

Tom Baikie

List of Publications by Year in descending order

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56
papers

7,804
citations

218381

26
h-index

149479

56
g-index

60
all docs

60
docs citations

60
times ranked

10001
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Synthesis and crystal chemistry of the hybrid perovskite (CH ₃ NH ₃)PbI ₃ for solid-state sensitised solar cell applications. <i>Journal of Materials Chemistry A</i> , 2013, 1, 5628. | 5.2 | 2,254 |
| 2 | Lead-free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. <i>Advanced Materials</i> , 2014, 26, 7122-7127. | 11.1 | 942 |
| 3 | Lead-free germanium iodide perovskite materials for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23829-23832. | 5.2 | 841 |
| 4 | Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16458-16462. | 1.5 | 657 |
| 5 | Band-gap tuning of lead halide perovskites using a sequential deposition process. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9221-9225. | 5.2 | 494 |
| 6 | Lead-Free MA ₂ CuCl ₄ Hybrid Perovskites. <i>Inorganic Chemistry</i> , 2016, 55, 1044-1052. | 1.9 | 457 |
| 7 | Impact of Anionic Br ⁻ Substitution on Open Circuit Voltage in Lead Free Perovskite (CsSn _{3-x} Br _x) Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1763-1767. | 1.5 | 332 |
| 8 | A combined single crystal neutron/X-ray diffraction and solid-state nuclear magnetic resonance study of the hybrid perovskites CH ₃ NH ₃ PbX ₃ (X = I, Br and Cl). <i>Journal of Materials Chemistry A</i> , 2015, 3, 9298-9307. | 5.2 | 253 |
| 9 | Hierarchical Porous LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ Nano-/Micro Spherical Cathode Material: Minimized Cation Mixing and Improved Li ⁺ Mobility for Enhanced Electrochemical Performance. <i>Scientific Reports</i> , 2016, 6, 25771. | 1.6 | 178 |
| 10 | Pressure-Dependent Polymorphism and Band-Gap Tuning of Methylammonium Lead Iodide Perovskite. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6540-6544. | 7.2 | 157 |
| 11 | Understanding the Synthetic Pathway of a Single-Phase Quaternary Semiconductor Using Surface-Enhanced Raman Scattering: A Case of Wurtzite Cu ₂ ZnSnS ₄ Nanoparticles. <i>Journal of the American Chemical Society</i> , 2014, 136, 6684-6692. | 6.6 | 129 |
| 12 | Spinel Co ₃ O ₄ nanomaterials for efficient and stable large area carbon-based printed perovskite solar cells. <i>Nanoscale</i> , 2018, 10, 2341-2350. | 2.8 | 106 |
| 13 | Superior Performance of Silver Bismuth Iodide Photovoltaics Fabricated via Dynamic Hot-Casting Method under Ambient Conditions. <i>Advanced Energy Materials</i> , 2018, 8, 1802051. | 10.2 | 84 |
| 14 | Phase Transitions of Formamidinium Lead Iodide Perovskite under Pressure. <i>Journal of the American Chemical Society</i> , 2018, 140, 13952-13957. | 6.6 | 78 |
| 15 | Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. <i>Nanoscale</i> , 2014, 6, 13854-13860. | 2.8 | 76 |
| 16 | Cu-doped nickel oxide interface layer with nanoscale thickness for efficient and highly stable printable carbon-based perovskite solar cell. <i>Solar Energy</i> , 2019, 182, 225-236. | 2.9 | 58 |
| 17 | Photovoltaic effect in earth abundant solution processed Cu ₂ MnSnS ₄ and Cu ₂ MnSn(S,Se) ₄ thin films. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 867-873. | 3.0 | 57 |
| 18 | Triclinic apatites. <i>Acta Crystallographica Section B: Structural Science</i> , 2007, 63, 251-256. | 1.8 | 40 |

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|----|--|-----|-----------|
| 19 | The crystal chemistry of the alkaline-earth apatites $A_{10}(PO_4)_6CuxOy(H)_z$ ($A = Ca, Sr$ and Ba). Dalton Transactions, 2009, , 6722. | 1.6 | 39 |
| 20 | Correlation of Local Structure and Diffusion Pathways in the Modulated Anisotropic Oxide Ion Conductor $CeNbO_{4.25}$. Journal of the American Chemical Society, 2016, 138, 1273-1279. | 6.6 | 34 |
| 21 | Five-Dimensional Incommensurate Structure of the Melilite Electrolyte $[CaNd]_2[Ca]_2[Ga_2O_7]_2$. Journal of the American Chemical Society, 2011, 133, 15200-15211. | 6.6 | 32 |
| 22 | Strategies for the Optimisation of the Oxide Ion Conductivities of Apatite-type Germanates. Fuel Cells, 2011, 11, 10-16. | 1.5 | 32 |
| 23 | Polysomatic apatites. Acta Crystallographica Section B: Structural Science, 2010, 66, 1-16. | 1.8 | 30 |
| 24 | Apatite metaprisim twist angle (\hat{t}) as a tool for crystallochemical diagnosis. Journal of Solid State Chemistry, 2011, 184, 2978-2986. | 1.4 | 30 |
| 25 | The crystallographic and magnetic characteristics of Sr_2CrO_4 (K ₂ NiF ₄ -type) and $Sr_{10}(CrO_4)_6F_2$ (apatite-type). Journal of Solid State Chemistry, 2007, 180, 1538-1546. | 1.4 | 28 |
| 26 | Effect of Formamidinium/Cesium Substitution and PbI_2 on the Long-Term Stability of Triple-Cation Perovskites. ChemSusChem, 2017, 10, 3804-3809. | 3.6 | 28 |
| 27 | Crystal Chemistry and Antibacterial Properties of Cupriferous Hydroxyapatite. Materials, 2019, 12, 1814. | 1.3 | 27 |
| 28 | Fergusonite-type $CeNbO_{4+}$: Single crystal growth, symmetry revision and conductivity. Journal of Solid State Chemistry, 2013, 204, 291-297. | 1.4 | 25 |
| 29 | Anisotropic oxide ion conduction in melilite intermediate temperature electrolytes. Journal of Materials Chemistry A, 2015, 3, 3091-3096. | 5.2 | 25 |
| 30 | Pressure-Dependent Polymorphism and Band-Gap Tuning of Methylammonium Lead Iodide Perovskite. Angewandte Chemie, 2016, 128, 6650-6654. | 1.6 | 24 |
| 31 | Revealing Cation-Exchange-Induced Phase Transformations in Multielemental Chalcogenide Nanoparticles. Chemistry of Materials, 2017, 29, 9192-9199. | 3.2 | 19 |
| 32 | Investigating the feasibility of symmetric guanidinium based plumbate perovskites in prototype solar cell devices. Japanese Journal of Applied Physics, 2017, 56, 08MC05. | 0.8 | 19 |
| 33 | Crystallographic Correlations with Anisotropic Oxide Ion Conduction in Aluminum-Doped Neodymium Silicate Apatite Electrolytes. Chemistry of Materials, 2013, 25, 1109-1120. | 3.2 | 18 |
| 34 | Crystal Chemistry of Melilite $[CaLa]_2[Ca]_2[Ga_2O_7]_2$: a Five Dimensional Solid Electrolyte. Inorganic Chemistry, 2012, 51, 5941-5949. | 1.9 | 16 |
| 35 | Hybrid Nanomaterials with Single-Site Catalysts by Spatially Controllable Immobilization of Nickel Complexes via Photoclick Chemistry for Alkene Epoxidation. ACS Nano, 2018, 12, 5903-5912. | 7.3 | 16 |
| 36 | Crystal chemistry and optimization of conductivity in 2A, 2M and 2H alkaline earth lanthanum germanate oxyapatite electrolyte polymorphs. Solid State Ionics, 2010, 181, 1189-1196. | 1.3 | 15 |

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|----|--|-----|-----------|
| 37 | Pseudomorphic 2A ²⁺ 2M ²⁺ 2H phase transitions in lanthanum strontium germanate electrolyte apatites. Dalton Transactions, 2009, , 8280. | 1.6 | 14 |
| 38 | Hydrothermal Synthesis, Structure Investigation, and Oxide Ion Conductivity of Mixed Si/Ge-Based Apatite-Type Phases. Inorganic Chemistry, 2014, 53, 4803-4812. | 1.9 | 14 |
| 39 | Structure and Thermal Expansion of Calcium-Thorium Apatite, [Ca ₄] ^F [Ca ₂ Th ₄] ^T [(SiO ₄) ₆]O ₂ . Inorganic Chemistry, 2015, 54, 11356-11361. | | |
| 40 | Crystal chemistry of mimetite, Pb ₁₀ (AsO ₄) ₆ Cl _{1.48} O _{0.26} , and finnemanite, Pb ₁₀ (AsO ₃) ₆ Cl ₂ . Acta Crystallographica Section B: Structural Science, 2008, 64, 34-41. | 1.8 | 13 |
| 41 | Catalytic effect of Bi 5+ in enhanced solar water splitting of tetragonal BiV 0.8 Mo 0.2 O 4. Applied Catalysis A: General, 2016, 526, 21-27. | 2.2 | 12 |
| 42 | Interstitial Oxide Ion Distribution and Transport Mechanism in Aluminum-Doped Neodymium Silicate Apatite Electrolytes. Journal of the American Chemical Society, 2016, 138, 4468-4483. | 6.6 | 12 |
| 43 | Defects in the new oxide-fluoride Ba ₂ PdO ₂ F ₂ : the search for fluoride needles in an oxide haystack. Journal of Materials Chemistry, 2005, 15, 119. | 6.7 | 10 |
| 44 | Single crystal growth of apatite-type Al-doped neodymium silicates by the floating zone method. Journal of Crystal Growth, 2011, 333, 70-73. | 0.7 | 9 |
| 45 | A multi-domain gem-grade Brazilian apatite. American Mineralogist, 2012, 97, 1574-1581. | 0.9 | 9 |
| 46 | Crystal Chemical Analysis of Nd _{9.33} Si ₆ O ₂₆ and Nd ₈ Sr ₂ Si ₆ O ₂₆ Apatite Electrolytes Using Aberration-Corrected Scanning Transmission Electron Microscopy and Impedance Spectroscopy. Chemistry of Materials, 2015, 27, 1217-1222. | 3.2 | 8 |
| 47 | Structural Study of the Apatite Nd ₈ Sr ₂ Si ₆ O ₂₆ by Laue Neutron Diffraction and Single-Crystal Raman Spectroscopy. Inorganic Chemistry, 2014, 53, 9416-9423. | 1.9 | 7 |
| 48 | Pressure-Induced Phase Transitions and Bandgap-Tuning Effect of Methylammonium Lead Iodide Perovskite. MRS Advances, 2018, 3, 1825-1830. | 0.5 | 7 |
| 49 | Synthesis and characterisation of vanadium doped alkaline earth lanthanum germanate oxyapatite electrolyte. Journal of Materials Chemistry, 2012, 22, 2658-2669. | 6.7 | 6 |
| 50 | Ex situ XAS investigation of effect of binders on electrochemical performance of Li ₂ Fe(SO ₄) ₂ cathode. Journal of Materials Chemistry A, 2017, 5, 19963-19971. | 5.2 | 4 |
| 51 | Observation of atomic scale compositional and displacive modulations in incommensurate melilite electrolytes. Journal of Solid State Chemistry, 2013, 203, 291-296. | 1.4 | 3 |
| 52 | Structural, Thermal, and Electrochemical Studies of Novel Li ₂ Co _x Mn _{1-x} (SO ₄) ₂ Bimetallic Sulfates. Journal of Physical Chemistry C, 2017, 121, 24971-24978. | 1.5 | 3 |
| 53 | Molecular design of two-dimensional perovskite cations for efficient energy cascade in perovskite light-emitting diodes. Applied Physics Letters, 2021, 119, 154101. | 1.5 | 3 |
| 54 | Oxygen Migration in Dense Spark Plasma Sintered Aluminum-Doped Neodymium Silicate Apatite Electrolytes. Journal of the American Ceramic Society, 2013, 96, 3457-3462. | 1.9 | 2 |

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|----|---|-----|-----------|
| 55 | Electronic and Geometric Structures of Rechargeable Lithium Manganese Sulfate $\text{Li}_2\text{Mn}(\text{SO}_4)_2$ Cathode. ACS Omega, 2019, 4, 11338-11345. | 1.6 | 2 |
| 56 | Synthesis and Characterization of Apatite Wasteforms Using Simulated Radioactive Liquid Waste. Chemistry Letters, 2019, 48, 881-884. | 0.7 | 2 |