

Alan Atkinson

List of Publications by Year in descending order

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76
papers

3,187
citations

218592

26
h-index

155592

55
g-index

81
all docs

81
docs citations

81
times ranked

3483
citing authors

#	ARTICLE	IF	CITATIONS
1	Intermediate temperature solid oxide fuel cells. <i>Chemical Society Reviews</i> , 2008, 37, 1568.	18.7	1,224
2	Formation of silica/epoxy hybrid network polymers. <i>Journal of Non-Crystalline Solids</i> , 2003, 315, 197-205.	1.5	181
3	Strength and Toughness of Tape-Cast Ytria-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 2000, 83, 2029-2035.	1.9	100
4	Diffusion and Sorption of Cesium, Strontium, and Iodine in Water-Saturated Cement. <i>Nuclear Technology</i> , 1988, 81, 100-113.	0.7	94
5	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
6	Microstructural characteristics and elastic modulus of porous solids. <i>Acta Materialia</i> , 2015, 89, 268-277.	3.8	79

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19	Mechanical Properties of Magnesia?Spinel Composites. Journal of the American Ceramic Society, 2007, 90, 2489-2496.	1.9	33
20	Constrained sintering kinetics of 3YSZ films. Journal of the European Ceramic Society, 2011, 31, 2231-2239.	2.8	33
21	Development of residual stress and damage in thermal barrier coatings. Surface and Coatings Technology, 2006, 201, 3931-3936.	2.2	31
22	Novel Composite Cermet for Low-Metal-Content Oxygen Separation Membranes. Chemistry of Materials, 2014, 26, 3887-3895.	3.2	31
23	Aqueous chemistry and thermodynamic modelling of CaOâ€“SiO2â€“H2O gels. Journal of the Chemical Society Dalton Transactions, 1989, , 2371-2379.	1.1	29
24	AC Impedance Spectra Arising from Mixed Ionic Electronic Solid Electrolytes. Journal of the Electrochemical Society, 2004, 151, E186.	1.3	29
25	Analyses of microstructural and elastic properties of porous SOFC cathodes based on focused ion beam tomography. Journal of Power Sources, 2015, 273, 486-494.	4.0	29
26	Metallizing porous scaffolds as an alternative fabrication method for solid oxide fuel cell anodes. Journal of Power Sources, 2015, 280, 81-89.	4.0	28
27	Spherical indentation of porous ceramics: Cracking and toughness. Journal of the European Ceramic Society, 2016, 36, 3473-3480.	2.8	28
28	Stiffness of free-standing thermal barrier coating top coats measured by bending tests. Acta Materialia, 2012, 60, 3247-3258.	3.8	27
29	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
30	Evolution of stress and morphology in thermal barrier coatings. Surface and Coatings Technology, 2010, 204, 3851-3857.	2.2	26
31	The effects of transition metal oxide doping on the sintering of cerium gadolinium oxide. Acta Materialia, 2014, 81, 128-140.	3.8	25
32	The effects of Co and Cr on the electrical conductivity of cerium gadolinium oxide. Solid State Ionics, 2015, 282, 54-62.	1.3	25
33	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
34	Stress Induced by Constrained Sintering of 3YSZ Films Measured by Substrate Creep. Journal of the American Ceramic Society, 2011, 94, 717-724.	1.9	24
35	On the measurement of ceramic fracture toughness using single edge notched beams. Journal of the European Ceramic Society, 2015, 35, 3713-3720.	2.8	23
36	Effect of Y2O3 addition on the conductivity and elastic modulus of (CeO2)1â”x(YO1.5)x. Solid State Ionics, 2009, 180, 1220-1225.	1.3	22

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37	Fracture Toughness of Porous Material of LSCF in Bulk and Film Forms. Journal of the American Ceramic Society, 2015, 98, 2183-2190.	1.9	21
38	Preliminary investigations into the use of secondary waste minerals as a novel cementitious landfill liner. Construction and Building Materials, 2004, 18, 689-699.	3.2	19
39	Grain-boundary diffusion: an historical perspective. Journal of the Chemical Society, Faraday Transactions, 1990, 86, 1307.	1.7	18
40	Oxygen diffusion studies on (Y ₂ O ₃) ₂ (Sc ₂ O ₃) ₉ (ZrO ₂) ₈₉ . Solid State Ionics, 2009, 180, 952-955.	1.3	18
41	Constrained sintering of 8 mol% Y ₂ O ₃ stabilised zirconia films. Journal of the European Ceramic Society, 2012, 32, 4121-4128.	2.8	18
42	Wet Erosive Wear of Alumina Densified with Magnesium Silicate Additions. Journal of the American Ceramic Society, 2001, 84, 1767-1776.	1.9	17
43	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
44	Crack formation in ceramic films used in solid oxide fuel cells. Journal of the European Ceramic Society, 2013, 33, 2539-2547.	2.8	17
45	Mixed-conducting LSC/CGO composites for passive oxygen separation membranes. Solid State Ionics, 2011, 192, 638-641.	1.3	16
46	Diffusion and conductivity of mixed-conducting Ag/CGO composites. Solid State Ionics, 2011, 204-205, 46-52.	1.3	14
47	Analysis of spherical indentation of porous ceramic films. Journal of the European Ceramic Society, 2017, 37, 1031-1038.	2.8	14
48	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
49	Characterization of Degradation in Nickel Impregnated Scandia-Stabilize Zirconia Electrodes during Isothermal Annealing. Journal of the Electrochemical Society, 2017, 164, F935-F943.	1.3	13
50	Combining densification and coarsening in a Cellular Automata-Monte-Carlo simulation of sintering: Methodology and calibration. Computational Materials Science, 2018, 143, 338-349.	1.4	13
51	On the Redox Cycling of Anode-Supported SOFCs: Mechanical Properties and Damage Mechanisms. ECS Transactions, 2007, 7, 1491-1499.	0.3	10
52	Modeling Microstructure Evolution of Ni Cermet Using a Cellular Automaton Approach. Journal of the Electrochemical Society, 2014, 161, F605-F614.	1.3	10
53	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
54	Surface quality improvement of porous thin films suitable for nanoindentation. Ceramics International, 2014, 40, 3913-3923.	2.3	9

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55	Hierarchical dual-porosity nanoscale nickel cermet electrode with high performance and stability. <i>Nanoscale</i> , 2019, 11, 17746-17758.	2.8	8
56	Factors affecting measurement of hydraulic conductivity in low-strength cementitious materials. <i>Cement and Concrete Research</i> , 2006, 36, 2109-2114.	4.6	7
57	Discriminating Structural Characteristics of Starch Extrudates through X-ray Micro-tomography using a 3-D Watershed Algorithm. <i>International Journal of Food Engineering</i> , 2009, 5, .	0.7	7
58	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
59	Mass Transfer in Water-Saturated Concretes. <i>Materials Research Society Symposia Proceedings</i> , 1989, 176, 741.	0.1	6
60	Control of Porosity and Expansion in Starch Extrusion by Monitoring Pressure at Die Outlet. <i>Journal of Cellular Plastics</i> , 2009, 45, 67-82.	1.2	5
61	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
62	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
63	Production and Reliability Oriented SOFC Cell and Stack Design. <i>ECS Transactions</i> , 2017, 78, 2231-2249.	0.3	5
64	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
65	Characterisation of indentation microstructures for porous SOFC cathodes. <i>Ceramics International</i> , 2020, 46, 803-812.	2.3	4
66	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
67	The Influence of La Doping on the Oxidation Mechanism and Stresses in the Thermally Grown Oxide on CMSX-4 with Pt-Aluminide Bond Coat. <i>Oxidation of Metals</i> , 2009, 72, 191-211.	1.0	2
68	Measurement of mechanical properties using slender cantilever beams. <i>Journal of the European Ceramic Society</i> , 2016, 36, 2003-2007.	2.8	2
69	Solid Oxide Fuel Cell Electrolytes – Factors Influencing Lifetime. , 2017, , 19-35.		2
70	Interfacial Diffusion. <i>Materials Research Society Symposia Proceedings</i> , 1988, 122, 183.	0.1	1
71	Constrained Sintering of Zirconia Films. <i>ECS Transactions</i> , 2009, 25, 1531-1540.	0.3	1
72	Defect Formation in SOFC Electrolyte Films during Fabrication. <i>ECS Transactions</i> , 2011, 35, 1177-1186.	0.3	1

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73	Can ferroelasticity be evaluated by nanoindentation?. Journal of the European Ceramic Society, 2018, 38, 4495-4501.	2.8	1
74	A Review of Progress in the UK Supergen Fuel Cell Programme. ECS Transactions, 2009, 25, 35-42.	0.3	0
75	Microstructural and Electrochemical Characterisation of Degradation in Nickel Impregnated Scandia-Stabilised Zirconia Electrode during Isothermal Annealing. ECS Transactions, 2017, 78, 1125-1137.	0.3	0
76	Fabrication and Characterisation of Nanoscale Ni-CGO Electrode from Nano-Composite Powders. ECS Transactions, 2019, 91, 1799-1805.	0.3	0