

Alan Atkinson

List of Publications by Year in descending order

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76
papers

3,187
citations

218592

26
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155592

55
g-index

81
all docs

81
docs citations

81
times ranked

3483
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterisation of indentation microstructures for porous SOFC cathodes. <i>Ceramics International</i> , 2020, 46, 803-812.	2.3	4
2	Understanding the Coarsening and Degradation in a Nanoscale Nickel Gadolinia-Doped-Ceria Electrode for High-Temperature Applications. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47564-47573.	4.0	7
3	Fabrication and Characterisation of Nanoscale Ni-CGO Electrode from Nano-Composite Powders. <i>ECS Transactions</i> , 2019, 91, 1799-1805.	0.3	0
4	Hierarchical dual-porosity nanoscale nickel cermet electrode with high performance and stability. <i>Nanoscale</i> , 2019, 11, 17746-17758.	2.8	8
5	Combining densification and coarsening in a Cellular Automata-Monte-Carlo simulation of sintering: Methodology and calibration. <i>Computational Materials Science</i> , 2018, 143, 338-349.	1.4	13
6	Can ferroelasticity be evaluated by nanoindentation?. <i>Journal of the European Ceramic Society</i> , 2018, 38, 4495-4501.	2.8	1
7	Analysis of spherical indentation of porous ceramic films. <i>Journal of the European Ceramic Society</i> , 2017, 37, 1031-1038.	2.8	14
8	Production and Reliability Oriented SOFC Cell and Stack Design. <i>ECS Transactions</i> , 2017, 78, 2231-2249.	0.3	5
9	Spherical indentation of bilayer ceramic structures: Dense layer on porous substrate. <i>Journal of the European Ceramic Society</i> , 2017, 37, 4763-4772.	2.8	5
10	Microstructural and Electrochemical Characterisation of Degradation in Nickel Impregnated Scandia-Stabilised Zirconia Electrode during Isothermal Annealing. <i>ECS Transactions</i> , 2017, 78, 1125-1137.	0.3	0
11	Characterization of Degradation in Nickel Impregnated Scandia-Stabilize Zirconia Electrodes during Isothermal Annealing. <i>Journal of the Electrochemical Society</i> , 2017, 164, F935-F943.	1.3	13
12	Solid Oxide Fuel Cell Electrolytesâ€™ Factors Influencing Lifetime. , 2017, , 19-35.		2
13	Spherical indentation of porous ceramics: Cracking and toughness. <i>Journal of the European Ceramic Society</i> , 2016, 36, 3473-3480.	2.8	28
14	Measurement of mechanical properties using slender cantilever beams. <i>Journal of the European Ceramic Society</i> , 2016, 36, 2003-2007.	2.8	2
15	Spherical indentation of porous ceramics: Elasticity and hardness. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1435-1445.	2.8	52
16	Fracture Toughness of Porous Material of <sc>LSCF</sc> in Bulk and Film Forms. <i>Journal of the American Ceramic Society</i> , 2015, 98, 2183-2190.	1.9	21
17	On the measurement of ceramic fracture toughness using single edge notched beams. <i>Journal of the European Ceramic Society</i> , 2015, 35, 3713-3720.	2.8	23
18	Metallizing porous scaffolds as an alternative fabrication method for solid oxide fuel cell anodes. <i>Journal of Power Sources</i> , 2015, 280, 81-89.	4.0	28

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19	Microstructural characteristics and elastic modulus of porous solids. <i>Acta Materialia</i> , 2015, 89, 268-277.	3.8	79
20	The effects of Co and Cr on the electrical conductivity of cerium gadolinium oxide. <i>Solid State Ionics</i> , 2015, 282, 54-62.	1.3	25
21	Simulation and Prediction of 3-D Microstructural Evolution and Long Term Performance of Ni-YSZ Anode. <i>ECS Transactions</i> , 2015, 68, 2867-2873.	0.3	3
22	Analyses of microstructural and elastic properties of porous SOFC cathodes based on focused ion beam tomography. <i>Journal of Power Sources</i> , 2015, 273, 486-494.	4.0	29
23	Modeling Microstructure Evolution of Ni Cermet Using a Cellular Automaton Approach. <i>Journal of the Electrochemical Society</i> , 2014, 161, F605-F614.	1.3	10
24	Surface quality improvement of porous thin films suitable for nanoindentation. <i>Ceramics International</i> , 2014, 40, 3913-3923.	2.3	9
25	Porous LSCF/dense 3YSZ interface fracture toughness measured by single cantilever beam wedge test. <i>Journal of the European Ceramic Society</i> , 2014, 34, 2351-2361.	2.8	5
26	The effects of transition metal oxide doping on the sintering of cerium gadolinium oxide. <i>Acta Materialia</i> , 2014, 81, 128-140.	3.8	25
27	Time and temperature dependence of the adhesion of oxide scales formed on phosphorus-containing steels during short term oxidation. <i>Materials Chemistry and Physics</i> , 2014, 148, 1157-1162.	2.0	5
28	Novel Composite Cermet for Low-Metal-Content Oxygen Separation Membranes. <i>Chemistry of Materials</i> , 2014, 26, 3887-3895.	3.2	31
29	Crack formation in ceramic films used in solid oxide fuel cells. <i>Journal of the European Ceramic Society</i> , 2013, 33, 2539-2547.	2.8	17
30	Nanoindentation of porous bulk and thin films of $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$. <i>Acta Materialia</i> , 2013, 61, 5720-5734.	3.8	81
31	Effect of Chromium on $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ Solid Oxide Fuel Cell Cathodes. <i>Journal of the Electrochemical Society</i> , 2013, 160, F629-F635.	1.3	35
32	Interface fracture toughness in thermal barrier coatings by cross-sectional indentation. <i>Acta Materialia</i> , 2012, 60, 6152-6163.	3.8	39
33	Constrained sintering of 8 mol% Y_2O_3 stabilised zirconia films. <i>Journal of the European Ceramic Society</i> , 2012, 32, 4121-4128.	2.8	18
34	Stiffness of free-standing thermal barrier coating top coats measured by bending tests. <i>Acta Materialia</i> , 2012, 60, 3247-3258.	3.8	27
35	Stress Induced by Constrained Sintering of 3YSZ Films Measured by Substrate Creep. <i>Journal of the American Ceramic Society</i> , 2011, 94, 717-724.	1.9	24
36	Diffusion and conductivity of mixed-conducting Ag/CGO composites. <i>Solid State Ionics</i> , 2011, 204-205, 46-52.	1.3	14

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37	Constrained sintering kinetics of 3YSZ films. Journal of the European Ceramic Society, 2011, 31, 2231-2239.	2.8	33
38	Microstructure evolution in thin zirconia films: Experimental observation and modelling. Acta Materialia, 2011, 59, 2514-2525.	3.8	40
39	Mixed-conducting LSC/CGO composites for passive oxygen separation membranes. Solid State Ionics, 2011, 192, 638-641.	1.3	16
40	Defect Formation in SOFC Electrolyte Films during Fabrication. ECS Transactions, 2011, 35, 1177-1186.	0.3	1
41	Characterisation of residual stress and interface degradation in TBCs by photo-luminescence piezo-spectroscopy. Surface and Coatings Technology, 2010, 204, 2472-2482.	2.2	24
42	Evolution of stress and morphology in thermal barrier coatings. Surface and Coatings Technology, 2010, 204, 3851-3857.	2.2	26
43	On the interfacial degradation mechanisms of thermal barrier coating systems: Effects of bond coat composition. Acta Materialia, 2010, 58, 5578-5585.	3.8	56
44	Discriminating Structural Characteristics of Starch Extrudates through X-ray Micro-tomography using a 3-D Watershed Algorithm. International Journal of Food Engineering, 2009, 5, .	0.7	7
45	A Review of Progress in the UK Supergen Fuel Cell Programme. ECS Transactions, 2009, 25, 35-42.	0.3	0
46	Control of Porosity and Expansion in Starch Extrusion by Monitoring Pressure at Die Outlet. Journal of Cellular Plastics, 2009, 45, 67-82.	1.2	5
47	Constrained Sintering of Zirconia Films. ECS Transactions, 2009, 25, 1531-1540.	0.3	1
48	Effect of Y2O3 addition on the conductivity and elastic modulus of $(\text{CeO}_2)_{1-x}(\text{YO}_{1.5})_x$. Solid State Ionics, 2009, 180, 1220-1225.	1.3	22
49	The Influence of La Doping on the Oxidation Mechanism and Stresses in the Thermally Grown Oxide on CMSX-4 with Pt-Aluminide Bond Coat. Oxidation of Metals, 2009, 72, 191-211.	1.0	2
50	Oxygen diffusion studies on $(\text{Y}_2\text{O}_3)_2(\text{Sc}_2\text{O}_3)_9(\text{ZrO}_2)_8$. Solid State Ionics, 2009, 180, 952-955.	1.3	18
51	Investigation of TBCs on turbine blades by photoluminescence piezospectroscopy. Acta Materialia, 2009, 57, 182-195.	3.8	48
52	Structure and transport in rare-earth ferrates. Solid State Ionics, 2008, 179, 1090-1093.	1.3	34
53	Abrasive wear of $\text{Al}_2\text{O}_3/\text{SiC}$ and $\text{Al}_2\text{O}_3/(\text{SiC})/\text{C}$ composites with micrometer- and submicrometer-sized alumina matrix grains. Journal of the European Ceramic Society, 2008, 28, 2983-2993.	2.8	39
54	Intermediate temperature solid oxide fuel cells. Chemical Society Reviews, 2008, 37, 1568.	18.7	1,224

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55	On the Redox Cycling of Anode-Supported SOFCs: Mechanical Properties and Damage Mechanisms. ECS Transactions, 2007, 7, 1491-1499.	0.3	10
56	Evaluation of La _{0.8} Sr _{0.2} Cu _{1-x} Mn _x O _d Double Perovskite for Use in SOFCs. ECS Transactions, 2007, 7, 1173-1181.	0.3	9
57	Piezo-spectroscopic mapping of the thermally grown oxide in thermal barrier coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 465, 49-58.	2.6	26
58	Mechanical Properties of Magnesia/Spinel Composites. Journal of the American Ceramic Society, 2007, 90, 2489-2496.	1.9	33
59	Microstructure-stress relationships in liquid-phase sintered alumina modified by the addition of 5wt.% of calcium-silica additives. Acta Materialia, 2006, 54, 4853-4863.	3.8	17
60	Factors affecting measurement of hydraulic conductivity in low-strength cementitious materials. Cement and Concrete Research, 2006, 36, 2109-2114.	4.6	7
61	Defect properties of Ti-doped Cr ₂ O ₃ . Solid State Ionics, 2006, 177, 1767-1770.	1.3	53
62	Development of residual stress and damage in thermal barrier coatings. Surface and Coatings Technology, 2006, 201, 3931-3936.	2.2	31
63	An XAS study of the defect structure of Ti-doped $\hat{\pm}$ -Cr ₂ O ₃ . Solid State Ionics, 2006, 177, 2939-2944.	1.3	43

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73	Aqueous chemistry and thermodynamic modelling of CaO-SiO ₂ -H ₂ O gels. Journal of the Chemical Society Dalton Transactions, 1989, , 2371-2379.	1.1	29
74	Interfacial Diffusion. Materials Research Society Symposia Proceedings, 1988, 122, 183.	0.1	1
75	Diffusion and Sorption of Cesium, Strontium, and Iodine in Water-Saturated Cement. Nuclear Technology, 1988, 81, 100-113.	0.7	94
76	Grain boundary diffusion in Cr-doped NiO and the oxidation of Ni-Cr alloy. Materials and Corrosion - Werkstoffe Und Korrosion, 1987, 38, 704-709.	0.8	13