

David A Hall

List of Publications by Year in descending order

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87
papers

2,635
citations

236833

25
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197736

49
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87
all docs

87
docs citations

87
times ranked

2067
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Surface structure and quenching effects in BiFeO ₃ –BaTiO ₃ ceramics. Journal of the American Ceramic Society, 2022, 105, 1265-1275. | 1.9 | 14 |
| 2 | Residual stress and domain switching in freeze cast porous barium titanate. Journal of the European Ceramic Society, 2022, 42, 1434-1444. | 2.8 | 11 |
| 3 | Spatially-resolved relaxor to ferroelectric phase switching in 0.93Na _{1/2} Bi _{1/2} TiO ₃ -0.07BaTiO ₃ ceramics. Journal of Materiomics, 2022, , . | 2.8 | 0 |
| 4 | Enhancement of Nonlinear Dielectric Properties in BiFeO ₃ –BaTiO ₃ Ceramics by Nb-Doping. Materials, 2022, 15, 2872. | 1.3 | 10 |
| 5 | Quenching effects and mechanisms in bismuth-based perovskite ferroelectrics. Open Ceramics, 2022, 10, 100259. | 1.0 | 8 |
| 6 | 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 |
| 7 | Correlative chemical and structural nanocharacterization of a pseudo–binary 0.75Bi(Fe _{0.97} Ti _{0.03})O ₃ –0.25BaTiO ₃ ceramic. Journal of the American Ceramic Society, 2021, 104, 2388-2397. | 1.9 | 5 |
| 8 | Thermally-induced local structural transformations in Na _{0.5} Bi _{0.5} TiO ₃ -KNbO ₃ ceramics. Journal of the European Ceramic Society, 2021, 41, 3832-3837. | 2.8 | 5 |
| 9 | Actuation mechanisms in mixed-phase K _{0.5} Bi _{0.5} TiO ₃ -BiFeO ₃ -PbTiO ₃ ceramics. Journal of the European Ceramic Society, 2021, 41, 6414-6423. | 2.8 | 4 |
| 10 | Thermally-induced phase transformations in KNNS-BNKZ lead-free piezoceramics. Journal of the European Ceramic Society, 2020, 40, 672-681. | 2.8 | 7 |
| 11 | Quenching-assisted actuation mechanisms in core–shell structured BiFeO ₃ –BaTiO ₃ piezoceramics. Journal of Materials Chemistry C, 2019, 7, 10218-10230. | 2.7 | 43 |
| 12 | Electric field–induced irreversible relaxor to ferroelectric phase transformations in Na _{0.5} Bi _{0.5} TiO ₃ –NaNbO ₃ ceramics. Journal of the American Ceramic Society, 2019, 102, 7746-7754. | 1.9 | 20 |
| 13 | Origin of the large electrostrain in BiFeO ₃ -BaTiO ₃ based lead-free ceramics. Journal of Materials Chemistry A, 2019, 7, 21254-21263. | 5.2 | 101 |
| 14 | 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 |
| 15 | Revealing the effects of aerosol deposition on the substrate–film interface using NaCl coating. Journal of the American Ceramic Society, 2019, 102, 5763-5771. | 1.9 | 9 |
| 16 | In-situ XRD study of actuation mechanisms in BiFeO ₃ -K _{0.5} Bi _{0.5} TiO ₃ -PbTiO ₃ ceramics. Acta Materialia, 2019, 168, 411-425. | 3.8 | 35 |
| 17 | Structure-property relationships in the lead-free piezoceramic system K _{0.5} Bi _{0.5} TiO ₃ - BiMg _{0.5} Ti _{0.5} O ₃ . Acta Materialia, 2019, 168, 100-108. | 3.8 | 12 |
| 18 | Predicting grain size distributions in perovskite-structured Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ – δ oxygen transport membranes. Advances in Applied Ceramics, 2018, 117, 354-360. | 0.6 | 0 |

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|----|--|-----|-----------|
| 19 | Temperature-stable dielectric ceramics based on Na _{0.5} Bi _{0.5} TiO ₃ . Journal of the European Ceramic Society, 2018, 38, 1548-1555. | 2.8 | 38 |
| 20 | Optimisation of functional properties in lead-free BiFeO ₃ –BaTiO ₃ ceramics through La ³⁺ substitution strategy. Journal of Materials Chemistry A, 2018, 6, 5378-5397. | 5.2 | 125 |
| 21 | 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 ₃ oxygen transport membranes. Advances in Applied Ceramics, 2018, 117, 269-278. | 0.6 | 3 |
| 22 | 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 |
| 23 | A case study of mechanical properties of perovskite-structured Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ oxygen transport membrane. Journal of the European Ceramic Society, 2018, 38, 647-653. | 2.8 | 7 |
| 24 | Structural and functional characterisation of KNNS–BNKZ lead-free piezoceramics. Advances in Applied Ceramics, 2018, 117, 42-48. | 0.6 | 6 |
| 25 | Chemical heterogeneity and approaches to its control in BiFeO ₃ –BaTiO ₃ lead-free ferroelectrics. Journal of Materials Chemistry C, 2018, 6, 134-146. | 2.7 | 77 |
| 26 | Subcritical crack growth behavior of a perovskite-structured Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ oxygen transport membrane. International Journal of Applied Ceramic Technology, 2018, 15, 63-73. | 1.1 | 3 |
| 27 | Electric field-induced strain in core-shell structured BiFeO ₃ /K _{0.5} Bi _{0.5} TiO ₃ /PbTiO ₃ ceramics. Acta Materialia, 2018, 160, 199-210. | 3.8 | 14 |
| 28 | Influence of barium borosilicate glass on microstructure and dielectric properties of (Ba,Ca)(Zr,Ti)O ₃ ceramics. Journal of the European Ceramic Society, 2018, 38, 4422-4432. | 2.8 | 12 |
| 29 | Thermally-induced phase transformations in Na _{0.5} Bi _{0.5} TiO ₃ –KNbO ₃ ceramics. Journal of the American Ceramic Society, 2017, 100, 3293-3304. | 1.9 | 19 |
| 30 | Structural characterization of the electric field-induced ferroelectric phase in Na _{0.5} Bi _{0.5} TiO ₃ -KNbO ₃ ceramics. Journal of the European Ceramic Society, 2016, 36, 4015-4021. | 2.8 | 13 |
| 31 | Fracture strength and Weibull analysis of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ 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 |
| 32 | Microstructure and mechanical properties of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ 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 |
| 33 | Characterisation of microstructure and hardness of perovskite-structured Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ under different sintering conditions. Journal of the European Ceramic Society, 2016, 36, 1659-1667. | 2.8 | 14 |
| 34 | Structure and ferroelectric behaviour of Na _{0.5} Bi _{0.5} TiO ₃ -KNbO ₃ ceramics. Advances in Applied Ceramics, 2016, 115, 89-95. | 0.6 | 14 |
| 35 | 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 |
| 36 | Revisiting the blocking force test on ferroelectric ceramics using high energy x-ray diffraction. Journal of Applied Physics, 2015, 117, 174104. | 1.1 | 26 |

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|----|---|-----|-----------|
| 37 | Lead-free piezoelectric $\text{K}_{0.5}\text{Bi}_{0.5}\text{TiO}_3\text{-Bi}(\text{Mg}_{0.5}\text{Ti}_{0.5})\text{O}_3$ ceramics with depolarisation temperatures up to $\sim 220^\circ\text{C}$. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 9516-9521. | 1.1 | 8 |
| 38 | A multiscale modelling analysis of the contribution of crystalline elastic anisotropy to intergranular stresses in ferroelectric materials. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 325303. | 1.3 | 9 |
| 39 | Identification of crystalline elastic anisotropy in PZT ceramics from in-situ blocking stress measurements. <i>Journal of Applied Physics</i> , 2014, 115, 174102. | 1.1 | 10 |
| 40 | A multiscale model for reversible ferroelectric behaviour of polycrystalline ceramics. <i>Mechanics of Materials</i> , 2014, 71, 85-100. | 1.7 | 23 |
| 41 | Low field ac study of PZT/PVDF nano composites. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 979-986. | 1.1 | 9 |
| 42 | Residual stress relief due to fatigue in tetragonal lead zirconate titanate ceramics. <i>Journal of Applied Physics</i> , 2013, 114, 024103. | 1.1 | 9 |
| 43 | Nonlinear Ferroelectric And Dielectric Properties Of $\text{Bi}(\text{Mg}_{0.5}\text{Ti}_{0.5})\text{O}_3\text{-PbTiO}_3$ Perovskite Solid Solutions. <i>Advanced Materials Letters</i> , 2012, 3, 92-96. | 0.3 | 5 |
| 44 | Direct observation of domain switching and crack nucleation in a piezoelectric material. <i>Ceramics International</i> , 2011, 37, 2185-2191. | 2.3 | 8 |
| 45 | Influence of the A and B vacancies on the dielectric and structural properties of the PLZT 8/60/40 ferroelectric ceramic system. <i>Physica B: Condensed Matter</i> , 2011, 406, 1622-1626. | 1.3 | 20 |
| 46 | Microstructure and piezoelectric properties of CuO added (K, Na, Li)NbO ₃ lead-free piezoelectric ceramics. <i>Journal of the European Ceramic Society</i> , 2011, 31, 569-576. | 2.8 | 77 |
| 47 | High temperature piezoelectric ceramics in the $\text{Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3\text{-BiFeO}_3\text{-BiScO}_3\text{-PbTiO}_3$ system. <i>Journal of Electroceramics</i> , 2010, 25, 130-134. | 0.8 | 34 |
| 48 | Ferroelectric and antiferroelectric polarisation switching characteristics of $\text{Bi}(\text{Mg}_{0.5}\text{Ti}_{0.5})\text{O}_3\text{-PbTiO}_3$ ceramics. <i>Journal of Materials Science: Materials in Electronics</i> , 2010, 21, 405-409. | 1.1 | 11 |
| 49 | Effects of superimposed electric field and porosity on the hydrostatic pressure-induced rhombohedral to orthorhombic martensitic phase transformation in PZT 95/5 ceramics. <i>Acta Materialia</i> , 2010, 58, 6584-6591. | 3.8 | 29 |
| 50 | Influence of Atmospheric Annealing on the Conductivity of Mn-Doped PZT Ceramics. <i>Key Engineering Materials</i> , 2010, 442, 415-421. | 0.4 | 0 |
| 51 | IN-SITU X-RAY DIFFRACTION STUDY OF FERROELECTRIC DOMAIN SWITCHING IN ORTHORHOMBIC NKN CERAMICS. <i>Functional Materials Letters</i> , 2010, 03, 31-34. | 0.7 | 8 |
| 52 | The Use of PbF_2 for Low Temperature Sintering of Lead Zirconate Titanate Ceramics. <i>Integrated Ferroelectrics</i> , 2010, 114, 64-71. | 0.3 | 1 |
| 53 | Influence of composition and pressure on the electric field-induced antiferroelectric to ferroelectric phase transformation in lanthanum modified lead zirconate titanate ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009, 56, 1785-1791. | 1.7 | 21 |
| 54 | Investigation of BiFeO ₃ modified $\text{PbTiO}_3\text{-Bi}(\text{MgZr})\text{O}_3$ -based complex perovskite ceramics. <i>Materials Research Bulletin</i> , 2009, 44, 1405-1410. | 2.7 | 7 |

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|----|---|-----|-----------|
| 55 | Phase transition and dielectric properties of La-doped Pb(Zr, Ti)O ₃ antiferroelectric ceramics. Solid State Communications, 2009, 149, 1308-1311. | 0.9 | 12 |
| 56 | Structural and ferroelectric characterization of BMZâ€“BFâ€“PT ceramics. Journal of Electroceramics, 2008, 20, 81-87. | 0.8 | 11 |
| 57 | Effects of lanthanum modification on dielectric properties of Pb(Zr _{0.90} ,Ti _{0.10})O ₃ ceramics: enhanced antiferroelectric stability. Journal of Materials Science, 2008, 43, 6087-6093. | 1.7 | 25 |
| 58 | Micromechanics of domain switching in rhombohedral PZT ceramics. Ceramics International, 2008, 34, 679-683. | 2.3 | 17 |
| 59 | EXAFS study on the site preference of Mn in perovskite structure of PZT ceramics. Ceramics International, 2008, 34, 727-729. | 2.3 | 13 |
| 60 | Electrical Properties of Textured Potassium Strontium Niobate (K ₂ Sr ₂ Nb ₅ O ₁₅) Ceramics Fabricated by Reactive Templated Grain Growth. Journal of the American Ceramic Society, 2008, 91, 1597-1602. | 1.9 | 47 |
| 61 | Nonlinear dielectric properties of particulate barium titanateâ€“polymer composites. Journal Physics D: Applied Physics, 2008, 41, 115407. | 1.3 | 23 |
| 62 | Domain switching in rhombohedral PZT ceramics under electrical and mechanical loading. Materials Science and Technology, 2008, 24, 927-933. | 0.8 | 11 |
| 63 | 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 |
| 64 | P6H-7 Investigation of Morphotropic Phase Boundary PbTiO ₃ -Bi(MgZr)O ₃ Based Complex Perovskite Ceramics. Proceedings IEEE Ultrasonics Symposium, 2007, , . | 0.0 | 0 |
| 65 | 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 |
| 66 | Synthesis and Dielectric Investigations of (1-x) Bi(Mg _{1/2} Zr _{1/2})O ₃ âˆ“xPbTiO ₃ High Temperature Piezoelectric Ceramics. Ferroelectrics, 2007, 346, 72-76. | 0.3 | 8 |
| 67 | Structural studies of BiFeO ₃ modified BMZâ€“PT ceramics. Materials Letters, 2007, 61, 3352-3356. | 1.3 | 5 |
| 68 | On the synthesis and dielectric studies of (1âˆ“x)Bi(Mg _{1/2} Zr _{1/2})O ₃ âˆ“xPbTiO ₃ piezoelectric ceramic system. Materials Letters, 2007, 61, 4482-4484. | 1.3 | 19 |
| 69 | Analysis of elastic strain and crystallographic texture in poled rhombohedral PZT ceramics. Acta Materialia, 2006, 54, 3075-3083. | 3.8 | 76 |
| 70 | 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 |
| 71 | 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 |
| 72 | High-temperature (1âˆ“x)BiSc _{1âˆ“2} Fe _{1âˆ“2} O ₃ -xPbTiO ₃ piezoelectric ceramics. Applied Physics Letters, 2005, 87, 242901. | 1.5 | 63 |

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|----|---|-----|-----------|
| 73 | The Effect of Sintering Processes on the Properties of Mn-F Doped PZT Ceramics. Integrated Ferroelectrics, 2004, 62, 61-67. | 0.3 | 5 |
| 74 | 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 |
| 75 | The effect of retarders on the microstructure and mechanical properties of magnesia-phosphate cement mortar. Cement and Concrete Research, 2001, 31, 455-465. | 4.6 | 170 |
| 76 | Review Nonlinearity in piezoelectric ceramics. Journal of Materials Science, 2001, 36, 4575-4601. | 1.7 | 435 |
| 77 | The effect of grain size on the high field dielectric properties of hard PZT ceramics. Ferroelectrics, 1999, 223, 309-318. | 0.3 | 6 |
| 78 | Rayleigh behaviour and the threshold field in ferroelectric ceramics. Ferroelectrics, 1999, 223, 319-328. | 0.3 | 64 |
| 79 | High field dielectric behaviour of ferroelectric ceramics. Ferroelectrics, 1999, 228, 139-158. | 0.3 | 96 |
| 80 | Ageing of high field dielectric properties in -based piezoceramics. Journal of Physics Condensed Matter, 1998, 10, 9129-9140. | 0.7 | 30 |
| 81 | Field and temperature dependence of dielectric properties in -based piezoceramics. Journal of Physics Condensed Matter, 1998, 10, 461-476. | 0.7 | 47 |
| 82 | Effect of Water Content on the Structure and Mechanical Properties of Magnesia-Phosphate Cement Mortar. Journal of the American Ceramic Society, 1998, 81, 1550-1556. | 1.9 | 81 |
| 83 | Field-induced destabilisation of hard PZT ceramics. Ferroelectrics, 1996, 187, 23-37. | 0.3 | 22 |
| 84 | Phase coexistence in PZT ceramic powders. Nuclear Instruments & Methods in Physics Research B, 1995, 97, 137-141. | 0.6 | 36 |
| 85 | 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 |
| 86 | 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 |
| 87 | 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 |