JÃ¼rgen Malzbender

List of Publications by Year
in descending order

247 papers	6,215 citations	50276 46 h-index	106344 65 g-index
255 all docs	255 docs citations	255 times ranked	3863 citing authors

#	Article	IF	Citations
1	Measuring mechanical properties of coatings: a methodology applied to nano-particle-filled solâ€“gel coatings on glass. Materials Science and Engineering Reports, 2002, 36, 47-103.	31.8	274
2	Durability of Ni anodes during reoxidation cycles. Journal of Power Sources, 2010, 195, 5452-5467.	7.8	146
3	Reduction and re-oxidation of anodes for solid oxide fuel cells. Solid State Ionics, 2005, 176, 2201-2203.	2.7	143
4	Yb2O3 and Gd2O3 doped strontium zirconate for thermal barrier coatings. Journal of the European Ceramic Society, 2008, 28, 3071-3081.	5.7	127
5	Chemical interaction between glassâ€“ceramic sealants and interconnect steels in SOFC stacks. Journal of Power Sources, 2006, 155, 128-137.	7.8	116
6	Recent results in JÃ¼lich solid oxide fuel cell technology development. Journal of Power Sources, 2013, 241, 477-485.	7.8	115
7	Residual stresses in planar solid oxide fuel cells. Journal of Power Sources, 2005, 150, 73-77.	7.8	114
8	Energy dissipation, fracture toughness and the indentation loadâ€“displacement curve of coated materials. Surface and Coatings Technology, 2000, 135, 60-68.	4.8	107
9	Component interactions after long-term operation of an SOFC stack with LSM cathode. Journal of Power Sources, 2012, 201, 196-203.	7.8	101
10	The Pâ€“h² relationship in indentation. Journal of Materials Research, 2000, 15, 1209-1212.	2.6	99
11	Elastic modulus, indentation pressure and fracture toughness of hybrid coatings on glass. Thin Solid Films, 2000, 366, 139-149.	1.8	92
12	Fracture Toughness and Adhesion Energy of Sol-gel Coatings on Glass. Journal of Materials Research, 2002, 17, 224-233.	2.6	89
13	Investigation of solid oxide fuel cell sealing behavior under stack relevant conditions at Forschungszentrum JÃ¼lich. Journal of Power Sources, 2011, 196, 7175-7181.	7.8	82
14	Indentation loadâ€“displacement curve, plastic deformation, and energy. Journal of Materials Research, 2002, 17, 502-511.	2.6	80
15	Studies of residual stresses in planar solid oxide fuel cells. Journal of Power Sources, 2008, 182, 594-598.	7.8	79
16	Anodeâ€supported Solid Oxide Fuel Cell Achieves 70â€‰000 Hours of Continuous Operation. Energy Technology, 2016, 4, 939-942.	3.8	74
17	Advanced measurement techniques to characterize thermo-mechanical aspects of solid oxide fuel cells. Journal of Power Sources, 2007, 173, 60-67.	7.8	68
18	Mechanical performance of reactive-air-brazed (RAB) ceramic/metal joints for solid oxide fuel cells at ambient temperature. Journal of Power Sources, 2009, 193, 199-202.	7.8	68

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19	New Generation Perovskite Thermal Barrier Coating Materials. Journal of Thermal Spray Technology, 2008, 17, 831-837.	3.1	67
20	A review of advanced techniques for characterising SOFC behaviour. Fuel Cells, 2009, 9, 785-793.	2.4	67
21	Grain size effect on the mechanical properties of transparent spinel ceramics. Journal of the European Ceramic Society, 2013, 33, 749-757.	5.7	66
22	Determination of the stress-dependent stiffness of plasma-sprayed thermal barrier coatings using depth-sensitive indentation. Journal of Materials Research, 2003, 18, 1975-1984.	2.6	61
23	Ferroelastic deformation of La0.58Sr0.4Co0.2Fe0.8O3â¯Î´ under uniaxial compressive loading. Journal of the European Ceramic Society, 2013, 33, 805-812.	5.7	61
24	The use of the indentation loading curve to detect fracture of coatings. Surface and Coatings Technology, 2001, 137, 72-76.	4.8	60
25	Threshold fracture stress of thin ceramic components. Journal of the European Ceramic Society, 2008, 28, 247-252.	5.7	59
26	SOFC Stack and System Development at Forschungszentrum JÃ¼lich. Journal of the Electrochemical Society, 2015, 162, F1199-F1205.	2.9	58
27	Epitaxial growth of Fe on Mo(110) studied by scanning tunneling microscopy. Surface Science, 1998, 414, 187-196.	1.9	57
28	Mechanical and thermal stresses in multilayered materials. Journal of Applied Physics, 2004, 95, 1780-1782.	2.5	57
29	Mechanical properties of the solid electrolyte Al-substituted Li7La3Zr2O12 (LLZO) by utilizing micro-pillar indentation splitting test. Journal of the European Ceramic Society, 2018, 38, 3201-3209.	5.7	54
30	Effect of isothermal aging on the mechanical performance of brazed ceramic/metal joints for planar SOFC-stacks. International Journal of Hydrogen Energy, 2010, 35, 9158-9165.	7.1	53
31	Mechanical properties and lifetime predictions for Ba0.5Sr0.5Co0.8Fe0.2O3â¯Î´ membrane material. Journal of Membrane Science, 2011, 385-386, 263-268.	8.2	53
32	Strength degradation and failure limits of dense and porous ceramic membrane materials. Journal of the European Ceramic Society, 2013, 33, 2689-2698.	5.7	53
33	Fracture test of thin sheet electrolytes for solid oxide fuel cells. Journal of the European Ceramic Society, 2007, 27, 2597-2603.	5.7	52
34	Mechanical properties of La0.58Sr0.4Co0.2Fe0.8O3-Î´ membranes. Solid State Ionics, 2009, 180, 241-245.	2.7	52
35	Sequential Tape Casting of Anodeâ€Supported Solid Oxide Fuel Cells. Fuel Cells, 2014, 14, 96-106.	2.4	52
36	Determination of the interfacial fracture energies of cathodes and glass ceramic sealants in a planar solid-oxide fuel cell design. Journal of Materials Research, 2003, 18, 929-934.	2.6	51

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37	Mechanical properties of coated materials and multi-layered composites determined using bending methods. Surface and Coatings Technology, 2004, 176, 165-172.	4.8	51
38	Elastic modulus, hardness and fracture toughness of SiO2-filled methyltrimethoxysilane coatings on glass substrates. Journal of Non-Crystalline Solids, 2000, 265, 51-60.	3.1	50
39	Curvature of Planar Solid Oxide Fuel Cells during Sealing and Cooling of Stacks. Fuel Cells, 2006, 6, 123-129.	2.4	50
40	The use of the loading curve to assess soft coatings. Surface and Coatings Technology, 2000, 127, 265-272.	4.8	49
41	Strain dependent stiffness of plasma sprayed thermal barrier coatings. Surface and Coatings Technology, 2006, 200, 4995-5002.	4.8	49
42	Mechanical and oxidation behavior of textured Ti2AlC and Ti3AlC2 MAX phase materials. Journal of the European Ceramic Society, 2020, 40, 5258-5271.	5.7	49
43	Determination of the elastic modulus and hardness of solâ€“gel coatings on glass: influence of indenter geometry. Thin Solid Films, 2000, 372, 134-143.	1.8	48
44	Comment on hardness definitions. Journal of the European Ceramic Society, 2003, 23, 1355-1359.	5.7	48
45	Mechanical properties of solid oxide fuel cell glass-ceramic sealants in the system BaO/SrO-MgO-B2O3-SiO2. Journal of the European Ceramic Society, 2017, 37, 3579-3594.	5.7	48
46	Formation and prevention of fractures in solâ€“gel-derived thin films. Soft Matter, 2015, 11, 882-888.	2.7	47
47	The effect of room temperature and high temperature exposure on the elastic modulus, hardness and fracture toughness of glass ceramic sealants for solid oxide fuel cells. Journal of the European Ceramic Society, 2011, 31, 541-548.	5.7	46
48	Cracking and residual stress in hybrid coatings on float glass. Thin Solid Films, 2000, 359, 210-214.	1.8	45
49	Scratch testing of hybrid coatings on float glass. Surface and Coatings Technology, 2001, 135, 202-207.	4.8	45
50	Creep behaviour of tubular Ba0.5Sr0.5Co0.8Fe0.2O3â˜Î´ gas separation membranes. Journal of the European Ceramic Society, 2011, 31, 493-499.	5.7	44
51	Mechanical aspects of ferro-elastic behavior and phase composition of La0.58Sr0.4Co0.2Fe0.8O3â˜Î´. Journal of Membrane Science, 2010, 349, 183-188.	8.2	43
52	Influence of sintering temperature on conductivity and mechanical behavior of the solid electrolyte LATP. Ceramics International, 2019, 45, 14697-14703.	4.8	43
53	Mechanical properties of zirconia composite ceramics. Ceramics International, 2013, 39, 7595-7603.	4.8	41
54	Mechanical and electrochemical properties of cubic and tetragonal Li La0.557TiO3 perovskite oxide electrolytes. Ceramics International, 2018, 44, 1902-1908.	4.8	40

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55	Creep behaviour of membrane and substrate materials for oxygen separation units. Journal of the European Ceramic Society, 2013, 33, 1841-1848.	5.7	37
56	Critical heat flux loading experiments on CVD-W coating in the TEXTOR tokamak. Fusion Engineering and Design, 2006, 81, 175-180.	1.9	36
57	Mechanical aspects of ceramic membrane materials. Ceramics International, 2016, 42, 7899-7911.	4.8	35
58	Long-term operation of solid oxide fuel cells and preliminary findings on accelerated testing. International Journal of Hydrogen Energy, 2020, 45, 8955-8964.	7.1	35
59	A model to determine the interfacial fracture toughness for chipped coatings. Surface and Coatings Technology, 2002, 154, 21-26.	4.8	33
60	Elastic anomaly and internal friction of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} and La_{0.58}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3-Î´}. Journal of Materials Research, 2011, 26, 1388-1391.	2.6	33
61	Direct observation of ferroelastic domain effects in LSCF perovskites. Solid State Ionics, 2012, 228, 32-36.	2.7	33
62	Flexural Strength and Viscosity of Glass Ceramic Sealants for Solid Oxide Fuel Cell Stacks. Fuel Cells, 2012, 12, 47-53.	2.4	33
63	Transitions of Ba0.5Sr0.5Co0.8Fe0.2O3-Î´ and La0.58Sr0.4Co0.2Fe0.8O3-Î´. Materials Letters, 2014, 132, 295-297.	2.6	33
64	Fracture and creep of glassâ€“ceramic solid oxide fuel cell sealant materials. Journal of Power Sources, 2014, 246, 574-580.	7.8	33
65	Development and optimization of porosity measurement techniques. Ceramics International, 2016, 42, 2861-2870.	4.8	33
66	Review of mechanical characterization methods for ceramics used in energy technologies. Ceramics International, 2014, 40, 15371-15380.	4.8	32
67	Microstructure and properties investigation of garnet structured Li7La3Zr2O12 as electrolyte for all-solid-state batteries. Solid State Ionics, 2018, 321, 126-134.	2.7	32
68	Discussion of the complex thermo-mechanical behavior of Ba0.5Sr0.5Co0.8Fe0.2O3âˆ’Î´. Journal of Membrane Science, 2010, 359, 80-85.	8.2	31
69	Creep behavior and its correlation with defect chemistry of La0.58Sr0.4Co0.2Fe0.8O3âˆ’Î´. Acta Materialia, 2012, 60, 2479-2484.	7.9	31
70	Design and optimization of porous ceramic supports for asymmetric ceria-based oxygen transport membranes. Journal of Membrane Science, 2016, 513, 85-94.	8.2	31
71	Sintering behavior of columnar thermal barrier coatings deposited by axial suspension plasma spraying (SPS). Journal of the European Ceramic Society, 2019, 39, 482-490.	5.7	31
72	Studies of Material Interaction AfterÂLong-Term Stack Operation. Fuel Cells, 2007, 7, 356-363.	2.4	29

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73	Influence of thermal history on the cubic-to-hexagonal phase transformation and creep behaviour of Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´ ceramics. Journal of Membrane Science, 2011, 381, 221-225.	8.2	29
74	Symmetric shear test of glass-ceramic sealants at SOFC operation temperature. Journal of Materials Science, 2007, 42, 6297-6301.	3.7	28
75	Mechanical characterization of porous Ba0.5Sr0.5Co0.8Fe0.2O3â^'d. Journal of the European Ceramic Society, 2011, 31, 2997-3002.	5.7	28
76	Micro- and macro-mechanical testing of transparent MgAl2O4 spinel. Journal of Materials Science, 2012, 47, 4821-4826.	3.7	27
77	An investigation on strength distribution, subcritical crack growth and lifetime of the lithium-ion conductor Li7La3Zr2O12. Journal of Materials Science, 2019, 54, 5671-5681.	3.7	27
78	Porous Fe21Cr7Al1Mo0.5Y metal supports for oxygen transport membranes: Thermo-mechanical properties, sintering and corrosion behaviour. Solid State Ionics, 2013, 242, 33-44.	2.7	26
79	Strontium surface segregation in La0.58Sr0.4Co0.2Fe0.8O3-Î´ annealed under compression. Solid State Ionics, 2014, 268, 1-6.	2.7	26
80	Torsional shear strength behavior of advanced glass-ceramic sealants for SOFC/SOEC applications. Journal of the European Ceramic Society, 2020, 40, 4067-4075.	5.7	26
81	Comment on the determination of mechanical properties from the energy dissipated during indentation. Journal of Materials Research, 2005, 20, 1090-1092.	2.6	25
82	Micro- and macro-indentation behaviour of Ba0.5Sr0.5Co0.8Fe0.2O3â^'d perovskite. Journal of the European Ceramic Society, 2011, 31, 401-408.	5.7	24
83	Overview on the JÃ¼lich SOFC Development Status. ECS Transactions, 2013, 57, 23-33.	0.5	24
84	Electrochemical and mechanical stability of Li_xLa_{0.557}TiO_{3â€•Î´} perovskite electrolyte at various voltages. Journal of the American Ceramic Society, 2019, 102, 1953-1960.	3.8	24
85	Comments on â€œComment on the determination of mechanical properties from the energy dissipated during indentationâ€•by J. Malzbender [J. Mater. Res. 20, 1090 (2005)]. Journal of Materials Research, 2006, 21, 302-305.	2.6	23
86	Ring-on-ring testing of thin, curved bi-layered materials. Journal of the European Ceramic Society, 2011, 31, 2037-2042.	5.7	23
87	Testing method to assess lifetime of EB-PVD thermal barrier coatings on tubular specimens in static and cyclic oxidation tests. Ceramics International, 2011, 37, 363-368.	4.8	23
88	Creep behavior of perovskite-type oxides Ba0.5Sr0.5(Co0.8Fe0.2)1â^'xZrxO3â^'Î´. Journal of the European Ceramic Society, 2015, 35, 1841-1846.	5.7	23
89	Mechanical properties and lifetime predictions of dense SrTi 1-x Fe x O 3-Î´ (x = 0.25, 0.35, 0.5). Journal of the European Ceramic Society, 2017, 37, 2629-2636.	5.7	23
90	Strain Analysis of Plasma Sprayed Thermal Barrier Coatings Under Mechanical Stress. Journal of Thermal Spray Technology, 2004, 13, 390-395.	3.1	22

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91	Anomalies in the thermomechanical behavior of Ba0.5Sr0.5Co0.8Fe0.2O3â˜Î´ ceramic oxygen conductive membranes at intermediate temperatures. Applied Physics Letters, 2009, 95, 051901.	3.3	22
92	Curvature and stresses for bi-layer functional ceramic materials. Journal of the European Ceramic Society, 2010, 30, 3407-3413.	5.7	22
93	Creep behavior of porous La0.6Sr0.4Co0.2Fe0.8O3â˜Î´ oxygen transport membrane supports. Ceramics International, 2015, 41, 4064-4069.	4.8	22
94	Fabrication and mechanical performance of Ti2AlN prepared by FAST/SPS. Journal of the European Ceramic Society, 2020, 40, 4445-4453.	5.7	21
95	Indentation strength method to determine the fracture toughness of La0.58Sr0.4Co0.2Fe0.8O3-Î´ and Ba0.5Sr0.5Co0.8Fe0.2O3-Î´. Journal of Materials Science, 2012, 47, 2695-2699.	3.7	20
96	Room and elevated temperature shear strength of sealants for solid oxide fuel cells. Ceramics International, 2016, 42, 12932-12936.	4.8	20
97	Steady state creep of Ni-8YSZ substrates for application in solid oxide fuel and electrolysis cells. Journal of Power Sources, 2017, 360, 1-10.	7.8	20
98	SOC Development at Forschungszentrum JÃ¼lich. ECS Transactions, 2017, 78, 1791-1804.	0.5	20
99	Mechanical properties of pure and doped cerium oxide. Journal of the European Ceramic Society, 2015, 35, 1539-1547.	5.7	19
100	Micromechanical assessment of Al/Y-substituted NASICON solid electrolytes. Ceramics International, 2019, 45, 21308-21314.	4.8	19
101	Controlled Crack Propagation Experiments with a Novel Aluminaâ€Based Refractory. Advanced Engineering Materials, 2012, 14, 248-254.	3.5	18
102	Elevated temperature effects on the mechanical properties of solid oxide fuel cell sealing materials. Journal of Power Sources, 2013, 239, 500-504.	7.8	18
103	Solid Oxide Fuel Cell, Stack and System Development Status at Forschungszentrum JÃ¼lich. ECS Transactions, 2015, 68, 157-169.	0.5	18
104	Post-operational characterization of solid oxide fuel cell stacks. International Journal of Hydrogen Energy, 2016, 41, 11399-11411.	7.1	18
105	Reduction and Re-Oxidation of Anodes for Solid Oxide Fuel Cells (Sofc). Ceramic Engineering and Science Proceedings, 0, , 387-392.	0.1	17
106	Sliding indentation, friction and fracture of a hybrid coating on glass. Wear, 1999, 236, 355-359.	3.1	16
107	Analysis of scratch testing of organic-inorganic coatings on glass. Thin Solid Films, 2001, 386, 68-78.	1.8	16
108	Micromechanical testing of glassâ€“ceramic sealants for solid oxide fuel cells. Journal of Materials Science, 2012, 47, 4342-4347.	3.7	16

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109	Damage and Failure of Silver Based Ceramic/Metal Joints for SOFC Stacks. Fuel Cells, 2013, 13, 578-583.	2.4	16
110	Mechanical properties of porous MgO substrates for membrane applications. Journal of the European Ceramic Society, 2014, 34, 2519-2524.	5.7	16
111	Elastic properties of freeze-cast La0.6Sr0.4Co0.2Fe0.8O3â€“Î´. Journal of the European Ceramic Society, 2016, 36, 1651-1657.	5.7	16
112	The analysis of torsional shear strength test of sealants for solid oxide fuel cells. Ceramics International, 2017, 43, 12546-12550.	4.8	16
113	Room- and high-temperature flexural strength of a stable solid oxide fuel/electrolysis cell sealing material. Ceramics International, 2019, 45, 733-739.	4.8	16
114	The diffusion of Cl into CdTe. Journal of Physics Condensed Matter, 1994, 6, 7499-7504.	1.8	15
115	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2011, 35, 53-60.	0.5	15
116	Damage evolution of a thermal barrier coating system with 3-dimensional periodic interface roughness: Effects of roughness depth, substrate creep strength and pre-oxidation. Surface and Coatings Technology, 2015, 276, 368-373.	4.8	15
117	Mechanical behavior of silver reinforced glassâ€“ceramic sealants for solid oxide fuel cells. Ceramics International, 2015, 41, 15122-15127.	4.8	15
118	Anisotropy of the mechanical properties of Li1Â·3Al0Â·3Ti1Â·7(PO4)3 solid electrolyte material. Journal of Power Sources, 2019, 437, 226940.	7.8	15
119	Microstructure, ionic conductivity and mechanical properties of tape-cast Li1.5Al0.5Ti1.5P3O12 electrolyte sheets. Journal of the European Ceramic Society, 2020, 40, 1975-1982.	5.7	15
120	Optimization of sintering conditions for improved microstructural and mechanical properties of dense Ce0.8Gd0.2O2−FeCo2O4 oxygen transport membranes. Journal of the European Ceramic Society, 2021, 41, 509-516.	5.7	15
121	Enhancing oxygen permeation of solid-state reactive sintered Ce0.8Gd0.2O2−FeCo2O4 composite by optimizing the powder preparation method. Journal of Membrane Science, 2021, 628, 119248.	8.2	15
122	Comparison of thermo-mechanical characteristics of non-doped and 3mol% B-site Zr-doped Ba0.5Sr0.5Co0.8Fe0.2O3â^’Î´. Ceramics International, 2014, 40, 1843-1850.	4.8	14
123	Mechanical characterization of SOFC/SOEC cells. Ceramics International, 2018, 44, 11094-11100.	4.8	14
124	Phase and microstructural characterizations for Ce0.8Gd0.2O2−FeCo2O4 dual phase oxygen transport membranes. Journal of the European Ceramic Society, 2020, 40, 5646-5652.	5.7	14
125	Conductivity, microstructure and mechanical properties of tape-cast LATP with LiF and SiO2 additives. Journal of Materials Science, 2022, 57, 925-938.	3.7	14
126	Modification of the Mechanical Properties of a Sol-Gel Coating Using Silica Filler Nanoparticles. Advanced Engineering Materials, 2002, 4, 296-300.	3.5	13

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127	Mechanical behaviour of Br0.5Sr0.5Co0.8Fe0.2O3-Î´ under uniaxial compression. Scripta Materialia, 2013, 69, 278-281.	5.2	13
128	Mechanical characterization of micro- and nano-porous alumina. Ceramics International, 2015, 41, 10725-10729.	4.8	13
129	Oxygen permeation and creep behavior of Ca1âˆ’xSr xTi0.6Fe0.15Mn0.25O3âˆ’Î´ (x=0, 0.5) membrane materials. Journal of Membrane Science, 2016, 499, 172-178.	8.2	13
130	Mechanical properties, wear resistance and surface damage of glasses and MgAl2O4 spinel ceramic after abrasion and scratch exposure. Ceramics International, 2019, 45, 10765-10775.	4.8	13
131	Fracture toughness of single grains and polycrystalline Li7La3Zr2O12 electrolyte material based on a pillar splitting method. Journal of the European Ceramic Society, 2020, 40, 3057-3064.	5.7	13
132	Steady-state creep of porous and an extended analysis on the creep of dense BSCFZ perovskite. Journal of Membrane Science, 2014, 456, 134-138.	8.2	12
133	Mechanical characterization of ceramics by means of a 3D defect analysis. Ceramics International, 2015, 41, 2411-2417.	4.8	12
134	Chemical stability in H2S and creep characterization of the mixed protonic conductor Nd5.5WO11.25-Î´. International Journal of Hydrogen Energy, 2018, 43, 8342-8354.	7.1	12
135	High temperature compressive creep of dense and porous Cr2AlC in air. Journal of the European Ceramic Society, 2019, 39, 3660-3667.	5.7	12
136	Mechanical properties of BaCe0.65Zr0.2Y0.15O3- proton-conducting material determined using different nanoindentation methods. Journal of the European Ceramic Society, 2020, 40, 5653-5661.	5.7	12
137	Studies on the diffusion of the halogens into CdTe. Semiconductor Science and Technology, 1996, 11, 741-747.	2.0	11
138	Modeling of the fracture of a coating under sliding indentation. Wear, 2000, 239, 21-26.	3.1	11
139	Friction under elastic contacts. Surface and Coatings Technology, 2000, 124, 66-69.	4.8	11
140	Characterisation of Ni-cermets SOFCs with varying anode densities. Journal of Power Sources, 2007, 171, 789-792.	7.8	11
141	Fracture resistance of atmospheric plasma sprayed thermal barrier coatings. Surface and Coatings Technology, 2012, 209, 97-102.	4.8	11
142	Thermo-mechanical properties of (Sr,Y)TiO3 as anode material for solid oxide fuel cells. Journal of Power Sources, 2012, 206, 204-209.	7.8	11
143	Creep behavior of porous La0.6Sr0.4Co0.2Fe0.8O3-Î´ substrate material for oxygen separation application. Journal of the European Ceramic Society, 2018, 38, 1702-1710.	5.7	11
144	Short SiC fiber/Ti₃SiC₂ MAX phase composites: Fabrication and creep evaluation. Journal of the American Ceramic Society, 2020, 103, 7072-7081.	3.8	11

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145	Thermo-Mechanical Stability and Gas-Tightness of Glass-Ceramics Joints for SOFC in the System MgO-BaO/SrO-B2O3-SiO2. Frontiers in Materials, 2020, 7, .	2.4	11
146	A combined experimental and modeling study revealing the anisotropic mechanical response of Ti2AlN MAX phase. Journal of the European Ceramic Society, 2021, 41, 5872-5881.	5.7	11
147	Mechanical methods to determine layer compliances within multilayered composites. Journal of Materials Research, 2003, 18, 1374-1382.	2.6	10
148	The use of theories to determine mechanical and thermal stresses in monolithic, coated and multilayered materials with stress-dependent elastic modulus or gradient in elastic modulus exemplified for thermal barrier coatings. Surface and Coatings Technology, 2004, 186, 416-422.	4.8	10
149	Energy dissipated during spherical indentation. Journal of Materials Research, 2004, 19, 1605-1607.	2.6	10
150	A comparison of results obtained using different methods to assess the elastic properties of ceramic materials exemplified for Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´. Journal of Materials Science, 2010, 45, 1227-1230.	3.7	10
151	Thermo-mechanical properties of La2NiO4+Î´. Journal of Materials Science, 2011, 46, 4937-4941.	3.7	10
152	Full Ceramic Fuel Cells Based on Strontium Titanate Anodes, an Approach towards More Robust SOFCs. ECS Transactions, 2013, 57, 1175-1184.	0.5	10
153	Strength and elastic modulus of lanthanum strontium cobalt ferrite membrane materials. Ceramics International, 2015, 41, 1355-1360.	4.8	10
154	Thermal shock behaviour of laminated multilayer refractories for steel casting applications reinforced by residual stresses. Ceramics International, 2016, 42, 13562-13571.	4.8	10
155	Mechanical properties of tape casted Lanthanum Tungstate for membrane substrate application. Ceramics International, 2016, 42, 15177-15182.	4.8	10
156	Room- and high-temperature torsional shear strength of solid oxide fuel/electrolysis cell sealing material. Ceramics International, 2019, 45, 2219-2225.	4.8	10
157	Compressive creep of SiC whisker/Ti₃SiC₂ composites at high temperature in air. Journal of the American Ceramic Society, 2020, 103, 5952-5965.	3.8	10
158	Oxidation and creep behavior of textured Ti2AlC and Ti3AlC2. Journal of the European Ceramic Society, 2022, 42, 364-375.	5.7	10
159	The effects of drying, aging and curing on an organic - inorganic coating. Journal of Materials Science, 2000, 35, 4809-4814.	3.7	9
160	Mechanical testing of thermally stressed materials with rough interfaces: Mechanically induced delamination cracking in thermal barrier composites. Surface and Coatings Technology, 2006, 200, 5419-5426.	4.8	9
161	Electrical conductivity of La0.58Sr0.4Co0.2Fe0.8O3â^'Î´ during ferroelastic deformation under uniaxial compressive loading. Solid State Ionics, 2013, 233, 67-72.	2.7	9
162	The effect of an oxygen partial pressure gradient on the mechanical behavior of perovskite membrane materials. Journal of the European Ceramic Society, 2014, 34, 1777-1782.	5.7	9

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163	Thermomechanical properties of Y-substituted SrTiO3 used as re-oxidation stable anode substrate material. Journal of the European Ceramic Society, 2014, 34, 3749-3754.	5.7	9
164	High-temperature compressive creep behaviour of perovskite-type oxides SrTi1-xFexO3-Î´. Journal of the European Ceramic Society, 2015, 35, 4203-4209.	5.7	9
165	Fracture toughness of solid oxide fuel cell anode substrates determined by a double-torsion technique. Journal of Power Sources, 2016, 327, 629-637.	7.8	9
166	Increasing Fracture Toughness and Transmittance of Transparent Ceramics using Functional Low-Thermal Expansion Coatings. Scientific Reports, 2018, 8, 15644.	3.3	9
167	Failure Probability of Solid Oxide Fuel Cells. Ceramic Engineering and Science Proceedings, 0, , 293-298.	0.1	9
168	Stress profile and thermal expansion of layered materials determined from surface stresses. Applied Physics Letters, 2004, 84, 4661-4662.	3.3	8
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