

# Stefan Baumann

## List of Publications by Year in descending order

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113  
papers

4,140  
citations

201575

27  
h-index

118793

62  
g-index

120  
all docs

120  
docs citations

120  
times ranked

3281  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Phase formation and performance of solid state reactive sintered $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2\lambda}$ $\text{FeCo}_2\text{O}_4$ composites. Journal of Materials Chemistry A, 2022, 10, 2412-2420.  | 5.2  | 7         |
| 2  | Tuning the ceria interfaces inside the dual phase oxygen transport membranes. Acta Materialia, 2022, 226, 117603.  | 3.8  | 3         |
| 3  | A review on dual-phase oxygen transport membranes: from fundamentals to commercial deployment. Journal of Materials Chemistry A, 2022, 10, 2152-2195.  | 5.2  | 31        |
| 4  | Sealing behaviour of glass-based composites for oxygen transport membranes. Journal of the European Ceramic Society, 2022, , .   | 2.8  | 4         |
| 5  | Tape-casting and freeze-drying gadolinia-doped ceria composite membranes for carbon dioxide permeation. Journal of Membrane Science, 2022, 648, 120355.  | 4.1  | 5         |
| 6  | Performance study of asymmetric oxygen transport membranes with vertically channelled pores by phase inversion tape casting. Open Ceramics, 2022, 9, 100248.   | 1.0  | 0         |
| 7  | The in situ generated emerging phase inside dual phase oxygen transport membranes. Acta Materialia, 2022, 234, 118034.   | 3.8  | 3         |
| 8  | Sensitivity of Material, Microstructure and Operational Parameters on the Performance of Asymmetric Oxygen Transport Membranes: Guidance from Modeling. Membranes, 2022, 12, 614.  | 1.4  | 3         |
| 9  | The Development of New Perovskite-Type Oxygen Transport Membranes Using Machine Learning. Crystals, 2022, 12, 947.   | 1.0  | 4         |
| 10 | Optimization of sintering conditions for improved microstructural and mechanical properties of dense $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2\lambda}$ - $\text{FeCo}_2\text{O}_4$ oxygen transport membranes. Journal of the European Ceramic Society, 2021, 41, 509-516. | 2.8  | 15        |
| 11 | Mechanical reliability of $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2\lambda}$ $\text{FeCo}_2\text{O}_4$ dual phase membranes synthesized by one-step solid-state reaction. Journal of the American Ceramic Society, 2021, 104, 1814-1830.                                    | 1.9  | 6         |
| 12 | Structural investigation of cobalt oxide seeded silica xerogels under harsh hydrothermal condition. Journal of Sol-Gel Science and Technology, 2021, 98, 470-477.  | 1.1  | 3         |
| 13 | A Data-Driven Framework for the Accelerated Discovery of CO <sub>2</sub> Reduction Electrocatalysts. Frontiers in Energy Research, 2021, 9, .  | 1.2  | 13        |
| 14 | Enhancing oxygen permeation of solid-state reactive sintered $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2\lambda}$ - $\text{FeCo}_2\text{O}_4$ composite by optimizing the powder preparation method. Journal of Membrane Science, 2021, 628, 119248.                          | 4.1  | 15        |
| 15 | Novel low-temperature lean NO <sub>x</sub> storage materials based on $\text{La}_{0.5}\text{Sr}_{0.5}\text{Fe}_{1-x}\text{M}_x\text{O}_{3-\lambda}/\text{Al}_2\text{O}_3$ infiltration composites (M = Ti, Zr, Nb). Applied Catalysis B: Environmental, 2021, 286, 119919.   | 10.8 | 6         |
| 16 | Measures to Reduce the N <sub>2</sub> O Formation at Perovskite-Based Lean NO <sub>x</sub> Trap Catalysts under Lean Conditions. Catalysts, 2021, 11, 917.   | 1.6  | 1         |
| 17 | Development and Proof of Concept of a Compact Metallic Reactor for MIEC Ceramic Membranes. Membranes, 2021, 11, 541.   | 1.4  | 7         |
| 18 | Residual stress and mechanical strength of $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2\lambda}$ - $\text{FeCo}_2\text{O}_4$ dual phase oxygen transport membranes. Journal of the European Ceramic Society, 2021, 41, 6539-6547.  | 2.8  | 3         |

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|----|---|-----|-----------|
| 19 | Measurement of polarization effects in dual-phase ceria-based oxygen permeation membranes using Kelvin probe force microscopy. <i>Beilstein Journal of Nanotechnology</i> , 2021, 12, 1380-1391.                                    | 1.5 | 1         |
| 20 | Influence of support layer resistance on oxygen fluxes through asymmetric membranes based on perovskite-type oxides SrTi1-Fe O3-. <i>Journal of Membrane Science</i> , 2020, 596, 117704.   | 4.1 | 18        |
| 21 | Improved dark ambient degradation of organic pollutants by cerium strontium cobalt perovskite. <i>Journal of Environmental Sciences</i> , 2020, 90, 110-118.  | 3.2 | 11        |
| 22 | Phase and microstructural characterizations for Ce0.8Gd0.2O2-FeCo2O4 dual phase oxygen transport membranes. <i>Journal of the European Ceramic Society</i> , 2020, 40, 5646-5652.   | 2.8 | 14        |
| 23 | Micromechanical Characterization of Ce 0.8 Gd 0.2 O 2-FeCo 2 O 4 Dual Phase Oxygen Transport Membranes. <i>Advanced Engineering Materials</i> , 2020, 22, 1901558.  | 1.6 | 7         |
| 24 | Catalysis of silica sol-gel reactions using a PdCl2 precursor. <i>Journal of Sol-Gel Science and Technology</i> , 2020, 95, 456-464.  | 1.1 | 4         |
| 25 | Asymmetric LSCF Membranes Utilizing Commercial Powders. <i>Materials</i> , 2020, 13, 614.   | 1.3 | 3         |
| 26 | Temperature-Induced Structural Reorganization of W-Doped Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3</sub> Composite Membranes for Air Separation. <i>Chemistry of Materials</i> , 2019, 31, 7487-7492. | 3.2 | 17        |
| 27 | 2D/3D Assemblies of Amine-Functionalized Graphene Silica (Templated) Aerogel for Enhanced CO<sub>2</sub> Sorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 30391-30400.   | 4.0 | 19        |
| 28 | Thermochemical stability of Fe- and co-functionalized perovskite-type SrTiO3 oxygen transport membrane materials in syngas conditions. <i>Journal of the European Ceramic Society</i> , 2019, 39, 4874-4881.                        | 2.8 | 12        |
| 29 | Chemical Environment-Induced Mixed Conductivity of Titanate as a Highly Stable Oxygen Transport Membrane. <i>IScience</i> , 2019, 19, 955-964.  | 1.9 | 23        |
| 30 | Phase stability and oxygen permeability of Fe-based BaFe0.9Mg0.05X0.05O3 (X=Zr, Ce, Ca) membranes for air separation. <i>Separation and Purification Technology</i> , 2019, 220, 176-182.   | 3.9 | 10        |
| 31 | Design and fabrication of large-sized planar oxygen transport membrane components for direct integration in oxy-combustion processes. <i>Separation and Purification Technology</i> , 2019, 220, 89-101.                            | 3.9 | 17        |
| 32 | Ceramic Membranes: Materials Components Potential Applications. <i>ChemBioEng Reviews</i> , 2019, 6, 198-208.   | 2.6 | 14        |
| 33 | Towards the development of materials for chemically stable carbonate-ceramic membranes to be used for CO2 separation in water-gas-shift reactors. <i>Separation and Purification Technology</i> , 2019, 215, 378-383.               | 3.9 | 14        |
| 34 | Improved CO<sub>2</sub> Sorption in Freeze-Dried Amine Functionalized Mesoporous Silica Sorbent. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 5653-5660.  | 1.8 | 17        |
| 35 | New insight into the microstructure of natural calcined laterites and their performance as heterogeneous Fenton catalyst for methylene blue degradation. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2018, 124, 931-956.   | 0.8 | 11        |
| 36 | Microstructure and anisotropic mechanical properties of freeze dried SrTi0.75Fe0.25O3 for oxygen transport membrane substrates. <i>Journal of the European Ceramic Society</i> , 2018, 38, 2774-2783.                               | 2.8 | 5         |

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|----|---|-----|-----------|
| 37 | Hybrid vinyl silane and P123 template sol-gel derived carbon silica membrane for desalination. Journal of Sol-Gel Science and Technology, 2018, 85, 280-289.  | 1.1 | 15        |
| 38 | Yttrium doping of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> part I: Influence on oxygen permeation, electrical properties, reductive stability, and lattice parameters. Journal of the European Ceramic Society, 2018, 38, 2378-2387.  | 2.8 | 15        |
| 39 | Environmental mineralization of caffeine micro-pollutant by Fe-MFI zeolites. Environmental Science and Pollution Research, 2018, 25, 3628-3635.   | 2.7 | 10        |
| 40 | Dual-phase membrane based on LaCo <sub>0.2</sub> Ni <sub>0.4</sub> Fe <sub>0.4</sub> O <sub>3-<math>\delta</math></sub> -Ce <sub>0.8</sub> Gd <sub>0.2</sub> O <sub>2-<math>\delta</math></sub> composition for oxygen permeation under CO <sub>2</sub> /SO <sub>2</sub> -rich gas environments. Journal of Membrane Science, 2018, 548, 117-124. | 4.1 | 26        |
| 41 | Effect of MnO <sub>2</sub> Concentration on the Conductivity of Ce <sub>0.9</sub> Gd <sub>0.1</sub> Mn <sub>x</sub> O <sub>2-<math>\delta</math></sub> . Crystals, 2018, 8, 40.   | 1.0 | 11        |
| 42 | Substrate Effect on Carbon/Ceramic Mixed Matrix Membrane Prepared by a Vacuum-Assisted Method for Desalination. Processes, 2018, 6, 47.   | 1.3 | 6         |
| 43 | Creep behaviour of dense and porous SrTi <sub>0.75</sub> Fe <sub>0.25</sub> O <sub>3-<math>\delta</math></sub> for oxygen transport membranes and substrates. Journal of the European Ceramic Society, 2018, 38, 5067-5073.   | 2.8 | 7         |
| 44 | Co and Fe co-doping influence on functional properties of SrTiO <sub>3</sub> for use as oxygen transport membranes. Journal of the European Ceramic Society, 2018, 38, 5058-5066.   | 2.8 | 26        |
| 45 | Comparison of freeze-dried and tape-cast support microstructure on high-flux oxygen transport membrane performance. Journal of Membrane Science, 2018, 564, 218-226.  | 4.1 | 29        |
| 46 | Mechanical properties and lifetime predictions of dense SrTi <sub>1-x</sub> Fe <sub>x</sub> O <sub>3-<math>\delta</math></sub> (x = 0.25, 0.35, 0.5). Journal of the European Ceramic Society, 2017, 37, 2629-2636.   | 2.8 | 23        |
| 47 | Influence of porous structures on O <sub>2</sub> flux of BSCF asymmetric membranes. Separation and Purification Technology, 2017, 175, 164-169.   | 3.9 | 23        |
| 48 | Effect of Fe content on atomic and electronic structure of complex oxides Sr(Ti,Fe)O <sub>3-<math>\delta</math></sub> . Solid State Ionics, 2017, 308, 27-33.   | 1.3 | 13        |
| 49 | Analysis of Charge Transport in Ce <sub>0.8</sub> Gd <sub>0.2-x</sub> Pr <sub>x</sub> O <sub>2-<math>\delta</math></sub> at T = 600 °C. Journal of the Electrochemical Society, 2017, 164, H491-H496.   | 1.3 | 6         |
| 50 | Copper oxide - perovskite mixed matrix membranes delivering very high oxygen fluxes. Journal of Membrane Science, 2017, 526, 323-333.   | 4.1 | 40        |
| 51 | Structural and chemical stability of high performance Ce <sub>0.8</sub> Gd <sub>0.2</sub> O <sub>2-<math>\delta</math></sub> "FeCo <sub>2</sub> O <sub>4</sub> dual phase oxygen transport membranes. Journal of Membrane Science, 2017, 544, 278-286.  | 4.1 | 21        |
| 52 | Feasibility study of LSCF5582 membrane integration into a nitrogen based chemical looping air separation process. Chemical Engineering Research and Design, 2017, 125, 96-107.  | 2.7 | 5         |
| 53 | Zinc-doped BSCF perovskite membranes for oxygen separation. Separation and Purification Technology, 2017, 189, 399-404.   | 3.9 | 17        |
| 54 | Syngas Production by Biogas Reforming in a Redox-Stable and CO <sub>2</sub> -Tolerant Oxygen Transporting Membrane Reactor. Industrial & Engineering Chemistry Research, 2017, 56, 10134-10141.   | 1.8 | 19        |

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|----|--|-----|-----------|
| 55 | Carbonation passivation layer of scandium loaded BSCF perovskite. <i>Ceramics International</i> , 2017, 43, 15179-15184.   | 2.3 | 3         |
| 56 | Ion-conducting ceramic membrane reactors for high-temperature applications. <i>Journal of Membrane Science</i> , 2017, 543, 79-97.   | 4.1 | 93        |
| 57 | Simulation of the effect of the porous support on flux through an asymmetric oxygen transport membrane. <i>Journal of Membrane Science</i> , 2017, 524, 334-343.   | 4.1 | 14        |
| 58 | Comparison of the Simplification of the Pressure Profiles Solving the Binary Friction Model for Asymmetric Membranes. <i>Membranes</i> , 2017, 7, 58.  | 1.4 | 3         |
| 59 | Molecular Weight Cut-Off and Structural Analysis of Vacuum-Assisted Titania Membranes for Water Processing. <i>Materials</i> , 2016, 9, 938.   | 1.3 | 6         |
| 60 | Influence of Microstructure and Surface Activation of Dual-Phase Membrane $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-\delta}$ / $\text{FeCo}_2\text{O}_4$ on Oxygen Permeation. <i>Journal of the American Ceramic Society</i> , 2016, 99, 349-355.                                | 1.9 | 44        |
| 61 | Graphene oxide with zinc partially substituted magnetite ( $\text{GO}-\text{Fe}_{1-x}\text{Zn}_x\text{O}_y$ ) for the UV-assisted heterogeneous Fenton-like reaction. <i>RSC Advances</i> , 2016, 6, 44749-44757.  | 1.7 | 9         |
| 62 | Stability of ceramic materials for H <sub>2</sub> transport membranes in gasification environment under the influence of gas contaminants. <i>Journal of the European Ceramic Society</i> , 2016, 36, 3457-3464.   | 2.8 | 15        |
| 63 | Scanning probe microscopy polarization experiments with polycrystalline $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{Pr}_x\text{O}_{2-\delta}$ and $\text{Ce}_{0.8}\text{Y}_{0.2}\text{O}_{2-\delta}$ single crystals at room temperature. <i>Solid State Ionics</i> , 2016, 288, 325-330. | 1.3 | 7         |
| 64 | Material properties of perovskites in the quasi-ternary system $\text{LaFeO}_3$ / $\text{LaCoO}_3$ / $\text{LaNiO}_3$ . <i>Journal of Solid State Chemistry</i> , 2016, 237, 183-191.  | 1.4 | 18        |
| 65 | (Invited) The Role of Solid-Gas Electrochemical Interfaces for Mixed Ionic Electronic Conducting Oxygen Transport Membranes. <i>ECS Transactions</i> , 2015, 66, 21-33.  | 0.3 | 7         |
| 66 | Expansion behaviour of (Gd, Pr)-substituted $\text{CeO}_2$ in dependence on temperature and oxygen partial pressure. <i>Solid State Ionics</i> , 2015, 283, 56-67.   | 1.3 | 16        |
| 67 | Oxygen equilibration kinetics of mixed-conducting perovskites BSCF, LSCF, and PSCF at 900 °C determined by electrical conductivity relaxation. <i>Solid State Ionics</i> , 2015, 283, 30-37.   | 1.3 | 32        |
| 68 | Microstructural variations and their influence on the performance of solid oxide fuel cells based on yttrium-substituted strontium titanate ceramic anodes. <i>Journal of Power Sources</i> , 2015, 279, 678-685.  | 4.0 | 16        |
| 69 | Nanoscale assembly of lanthanum silica with dense and porous interfacial structures. <i>Scientific Reports</i> , 2015, 5, 8210.  | 1.6 | 13        |
| 70 | Structural and functional properties of $\text{SrTi}_{1-x}\text{Fe}_x\text{O}_{3-\delta}$ ( $0 \leq x \leq 1$ ) for the use as oxygen transport membrane. <i>Separation and Purification Technology</i> , 2015, 147, 414-421.  | 3.9 | 41        |
| 71 | Copper aided exchange in high performance oxygen production by CuCo binary oxides for clean energy delivery. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17344-17350.   | 5.2 | 10        |
| 72 | Modulation of microporous/mesoporous structures in self-templated cobalt-silica. <i>Scientific Reports</i> , 2015, 5, 7970.  | 1.6 | 6         |

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|----|---|-----|-----------|
| 73 | Redox structural control of Pd and PdO silica matrices. RSC Advances, 2015, 5, 74144-74149.   | 1.7 | 1         |
| 74 | Mechanical characterization of ceramics by means of a 3D defect analysis. Ceramics International, 2015, 41, 2411-2417.  | 2.3 | 12        |
| 75 | An Efficient Oxygen Activation Route for Improved Ammonia Oxidation through an Oxygen-Permeable Catalytic Membrane. ChemCatChem, 2014, 6, 1190-1194.  | 1.8 | 7         |
| 76 | Comparison of Permeation Measurements and Hybrid Density-Functional Calculations on Oxygen Vacancy Transport in Complex Perovskite Oxides. Journal of Physical Chemistry C, 2014, 118, 29542-29553.   | 1.5 | 25        |
| 77 | Three-Dimensional Performance Model for Oxygen Transport Membranes. Journal of the Electrochemical Society, 2014, 161, F1409-F1415.   | 1.3 | 9         |
| 78 | Ceramic materials for H <sub>2</sub> transport membranes applicable for gas separation under coal-gasification-related conditions. Journal of the European Ceramic Society, 2014, 34, 2381-2389.  | 2.8 | 32        |
| 79 | Copper Exchanged Nanotitanate for High Temperature H <sub>2</sub> S Adsorption. Industrial & Engineering Chemistry Research, 2014, 53, 11734-11739.   | 1.8 | 37        |
| 80 | Towards the fabrication of La <sub>0.98-x</sub> Sr <sub>x</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> perovskite-type oxygen transport membranes. Journal of the European Ceramic Society, 2014, 34, 3741-3748.                          | 2.8 | 49        |
| 81 | Plasma Spray Physical Vapor Deposition of La <sub>1-x</sub> Sr <sub>x</sub> Co <sub>y</sub> Fe <sub>1-y</sub> O <sub>3-<math>\delta</math></sub> Thin-Film Oxygen Transport Membrane on Porous Metallic Supports. Journal of Thermal Spray Technology, 2014, 23, 213-219. | 1.6 | 25        |
| 82 | Oxygen transport through supported Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> membranes. Separation and Purification Technology, 2014, 121, 60-67.  | 3.9 | 46        |
| 83 | The effect of non-ionic porous domains on supported Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> membranes for O <sub>2</sub> separation. Journal of Membrane Science, 2014, 454, 382-389.                  | 4.1 | 13        |
| 84 | Structural and functional investigation of graphene oxide-Fe <sub>3</sub> O <sub>4</sub> nanocomposites for the heterogeneous Fenton-like reaction. Scientific Reports, 2014, 4, 4594.  | 1.6 | 407       |
| 85 | La-Sr-Fe-Co oxygen transport membranes on metal supports deposited by low pressure plasma spraying-physical vapour deposition. Journal of Membrane Science, 2013, 442, 119-123.   | 4.1 | 18        |
| 86 | Application of Thin-Film Manufacturing Technologies to Solid Oxide Fuel Cells and Gas Separation Membranes. International Journal of Applied Ceramic Technology, 2013, 10, 421-427.   | 1.1 | 8         |
| 87 | Manufacturing and performance of advanced supported Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> (BSCF) oxygen transport membranes. Journal of Membrane Science, 2013, 433, 121-125.                        | 4.1 | 86        |
| 88 | Strength degradation and failure limits of dense and porous ceramic membrane materials. Journal of the European Ceramic Society, 2013, 33, 2689-2698.   | 2.8 | 53        |
| 89 | Oxygen permeation through tape-cast asymmetric all-La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> membranes. Journal of Membrane Science, 2013, 447, 297-305.   | 4.1 | 120       |
| 90 | Manufacturing strategies for asymmetric ceramic membranes for efficient separation of oxygen from air. Journal of the European Ceramic Society, 2013, 33, 1251-1261.  | 2.8 | 90        |

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|-----|--|------|-----------|
| 91  | Development of a metallic/ceramic composite for the deposition of thin-film oxygen transport membrane. Journal of the European Ceramic Society, 2013, 33, 287-296.   | 2.8  | 16        |
| 92  | Natural Gas to Fuels and Chemicals: Improved Methane Aromatization in an Oxygen-Permeable Membrane Reactor. Angewandte Chemie - International Edition, 2013, 52, 13794-13797.  | 7.2  | 111       |
| 93  | Simultaneous overcome of the equilibrium limitations in BSCF oxygen-permeable membrane reactors: Water splitting and methane coupling. Catalysis Today, 2012, 193, 2-7.  | 2.2  | 52        |
| 94  | Mem-brain Gas Separation Membranes for Energy-efficient Processes. Procedia Engineering, 2012, 44, 1554-1556.  | 1.2  | 0         |
| 95  | New Generation of LSCF Oxygen Transport Membranes. Procedia Engineering, 2012, 44, 1552-1553.  | 1.2  | 2         |
| 96  | Fabrication of Ce <sub>0.8</sub> Gd <sub>0.2</sub> O <sub>2-<math>\delta</math></sub> thin-film oxygen transport membranes by reactive magnetron sputtering. Thin Solid Films, 2012, 526, 59-64.   | 0.8  | 4         |
| 97  | Creep behavior and its correlation with defect chemistry of La <sub>0.58</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> . Acta Materialia, 2012, 60, 2479-2484.  | 3.8  | 31        |
| 98  | Novel B-site ordered double perovskite Ba <sub>2</sub> Bi <sub>0.1</sub> Sc <sub>0.2</sub> Co <sub>1.7</sub> O <sub>6+x</sub> for highly efficient oxygen reduction reaction. Energy and Environmental Science, 2011, 4, 872-875.  | 15.6 | 112       |
| 99  | Chemical Compatibility Investigation of Thin-Film Oxygen Transport Membranes on Metallic Substrates. Journal of the American Ceramic Society, 2011, 94, 861-866.   | 1.9  | 15        |
| 100 | Thermal stability of the cubic phase in Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> (BSCF)1. Solid State Ionics, 2011, 197, 25-31.  | 1.3  | 81        |
| 101 | Mechanical properties and lifetime predictions for Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> membrane material. Journal of Membrane Science, 2011, 385-386, 263-268.  | 4.1  | 53        |
| 102 | Mechanical characterization of porous Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> . Journal of the European Ceramic Society, 2011, 31, 2997-3002.   | 2.8  | 28        |
| 103 | Influence of flue gas components on the chemical properties of the ceramic materials (Co-)Ce <sub>0.8</sub> Gd <sub>0.2-<math>x</math></sub> Pr <sub><math>x</math></sub> O <sub>2-<math>\delta</math></sub> . IOP Conference Series: Materials Science and Engineering, 2011, 18, 072005. | 0.3  | 1         |
| 104 | Ultrahigh oxygen permeation flux through supported Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> membranes. Journal of Membrane Science, 2011, 377, 198-205.  | 4.1  | 310       |
| 105 | Electronic conductivity of Ce <sub>0.8</sub> Cd <sub>0.2-<math>x</math></sub> Pr <sub><math>x</math></sub> O <sub>2-<math>\delta</math></sub> and influence of added CoO. Physica Status Solidi (B): Basic Research, 2011, 248, 314-322.   | 0.7  | 42        |
| 106 | Oxygen transport membranes: dense ceramic membranes for power plant applications. , 2011, , 255-292.   |      | 5         |
| 107 | <i>p</i> -O <sub>2</sub> stability of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> . Materials Research Society Symposia Proceedings, 2011, 1309, 107.   | 0.1  | 5         |
| 108 | Bi-doping effects on the structure and oxygen permeation properties of BaSc <sub>0.1</sub> Co <sub>0.9</sub> O <sub>3-<math>\delta</math></sub> perovskite membranes. Journal of Membrane Science, 2010, 361, 120-125.   | 4.1  | 38        |

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|-----|---|-----|-----------|
| 109 | Influence of sintering conditions on microstructure and oxygen permeation of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> (BSCF) oxygen transport membranes. Journal of Membrane Science, 2010, 359, 102-109. | 4.1 | 99        |
| 110 | Mixed ionic-electronic conducting (MIEC) ceramic-based membranes for oxygen separation. Journal of Membrane Science, 2008, 320, 13-41.  | 4.1 | 1,006     |
| 111 | Supported Oxygen Transport Membranes for Oxyfuel Power Plants. Advances in Science and Technology, 0, , .   | 0.2 | 16        |
| 112 | Slow Crack Growth and Creep Rupture of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> (BSCF) membranes. Key Engineering Materials, 0, 488-489, 303-306.   | 0.3 | 23        |
| 113 | Tape Casting as a Multi Purpose Shaping Technology for Different Applications in Energy Issues. Materials Science Forum, 0, 706-709, 1035-1040.   | 0.3 | 23        |