

Sean R Bishop

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

2,459
citations

218677

26
h-index

197818

49
g-index

52
all docs

52
docs citations

52
times ranked

3127
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Threshold catalytic onset of carbon formation on CeO ₂ during CO ₂ electrolysis: mechanism and inhibition. Journal of Materials Chemistry A, 2019, 7, 15233-15243. | 10.3 | 19 |
| 2 | Electro-chemo-mechanical studies of perovskite-structured mixed ionic-electronic conducting SrSn _{1-x} FexO _{3-x/2+Î} Part III: Thermal and chemical expansion. Journal of Electroceramics, 2018, 40, 332-337. | 2.0 | 3 |
| 3 | Surface Defect Chemistry and Electronic Structure of Pr _{0.1} Ce _{0.9} O _{2+Î} Revealed in Operando. Chemistry of Materials, 2018, 30, 2600-2606. | 6.7 | 24 |
| 4 | Electro-chemo-mechanical studies of perovskite-structured mixed ionic-electronic conducting SrSn _{1-x} FexO _{3-x/2+Î} part II: Electrical conductivity and cathode performance. Journal of Electroceramics, 2018, 40, 57-64. | 2.0 | 3 |
| 5 | Electrochemically Triggered Metal-Insulator Transition between VO ₂ and V ₂ O ₅ . Advanced Functional Materials, 2018, 28, 1803024. | 14.9 | 46 |
| 6 | Electro-chemo-mechanical studies of perovskite-structured mixed ionic-electronic conducting SrSn _{1-x} FexO _{3-x/2+Î} part I: Defect chemistry. Journal of Electroceramics, 2017, 38, 74-80. | 2.0 | 6 |
| 7 | Compliant Yet Brittle Mechanical Behavior of Li ₂ S-P ₂ S ₅ Lithium- Conducting Solid Electrolyte. Advanced Energy Materials, 2017, 7, 1602011. | 19.5 | 219 |
| 8 | Defect Chemistry of Pr Doped Ceria Thin Films Investigated by <i>in Situ</i> Optical and Impedance Measurements. Chemistry of Materials, 2017, 29, 1999-2007. | 6.7 | 27 |
| 9 | Role of grain size on redox induced compositional stresses in Pr doped ceria thin films. Physical Chemistry Chemical Physics, 2017, 19, 12206-12220. | 2.8 | 6 |
| 10 | Dynamic chemical expansion of thin-film non-stoichiometric oxides at extreme temperatures. Nature Materials, 2017, 16, 749-754. | 27.5 | 46 |
| 11 | Enhanced sensing response of solid-electrolyte gas sensors to toluene: Role of composite Au/metal oxide sensing electrode. Sensors and Actuators B: Chemical, 2017, 252, 268-276. | 7.8 | 36 |
| 12 | CeO ₂ Nanorods and Nanocubes: Impact of Nanoparticle Shape on Dilatometry and Electrical Properties. Journal of the American Ceramic Society, 2016, 99, 2415-2421. | 3.8 | 4 |
| 13 | Praseodymium Cuprate Thin Film Cathodes for Intermediate Temperature Solid Oxide Fuel Cells: Roles of Doping, Orientation, and Crystal Structure. ACS Applied Materials & Interfaces, 2016, 8, 34295-34302. | 8.0 | 11 |
| 14 | Tunable Mixed Ionic/Electronic Conductivity and Permittivity of Graphene Oxide Paper for Electrochemical Energy Conversion. ACS Applied Materials & Interfaces, 2016, 8, 11466-11475. | 8.0 | 44 |
| 15 | Oxygen diffusion and surface exchange in the mixed conducting oxides SrTi _{1-y} FexO _{3+Î} . Physical Chemistry Chemical Physics, 2016, 18, 29495-29505. | 2.8 | 43 |
| 16 | Operando reduction of elastic modulus in (Pr, Ce)O _{2+Î} thin films. Acta Materialia, 2016, 105, 16-24. | 7.9 | 24 |
| 17 | Understanding chemical expansion in perovskite-structured oxides. Physical Chemistry Chemical Physics, 2015, 17, 10028-10039. | 2.8 | 89 |
| 18 | Strongly coupled thermal and chemical expansion in the perovskite oxide system Sr(Ti,Fe)O _{3+Î±} . Journal of Materials Chemistry A, 2015, 3, 3602-3611. | 10.3 | 48 |

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|----|--|------|-----------|
| 19 | Improving the Si Impurity Tolerance of Pr _{0.1} Ce _{0.9} O ₂ SOFC Electrodes with Reactive Surface Additives. Chemistry of Materials, 2015, 27, 3065-3070. | 6.7 | 37 |
| 20 | Impact of alkoxy chain length on carbazole-based, visible light-driven, dye sensitized photocatalytic hydrogen production. Journal of Materials Chemistry A, 2015, 3, 21713-21721. | 10.3 | 33 |
| 21 | Defect chemistry and surface oxygen exchange kinetics of La-doped Sr(Ti,Fe)O ₃ in oxygen-rich atmospheres. Solid State Ionics, 2015, 273, 18-24. | 2.7 | 26 |
| 22 | Editorial for the JECR special issue on electro-chemo-mechanics. Journal of Electroceramics, 2014, 32, 1-2. | 2.0 | 2 |
| 23 | Investigation of Nonstoichiometry in Oxide Thin Films by Simultaneous <i>in Situ</i> Optical Absorption and Chemical Capacitance Measurements: Pr-Doped Ceria, a Case Study. Chemistry of Materials, 2014, 26, 1374-1379. | 6.7 | 41 |
| 24 | Nonstoichiometry in Oxide Thin Films Operating under Anodic Conditions: A Chemical Capacitance Study of the Praseodymium-Cerium Oxide System. Chemistry of Materials, 2014, 26, 6622-6627. | 6.7 | 39 |
| 25 | Tailoring chemical expansion by controlling charge localization: in situ X-ray diffraction and dilatometric study of (La,Sr)(Ga,Ni)O ₃ perovskite. Journal of Materials Chemistry A, 2014, 2, 18906-18916. | 10.3 | 28 |
| 26 | Defining chemical expansion: the choice of units for the stoichiometric expansion coefficient. Physical Chemistry Chemical Physics, 2014, 16, 9229-9232. | 2.8 | 19 |
| 27 | In Situ Electrical Characterization of Anatase TiO ₂ Quantum Dots. Advanced Functional Materials, 2014, 24, 4952-4958. | 14.9 | 14 |
| 28 | Chemically-induced expansion of Zr _{0.2} Ce _{0.8} O ₂ . Solid State Ionics, 2014, 261, 1-4. | 2.7 | 12 |
| 29 | Chemical expansion and its dependence on the host cation radius. Journal of Materials Chemistry A, 2013, 1, 7673. | 10.3 | 49 |
| 30 | Cathodic and defect properties of Ba _x Sr _{1-x} Ti _{1-y} Fe _y O _{3+y/2} mixed conducting oxides. Solid State Ionics, 2013, 230, 2-6. | 2.7 | 13 |
| 31 | Kinetics of Schottky defect formation and annihilation in single crystal TlBr. Physical Chemistry Chemical Physics, 2013, 15, 11926. | 2.8 | 5 |
| 32 | Nonstoichiometry in Oxide Thin Films: A Chemical Capacitance Study of the Praseodymium-Cerium Oxide System. Advanced Functional Materials, 2013, 23, 2168-2174. | 14.9 | 58 |
| 33 | Oxygen Nonstoichiometry and Defect Chemistry of Perovskite-Structured Ba _x Sr _{1-x} Ti _{1-y} Fe _y O _{3+y/2} Solid Solutions. Chemistry of Materials, 2013, 25, 2970-2975. | 6.7 | 28 |
| 34 | Defects and transport in Pr _x Ce _{1-x} O ₂ : Composition trends. Journal of Materials Research, 2012, 27, 2009-2016. | 2.6 | 56 |
| 35 | The defect and transport properties of acceptor doped TlBr: role of dopant exsolution and association. Physical Chemistry Chemical Physics, 2012, 14, 10160. | 2.8 | 12 |
| 36 | Optically derived energy band gap states of Pr in ceria. Solid State Ionics, 2012, 225, 198-200. | 2.7 | 26 |

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|----|---|------|-----------|
| 37 | Charge localization increases chemical expansion in cerium-based oxides. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 12070. | 2.8 | 68 |
| 38 | Understanding Chemical Expansion in Non-Stoichiometric Oxides: Ceria and Zirconia Case Studies. <i>Advanced Functional Materials</i> , 2012, 22, 1958-1965. | 14.9 | 305 |
| 39 | Praseodymium-cerium oxide thin film cathodes: Study of oxygen reduction reaction kinetics. <i>Journal of Electroceramics</i> , 2012, 28, 62-69. | 2.0 | 78 |
| 40 | (High Temperature Materials Division Outstanding Achievement Award) Measurement and Modeling of Electrical, Mechanical, and Chemical Properties of a Model Mixed Ionic Electronic Conductor: Pr Doped Ceria. <i>ECS Transactions</i> , 2011, 33, 51-57. | 0.5 | 11 |
| 41 | Chemical Expansion and Frozen-In Oxygen Vacancies in Pr-Doped Ceria. <i>ECS Transactions</i> , 2011, 35, 1131-1136. | 0.5 | 5 |
| 42 | Nano-Structured Materials for Next Generation Fuel Cells and Photoelectrochemical Devices. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1326, 1. | 0.1 | 1 |
| 43 | Point Defects in Oxides: Tailoring Materials Through Defect Engineering. <i>Annual Review of Materials Research</i> , 2011, 41, 369-398. | 9.3 | 302 |
| 44 | Electrical conductivity and defect equilibria of Pr _{0.1} Ce _{0.9} O _{2-δ} . <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 10165. | 2.8 | 138 |
| 45 | Chemical expansion of nonstoichiometric Pr _{0.1} Ce _{0.9} O _{2-δ} : Correlation with defect equilibrium model. <i>Journal of the European Ceramic Society</i> , 2011, 31, 2351-2356. | 5.7 | 74 |
| 46 | Mechanical, Electrical, and Optical Properties of (Pr,Ce)O ₂ Solid Solutions: Kinetic Studies. <i>ECS Transactions</i> , 2011, 35, 1137-1144. | 0.5 | 14 |
| 47 | Tailoring Material Properties through Defect Engineering. <i>Chemistry Letters</i> , 2010, 39, 1226-1231. | 1.3 | 28 |
| 48 | Enhanced long-term stability of bismuth oxide-based electrolytes for operation at 500°C. <i>Ionics</i> , 2010, 16, 97-103. | 2.4 | 34 |
| 49 | Thermo-Chemical Expansion in Strontium-Doped Lanthanum Cobalt Iron Oxide. <i>Journal of the American Ceramic Society</i> , 2010, 93, 4115-4121. | 3.8 | 61 |
| 50 | The role of point defects in the physical properties of nonstoichiometric ceria. <i>Journal of Applied Physics</i> , 2007, 101, 044906. | 2.5 | 38 |
| 51 | Role of Point Defects in the Physical Properties of Fluorite Oxides. <i>Journal of the American Ceramic Society</i> , 2006, 89, 3162-3166. | 3.8 | 74 |