David A Hall

List of Publications by Year
in descending order

87 papers	2,635 citations	236833 25 h-index	197736 49 g-index
87 all docs	87 docs citations	87 times ranked	2067 citing authors

#	Article	IF	Citations
1	Review Nonlinearity in piezoelectric ceramics. Journal of Materials Science, 2001, 36, 4575-4601.	1.7	435
2	The effect of retarders on the microstructure and mechanical properties of magnesiaâ€“phosphate cement mortar. Cement and Concrete Research, 2001, 31, 455-465.	4.6	170
3	A high energy synchrotron x-ray study of crystallographic texture and lattice strain in soft lead zirconate titanate ceramics. Journal of Applied Physics, 2004, 96, 4245-4252.	1.1	138
4	Optimisation of functional properties in lead-free BiFeO₃â€“BaTiO₃ ceramics through La³⁺ substitution strategy. Journal of Materials Chemistry A, 2018, 6, 5378-5397.	5.2	125
5	Origin of the large electrostrain in BiFeO₃-BaTiO₃ based lead-free ceramics. Journal of Materials Chemistry A, 2019, 7, 21254-21263.	5.2	101
6	High field dielectric behaviour of ferroelectric ceramics. Ferroelectrics, 1999, 228, 139-158.	0.3	96
7	Effect of Water Content on the Structure and Mechanical Properties of Magnesiaâ€Phosphate Cement Mortar. Journal of the American Ceramic Society, 1998, 81, 1550-1556.	1.9	81
8	Microstructure and piezoelectric properties of CuO added (K, Na, Li)NbO3 lead-free piezoelectric ceramics. Journal of the European Ceramic Society, 2011, 31, 569-576.	2.8	77
9	Chemical heterogeneity and approaches to its control in BiFeO₃â€“BaTiO₃ lead-free ferroelectrics. Journal of Materials Chemistry C, 2018, 6, 134-146.	2.7	77
10	Analysis of elastic strain and crystallographic texture in poled rhombohedral PZT ceramics. Acta Materialia, 2006, 54, 3075-3083.	3.8	76
11	Rayleigh behaviour and the threshold field in ferroelectric ceramics. Ferroelectrics, 1999, 223, 319-328.	0.3	64
12	High-temperature (1â^'x)BiSc1â^•2Fe1â^•2O3-xPbTiO3 piezoelectric ceramics. Applied Physics Letters, 2005, 87, 242901.	1.5	63
13	Micromechanics of residual stress and texture development due to poling in polycrystalline ferroelectric ceramics. Journal of the Mechanics and Physics of Solids, 2005, 53, 249-260.	2.3	59
14	Field and temperature dependence of dielectric properties in -based piezoceramics. Journal of Physics Condensed Matter, 1998, 10, 461-476.	0.7	47
15	Electrical Properties of Textured Potassium Strontium Niobate (KSr₂Nb₅O₁₅) Ceramics Fabricated by Reactive Templated Grain Growth. Journal of the American Ceramic Society, 2008, 91, 1597-1602.	1.9	47
16	Phase Homogeneity and Segregation in PZT Powders Prepared by Thermal Decomposition of Metal-EDTA Complexes Derived from Nitrate and Chloride Solutions. Journal of the American Ceramic Society, 1992, 75, 124-130.	1.9	46
17	Quenching-assisted actuation mechanisms in coreâ€“shell structured BiFeO₃â€“BaTiO₃ piezoceramics. Journal of Materials Chemistry C, 2019, 7, 10218-10230.	2.7	43
18	Temperature-stable dielectric ceramics based on Na0.5Bi0.5TiO3. Journal of the European Ceramic Society, 2018, 38, 1548-1555.	2.8	38

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19	Phase coexistence in PZT ceramic powders. Nuclear Instruments & Methods in Physics Research B, 1995, 97, 137-141.	0.6	36
20	In-situ XRD study of actuation mechanisms in BiFeO3-K0.5Bi0.5TiO3-PbTiO3 ceramics. Acta Materialia, 2019, 168, 411-425.	3.8	35
21	High temperature piezoelectric ceramics in the Bi(Mg1/2Ti1/2)O3-BiFeO3-BiScO3-PbTiO3 system. Journal of Electroceramics, 2010, 25, 130-134.	0.8	34
22	Ageing of high field dielectric properties in -based piezoceramics. Journal of Physics Condensed Matter, 1998, 10, 9129-9140.	0.7	30
23	Texture of poled tetragonal PZT detected by synchrotron X-ray diffraction and micromechanics analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 409, 206-210.	2.6	30
24	Effects of superimposed electric field and porosity on the hydrostatic pressure-induced rhombohedral to orthorhombic martensitic phase transformation in PZT 95/5 ceramics. Acta Materialia, 2010, 58, 6584-6591.	3.8	29
25	Revisiting the blocking force test on ferroelectric ceramics using high energy x-ray diffraction. Journal of Applied Physics, 2015, 117, 174104.	1.1	26
26	Effects of lanthanum modification on dielectric properties of Pb(Zr0.90,Ti0.10)O3 ceramics: enhanced antiferroelectric stability. Journal of Materials Science, 2008, 43, 6087-6093.	1.7	25
27	Nonlinear dielectric properties of particulate barium titanateâ€“polymer composites. Journal Physics D: Applied Physics, 2008, 41, 115407.	1.3	23
28	A multiscale model for reversible ferroelectric behaviour of polycrystalline ceramics. Mechanics of Materials, 2014, 71, 85-100.	1.7	23
29	Field-induced destabilisation of hard PZT ceramics. Ferroelectrics, 1996, 187, 23-37.	0.3	22
30	Influence of composition and pressure on the electric field-induced antiferroelectric to ferroelectric phase transformation in lanthanum modified lead zirconate titanate ceramics. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1785-1791.	1.7	21
31	Influence of the A and B vacancies on the dielectric and structural properties of the PLZT 8/60/40 ferroelectric ceramic system. Physica B: Condensed Matter, 2011, 406, 1622-1626.	1.3	20
32	Electric fieldâ€induced irreversible relaxor to ferroelectric phase transformations in Na_{0.5}Bi_{0.5}TiO₃â€NaNbO₃ ceramics. Journal of the American Ceramic Society, 2019, 102, 7746-7754.	1.9	20
33	On the synthesis and dielectric studies of (1â^'x)Bi(Mg1/2Zr1/2)O3â^'xPbTiO3 piezoelectric ceramic system. Materials Letters, 2007, 61, 4482-4484.	1.3	19
34	Thermallyâ€induced phase transformations in Na_{0.5}Bi_{0.5}TiO₃â€“KNbO₃ ceramics. Journal of the American Ceramic Society, 2017, 100, 3293-3304.	1.9	19
35	Micromechanics of domain switching in rhombohedral PZT ceramics. Ceramics International, 2008, 34, 679-683.	2.3	17
36	Modeling the dielectric response of lanthanum modified lead zirconate titanate ferroelectric ceramicsâ€”an approach to the phase transitions in relaxor ferroelectrics. Journal of Physics Condensed Matter, 2008, 20, 445230.	0.7	15

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37	Characterisation of microstructure and hardness of perovskite-structured Ba0.5Sr0.5Co0.8Fe0.2O3â^' under different sintering conditions. Journal of the European Ceramic Society, 2016, 36, 1659-1667.	2.8	14
38	Structure and ferroelectric behaviour of Na_{0.5}Bi_{0.5}TiO₃-KNbO₃ceramics. Advances in Applied Ceramics, 2016, 115, 89-95.	0.6	14
39	Electric field-induced strain in core-shell structured BiFeO3K0.5Bi0.5TiO3PbTiO3 ceramics. Acta Materialia, 2018, 160, 199-210.	3.8	14
40	Surface structure and quenching effects in BiFeO₃â€BaTiO₃ ceramics. Journal of the American Ceramic Society, 2022, 105, 1265-1275.	1.9	14
41	EXAFS study on the site preference of Mn in perovskite structure of PZT ceramics. Ceramics International, 2008, 34, 727-729.	2.3	13
42	Structural characterization of the electric field-induced ferroelectric phase in Na0.5Bi0.5TiO3-KNbO3 ceramics. Journal of the European Ceramic Society, 2016, 36, 4015-4021.	2.8	13
43	Effects of metal salts on the thermal decomposition of edta-gel precursors for ferroelectric ceramic powders. Journal of Thermal Analysis, 1994, 42, 823-838.	0.7	12
44	A thermoanalytical study of the metal nitrate-edta precursors for lead zirconate titanate ceramic powders. Journal of Thermal Analysis, 1994, 41, 605-620.	0.7	12
45	In-situneutron diffraction study of the rhombohedral to orthorhombic phase transformation in lead zirconate titanate ceramics produced by uniaxial compression. Philosophical Magazine Letters, 2007, 87, 41-52.	0.5	12
46	Phase transition and dielectric properties of La-doped Pb(Zr, Ti)O3 antiferroelectric ceramics. Solid State Communications, 2009, 149, 1308-1311.	0.9	12
47	Influence of barium borosilicate glass on microstructure and dielectric properties of (Ba,Ca)(Zr,Ti)O3 ceramics. Journal of the European Ceramic Society, 2018, 38, 4422-4432.	2.8	12
48	Structure-property relationships in the lead-free piezoceramic system K0.5Bi0.5TiO3 - BiMg0.5Ti0.5O3. Acta Materialia, 2019, 168, 100-108.	3.8	12
49	Structural and ferroelectric characterization of BMZâ€“BFâ€“PT ceramics. Journal of Electroceramics, 2008, 20, 81-87.	0.8	11
50	Domain switching in rhombohedral PZT ceramics under electrical and mechanical loading. Materials Science and Technology, 2008, 24, 927-933.	0.8	11
51	Ferroelectric and antiferroelectric polarisation switching characteristics of Bi(Mg0.5Ti0.5)O3â€“PbTiO3 ceramics. Journal of Materials Science: Materials in Electronics, 2010, 21, 405-409.	1.1	11
52	Residual stress and domain switching in freeze cast porous barium titanate. Journal of the European Ceramic Society, 2022, 42, 1434-1444.	2.8	11
53	Identification of crystalline elastic anisotropy in PZT ceramics from in-situ blocking stress measurements. Journal of Applied Physics, 2014, 115, 174102.	1.1	10
54	Effects of quenching on phase transformations and ferroelectric properties of 0.35BCZT-0.65KBT ceramics. Journal of the European Ceramic Society, 2019, 39, 4070-4084.	2.8	10

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55	Enhancement of Nonlinear Dielectric Properties in BiFeO3â€“BaTiO3 Ceramics by Nb-Doping. Materials, 2022, 15, 2872.	1.3	10
56	Low field ac study of PZT/PVDF nano composites. Journal of Materials Science: Materials in Electronics, 2013, 24, 979-986.	1.1	9
57	Residual stress relief due to fatigue in tetragonal lead zirconate titanate ceramics. Journal of Applied Physics, 2013, 114, 024103.	1.1	9
58	A multiscale modelling analysis of the contribution of crystalline elastic anisotropy to intergranular stresses in ferroelectric materials. Journal Physics D: Applied Physics, 2014, 47, 325303.	1.3	9
59	Fracture strength and Weibull analysis of Ba 0.5 Sr 0.5 Co 0.8 Fe 0.2 O 3â^Î´ oxygen transport membranes evaluated by biaxial and uniaxial bending tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 292-299.	2.6	9
60	Influence of K 0.5 Bi 0.5 TiO 3 on the structure, dielectric and ferroelectric properties of (Ba,Ca)(Zr,Ti)O 3 ceramics. Journal of the European Ceramic Society, 2018, 38, 2344-2352.	2.8	9
61	Revealing the effects of aerosol deposition on the substrateâ€film interface using NaCl coating. Journal of the American Ceramic Society, 2019, 102, 5763-5771.	1.9	9
62	Synthesis and Dielectric Investigations of (1-x) Bi(Mg1/2Zr1/2)O3â^'xPbTiO3High Temperature Piezoelectric Ceramics. Ferroelectrics, 2007, 346, 72-76.	0.3	8
63	IN-SITU X-RAY DIFFRACTION STUDY OF FERROELECTRIC DOMAIN SWITCHING IN ORTHORHOMBIC NKN CERAMICS. Functional Materials Letters, 2010, 03, 31-34.	0.7	8
64	Direct observation of domain switching and crack nucleation in a piezoelectric material. Ceramics International, 2011, 37, 2185-2191.	2.3	8
65	Lead-free piezoelectric K0.5Bi0.5TiO3â€“Bi(Mg0.5Ti0.5)O3 ceramics with depolarisation temperatures up to ~220ÂÂ°C. Journal of Materials Science: Materials in Electronics, 2015, 26, 9516-9521.	1.1	8
66	New high temperature dielectrics: Bi-free tungsten bronze ceramics with stable permittivity over a very wide temperature range. Journal of the European Ceramic Society, 2021, 41, 3416-3424.	2.8	8
67	Quenching effects and mechanisms in bismuth-based perovskite ferroelectrics. Open Ceramics, 2022, 10, 100259.	1.0	8
68	Investigation of BiFeO3 modified PbTiO3â€“Bi(MgZr)O3-based complex perovskite ceramics. Materials Research Bulletin, 2009, 44, 1405-1410.	2.7	7
69	A case study of mechanical properties of perovskite-structured Ba0.5Sr0.5Co0.8Fe0.2O3â^Î´ oxygen transport membrane. Journal of the European Ceramic Society, 2018, 38, 647-653.	2.8	7
70	Thermally-induced phase transformations in KNNS-BNKZ lead-free piezoceramics. Journal of the European Ceramic Society, 2020, 40, 672-681.	2.8	7
71	The effect of grain size on the high field dielectric properties of hard PZT ceramics. Ferroelectrics, 1999, 223, 309-318.	0.3	6
72	Microstructure and mechanical properties of Ba0.5Sr0.5Co0.8Fe0.2O3â^Î´ perovskite-structured oxides doped with different contents of Ni. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 280-288.	2.6	6

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73	Structural and functional characterisation of KNNSâ€“BNKZ lead-free piezoceramics. Advances in Applied Ceramics, 2018, 117, 42-48.	0.6	6
74	The Effect of Sintering Processes on the Properties of Mn-F Doped PZT Ceramics. Integrated Ferroelectrics, 2004, 62, 61-67.	0.3	5
75	Structural studies of BiFeO3 modified BMZâ€“PT ceramics. Materials Letters, 2007, 61, 3352-3356.	1.3	5
76	Correlative chemical and structural nanocharacterization of a pseudoâ€binary 0.75Bi(Fe_{0.97}Ti_{0.03})O₃â€0.25BaTiO₃ ceramic. Journal of the American Ceramic Society, 2021, 104, 2388-2397.	1.9	5
77	Thermally-induced local structural transformations in Na0.5Bi0.5TiO3-KNbO3 ceramics. Journal of the European Ceramic Society, 2021, 41, 3832-3837.	2.8	5
78	Nonlinear Ferroelectric And Dielectric Properties Of Bi(Mg0.5Ti0.5)O3-PbTiO3 Perovskite Solid Solutions. Advanced Materials Letters, 2012, 3, 92-96.	0.3	5
79	Actuation mechanisms in mixed-phase K0.5Bi0.5TiO3-BiFeO3-PbTiO3 ceramics. Journal of the European Ceramic Society, 2021, 41, 6414-6423.	2.8	4
80	Analysis of the state of poling of lead zirconate titanate (PZT) particles in a Zn-ionomer composite. Ferroelectrics, 2016, 493, 139-150.	0.3	3
81	A case study of the effect of Ni substitution on the sintering behaviours of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â^Î´} oxygen transport membranes. Advances in Applied Ceramics, 2018, 117, 269-278.	0.6	3
82	Subcritical crack growth behavior of a perovskiteâ€structured Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â^Î´} oxygen transport membrane. International Journal of Applied Ceramic Technology, 2018, 15, 63-73.	1.1	3
83	The Use of PbF₂ for Low Temperature Sintering of Lead Zirconate Titanate Ceramics. Integrated Ferroelectrics, 2010, 114, 64-71.	0.3	1
84	P6H-7 Investigation of Morphotropic Phase Boundary PbTiO3-Bi(MgZr)O3 Based Complex Perovskite Ceramics. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	0
85	Influence of Atmospheric Annealing on the Conductivity of Mn-Doped PZT Ceramics. Key Engineering Materials, 2010, 442, 415-421.	0.4	0
86	Predicting grain size distributions in perovskite-structured Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â€Î´} oxygen transport membranes. Advances in Applied Ceramics, 2018, 117, 354-360.	0.6	0
87	Spatially-resolved relaxor to ferroelectric phase switching in 0.93Na1/2Bi1/2TiO3-0.07BaTiO3 ceramics. Journal of Materiomics, 2022, , .	2.8	0