

Manfred Martin

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Synthesis and microstructure of the (Co,Cr,Fe,Mn,Ni) 3O_4 high entropy oxide characterized by spinel structure. Materials Letters, 2018, 216, 32-36.	2.6	372
2	First-principles study on defect chemistry and migration of oxide ions in ceria doped with rare-earth cations. Physical Chemistry Chemical Physics, 2009, 11, 3241.	2.8	224
3	A chemically driven insulatorâ€metal transition in non-stoichiometric and amorphous gallium oxide. Nature Materials, 2008, 7, 391-398.	27.5	166
4	A kinetic study of the decomposition of the cubic perovskite-type oxide $\text{Ba}_{1-x}\text{Sr}_x\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ (BSCF) ($x = 0.1$ and 0.5). Physical Chemistry Chemical Physics, 2010, 12, 10320.	2.8	157
5	Oxygen diffusion in nanocrystalline yttria-stabilized zirconia: the effect of grain boundaries. Physical Chemistry Chemical Physics, 2008, 10, 2067.	2.8	139
6	Grain boundary ionic conductivity of yttrium stabilized zirconia as a function of silica content and grain size. Solid State Ionics, 2003, 161, 67-79.	2.7	128
7	Determining oxygen isotope profiles in oxides with Time-of-Flight SIMS. Solid State Ionics, 2005, 176, 1465-1471.	2.7	127
8	Ab initio analysis of the defect structure of ceria. Physical Review B, 2013, 87, .	3.2	125
9	Ab initio calculations on the defect structure of $\text{Ga}^{12}\text{O}_{22}$	3.2	123
10	Bulk mixed ion electron conduction in amorphous gallium oxide causes memristive behaviour. Nature Communications, 2014, 5, 3473.	12.8	119
11	Understanding the ionic conductivity maximum in doped ceria: trapping and blocking. Physical Chemistry Chemical Physics, 2018, 20, 14291-14321.	2.8	116
12	A combined DFT + U and Monte Carlo study on rare earth doped ceria. Physical Chemistry Chemical Physics, 2014, 16, 9974.	2.8	111
13	Cation self-diffusion of ^{44}Ca , ^{88}Y , and ^{96}Zr in single-crystalline calcia- and yttria-doped zirconia. Journal of Applied Physics, 2003, 94, 7547.	2.5	107
14	Unprecedented Roomâ€Temperature Electrical Power Generation Using Nanoscale Fluoriteâ€Structured Oxide Electrolytes. Advanced Materials, 2008, 20, 556-559.	21.0	105
15	Microstructural comparison of solid oxide electrolyser cells operated for 6100Âh and 9000Âh. Journal of Power Sources, 2015, 275, 901-911.	7.8	98
16	In situ XRD study of the phase transition of nanocrystalline maghemite (Fe_2O_3) to hematite (Fe_2O_3). Solid State Ionics, 2000, 136-137, 1235-1240.	2.7	96
17	On the conduction pathway for protons in nanocrystalline yttria-stabilized zirconia. Physical Chemistry Chemical Physics, 2009, 11, 3035.	2.8	93
18	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. Physical Chemistry Chemical Physics, 2008, 10, 2356.	2.8	86

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19	Phase Stability and Oxygen Nonstoichiometry of Highly Oxygen-Deficient Perovskite-Type Oxides: A Case Study of $(\text{Ba,Sr})(\text{Co,Fe})\text{O}_{3-\delta}$. Chemistry of Materials, 2012, 24, 269-274.	6.7	83
20	An innovative approach to design SOFC air electrode materials: high entropy $\text{La}_{1-x}\text{Sr}_x(\text{Co,Cr,Fe,Mn,Ni})\text{O}_{3-\delta}$ ($x = 0, 0.1, 0.2, 0.3$) perovskites synthesized by the sol-gel method. Journal of Materials Chemistry A, 2020, 8, 24455-24468.	10.3	80
21	Substrate-orientation dependence of In^{2+} -Ga 2O_3 (100), (010), (001), and (2 \times 01) homoepitaxy by indium-mediated metal-exchange catalyzed molecular beam epitaxy (MEXCAT-MBE). APL Materials, 2020, 8, .	5.1	80
22	Probing Diffusion Kinetics with Secondary Ion Mass Spectrometry. MRS Bulletin, 2009, 34, 907-914.	3.5	75
23	Pressure effects and grain growth kinetics in the consolidation of nanostructured fully stabilized zirconia by pulsed electric current sintering. Acta Materialia, 2010, 58, 5022-5030.	7.9	75
24	Nanoscale percolation in doped BaZrO 3 for high proton mobility. Nature Materials, 2020, 19, 338-346.	27.5	73
25	Modeling of cation diffusion in oxygen ion conductors using molecular dynamics. Solid State Ionics, 2004, 175, 823-827.	2.7	72
26	Heterogeneously catalysed partial oxidation of acrolein to acrylic acid—structure, function and dynamics of the V—Mo—W mixed oxides. Physical Chemistry Chemical Physics, 2007, 9, 3577-3589.	2.8	72
27	Oxide nitrides: From oxides to solids with mobile nitrogen ions. Progress in Solid State Chemistry, 2009, 37, 81-131.	7.2	66
28	Electrochemical Copper Deposition in Etched Ion Track Membranes. Journal of the Electrochemical Society, 2003, 150, C189.	2.9	64
29	CO_2 -Tolerant and Cobalt-Free $\text{SrFe}_{0.8}\text{Nb}_{0.2}\text{O}_{3-\delta}$ Perovskite Membrane for Oxygen Separation. Chemistry of Materials, 2013, 25, 815-817.	6.7	61
30	Protonic conductivity of nano-structured yttria-stabilized zirconia: dependence on grain size. Journal of Materials Chemistry, 2010, 20, 990-994.	6.7	59
31	Ab initio calculation of the attempt frequency of oxygen diffusion in pure and samarium doped ceria. Physical Chemistry Chemical Physics, 2017, 19, 9957-9973.	2.8	58
32	Diffusion of Sr and Zr in BaTiO 3 single crystals. Solid State Sciences, 2008, 10, 725-734.	3.2	57
33	Grain boundaries in dense nanocrystalline ceria ceramics: exclusive pathways for proton conduction at room temperature. Journal of Materials Chemistry, 2010, 20, 10110.	6.7	57
34	Oxygen diffusion in single crystal barium titanate. Physical Chemistry Chemical Physics, 2015, 17, 12587-12597.	2.8	57
35	Surface Cation Segregation and Chromium Deposition on the Double-Perovskite Oxide $\text{PrBaCo}_2\text{O}_{5+\delta}$. ACS Applied Materials & Interfaces, 2018, 10, 8621-8629.	8.0	57
36	Cation tracer diffusion of ^{138}La , ^{84}Sr and ^{25}Mg in polycrystalline $\text{La}_{0.9}\text{Sr}_{0.1}\text{Ga}_{0.9}\text{Mg}_{0.1}\text{O}_{2.9}$. Physical Chemistry Chemical Physics, 2003, 5, 2308-2313.	2.8	56

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37	Formation of spinel-type gallium oxynitrides: a density-functional study of binary and ternary phases in the system Ga ϵ “O ϵ “N. Journal of Materials Chemistry, 2005, 15, 3296.	6.7	56
38	Large ϵ Scale, Low ϵ Cost Fabrication of Janus ϵ Type Emulsifiers by Selective Decoration of Natural Kaolinite Platelets. Angewandte Chemie - International Edition, 2012, 51, 1348-1352.	13.8	56
39	Materials in thermodynamic potential gradients. Journal of Chemical Thermodynamics, 2003, 35, 1291-1308.	2.0	55
40	A concerted migration mechanism of mixed oxide ion and electron conduction in reduced ceria studied by first-principles density functional theory. Physical Chemistry Chemical Physics, 2012, 14, 6079.	2.8	55
41	Amorphous and highly nonstoichiometric titania (TiOx) thin films close to metal-like conductivity. Journal of Materials Chemistry A, 2014, 2, 6631.	10.3	54
42	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 _{3ϵ} . Journal of Materials Chemistry, 2009, 19, 1960.	6.7	52
43	Cobaltous Oxide in an Oxygen Potential Gradient: Morphological Stability of the Phase Boundaries. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 124-130.	0.9	50
44	Electrotransport and demixing in oxides. Solid State Ionics, 2000, 136-137, 331-337.	2.7	50
45	B-Site cation diffusivity of Mn and Cr in perovskite-type LaMnO ₃ with cation-deficit nonstoichiometry. Physical Chemistry Chemical Physics, 2009, 11, 3063.	2.8	50
46	Defect chemistry of grain boundaries in proton-conducting solid oxides. Solid State Ionics, 2011, 196, 1-8.	2.7	49
47	Heterogeneously doped nanocrystalline ceria films by grain boundary diffusion: Impact on transport properties. Journal of Electroceramics, 2009, 22, 405-415.	2.0	48
48	Entropies of defect formation in ceria from first principles. Physical Chemistry Chemical Physics, 2013, 15, 15935.	2.8	48
49	Surface Tuning of Solid Oxide Fuel Cell Cathode by Atomic Layer Deposition. Advanced Energy Materials, 2018, 8, 1802506.	19.5	48
50	Room-temperature protonic conduction in nanocrystalline films of yttria-stabilized zirconia. Journal of Materials Chemistry, 2010, 20, 6235.	6.7	46
51	Preparation and characterisation of La _{1ϵ} ^x Sr _x Ga _{1ϵ} ^y Mg _y O _{3ϵ} ^{(x+y)/2} for the investigation of cation diffusion processes. Solid State Ionics, 2000, 135, 549-555.	2.7	42
52	Critical behavior of CoO and NiO from specific heat, thermal conductivity, and thermal diffusivity measurements. Physical Review B, 2008, 77, .	3.2	41
53	Experimental evidence of the interference between ionic and electronic flows in an oxide with prevailing electronic conduction. Solid State Ionics, 1994, 67, 317-322.	2.7	40
54	Oxygen ion conductivity of doped ceria: A Kinetic Monte Carlo study. Solid State Ionics, 2012, 225, 476-483.	2.7	40

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55	Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO_{3-x} Resistive Switching Memories. <i>Advanced Materials</i> , 2019, 31, e1901322.	21.0	38
56	Oxygen permeation and oxidation states of transition metals in (Fe, Nb)-doped $\text{BaCoO}_{3-\delta}$ perovskites. <i>Journal of Membrane Science</i> , 2012, 387-388, 17-23.	8.2	35
57	Association of defects in doped non-stoichiometric ceria from first principles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3804-3811.	2.8	35
58	Cross Effect Between Electronic and Ionic Flows in Semiconducting Transition Metal Oxides. <i>Zeitschrift Fur Physikalische Chemie</i> , 1990, 168, 129-142.	2.8	34
59	Diffusion of La and Mn in $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ polycrystalline ceramics. <i>Energy and Environmental Science</i> , 2012, 5, 5803-5813.	30.8	34
60	Thermodynamics, structure and kinetics in the system Ga-O-N . <i>Progress in Solid State Chemistry</i> , 2009, 37, 132-152.	7.2	33
61	Physical chemistry of solids—the science behind materials engineering. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3010.	2.8	33
62	Phase diagram study in the $\text{La}_2\text{O}_3\text{-Ga}_2\text{O}_3\text{-MgO-SrO}$ system in air. <i>Solid State Ionics</i> , 2004, 166, 343-350.	2.7	32
63	Oxygen Diffusion in Mayenite. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9721-9727.	3.1	32
64	The ionic conductivity of Sm -doped ceria. <i>Journal of the American Ceramic Society</i> , 2020, 103, 3776-3787.	3.8	32
65	A Theoretical and Experimental View on the Temperature Dependence of the Electronic Conduction through a Schottky Barrier in a Resistively Switching SrTiO_3 -Based Memory Cell. <i>Advanced Electronic Materials</i> , 2018, 4, 1800062.	5.1	31
66	Secondary ion mass spectrometry (SIMS) – a powerful tool for studying mass transport over various length scales. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 1785-1801.	0.8	30
67	An in situ XAS investigation of the kinetics of the ammonolysis of Ga_2O_3 and the oxidation of GaN . <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3127.	2.8	29
68	Chemical strengthening of a dental lithium disilicate glass–ceramic material. <i>Journal of Biomedical Materials Research - Part A</i> , 2008, 87A, 582-587.	4.0	28
69	Defect structure of ferrous oxide Fe_{1-x}O . <i>Physical Review B</i> , 1995, 51, 15771-15788.	3.2	27
70	On the ionic conductivity of strongly acceptor doped, fluorite-type oxygen ion conductors. <i>Journal of Electroceramics</i> , 2006, 17, 765-773.	2.0	26
71	Ab initio calculation of the migration free energy of oxygen diffusion in pure and samarium-doped ceria. <i>Physical Review B</i> , 2018, 97, .	3.2	26
72	Transport and degradation in transition metal oxides in chemical potential gradients. <i>Materials Science and Engineering Reports</i> , 1991, 7, 1-86.	5.8	25

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73	Demixing of doped oxides: influence of defect interactions. Solid State Ionics, 1994, 72, 67-71.	2.7	25
74	An atomistic simulation study of oxygen-vacancy migration in perovskite electrolytes based on LaGaO ₃ . Monatshefte Für Chemie, 2009, 140, 1011-1015.	1.8	25
75	Strongly enhanced incorporation of oxygen into barium titanate based multilayer ceramic capacitors using water vapor. Applied Physics Letters, 2010, 97, .	3.3	25
76	High temperature point defect equilibria in iron-doped MgO: An <i>in situ</i> Fe K XAFS study on the valence and site distribution of iron in (Mg _{1-x} Fe _x)O. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1998, 102, 1747-1759.	0.9	24
77	X-Ray absorption and X-ray diffraction studies on molybdenum doped vanadium pentoxide. Physical Chemistry Chemical Physics, 2003, 5, 4317-4324.	2.8	24
78	Fabrication of a resistive switching gallium oxide thin film with a tailored gallium valence state and oxygen deficiency by rf cosputtering process. RSC Advances, 2016, 6, 8964-8970.	3.6	24
79	Materials in thermodynamic potential gradients. Pure and Applied Chemistry, 2003, 75, 889-903.	1.9	22
80	Characterization of Mo-V-W Mixed Oxide Catalysts by ex situ and in situ X-Ray Absorption Spectroscopy. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2005, 631, 1289-1296.	1.2	22
81	Chemical relaxation experiments on mixed conducting oxides with large stoichiometry deviations. Solid State Ionics, 2015, 280, 66-73.	2.7	22
82	Influence of defect interactions on the free energy of reduction in pure and doped ceria. Journal of Materials Chemistry A, 2017, 5, 9241-9249.	10.3	22
83	Reactivity of solids studied by in situ XAS and XRD. Solid State Ionics, 2004, 172, 357-363.	2.7	21
84	Equal mobility of constituent cations in BaTiO ₃ . Applied Physics Letters, 2008, 92, .	3.3	21
85	Electrotransport in ionic crystals: I. Application of liquid electrolyte theory. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1994, 98, 655-664.	0.9	20
86	Isotopic study of Raman active phonon modes in Ga_2O_3 . Journal of Materials Chemistry C, 2021, 9, 2311-2320.	5.5	20
87	Tracer diffusion in chemical potential gradients. Solid State Ionics, 1986, 20, 75-80.	2.7	19
88	Demixing of mixed oxide (A,B)O in an oxygen potential gradient: numerical solution of the time evolution of the demixing process. Solid State Ionics, 1999, 123, 75-85.	2.7	19
89	Preparation of nitrogen-doped YSZ thin films by pulsed laser deposition and their characterization. Journal of Materials Science, 2007, 42, 1931-1941.	3.7	19
90	On the ammonolysis of Ga ₂ O ₃ : An XRD, neutron diffraction and XAS investigation of the oxygen-rich part of the system Ga ₂ O ₃ -GaN. Journal of Solid State Chemistry, 2010, 183, 532-541.	2.9	19

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91	Bulk and grain boundary Li-diffusion in dense LiMn_2O_4 pellets by means of isotope exchange and ToF-SIMS analysis. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 26066-26076.	2.8	19
92	Electrochemical activation of molecular nitrogen at the Ir/YSZ interface. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3394.	2.8	18
93	Oxygen transport in undoped and doped mayenite. <i>Solid State Ionics</i> , 2016, 284, 25-27.	2.7	18
94	Tracer diffusion and defect structure in Ga-doped CoO. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1993, 68, 747-765.	0.6	17
95	Solid state reactions and morphology. <i>Solid State Ionics</i> , 1995, 75, 219-228.	2.7	17
96	An Extended In Situ Cu ^K XAFS and XRD Study on the Site Preference and Valence of Copper Ions in $(\text{Mg}_{1-x}\text{Cu}_x)\text{O}$. <i>Journal of Physical Chemistry B</i> , 1999, 103, 4797-4802.	2.6	17
97	On the path-dependence of the open-cell voltage of a galvanic cell involving a ternary or multinary compound with multiple mobile ionic species under multiple chemical potential gradients. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14699.	2.8	17
98	Offcut-related step-flow and growth rate enhancement during (100) Ga_2O_3 homoepitaxy by metal-exchange catalyzed molecular beam epitaxy (MEXCAT-MBE). <i>Applied Physics Letters</i> , 2020, 117, .	3.3	17
99	Simultaneous X-ray absorption fine-structure spectroscopy (XAFS) and differential scanning calorimetry (DSC). <i>Chemical Communications</i> , 1996, , 1755-1756.	4.1	16
100	Dehydration kinetics of nano-YSZ ceramics monitored by in-situ infrared spectroscopy. <i>Solid State Ionics</i> , 2012, 225, 241-244.	2.7	16
101	¹ H-NMR measurements of proton mobility in nano-crystalline YSZ. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19825.	2.8	16
102	On the morphological changes on CoO-surfaces during vacancy relaxation processes (Is DIGM) Tj ETQq0 0 0 rgBT /Qverlock 1Q Tf 50 30.	1.2	15
103	The electrical conductivity of CoO: Experimental results and a new conductivity model. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1997, 101, 176-184.	0.9	15
104	Self- and impurity cation diffusion in manganese-zinc-ferrite, $\text{Mn}_{1-x}\text{Zn}_x\text{Fe}_2\text{O}_4$. <i>Journal of Physics and Chemistry of Solids</i> , 2000, 61, 1597-1605.	4.0	15
105	High-temperature oxidation of CoGa: Influence of the crystallographic orientation on the oxidation rate. <i>Journal of Materials Research</i> , 2002, 17, 2489-2498.	2.6	15
106	Stability and defect structure of spinels $\text{Li}_{1-x}\text{Mn}_2\text{O}_4$: I. In situ investigations on the stability field of the spinel phase. <i>Journal of Materials Science</i> , 2007, 42, 1955-1964.	3.7	15
107	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
108	Coordination Numbers in Sm-Doped Ceria Using X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6333-6339.	3.1	15

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109	Thermodynamic and Cation Diffusion Studies of Perovskites on the Basis of LaGaO ₃ and Implications for SOFC. Materialwissenschaft Und Werkstofftechnik, 2002, 33, 355-362.	0.9	13
110	Electrochemical Incorporation of Nitrogen into a Zirconia Solid Electrolyte. Electrochemical and Solid-State Letters, 2006, 9, F23.	2.2	13
111	Solid-State Ionics in the 21st Century: Current Status and Future Prospects. MRS Bulletin, 2009, 34, 900-906.	3.5	13
112	Diffuse neutron scattering of iron-doped nickel oxide. Solid State Ionics, 1994, 72, 72-75.	2.7	12
113	Oxidation Kinetics of Zirconium Examined by In Situ X-ray Diffraction. Journal of the Electrochemical Society, 2013, 160, C136-C141.	2.9	12
114	Diffusion in Oxides. , 2005, , 209-247.		12
115	Impurity Diffusion in a Chemical Potential Gradient (II): Iron Tracer Diffusion in Cobalt Oxide in an Oxygen Potential Gradient. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1987, 91, 779-785.	0.9	11
116	In-situ Study of the Defect Structure of W ^{1/4} stite Fe _x O by Diffuse Elastic Neutron Scattering. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 1541-1544.	0.9	11
117	Cation Tracer Diffusion and Electrotransport in Semiconducting Cobaltous Oxide Co ^{1/2} O. Zeitschrift Fur Physikalische Chemie, 1998, 207, 1-19.	2.8	11
118	Oxygen Isotope Transport Properties of Yttria-Stabilized Zirconia (YSZ) in O ₂ - and H ₂ O-Containing Atmospheres. Fuel Cells, 2013, 13, n/a-n/a.	2.4	11
119	Structural characteristics of a multilayer of silicon rich oxide (SRO) with high Si content prepared by LPCVD. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 263-269.	1.8	10
120	Oxygen diffusion in amorphous and partially crystalline gallium oxide. Physical Chemistry Chemical Physics, 2019, 21, 4268-4275.	2.8	10
121	Electrotransport in ionic crystals: II. A dynamical model. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1994, 98, 665-673.	0.9	9
122	Quantitative elaboration of the defect structure of iron doped nickel oxide (Ni _{0.955} Fe _{0.045}) _{1-x} O by in situ X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2001, 3, 4806-4810.	2.8	9
123	Y and Zr Tracer Diffusion in Yttria-Stabilized Zirconia at Temperatures between 1250K and 2000K. Key Engineering Materials, 2001, 206-213, 601-604.	0.4	9
124	Monte Carlo simulation of surface structures during oxide reduction. Physica A: Statistical Mechanics and Its Applications, 1992, 191, 240-247.	2.6	8
125	Instability of Moving Interfaces between Ionic Crystals KCl/AgCl. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 1-6.	0.9	8
126	DEXAFS – a new technique to investigate the kinetics of high temperature solid state reactions in situ. Solid State Ionics, 1997, 95, 61-64.	2.7	8

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127	The Influence of Cation and Vacancy Distributions on the Ionic Conductivity of Acceptor Doped Oxygen Ion Conductors. Zeitschrift Fur Physikalische Chemie, 2005, 219, 105-122.	2.8	8
128	Collective and Tracer Diffusion via a Defect Cluster in LSGM. Defect and Diffusion Forum, 2007, 263, 81-86.	0.4	8
129	Mechanisms of Reactions in the Solid State: (110) Al_2O_3 + (001) ZnO Interfacial Reaction. Journal of Physical Chemistry C, 2012, 116, 980-986.	3.1	8
130	Ab Initio Calculation of the Defect Structure of Ceria. ECS Transactions, 2013, 57, 2405-2410.	0.5	8
131	The Effect of Jump Attempt Frequencies on the Ionic Conductivity of Doped Ceria. Journal of Physical Chemistry C, 2019, 123, 19437-19446.	3.1	8
132	Behavior of cation vacancies in single-crystal and in thin-film SrTiO_3 : The importance of strontium vacancies and their defect associates. Physical Review Materials, 2020, 4, .	2.4	8
133	Magnetite (Fe_3O_4) in an Oxygen Potential Gradient: Chemical Diffusion, Tracer Diffusion, and Phase Boundary Reaction. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1990, 94, 721-726.	0.9	7
134	Electron wind effect in semiconducting cobalt oxide. Radiation Effects and Defects in Solids, 1991, 119-121, 735-740.	1.2	7
135	A quantitative in situ Fe K-XAFS study ($T > 1270^\circ\text{C}$) on the oxidation degree of iron in $(\text{Mg}_{1-x}\text{Fe}_x)\text{TiO}_2$. Journal of Synchrotron Radiation, 1999, 6, 489-491.	2.4	7
136	High-temperature in situ X-ray absorption studies on the iron valence in iron-doped nickel oxide ($\text{Ni}_{1-x}\text{Fe}_x\text{O}$). Solid State Ionics, 2001, 141-142, 289-293.	2.7	7
137	Unmixing of a mixed oxide (A,B)O in an electric field: numerical solution of the time evolution of the unmixing process. Solid State Ionics, 2001, 144, 241-248.	2.7	7
138	Kinetics of Oxidation Processes in the System Co/Ga studied by in situ X-Ray Diffraction. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2003, 629, 1688-1700.	1.2	7
139	Ionic conductivity of undoped BaTiO with electron transfer suppressed. Solid State Ionics, 2005, 176, 929-935.	2.7	7
140	Modified polyol-mediated synthesis and consolidation of Gd-doped ceria nanoparticles. Solid State Ionics, 2010, 181, 372-378.	2.7	7
141	Grain Size Effect in the Electrical Properties of Nanostructured Functional Oxides through Pressure Modification of the Spark Plasma Sintering Method. Key Engineering Materials, 2004, 484, 107-116.	0.4	7
142	Unexpected thermoelectric behavior and immiscibility of the allegedly complete solid solution $\text{Sr}(\text{Ru}_{1-x}\text{Ti}_x)\text{O}_3$. Physical Review B, 2014, 89, .	3.2	7
143	Ab initio and experimental oxygen ion conductivities in Sm-Zr and Gd-Zr co-doped ceria. Solid State Ionics, 2020, 355, 115422.	2.7	7
144	A quantitative analysis of two-fold electrical conductivity relaxation behaviour in mixed protonic-electron conductors upon hydration. Physical Chemistry Chemical Physics, 2020, 22, 25032-25041.	2.8	7

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145	X-ray absorption investigation on the ternary system lithium manganese oxide. Solid State Ionics, 2000, 135, 267-272.	2.7	6
146	Experimental demonstration of the path- and time-dependence of open-circuit voltage of galvanic cells involving a multinary compound under multiple chemical potential gradients. Solid State Ionics, 2013, 235, 22-31.	2.7	6
147	Electrotransport-induced unmixing and decomposition of ternary oxides. Journal of Applied Physics, 2015, 117, .	2.5	6
148	Kinetic Monte Carlo simulations of ionic conductivity in oxygen ion conductors. Materials Chemistry and Physics, 2021, 257, 123767.	4.0	6
149	Kinetic demixing of (Co,Ni)O in an electric field. Solid State Ionics, 1997, 101-103, 475-478.	2.7	6
150	Oxygen Potential Gradient Induced Degradation of Oxides. Journal of the Korean Ceramic Society, 2012, 49, 29-36.	2.3	6
151	A Chernia-Type Electrotransport Experiment in Magnetite, $\text{Fe}_{3-x}\text{O}_4$. Electrochemistry, 2000, 68, 482-485.	1.4	6
152	The Source Solution for Diffusion with a Linearly Position Dependent Diffusion Coefficient. Zeitschrift Fur Physikalische Chemie, 1989, 162, 245-253.	2.8	5
153	Stability of Diffusion Profiles in quasi-binary Solid Solutions (Ag, Na)Cl. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 7-13.	0.9	5
154	Trapping during hopping conduction of electronic defects: A conductivity model for doped transition metal oxides. Physical Chemistry Chemical Physics, 2004, 6, 3627-3632.	2.8	5
155	In-situ structural investigation of non-stoichiometric HfO_{2-x} films using quick-scanning extended X-ray absorption fine structure. Thin Solid Films, 2013, 539, 60-64.	1.8	5
156	The oxygen ion conductivity of Lu doped ceria. Journal of Physics Condensed Matter, 2020, 32, 265402.	1.8	5
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