

Roger A De Souza

List of Publications by Year in descending order

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153
papers

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44069

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163
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times ranked

6484
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#	ARTICLE	IF	CITATIONS
1	A family of oxide ion conductors based on the ferroelectric perovskite $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$. <i>Nature Materials</i> , 2014, 13, 31-35.	27.5	715
2	Oxygen transport in $\text{La}_{1-x}\text{Sr}_x\text{Mn}_{1-y}\text{Co}_y\text{O}_{3\pm\delta}$ perovskites Part I. Oxygen tracer diffusion. <i>Solid State Ionics</i> , 1998, 106, 175-187.	2.7	406
3	The kinetics of oxygen transport in 9.5 mol % single crystal yttria stabilised zirconia. <i>Solid State Ionics</i> , 1997, 100, 1-10.	2.7	261
4	Oxygen transport in $\text{La}_{1-x}\text{Sr}_x\text{Mn}_{1-y}\text{Co}_y\text{O}_{3\pm\delta}$ perovskites. <i>Solid State Ionics</i> , 1999, 126, 153-161.	2.7	242
5	Oxygen Diffusion in SrTiO_3 and Related Perovskite Oxides. <i>Advanced Functional Materials</i> , 2015, 25, 6326-6342.	14.9	215
6	Surface exchange of oxygen in mixed conducting perovskite oxides. <i>Solid State Ionics</i> , 1996, 86-88, 703-709.	2.7	197
7	A SIMS study of oxygen tracer diffusion and surface exchange in $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_{3+\delta}$. <i>Materials Letters</i> , 2000, 43, 43-52.	2.6	192
8	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.	2.8	191
9	Behavior of oxygen vacancies in single-crystal SrTiO_3 : Equilibrium distribution and diffusion kinetics. <i>Physical Review B</i> , 2012, 85, .	3.2	176
10	A chemically driven insulator-metal transition in non-stoichiometric and amorphous gallium oxide. <i>Nature Materials</i> , 2008, 7, 391-398.	27.5	166
11	A kinetic study of the decomposition of the cubic perovskite-type oxide $\text{Ba}_x\text{Sr}_{1-x}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3+\delta}$ (BSCF) ($x = 0.1$ and 0.5). <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 10320.	2.8	157
12	Formation and migration of cation defects in the perovskite oxide LaMnO_3 . <i>Journal of Materials Chemistry</i> , 1999, 9, 1621-1627.	6.7	144
13	Modifying the barriers for oxygen-vacancy migration in fluorite-structured CeO_2 electrolytes through strain: a computer simulation study. <i>Energy and Environmental Science</i> , 2012, 5, 5445-5453.	30.8	142
14	Oxygen diffusion in nanocrystalline yttria-stabilized zirconia: the effect of grain boundaries. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 2067.	2.8	139
15	Determining oxygen isotope profiles in oxides with Time-of-Flight SIMS. <i>Solid State Ionics</i> , 2005, 176, 1465-1471.	2.7	127
16	Ab initio analysis of the defect structure of ceria. <i>Physical Review B</i> , 2013, 87, .	3.2	125
17	A universal empirical expression for the isotope surface exchange coefficients (k^*) of acceptor-doped perovskite and fluorite oxides. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 890.	2.8	121
18	Do dislocations act as atomic autobahns for oxygen in the perovskite oxide SrTiO_3 ?. <i>Nanoscale</i> , 2014, 6, 12864-12876.	5.6	118

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19	Electrical and Structural Characterization of a Low-Angle Tilt Grain Boundary in Iron-Doped Strontium Titanate. <i>Journal of the American Ceramic Society</i> , 2003, 86, 922-928.	3.8	103
20	Spectromicroscopic insights for rational design of redox-based memristive devices. <i>Nature Communications</i> , 2015, 6, 8610.	12.8	100
21	Surface oxygen exchange of LaSrCoO. <i>Solid State Ionics</i> , 1997, 96, 1-7.	2.7	95
22	On the conduction pathway for protons in nanocrystalline yttria-stabilized zirconia. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3035.	2.8	93
23	Using $^{18}\text{O}/^{16}\text{O}$ exchange to probe an equilibrium space-charge layer at the surface of a crystalline oxide: method and application. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 2356.	2.8	86
24	A generalised space-charge theory for extended defects in oxygen-ion conducting electrolytes: from dilute to concentrated solid solutions. <i>Energy and Environmental Science</i> , 2015, 8, 2935-2940.	30.8	84
25	Phase Stability and Oxygen Nonstoichiometry of Highly Oxygen-Deficient Perovskite-Type Oxides: A Case Study of $(\text{Ba,Sr})(\text{Co,Fe})\text{O}_{3-x}$. <i>Chemistry of Materials</i> , 2012, 24, 269-274.	6.7	83
26	The thermodynamics and kinetics of iodine vacancies in the hybrid perovskite methylammonium lead iodide. <i>Energy and Environmental Science</i> , 2018, 11, 3266-3274.	30.8	81
27	Low temperature diffusion and oxygen stoichiometry in lanthanum nickelate. <i>Solid State Ionics</i> , 2010, 181, 386-391.	2.7	79
28	Oxygen exchange and diffusion measurements: The importance of extracting the correct initial and boundary conditions. <i>Solid State Ionics</i> , 2005, 176, 1915-1920.	2.7	76
29	Probing Diffusion Kinetics with Secondary Ion Mass Spectrometry. <i>MRS Bulletin</i> , 2009, 34, 907-914.	3.5	75
30	Computational Study of Oxygen Diffusion along $\langle 100 \rangle$ Dislocations in the Perovskite Oxide SrTiO_3 . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12246-12256.	8.0	69
31	Surface Kinetics of Oxygen Incorporation into SrTiO_3 . <i>Journal of the Electrochemical Society</i> , 2002, 149, J19.	2.9	68
32	A Simulation Study of Oxygen-Vacancy Behavior in Strontium Titanate: Beyond Nearest-Neighbor Interactions. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15185-15192.	3.1	66
33	SrTiO_3 : A Model Electroceramic. <i>International Journal of Materials Research</i> , 2003, 94, 218-225.	0.8	65
34	Electrical resistance of low-angle tilt grain boundaries in acceptor-doped SrTiO_3 as a function of misorientation angle. <i>Journal of Applied Physics</i> , 2005, 97, 053502.	2.5	63
35	A computational study of cation defects in LaGaO_3 . <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 740-748.	2.8	62
36	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

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37	Atomic structure and chemistry of dislocation cores at low-angle tilt grain boundary in SrTiO ₃ bicrystals. <i>Acta Materialia</i> , 2015, 89, 344-351.	7.9	58
38	Diffusion of Sr and Zr in BaTiO ₃ single crystals. <i>Solid State Sciences</i> , 2008, 10, 725-734.	3.2	57
39	Grain boundaries in dense nanocrystalline ceria ceramics: exclusive pathways for proton conduction at room temperature. <i>Journal of Materials Chemistry</i> , 2010, 20, 10110.	6.7	57
40	Oxygen diffusion in single crystal barium titanate. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 12587-12597.	2.8	57
41	Oxygen Exchange Processes between Oxide Memristive Devices and Water Molecules. <i>Advanced Materials</i> , 2018, 30, e1800957.	21.0	57
42	Large-scale, Low-cost Fabrication of Janus-type Emulsifiers by Selective Decoration of Natural Kaolinite Platelets. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 1348-1352.	13.8	56
43	Activation Volume Tensor for Oxygen-Vacancy Migration in Strained Electrolytes. <i>Physical Review Letters</i> , 2013, 110, 205901.	7.8	55
44	Oxidation states of the transition metal cations in the highly nonstoichiometric perovskite-type oxide Ba _{0.1} Sr _{0.9} Co _{0.8} Fe _{0.2} O _{3-δ} . <i>Journal of Materials Chemistry</i> , 2009, 19, 1960.	6.7	52
45	Space charges and defect concentration profiles at complex oxide interfaces. <i>Physical Review B</i> , 2016, 93, .	3.2	51
46	Limits to the rate of oxygen transport in mixed-conducting oxides. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20334-20350.	10.3	51
47	Comparative studies of microstructure and impedance of small-angle symmetrical and asymmetrical grain boundaries in SrTiO ₃ . <i>Acta Materialia</i> , 2005, 53, 5007-5015.	7.9	49
48	Defect chemistry of grain boundaries in proton-conducting solid oxides. <i>Solid State Ionics</i> , 2011, 196, 1-8.	2.7	49
49	Optically Tuning the Rate of Stoichiometry Changes: Surface-Controlled Oxygen Incorporation into Oxides under UV Irradiation. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2126-2129.	13.8	48
50	Heterogeneously doped nanocrystalline ceria films by grain boundary diffusion: Impact on transport properties. <i>Journal of Electroceramics</i> , 2009, 22, 405-415.	2.0	48
51	Finite-size versus interface-proximity effects in thin-film epitaxial SrTiO ₃ . <i>Physical Review B</i> , 2014, 89, .	3.2	47
52	Room-temperature protonic conduction in nanocrystalline films of yttria-stabilized zirconia. <i>Journal of Materials Chemistry</i> , 2010, 20, 6235.	6.7	46
53	Dynamics of the metal-insulator transition of donor-doped SrTiO ₃ . <i>Physical Review B</i> , 2016, 94, .	3.2	46
54	The application of secondary ion mass spectrometry (SIMS) to the study of high temperature proton conductors (HTPC). <i>Solid State Ionics</i> , 1997, 97, 409-419.	2.7	45

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55	Computational Study of Cation Diffusion in Ceria. Journal of Physical Chemistry C, 2015, 119, 27307-27315.	3.1	45
56	Ion migration in crystalline and amorphous HfO ₂ . Journal of Chemical Physics, 2017, 146, .	3.0	45
57	Oxygen diffusion and surface exchange in the mixed conducting oxides SrTi _{1-x} Fe _y O _{3-δ} . Physical Chemistry Chemical Physics, 2016, 18, 29495-29505.	2.8	43
58	Atomistic simulations of ion migration in sodium bismuth titanate (NBT) materials: towards superior oxide-ion conductors. Journal of Materials Chemistry A, 2018, 6, 9116-9123.	10.3	43
59	Field-enhanced ion transport in solids: Reexamination with molecular dynamics simulations. Physical Review B, 2016, 94, .	3.2	42
60	Ionic conduction in the SrTiO ₃ YSZ SrTiO ₃ heterostructure. Physical Chemistry Chemical Physics, 2013, 15, 4505.	2.8	41
61	Hydrogen separation by nanocrystalline titanium nitride membranes with high hydride ion conductivity. Nature Energy, 2017, 2, 786-794.	39.5	40
62	Electric-field-assisted processing of ceramics: Nonthermal effects and related mechanisms. MRS Bulletin, 2021, 46, 52-58.	3.5	40
63	Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO ₃ Resistive Switching Memories. Advanced Materials, 2019, 31, e1901322.	21.0	38
64	Diffusion of La and Mn in Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} polycrystalline ceramics. Energy and Environmental Science, 2012, 5, 5803-5813.	30.8	34
65	Grain growth in strontium titanate in electric fields: The impact of space charge on the grain boundary mobility. Journal of the American Ceramic Society, 2019, 102, 3779-3790.	3.8	34
66	Oxygen Diffusion in Mayenite. Journal of Physical Chemistry C, 2015, 119, 9721-9727.	3.1	32
67	Field-enhanced route to generating anti-Frenkel pairs in HfO ₂ . Physical Review Materials, 2018, 2, .	3.9	32
68	Secondary ion mass spectrometry (SIMS) – a powerful tool for studying mass transport over various length scales. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1785-1801.	0.8	30
69	Defect mechanisms in BaTiO ₃ Bi ₂ MgO ₃ ceramics. Journal of the American Ceramic Society, 2018, 101, 2376-2390.	3.8	30
70	Secondary-ion-mass-spectroscopy study of oxygen tracer diffusion in ac-axis-oriented YBa ₂ Cu ₃ O _{7-δ} film. Physical Review B, 1995, 51, 8498-8502.	3.2	28
71	Chemical strengthening of a dental lithium disilicate glass-ceramic material. Journal of Biomedical Materials Research - Part A, 2008, 87A, 582-587.	4.0	28
72	Understanding Oxygen-Vacancy Migration in the Fluorite Oxide CeO ₂ : An Ab Initio Study of Impurity-Anion Migration. Journal of Physical Chemistry C, 2015, 119, 28269-28275.	3.1	27

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73	A Space-Charge Treatment of the Increased Concentration of Reactive Species at the Surface of a Ceria Solid Solution. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 14516-14520.	13.8	27
74	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.	3.8	27
75	An atomistic simulation study of oxygen-vacancy migration in perovskite electrolytes based on LaGaO ₃ . <i>Monatshefte für Chemie</i> , 2009, 140, 1011-1015.	1.8	25
76	Strongly enhanced incorporation of oxygen into barium titanate based multilayer ceramic capacitors using water vapor. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	25
77	Complex behaviour of vacancy point-defects in SrRuO ₃ thin films. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 1060-1069.	2.8	23
78	Grain-boundary diffusion of cations in fluorite-type oxides is faster but not always easier. <i>Acta Materialia</i> , 2020, 195, 383-391.	7.9	23
79	Chemical relaxation experiments on mixed conducting oxides with large stoichiometry deviations. <i>Solid State Ionics</i> , 2015, 280, 66-73.	2.7	22
80	Equal mobility of constituent cations in BaTiO ₃ . <i>Applied Physics Letters</i> , 2008, 92, .	3.3	21
81	Molecular dynamics simulations of oxygen vacancy diffusion in SrTiO ₃ . <i>Journal of Physics Condensed Matter</i> , 2012, 24, 485002.	1.8	21
82	Pulsed laser deposition of SrRuO ₃ thin-films: The role of the pulse repetition rate. <i>APL Materials</i> , 2016, 4, .	5.1	21
83	The blocking effect of surface dislocations on oxygen tracer diffusion in SrTiO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15455-15463.	2.8	21
84	Probing vacancy behavior across complex oxide heterointerfaces. <i>Science Advances</i> , 2019, 5, eaau8467.	10.3	21
85	A SIMS study of cation and anion diffusion in tantalum oxide. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 989-996.	2.8	21
86	A SIMS study of hydrogen in acceptor-doped perovskite oxides. <i>Solid State Ionics</i> , 1995, 77, 180-184.	2.7	20
87	Impurity diffusion of Hf and Zr in Gd-doped CeO ₂ . <i>Solid State Ionics</i> , 2017, 305, 23-29.	2.7	20
88	The effect of space-charge formation on the grain-boundary energy of an ionic solid. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180430.	3.4	20
89	Preparation of nitrogen-doped YSZ thin films by pulsed laser deposition and their characterization. <i>Journal of Materials Science</i> , 2007, 42, 1931-1941.	3.7	19
90	Antiphase Boundaries Constitute Fast Cation Diffusion Paths in SrTiO ₃ Memristive Devices. <i>Advanced Functional Materials</i> , 2020, 30, 2004118.	14.9	19

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91	Electrochemical activation of molecular nitrogen at the Ir/YSZ interface. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3394.	2.8	18
92	Oxygen transport in undoped and doped mayenite. <i>Solid State Ionics</i> , 2016, 284, 25-27.	2.7	18
93	SIMS study of oxygen diffusion in monoclinic HfO ₂ . <i>Applied Physics Letters</i> , 2018, 112, .	3.3	18
94	The surprisingly high activation barrier for oxygen-vacancy migration in oxygen-excess manganite perovskites. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14329-14339.	2.8	18
95	Dopant substitution and oxygen migration in the complex perovskite oxide Ba ₃ CaNb ₂ O ₉ : A computational study. <i>Journal of Solid State Chemistry</i> , 2005, 178, 1959-1967.	2.9	16
96	Dehydration kinetics of nano-YSZ ceramics monitored by in-situ infrared spectroscopy. <i>Solid State Ionics</i> , 2012, 225, 241-244.	2.7	16
97	Complex diffusion behavior of oxygen in nanocrystalline BaTiO ₃ ceramics. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 2568.	2.8	16
98	Atomistic simulations of symmetrical low-angle [100] (01l) tilt boundaries in SrTiO ₃ . <i>Acta Materialia</i> , 2016, 118, 286-295.	7.9	16
99	Is ReO ₃ a mixed ionic-electronic conductor? A DFT study of defect formation and migration in a <i>BVO</i> perovskite-type oxide. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8008-8015.	2.8	16
100	Oxygen-18 surface exchange and diffusion in Li ₂ O-deficient single crystalline lithium niobate. <i>Solid State Sciences</i> , 2008, 10, 746-753.	3.2	15
101	Competing descriptions of diffusion profiles with two features: Surface space-charge layer versus fast grain-boundary diffusion. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	15
102	Transport properties of dislocations in SrTiO ₃ and other perovskites. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100923.	11.5	15
103	Simulation Studies of the Phase Stability of the Ruddlesden-Popper Phases. <i>Journal of the American Ceramic Society</i> , 2013, 96, 2316-2321.	3.8	14
104	Iodide-ion conduction in methylammonium lead iodide perovskite: some extraordinary aspects. <i>Chemical Communications</i> , 2019, 55, 1108-1111.	4.1	14
105	Electrochemical Incorporation of Nitrogen into a Zirconia Solid Electrolyte. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, F23.	2.2	13
106	Capacitance of single crystal and low-angle tilt bicrystals of Fe-doped SrTiO ₃ . <i>Faraday Discussions</i> , 2007, 134, 235-245.	3.2	12
107	The usefulness of molecular-dynamics simulations in clarifying the activation enthalpy of oxygen-vacancy migration in the perovskite oxide BaTiO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5413-5417.	2.8	12
108	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.	2.9	12

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109	Faster Diffusion of Oxygen Along Dislocations in (La,Sr)MnO ₃ Is a Space-Charge Phenomenon. <i>Advanced Functional Materials</i> , 2021, 31, 2105647.	14.9	12
110	Oxygen Isotope Transport Properties of Yttria-Stabilized Zirconia (YSZ) in O ₂ - and H ₂ O-Containing Atmospheres. <i>Fuel Cells</i> , 2013, 13, n/a-n/a.	2.4	11
111	Optimising oxygen diffusion in non-cubic, non-dilute perovskite oxides based on BiFeO ₃ . <i>Journal of Materials Chemistry A</i> , 2019, 7, 25274-25278.	10.3	11
112	Structural characteristics of a multilayer of silicon rich oxide (SRO) with high Si content prepared by LPCVD. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 263-269.	1.8	10
113	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.	3.8	10
114	The phase stability of Ca ₂ TiO ₄ and related Ruddlesden-Popper phases. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 86, 90-94.	4.0	9
115	Is excess faster than deficient? A molecular-dynamics study of oxygen-interstitial and oxygen-vacancy diffusion in CeO ₂ . <i>JPhys Energy</i> , 2020, 2, 024001.	5.3	9
116	Nonlinear ion mobility at high electric field strengths in the perovskites SrTiO ₃ and CH ₃ NH ₃ PbBr ₃ . <i>Physical Review Materials</i> , 2021, 5, .	2.4	9
117	Mechanisms of Reactions in the Solid State: (110) Al ₂ O ₃ + (001) ZnO Interfacial Reaction. <i>Journal of Physical Chemistry C</i> , 2012, 116, 980-986.	3.1	8
118	Ab Initio Calculation of the Defect Structure of Ceria. <i>ECS Transactions</i> , 2013, 57, 2405-2410.	0.5	8
119	The importance of singly charged oxygen vacancies for electrical conduction in monoclinic HfO ₂ . <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	8
120	Metadynamics simulations of strontium-vacancy diffusion in SrTiO ₃ . <i>Physical Review Materials</i> , 2021, 5, .	2.4	8
121	Behavior of cation vacancies in single-crystal and in thin-film SrTiO ₃ : The importance of strontium vacancies and their defect associates. <i>Physical Review Materials</i> , 2020, 4, .	2.4	8
122	Perovskite crystal symmetry and oxygen-ion transport: a molecular-dynamics study of perovskite. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2388-2397.	10.3	8
123	Optically Tuning the Rate of Stoichiometry Changes: Surface-Controlled Oxygen Incorporation into Oxides under UV Irradiation. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2126-2129.	13.8	8
124	Grain Size Effect in the Electrical Properties of Nanostructured Functional Oxides through Pressure Modification of the Spark Plasma Sintering Method. <i>Key Engineering Materials</i> , 0, 484, 107-116.	0.4	7
125	Cation diffusion in polycrystalline thin films of monoclinic HfO ₂ deposited by atomic layer deposition. <i>APL Materials</i> , 2020, 8, .	5.1	7
126	A quantitative analysis of two-fold electrical conductivity relaxation behaviour in mixed proton-oxide-ion-electron conductors upon hydration. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 25032-25041.	2.8	7

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127	Electrochemical methods for determining ionic charge in solids. <i>Nature Materials</i> , 2021, 20, 443-446.	27.5	7
128	Surface potentials of acceptor- and donor-doped CeO ₂ thin films and their relation to oxygen surface exchange. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 1072-1080.	2.8	7
129	Oxygen Diffusion in Platinum Electrodes: A Molecular Dynamics Study of the Role of Extended Defects. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	7
130	Concentration and Diffusivity of Oxygen Interstitials in Niobia-Doped Ceria. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6340-6350.	3.1	6
131	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.	8.0	6
132	High oxide-ion conductivity in acceptor-doped Bi-based perovskites at modest doping levels. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 11327-11333.	2.8	6
133	Quantitative Determination of Native Point-Defect Concentrations at the ppm Level in Un-doped BaSnO ₃ Thin Films. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	6
134	Diffusion of Nd and Mo in lanthanum tungsten oxide. <i>Solid State Ionics</i> , 2015, 274, 128-133.	2.7	5
135	A Space-Charge Treatment of the Increased Concentration of Reactive Species at the Surface of a Ceria Solid Solution. <i>Angewandte Chemie</i> , 2017, 129, 14708-14712.	2.0	5
136	Impact of Surface Roughness on Ion-Surface Interactions Studied with Energetic Carbon Ions 13C+ on Tungsten Surfaces. <i>Condensed Matter</i> , 2019, 4, 29.	1.8	5
137	B-site cation inter-diffusion in yttrium substituted barium zirconate. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21142-21150.	10.3	5
138	Comment on "Atomic-scale model of the grain boundary potential in perovskite oxides". <i>Physical Review B</i> , 2005, 72, .	3.2	4
139	The Intrinsic Structural Resistance of a Grain Boundary to Transverse Ionic Conduction. <i>ChemElectroChem</i> , 2020, 7, 4718-4723.	3.4	4
140	Oxygen transport in single-crystal LaAlO ₃ substrates. <i>Physical Review Materials</i> , 2021, 5, .		
141	Kinetic Study of the Interdiffusion of Fluorine and Oxygen in the Perovskite-Type Barium Ferrate System BaFeO _{2.5} F ₂ . <i>Journal of Physical Chemistry C</i> , 2021, 125, 2287-2298.	3.1	3
142	Hydration Entropy and Enthalpy of a Perovskite Oxide from Oxygen Tracer Diffusion Experiments. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 4133-4138.	4.6	3
143	Recipes for superior ionic conductivities in thin-film ceria-based electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 12926-12936.	2.8	3
144	Resistive Switching: Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO ₃ Resistive Switching Memories (<i>Adv. Mater.</i> 28/2019). <i>Advanced Materials</i> , 2019, 31, 1970205.	21.0	2

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145	Fundamentals of electrical conduction in ceramics. , 2020, , 277-320.		2
146	Fast grainâ€boundary diffusion paths in ionic solids: Spaceâ€charge layers versus interfacial core. Journal of the American Ceramic Society, 2021, 104, 5946-5954.	3.8	2
147	Optically Tuning the Rate of Stoichiometry Changes: Surface-Controlled Oxygen Incorporation into Oxides under UV Irradiation. , 2001, 40, 2126.		2
148	Eigenschaften. Nachrichten Aus Der Chemie, 2007, 55, 249-251.	0.0	0
149	Mechanisms of impurity incorporation during MOVPE growth of m-plane GaN layers on LiAlO ₂ . Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2050-2052.	0.8	0
150	Deuterium Markers in CdS and Zn(O,S) Buffer Layers Deposited by Solution Growth for Cu(In,Ga)Se ₂ Thinâ€Film Solar Cells. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700288.	2.4	0
151	The Intrinsic Structural Resistance of a Grain Boundary to Transverse Ionic Conduction. ChemElectroChem, 2020, 7, 4694-4694.	3.4	0
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