on the Effect of La/Si Ratio on the Microstructures and Electrical Properties of Lanthanum Silicate Electrolyte. , 2022, , .		1
561	Influence of Eu doping on the electric properties of perovskite iridate $\text{Sr}_{2-x}\text{Eu}_x\text{Ir}_4$. <i>Journal of Physics: Conference Series</i> , 2022, 2370, 012033.	0.3	0
562	Ultra-fine Yttria-Stabilized Zirconia for dental applications: A step forward in the quest towards strong, translucent and aging resistant dental restorations. <i>Journal of the European Ceramic Society</i> , 2023, 43, 2852-2863.	2.8	8
563	Revisiting Fe-doped 8YSZ as the electrolyte of SOFC “ From sintering to electrochemical performance. <i>Journal of Alloys and Compounds</i> , 2023, 938, 168553.	2.8	9
564	Evolution and effect on electrolysis performance of pores in YSZ electrolyte films prepared by screen-printing. <i>Ceramics International</i> , 2023, 49, 10731-10737.	2.3	3
565	Atomistic grain boundary migration in Al_2O_3 . <i>International Journal of Ceramic Engineering & Science</i> , 2023, 5, .	0.5	0
566	AtomAI framework for deep learning analysis of image and spectroscopy data in electron and scanning probe microscopy. <i>Nature Machine Intelligence</i> , 2022, 4, 1101-1112.	8.3	23
567	SMM studies on high-frequency electrical properties of nanostructured materials. , 2023, , 513-534.		0
568	Ion diffusion across/along symmetric tilt grain boundaries in yttria-stabilized zirconia investigated by molecular dynamics simulations. <i>Solid State Ionics</i> , 2023, 392, 116163.	1.3	2

#	ARTICLE	IF	CITATIONS
569	A model for redistribution of oppositely charged point defects under the stress field of dislocations in nonstoichiometric ionic solids: Implications in doped ceria. <i>Journal of the Mechanics and Physics of Solids</i> , 2023, 174, 105242.	2.3	0
570	Effect of aid-sintering additives in processing of solid oxide fuel cells electrolytes by tape casting. <i>Solid State Ionics</i> , 2023, 394, 116210.	1.3	3
571	New oxygen ion conducting composite solid electrolytes Sm ₂ (WO ₄) ₃ -WO ₃ . <i>Solid State Ionics</i> , 2023, 394, 116196.	1.3	1
572	Fast ion-conductive electrolyte based on a doped LaAlO ₃ with an amorphous surface layer for low-temperature solid oxide fuel cells. <i>Journal of Power Sources</i> , 2023, 561, 232723.	4.0	6
573	Technological Challenges and Advancement in Proton Conductors: A Review. <i>Energy & Fuels</i> , 2023, 37, 3428-3469.	2.5	11
574	Influence of dislocations on ionic conductivity and dendrite formation in solid electrolytes. <i>Physica Scripta</i> , 2023, 98, 045811.	1.2	4
575	Reassessment of the effect of space charge potential on the electrical conductivity of polycrystalline ceramics. <i>Journal of the American Ceramic Society</i> , 2023, 106, 4526-4531.	1.9	1
576	Y-TZP nanostructures with non-homogeneous yttria distribution for improved hydrothermal degradation resistance and mechanical properties. <i>Ceramics International</i> , 2023, 49, 22076-22088.	2.3	1
577	Electrochemical Impedance Spectroscopy Integrated with Environmental Transmission Electron Microscopy. <i>Small Methods</i> , 2023, 7, .	4.6	2
580	Solid-State Electrolytes for Solid Oxide Electrolysis Cells. <i>Lecture Notes in Energy</i> , 2023, , 35-57.	0.2	0
589	Proton Conductors: Physics and Technological Advancements for PC-SOFC. <i>Materials Horizons</i> , 2023, , 1-55.	0.3	0
597	Technical and economic prospects of fuel cells combination with polygeneration systems?. , 2024, , 193-311.		0