

List of Publications by Citations

Source: <https://exaly.com/author-pdf/4179042/frank-tietz-publications-by-citations.pdf>

Version: 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

186 papers	8,247 citations	51 h-index	85 g-index
200 ext. papers	9,186 ext. citations	4.6 avg, IF	6.21 L-index

#	Paper	IF	Citations
186	Correlation between thermal expansion and oxide ion transport in mixed conducting perovskite-type oxides for SOFC cathodes. <i>Solid State Ionics</i> , 2000 , 138, 79-90	3.3	482
185	Ferrite-based perovskites as cathode materials for anode-supported solid oxide fuel cells. <i>Solid State Ionics</i> , 2005 , 176, 1341-1350	3.3	354
184	Evaluation of La _{0.7} Co _{0.3} Fe _{0.1} O _{3-δ} perovskites for solid oxide fuel cells and gas separation membranes. <i>Solid State Ionics</i> , 2000 , 135, 719-725	3.3	329
183	Thermal expansion of SOFC materials. <i>Ionics</i> , 1999 , 5, 129-139	2.7	249
182	Thermal Stability of Lanthanum Zirconate Plasma-Sprayed Coating. <i>Journal of the American Ceramic Society</i> , 2004 , 84, 2086-2090	3.8	215
181	Materials and manufacturing technologies for solid oxide fuel cells. <i>Journal of Materials Science</i> , 2010 , 45, 3109-3135	4.3	206
180	Degradation phenomena in a solid oxide electrolysis cell after 9000h of operation. <i>Journal of Power Sources</i> , 2013 , 223, 129-135	8.9	195
179	Oxides of the AMO ₃ and A ₂ MO ₄ -type: structural stability, electrical conductivity and thermal expansion. <i>Solid State Ionics</i> , 2003 , 158, 141-150	3.3	185
178	Optimisation of processing and microstructural parameters of LSM cathodes to improve the electrochemical performance of anode-supported SOFCs. <i>Journal of Power Sources</i> , 2005 , 141, 216-226	8.9	185
177	Performance of LSCF cathodes in cell tests. <i>Journal of Power Sources</i> , 2006 , 156, 20-22	8.9	174
176	Components manufacturing for solid oxide fuel cells. <i>Solid State Ionics</i> , 2002 , 152-153, 373-381	3.3	174
175	Survey of the transport properties of sodium superionic conductor materials for use in sodium batteries. <i>Journal of Power Sources</i> , 2015 , 273, 1056-1064	8.9	155
174	Ferrite-based perovskites as cathode materials for anode-supported solid oxide fuel cellsPart II. Influence of the CGO interlayer. <i>Solid State Ionics</i> , 2006 , 177, 2103-2107	3.3	147
173	Scandium-Substituted Na ₃ Zr ₂ (SiO ₄) ₂ (PO ₄) Prepared by a Solution-Assisted Solid-State Reaction Method as Sodium-Ion Conductors. <i>Chemistry of Materials</i> , 2016 , 28, 4821-4828	9.6	146
172	Time-dependent performance of mixed-conducting SOFC cathodes. <i>Solid State Ionics</i> , 2006 , 177, 1965-1968	3.3	134
171	La _{0.4} Sr _{0.6} Ti _{1-x} Mn _x O ₃ Perovskites as Anode Materials for Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2006 , 153, D74	3.9	126
170	Chromite/titanate based perovskites for application as anodes in solid oxide fuel cells. <i>Solid State Ionics</i> , 2000 , 135, 433-438	3.3	121

169	Spray-drying of ceramics for plasma-spray coating. <i>Journal of the European Ceramic Society</i> , 2000 , 20, 2433-2439	6	120
168	From powder properties to fuel cell performance A holistic approach for SOFC cathode development. <i>Solid State Ionics</i> , 2008 , 179, 1509-1515	3.3	104
167	Separating bulk from grain boundary Li ion conductivity in the sol-gel prepared solid electrolyte $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ti}_{1.5}(\text{PO}_4)_3$. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 21343-21350	13	101
166	Synthesis and Raman micro-spectroscopy investigation of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Solid State Ionics</i> , 2013 , 230, 77-82	3.3	89
165	Simplified processing of anode-supported thin film planar solid oxide fuel cells. <i>Journal of the European Ceramic Society</i> , 2005 , 25, 463-471	6	82
164	A garnet structure-based all-solid-state Li battery without interface modification: resolving incompatibility issues on positive electrodes. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 280-291	5.8	81
163	$\text{MnCo}_{1.9}\text{Fe}_{0.1}\text{O}_4$ spinel protection layer on commercial ferritic steels for interconnect applications in solid oxide fuel cells. <i>Journal of Power Sources</i> , 2008 , 184, 172-179	8.9	81
162	Nine Thousand Hours of Operation of a Solid Oxide Cell in Steam Electrolysis Mode. <i>Journal of the Electrochemical Society</i> , 2011 , 159, A137-A144	3.9	80
161	Ceramic-based Anode Materials for Improved Redox Cycling of Solid Oxide Fuel Cells. <i>Fuel Cells</i> , 2008 , 8, 283-293	2.9	80
160	New promising NASICON material as solid electrolyte for sodium-ion batteries: Correlation between composition, crystal structure and ionic conductivity of $\text{Na}_3 + x\text{Sc}_2\text{SixP}_3\text{O}_{12}$. <i>Solid State Ionics</i> , 2016 , 293, 18-26	3.3	74
159	A microcontact impedance study on NASICON-type $\text{Li}_{1+x}\text{Al}_x\text{Ti}_{2-x}(\text{PO}_4)_3$ ($0 \leq x \leq 0.5$) single crystals. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1506-1513	13	74
158	Microstructural comparison of solid oxide electrolyser cells operated for 6100h and 9000h. <i>Journal of Power Sources</i> , 2015 , 275, 901-911	8.9	73
157	AC Impedance Characterisation of a $\text{La}_{0.8}\text{Sr}_{0.2}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ Electrode. <i>Fuel Cells</i> , 2009 , 9, 852-860	2.9	68
156	An efficient ceramic-based anode for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2007 , 171, 663-669	8.9	68
155	Influence of sintering conditions on microstructure and electrical conductivity of yttrium-substituted SrTiO_3 . <i>Journal of the European Ceramic Society</i> , 2008 , 28, 811-820	6	68
154	Electrical conductivity and thermal expansion of $\text{La}_{0.8}\text{Sr}_{0.2}(\text{Mn},\text{Fe},\text{Co})\text{O}_{3-\delta}$ perovskites. <i>Solid State Ionics</i> , 2006 , 177, 1753-1756	3.3	67
153	Modified strontium titanates: from defect chemistry to SOFC anodes. <i>RSC Advances</i> , 2015 , 5, 1168-1180	3.7	65
152	Time-Dependent Electrode Performance Changes in Intermediate Temperature Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2010 , 157, B292	3.9	65

151	Activation of oxygen evolving perovskites for oxygen reduction by functionalization with Fe-N(x)/C groups. <i>Chemical Communications</i> , 2014 , 50, 14760-2	5.8	64
150	Evaluation of commercial nickel oxide powders for components in solid oxide fuel cells. <i>Journal of the European Ceramic Society</i> , 2000 , 20, 1023-1034	6	64
149	Prospects of production technologies and manufacturing costs of oxide-based all-solid-state lithium batteries. <i>Energy and Environmental Science</i> , 2019 , 12, 1818-1833	35.4	63
148	Evaluation of perovskites as electrocatalysts for the oxygen evolution reaction. <i>ChemPhysChem</i> , 2014 , 15, 2810-6	3.2	61
147	Very fast bulk Li ion diffusivity in crystalline Li(1.5)Al(0.5)Ti(1.5)(PO ₄) ₃ as seen using NMR relaxometry. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 32115-21	3.6	59
146	Room temperature demonstration of a sodium superionic conductor with grain conductivity in excess of 0.01 S cm ⁻¹ and its primary applications in symmetric battery cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 7766-7776	13	57
145	Comparative study of perovskites as cathode contact materials between an La _{0.8} Sr _{0.2} FeO ₃ cathode and a Crofer22APU interconnect in solid oxide fuel cells. <i>Journal of Power Sources</i> , 2009 , 188, 148-155	8.9	55
144	Anode-supported planar SOFC with high performance and redox stability. <i>Electrochemistry Communications</i> , 2010 , 12, 1326-1328	5.1	54
143	Materials Development for Advanced Planar Solid Oxide Fuel Cells. <i>International Journal of Applied Ceramic Technology</i> , 2007 , 4, 436-445	2	54
142	Na ₃ Zr ₂ (SiO ₄) ₂ (PO ₄) prepared by a solution-assisted solid state reaction. <i>Solid State Ionics</i> , 2017 , 302, 83-91	3.3	53
141	Structural evolution of Sc-containing zirconia electrolytes. <i>Solid State Ionics</i> , 1997 , 100, 289-295	3.3	53
140	Oxidation and Resulting Mechanical Properties of Ni/8Y ₂ O ₃ -stabilized Zirconia Anode Substrate for Solid-oxide Fuel Cells. <i>Journal of Materials Research</i> , 2002 , 17, 951-958	2.5	53
139	Perovskite-based bifunctional electrocatalysts for oxygen evolution and oxygen reduction in alkaline electrolytes. <i>Electrochimica Acta</i> , 2016 , 208, 25-32	6.7	53
138	Screening of A-Substitution in the System A _[sub 0.68] Sr _[sub 0.3] Fe _[sub 0.8] Co _[sub 0.2] O _[sub 3] for SOFC Cathodes. <i>Journal of the Electrochemical Society</i> , 2008 , 155, B207	3.9	52
137	Electrochemical performances of solid oxide fuel cells based on Y-substituted SrTiO ₃ ceramic anode materials. <i>Journal of Power Sources</i> , 2011 , 196, 7308-7312	8.9	51
136	Solid Oxide Fuel Cell Performance under Severe Operating Conditions. <i>Fuel Cells</i> , 2006 , 6, 130-136	2.9	51
135	A Novel Sol-Gel Method for Large-Scale Production of Nanopowders: Preparation of Li _{1.5} Al _{0.5} Ti _{1.5} (PO ₄) ₃ as an Example. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 410-414	3.8	50
134	Y-substituted SrTiO ₃ /YSZ composites as anode materials for solid oxide fuel cells: Interaction between SYT and YSZ. <i>Journal of Power Sources</i> , 2010 , 195, 1920-1925	8.9	50

133	Preparation and characterization of $\text{Ln}_{0.8}\text{Sr}_{0.2}\text{Fe}_{0.8}\text{Co}_{0.2}\text{O}_{3-x}$ (Ln=La, Pr, Nd, Sm, Eu, Gd). <i>Journal of the European Ceramic Society</i> , 2001 , 21, 1769-1773	6	49
132	$\text{LaNi}_{0.6}\text{Fe}_{0.4}\text{O}_3$ as a cathode contact material for solid oxide fuel cells. <i>Journal of Solid State Electrochemistry</i> , 2003 , 7, 416-420	2.6	48
131	Spinel and Perovskite Protection Layers Between Crofer22APU and $\text{La}_{0.8}\text{Sr}_{0.2}\text{FeO}_3$ Cathode Materials for SOFC Interconnects. <i>Journal of the Electrochemical Society</i> , 2009 , 156, B188	3.9	45
130	DC Sputtering of yttria-stabilised zirconia films for solid oxide fuel cell applications. <i>Journal of the European Ceramic Society</i> , 2001 , 21, 1843-1846	6	44
129	Towards the fabrication of $\text{La}_{0.98-x}\text{Sr}_x\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ perovskite-type oxygen transport membranes. <i>Journal of the European Ceramic Society</i> , 2014 , 34, 3741-3748	6	43
128	YSZ/MgO composite electrolyte with adjusted thermal expansion coefficient to other SOFC components. <i>Solid State Ionics</i> , 2003 , 164, 27-33	3.3	43
127	Nonstoichiometric Y-substituted SrTiO_3 materials as anodes for solid oxide fuel cells. <i>Solid State Ionics</i> , 2011 , 192, 535-539	3.3	42
126	Post-Test Characterization of an SOFC Short-Stack after 17,000 Hours of Steady Operation. <i>ECS Transactions</i> , 2011 , 35, 195-206	1	42
125	High conductivity of mixed phase Al-substituted $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Journal of Electroceramics</i> , 2015 , 35, 25-32	1.5	41
124	Structural and transport properties of lithium-conducting NASICON materials. <i>Journal of Power Sources</i> , 2018 , 391, 1-9	8.9	41
123	Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. <i>Fuel Cells</i> , 2007 , 7, 204-210	2.9	41
122	Influence of electrode contacts on conductivity measurements of thin YSZ electrolyte films and the impact on solid oxide fuel cells. <i>Solid State Ionics</i> , 2003 , 164, 121-129	3.3	41
121	Impedance Studies on Chromite-Titanate Porous Electrodes under Reducing Conditions. <i>Fuel Cells</i> , 2001 , 1, 256-264	2.9	41
120	Electrochemical characterization of perovskite-based SOFC cathodes. <i>Journal of Applied Electrochemistry</i> , 2006 , 37, 15-20	2.6	39
119	Structure-Property Relationships of Ni/YSZ and Ni/(YSZ+TiO ₂) Cermets. <i>Fuel Cells</i> , 2001 , 1, 243-248	2.9	39
118	Magnetron-sputtered cobalt-based protective coatings on ferritic steels for solid oxide fuel cell interconnect applications. <i>Corrosion Science</i> , 2012 , 54, 68-76	6.8	36
117	A single crystal X-ray and powder neutron diffraction study on NASICON-type $\text{Li}_{1+x}\text{Al}_x\text{Ti}_2(\text{PO}_4)_3$ (0 ≤ x ≤ 0.5) crystals: Implications on ionic conductivity. <i>Solid State Sciences</i> , 2016 , 60, 99-107	3.4	34
116	A Simple Approach towards High-Performance Perovskite-Based Bifunctional Oxygen Electrocatalysts. <i>ChemElectroChem</i> , 2016 , 3, 138-143	4.3	33

115	Overview of the Development of Solid Oxide Fuel Cells at Forschungszentrum Juelich. <i>International Journal of Applied Ceramic Technology</i> , 2006 , 3, 470-476	2	33
114	Evaluation of Sr- and Mn-substituted LaAlO ₃ as potential SOFC anode materials. <i>Solid State Ionics</i> , 2006 , 177, 1059-1069	3.3	33
113	Comparison of Y and La-substituted SrTiO ₃ as the anode materials for SOFCs. <i>Solid State Ionics</i> , 2012 , 225, 108-112	3.3	32
112	Microstructure and electrical conductivity of LaNi _{0.6} Fe _{0.4} O ₃ prepared by combustion synthesis routes. <i>Materials Research Bulletin</i> , 2004 , 39, 1335-1345	5.1	32
111	Solid-State NMR Investigations on the Structure and Dynamics of the Ionic Conductor Li _{1+x} Al _x Ti _{2-2x} (PO ₄) ₃ (0.0 ≤ x ≤ 1.0). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 8436-8442	3.8	31
110	Use of SOFC Metallic Interconnect Coated with Spinel Protective Layers using the APS Technology. <i>ECS Transactions</i> , 2007 , 7, 2399-2405	1	30
109	Pulsed laser deposition of yttria stabilized zirconia for solid oxide fuel cell applications. <i>Journal of Power Sources</i> , 2002 , 105, 239-242	8.9	30
108	Structure and Vibrational Dynamics of NASICON-Type LiTi ₂ (PO ₄) ₃ . <i>Journal of Physical Chemistry C</i> , 2017 , 121, 3697-3706	3.8	29
107	Electrodeposited cobalt coating on Crofer22APU steels for interconnect applications in solid oxide fuel cells. <i>Solid State Ionics</i> , 2011 , 192, 376-382	3.3	29
106	Performance analysis of mixed ionic-electronic conducting cathodes in anode supported cells. <i>Journal of Power Sources</i> , 2011 , 196, 7257-7262	8.9	28
105	Partial reduction and re-oxidation of iron-and cobalt-containing perovskites using catalyst characterisation measurements. <i>Solid State Ionics</i> , 2004 , 173, 35-40	3.3	28
104	Interfacial properties and structure stability of Ni/Y ₂ O ₃ -ZrO ₂ -TiO ₂ cermet anodes for solid oxide fuel cells. <i>Journal of Materials Science</i> , 2005 , 40, 2471-2475	4.3	28
103	The influence of water on the electrical conductivity of aluminum-substituted lithium titanium phosphates. <i>Solid State Ionics</i> , 2018 , 321, 83-90	3.3	28
102	Fast Na ⁺ Ion Conduction in NASICON-Type Na _{3.4} Sc ₂ (SiO ₄) _{0.4} (PO ₄) _{2.6} Observed by ²³ Na NMR Relaxometry. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 1449-1454	3.8	27
101	Solid-State Electrolyte Materials for Sodium Batteries: Towards Practical Applications. <i>ChemElectroChem</i> , 2020 , 7, 2693-2713	4.3	27
100	10 years of materials research for solid oxide fuel cells at forschungszentrum jülich. <i>Journal of Electroceramics</i> , 2006 , 17, 701-707	1.5	27
99	Influence of pre- and post-heat treatment of anode substrates on the properties of DC-sputtered YSZ electrolyte films. <i>Solid State Ionics</i> , 2003 , 159, 1-8	3.3	27
98	High-temperature superconductor materials for contact layers in solid oxide fuel cells: I. Sintering behavior and physical properties at operating temperatures. <i>Acta Materialia</i> , 2001 , 49, 803-810	8.4	27

97	Sc-substituted Nasicon solid electrolyte for an all-solid-state $\text{Na}_x\text{CoO}_2/\text{Nasicon}/\text{Na}$ sodium model battery with stable electrochemical performance. <i>Journal of Power Sources</i> , 2019 , 409, 86-93	8.9	27
96	Room-temperature all-solid-state sodium batteries with robust ceramic interface between rigid electrolyte and electrode materials. <i>Nano Energy</i> , 2019 , 65, 104040	17.1	26
95	Stability of NASICON materials against water and CO_2 uptake. <i>Solid State Ionics</i> , 2017 , 302, 102-106	3.3	25
94	Silver incorporation into cathodes for solid oxide fuel cells operating at intermediate temperature. <i>Journal of Solid State Electrochemistry</i> , 2004 , 8, 923-927	2.6	24
93	Manufacturing of $\text{NiO}/\text{NiTiO}_3$ porous substrates and the role of zirconia impurities during sintering. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1999 , 68, 35-41	3.1	23
92	Sintering of a sodium-based NASICON electrolyte: A comparative study between cold, field assisted and conventional sintering methods. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 2697-2702	6	21
91	Compatibility study of oxide and olivine cathode materials with lithium aluminum titanium phosphate. <i>Ionics</i> , 2018 , 24, 1001-1006	2.7	21
90	Overview on the Julich SOFC Development Status. <i>ECS Transactions</i> , 2013 , 57, 23-33	1	21
89	Bulk and grain-boundary ionic conductivity in sodium zirconophosphosilicate $\text{Na}_3\text{Zr}_2(\text{SiO}_4)_2\text{PO}_4$ (NASICON). <i>Chemical Physics Letters</i> , 2018 , 701, 147-150	2.5	20
88	In-operando photoelectron spectroscopy for batteries: Set-up using pristine thin film cathode and first results on NaCoO . <i>Review of Scientific Instruments</i> , 2018 , 89, 073104	1.7	19
87	Survey of the quasi-ternary system $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3\text{--}\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_3\text{--}\text{La}_{0.8}\text{Sr}_{0.2}\text{FeO}_3$. <i>Progress in Solid State Chemistry</i> , 2007 , 35, 539-543	8	19
86	Physical characterization of $\text{Y}_{0.25}\text{Zr}_{0.60}\text{Ti}_{0.15}\text{O}_{2-x}$ and its performance as a $\text{Ni}/\text{Y}_{0.25}\text{Zr}_{0.60}\text{Ti}_{0.15}\text{O}_{2-x}$ anode cermet in an SOFC. <i>Solid State Ionics</i> , 2004 , 170, 153-158	3.3	19
85	Microstructure-conductivity relationship of $\text{Na}_3\text{Zr}_2(\text{SiO}_4)_2(\text{PO}_4)$ ceramics. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 1057-1070	3.8	18
84	Neutron Diffraction Analysis of NASICON-type $\text{Li}_{1+x}\text{Al}_x\text{Ti}_2\text{P}_3\text{O}_{12}$. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2014 , 640, 3070-3073	1.3	18
83	Investigation of the quasi-ternary system $\text{LaMnO}_3\text{--}\text{LaCoO}_3\text{--}\text{LaCuO}_3$ the series $\text{La}(\text{Mn}_{0.5}\text{Co}_{0.5})_{1-x}\text{Cu}_x\text{O}_3$. <i>Journal of Solid State Chemistry</i> , 2004 , 177, 745-751	3.3	18
82	Porous Ni/TiO_2 substrates for planar solid oxide fuel cell applications. <i>Journal of Materials Science</i> , 2001 , 36, 5719-5728	4.3	17
81	Lanthanide ion exchange in sodium- γ -alumina. <i>Solid State Ionics</i> , 1991 , 46, 331-335	3.3	17
80	Impact of sodium excess on electrical conductivity of $\text{Na}_3\text{Zr}_2\text{Si}_2\text{PO}_{12} + x \text{Na}_2\text{O}$ ceramics. <i>Solid State Ionics</i> , 2019 , 336, 57-66	3.3	16

79	Fast Na ion transport triggered by rapid ion exchange on local length scales. <i>Scientific Reports</i> , 2018 , 8, 11970	4.9	16
78	Analytical investigations of δ -Al ₂ O ₃ and ϵ -Al ₂ O ₃ crystals. <i>Journal of Crystal Growth</i> , 1992 , 118, 314-318	1.6	16
77	Dependence of T _c on hole concentration in Bi ₂ Sr _{3-x} CaxCu ₂ O ₈ . <i>Solid State Communications</i> , 1989 , 69, 995-997	1.6	16
76	Post-test analysis of electrode-supported solid oxide electrolyser cells. <i>Ionics</i> , 2015 , 21, 1039-1043	2.7	15
75	Synthesis and characterization of equimolar Al/Y-substituted NASICON solid solution Na _{1+2x+y} Al _x Y _x Zr _{2-2x} Si _y P _{3-y} O ₁₂ . <i>Solid State Ionics</i> , 2018 , 319, 13-21	3.3	15
74	Development and characterization of a quasi-ternary diagram based on La _{0.8} Sr _{0.2} (Co,Cu,Fe)O ₃ oxides in view of application as a cathode contact material for solid oxide fuel cells. <i>Solid State Ionics</i> , 2009 , 180, 731-737	3.3	15
73	X-ray Diffraction and Electron Paramagnetic Resonance Investigations of the Fluorite Material Y _{0.25} Ti _{0.15} Zr _{0.6} O _{2-x} . <i>Chemistry of Materials</i> , 2002 , 14, 2252-2257	9.6	15
72	Impact of sintering temperature on phase formation, microstructure, crystallinity and ionic conductivity of Li _{1.5} Al _{0.5} Ti _{1.5} (PO ₄) ₃ . <i>Solid State Ionics</i> , 2019 , 338, 144-152	3.3	14
71	Structure and ion transport of lithium-rich Li _{1+x} Al _x Ti _{2-2x} (PO ₄) ₃ with 0.3. <i>Solid State Ionics</i> , 2020 , 346, 115192	3.3	14
70	Arrhenius Behavior of the Bulk Na-Ion Conductivity in NaSc(PO) ₃ Single Crystals Observed by Microcontact Impedance Spectroscopy. <i>Chemistry of Materials</i> , 2018 , 30, 1776-1781	9.6	14
69	Interconnects 2016 , 195-254		14
68	Microstructural variations and their influence on the performance of solid oxide fuel cells based on yttrium-substituted strontium titanate ceramic anodes. <i>Journal of Power Sources</i> , 2015 , 279, 678-685	8.9	14
67	Properties of tape-cast Y-substituted strontium titanate for planar anode substrates in SOFC applications. <i>Journal of Materials Science</i> , 2011 , 46, 3493-3499	4.3	14
66	Impedance spectroscopy on Na ⁺ /Ho ₃ + δ -Al ₂ O ₃ crystals. <i>Solid State Ionics</i> , 1995 , 78, 35-40	3.3	14
65	Interfaces in solid-state sodium-ion batteries: NaCoO ₂ thin films on solid electrolyte substrates. <i>Electrochimica Acta</i> , 2018 , 268, 226-233	6.7	13
64	Advances in Research, Development, and Testing of Single Cells at Forschungszentrum Jülich. <i>Journal of Fuel Cell Science and Technology</i> , 2009 , 6,		13
63	A Mössbauer spectral study of degradation in La _{0.58} Sr _{0.4} Fe _{0.5} Co _{0.5} O _{3-δ} after long-term operation in solid oxide electrolysis cells. <i>Solid State Ionics</i> , 2017 , 312, 38-43	3.3	12
62	Mixed conducting oxides Y _x Zr _{1-x} Ti _y O _{2-δ} /2 (Y ₂ TiO ₇) and corresponding Ni/Y ₂ TiO ₇ cermet as anode materials in an SOFC. <i>Journal of Materials Science</i> , 2007 , 42, 10152-10159	4.3	12

61	Interface reactions between electrically conductive ceramics and ferritic steel-I. The system $\text{Cr}_{0.2}\text{Fe}_{0.5}\text{Mn}/\text{Mn}_2\text{O}_3/(\text{La,Ca})(\text{Cr,Co,Cu})\text{O}_3$. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2008 , 150, 135-140	3.1	12
60	Material properties of perovskites in the quasi-ternary system $\text{LaFeO}_3\text{-LaCoO}_3\text{-LaNiO}_3$. <i>Journal of Solid State Chemistry</i> , 2016 , 237, 183-191	3.3	11
59	Electrochemical performance and stability of electrolyte-supported solid oxide fuel cells based on Y-substituted SrTiO_3 ceramic anodes. <i>Solid State Ionics</i> , 2014 , 262, 465-468	3.3	11
58	Real-SOFC - A Joint European Effort to Improve SOFC Durability. <i>ECS Transactions</i> , 2009 , 25, 43-56	1	11
57	Synthesis and investigations on the stability of $\text{La}_{0.8}\text{Sr}_{0.2}\text{CuO}_{2.4+\delta}$ at high temperatures. <i>Solid State Ionics</i> , 2006 , 177, 3205-3210	3.3	11
56	Investigation of crystal structure and ionic transport in a scandium-based NASICON material by neutron powder diffraction. <i>Solid State Sciences</i> , 2017 , 67, 30-36	3.4	10
55	Coefficients of Thermal Expansion of Al- and Y-Substituted NASICON Solid Solution $\text{Na}_3+2x\text{Al}_x\text{Y}_x\text{Zr}_{2-2x}\text{Si}_2\text{PO}_{12}$. <i>Batteries</i> , 2018 , 4, 33	5.7	10
54	Full Ceramic Fuel Cells Based on Strontium Titanate Anodes, an Approach towards More Robust SOFCs. <i>ECS Transactions</i> , 2013 , 57, 1175-1184	1	10
53	Synthesis and electrical conductivity of Sr- and Mn-substituted LaAlO_3 as a possible SOFC anode material. <i>Solid State Ionics</i> , 2006 , 177, 1819-1822	3.3	10
52	Interconnects 2003 , 173-195		10
51	New Developments in Stack Technology for Anode Substrate Based SOFC. <i>ECS Proceedings Volumes</i> , 2001 , 2001-16, 111-119		10
50	Dendrite-tolerant all-solid-state sodium batteries and an important mechanism of metal self-diffusion. <i>Journal of Power Sources</i> , 2020 , 476, 228666	8.9	10
49	Electrochemical Performance of All-Solid-State Sodium-Ion Model Cells with Crystalline Na_xCoO_2 Thin-Film Cathodes. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A5328-A5332	3.9	9
48	Crystal structure and high-temperature properties of the Ruddlesden-Popper phases $\text{Sr}_{3-x}\text{Y}_x(\text{Fe}_{1.25}\text{Ni}_{0.75})\text{O}_{7+0.5x}$. <i>Journal of Solid State Chemistry</i> , 2015 , 227, 45-54	3.3	9
47	Micromechanical assessment of Al/Y-substituted NASICON solid electrolytes. <i>Ceramics International</i> , 2019 , 45, 21308-21314	5.1	9
46	Metal/Ceramic Interface Properties and Their Effects on SOFC Development. <i>Fuel Cells</i> , 2009 , 9, 867-872.	2.9	9
45	Various Lanthanum Ferrite-Based Cathode Materials With Ni and Cu Substitution for Anode-Supported Solid Oxide Fuel Cells. <i>Journal of Fuel Cell Science and Technology</i> , 2010 , 7,		9
44	A robust, highly reversible, mixed conducting sodium metal anode. <i>Science Bulletin</i> , 2021 , 66, 179-186	10.6	9

43	Systematic Parameter Study on the Influence of Humidification and Current Density on SOEC Degradation. <i>ECS Transactions</i> , 2015 , 68, 3553-3561	1	8
42	Statistical design of experiments for evaluation of Y ₂ O ₃ /Ti oxides as anode materials in solid oxide fuel cells. <i>Advances in Applied Ceramics</i> , 2004 , 103, 202-210		8
41	High-temperature superconductor materials for contact layers in solid oxide fuel cells: II. Chemical properties at operating temperatures. <i>Acta Materialia</i> , 2001 , 49, 1987-1992	8.4	8
40	Investigations on lanthanide-ion-exchanged γ -Al ₂ O ₃ . <i>Journal of Alloys and Compounds</i> , 1993 , 192, 78-80	5.7	8
39	Crystal structure of neodymium-ion-exchanged γ -Al ₂ O ₃ . <i>Journal of Solid State Chemistry</i> , 1992 , 100, 255-261	3.3	8
38	Microstructure, ionic conductivity and mechanical properties of tape-cast Li _{1.5} Al _{0.5} Ti _{1.5} P ₃ O ₁₂ electrolyte sheets. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 1975-1982	6	7
37	Long-Term Study of MIEC Cathodes for Intermediate Temperature Solid Oxide Fuel Cells. <i>ECS Transactions</i> , 2009 , 25, 2381-2390	1	7
36	Characterization of Anode-Supported Solid Oxide Fuel Cells With PSCF Cathode. <i>Journal of Fuel Cell Science and Technology</i> , 2009 , 6,		7
35	Chemical and physical properties of complex perovskites in the La _{0.8} Sr _{0.2} MnO ₃ -La _{0.8} Sr _{0.2} CuO _{2.4} -La _{0.8} Sr _{0.2} FeO ₃ system. <i>Solid State Sciences</i> , 2007 , 9, 706-712	3.4	7
34	Atomic layer deposition and high-resolution electron microscopy characterization of nickel nanoparticles for catalyst applications. <i>Surface and Coatings Technology</i> , 2016 , 307, 428-435	4.4	6
33	Physical characterization of Y ₂ O ₃ -CeO ₂ -TiO ₂ (YCT) mixed oxides and Ni/YCT cermets as anodes in solid oxide fuel cells. <i>Journal of Materials Science</i> , 2008 , 43, 7057-7065	4.3	6
32	Luminescence of Pr ³⁺ ions in sodium γ -Al ₂ O ₃ crystals. <i>Journal of Luminescence</i> , 1994 , 60-61, 216-219	3.8	6
31	Investigation of the quasi-ternary system LaMnO ₃ -LaCoO ₃ -LaCuO ₃ II: The series LaMn _{0.25} Co _{0.75} -Cu _{2x} O ₃ and LaMn _{0.75} Co _{0.25} -Cu _{2x} O ₃ . <i>Journal of Materials Science</i> , 2009 , 44, 4883-4891	4.3	5
30	Release and uptake of oxygen in mixed-conducting SOFC cathode materials measured by temperature-programmed methods. <i>Ionics</i> , 2003 , 9, 189-194	2.7	5
29	Dependence of Cell Parameters of Ho ³⁺ -Exchanged Na-Beta"-Al ₂ O ₃ on the Na ⁺ /Ho ³⁺ Ratio. <i>Key Engineering Materials</i> , 1991 , 59-60, 175-180	0.4	5
28	Phase relations of NASICON materials and compilation of the quaternary phase diagram Na ₂ O-P ₂ O ₅ -SiO ₂ -ZrO ₂ . <i>AIMS Materials Science</i> , 2017 , 4, 1305-1318	1.9	5
27	Ionic Conductivity of Na ₃ V ₂ P ₃ O ₁₂ as a Function of Electrochemical Potential and its Impact on Battery Performance. <i>Batteries and Supercaps</i> , 2021 , 4, 479-484	5.6	5
26	Improved Sofc Cathodes and Cathode Contact Layers. <i>Ceramic Engineering and Science Proceedings</i> , 2019 , 269-274		5

25	Characterization of Anode-Supported Solid Oxide Fuel Cells With Nd ₂ NiO ₄ Cathodes. <i>Journal of Fuel Cell Science and Technology</i> , 2009 , 6,		4
24	Temperature programmed oxygen desorption of the perovskites series Ln _{0.65} Sr _{0.3} Mn _{0.8} Co _{0.2} O ₃ (Ln=La-Gd). <i>Ionics</i> , 2001 , 7, 101-104	2.7	4
23	Characterization and Optimization of La _{0.97} Ni _{0.5} Co _{0.5} O ₃ -Based Air-Electrodes for Solid Oxide Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 2784-2792	6.1	4
22	Na ⁺ ion mobility in Na ₃ Sc ₂ (SiO ₄)(PO ₄) ₃ ·0.1H ₂ O. <i>Solid State Ionics</i> , 2020 , 348, 115277	3.3	3
21	Mössbauer spectroscopy in the system La _{0.8} Sr _{0.2} (Mn,Fe,Co)O ₃ . <i>Solid State Ionics</i> , 2011 , 192, 552-556	3.3	3
20	Real-SOFC - A Joint European Effort in Understanding SOFC Degradation. <i>ECS Transactions</i> , 2007 , 7, 67-76		3
19	Solid Oxide Fuel Cells 2008 , 1-8		2
18	Optical spectroscopy of praseodymium-exchanged Na ⁺ β-alumina crystals. <i>Solid State Ionics</i> , 1994 , 70-71, 488-492	3.3	2
17	Superconductivity in the Bi ₂ Sr ₂ Mg ₂ Cu ₂ O system. <i>Materials Research Bulletin</i> , 1989 , 24, 489-492	5.1	2
16	Conductivity, microstructure and mechanical properties of tape-cast LATP with LiF and SiO ₂ additives. <i>Journal of Materials Science</i> , 2022 , 57, 925-938	4.3	2
15	Polyanionic Lattice Modifications Leading to High-Entropy Sodium Ion Conductors: Mathematical Solution of Accessible Compositions. <i>ChemPhysChem</i> , 2020 , 21, 2096-2103	3.2	2
14	Reducing Degradation Effects in SOFC Stacks Manufactured at Forschungszentrum Jülich – Approaches and Results65-77		2
13	Optical and magnetic investigations of Na ⁺ /Pr ³⁺ -β-Al ₂ O ₃ . <i>Journal of Alloys and Compounds</i> , 1995 , 225, 152-155	5.7	1
12	Fabrication of thin sheets of the sodium superionic conductor Na ₅ YSi ₄ O ₁₂ with tape casting. <i>Chemical Engineering Journal</i> , 2022 , 435, 134774	14.7	1
11	A niobium-substituted sodium superionic conductor with conductivity higher than 5.5 mS cm ⁻¹ prepared by solution-assisted solid-state reaction method. <i>Journal of Power Sources</i> , 2022 , 518, 230765	8.9	1
10	Components manufacturing for solid oxide fuel cells 2005 , 249-259		1
9	Fast Na Ion Transport Triggered By Rapid Ion Exchange on Local Length Scales. <i>SSRN Electronic Journal</i> ,	1	1
8	Strategies to Improve the Reliability of Anode-Supported Solid Oxide Fuel Cells with Respect to Anode Reoxidation. <i>Ceramic Transactions</i> ,101-110	0.1	1

7	Phase-field Determination of NaSICON Materials in the Quaternary System Na O-P O -SiO -ZrO : The Series Na Zr Si P O. <i>ChemPhysChem</i> , 2021 , 22, 995-1007	3.2	1
6	Recent Advances in Stabilization of Sodium Metal Anode in Contact with Organic Liquid and Solid-State Electrolytes. <i>Energy Technology</i> , 2200149	3.5	0
5	Pulsed Laser Deposition and DC-Sputtering of Yttria Stabilised Zirconia for Solid Oxide Fuel Cell Applications. <i>Ceramic Transactions</i> , 2012 , 117-126	0.1	
4	Nonstoichiometric Materials in Solid Oxide Fuel Cells. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2002 , 628, 2138-2138	1.3	
3	Supraleitung Der Weg zu hohen Sprungtemperaturen. <i>Physica Status Solidi (B): Basic Research</i> , 1991 , 166, 439-444	1.3	
2	Comparison of the Power Generating Characteristics of KIST- and FZ-Julich SOFCs. <i>Journal of the Korean Ceramic Society</i> , 2007 , 44, 703-709	2.2	
1	Chemical Analysis and Structural Investigations of Sodium- and Lanthanide Ion-Exchanged Beta-Aluminas 1993 , 337-345		