# Ragnar Kiebach

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 85 papers | 1,714 citations | 257357 24 h-index | 315616 38 g-index |
| 96 all docs | 96 docs citations | 96 times ranked | 1519 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Testing of high performance asymmetric tubular BSCF membranes under pressurized operation â€“ A proof-of-concept study on a 7 tube module. Journal of Membrane Science, 2022, 644, 120176. | 4.1 | 9 |
| 2 | 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 |
| 3 | Planar proton-conducting ceramic cells for hydrogen extraction: Mechanical properties, electrochemical performance and up-scaling. International Journal of Hydrogen Energy, 2022, 47, 6745-6754. | 3.8 | 6 |
| 4 | Joining of Co coated ferritic stainless steel to ceramic solid oxide cells by a novel Ag-SiO2 braze. Journal of Materials Science and Technology, 2022, 121, 174-180. | 5.6 | 1 |
| 5 | Fracture toughness of reactive bonded Coâ€“Mn and Cuâ€“Mn contact layers after long-term aging. Ceramics International, 2022, 48, 20699-20711. | 2.3 | 2 |
| 6 | Torsional behaviour of a glass-ceramic joined alumina coated Crofer 22 APU steel. Ceramics International, 2022, 48, 25368-25373. | 2.3 | 1 |
| 7 | Agâ€“SiO2 - An optimized braze for robust joining of commercial coated stainless steel to ceramic solid oxide cells. Ceramics International, 2022, 48, 32740-32747. | 2.3 | 3 |
| 8 | Stable, asymmetric, tubular oxygen transport membranes of (Sc2O3)0.10(Y2O3)0.01(ZrO2)0.89 â€“ LaCr0.85Cu0.10Ni0.05O3-Î´. Open Ceramics, 2022, 11, 100292. | 1.0 | 0 |
| 9 | Fast relaxation of stresses in solid oxide cells through reduction. Part I: Macro-stresses in the cell layers. International Journal of Hydrogen Energy, 2021, 46, 1548-1559. | 3.8 | 7 |
| 10 | High toughness well conducting contact layers for solid oxide cell stacks by reactive oxidative bonding. Journal of the European Ceramic Society, 2021, 41, 2699-2708. | 2.8 | 3 |
| 11 | Tetragonal phase stability maps of ceria-yttria co-doped zirconia: From powders to sintered ceramics. Ceramics International, 2020, 46, 9396-9405. | 2.3 | 12 |
| 12 | Comparison of MnCo2O4 coated Crofer 22ÂH, 441, 430 as interconnects for intermediate-temperature solid oxide fuel cell stacks. Journal of Alloys and Compounds, 2020, 821, 153229. | 2.8 | 47 |
| 13 | Synthesis and characterization of a geopolymer/hexagonalâ€‘boron nitride composite for free forming 3D extrusion-based printing. Applied Clay Science, 2020, 199, 105870. | 2.6 | 18 |
| 14 | SOFC stacks for mobile applications with excellent robustness towards thermal stresses. International Journal of Hydrogen Energy, 2020, 45, 29201-29211. | 3.8 | 31 |
| 15 | A novel Ag based sealant for solid oxide cells with a fully tunable thermal expansion. Journal of Alloys and Compounds, 2020, 831, 154608. | 2.8 | 19 |
| 16 | Promotion of oxygen reduction and evolution by applying a nanoengineered hybrid catalyst on cobalt free electrodes for solid oxide cells. Journal of Materials Chemistry A, 2020, 8, 9039-9048. | 5.2 | 22 |
| 17 | Enhancing the Robustness of Brittle Solid Oxide Cell Stack Components. ECS Transactions, 2019, 91, 2201-2211. | 0.3 | 5 |
| 18 | Improved Robustness and Low Area Specific Resistance with Novel Contact Layers for the Solid Oxide Cell Air Electrode. ECS Transactions, 2019, 91, 2225-2232. | 0.3 | 4 |

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|---|---|---|---|
| 19 | Gd0.2Ce0.8O1.9/Y0.16Zr0.84O1.92 nanocomposite thin films for low temperature ionic conductivity. Journal of Physics and Chemistry of Solids, 2019, 132, 162-171. | 1.9 | 5 |
| 20 | Improving the performance of oxygen transport membranes in simulated oxy-fuel power plant conditions by catalytic surface enhancement. Journal of Membrane Science, 2019, 580, 307-315. | 4.1 | 9 |
| 21 | Improving the interface adherence at sealings in solid oxide cell stacks. Journal of Materials Research, 2019, 34, 1167-1178. | 1.2 | 12 |
| 22 | Impact of cation redox chemistry on continuous hydrothermal synthesis of 2D-Ni(Co/Fe) hydroxides. Reaction Chemistry and Engineering, 2019, 4, 2060-2073. | 1.9 | 3 |
| 23 | Printing of NiO-YSZ nanocomposites: From continuous synthesis to inkjet deposition. Journal of the European Ceramic Society, 2019, 39, 1279-1286. | 2.8 | 9 |
| 24 | Enhancing the long-term stability of Ag based seals for solid oxide fuel/electrolysis applications by simple interconnect aluminization. International Journal of Hydrogen Energy, 2019, 44, 3063-3074. | 3.8 | 15 |
| 25 | Zirconia nano-colloids transfer from continuous hydrothermal synthesis to inkjet printing. Journal of the European Ceramic Society, 2019, 39, 2-8. | 2.8 | 17 |
| 26 | Performance and stability of (ZrO 2 ) 0.89 (Y 2 O 3 ) 0.01 (Sc 2 O 3 ) 0.10 -LaCr 0.85 Cu 0.10 Ni 0.05 O 3-Î´ oxygen transport membranes under conditions relevant for oxy-fuel combustion. Journal of Membrane Science, 2018, 552, 115-123. | 4.1 | 17 |
| 27 | Continuous Hydrothermal Flow Synthesis of LaCrO<sub>3</sub> in Supercritical Water and Its Application in Dual-Phase Oxygen Transport Membranes. Industrial & Engineering Chemistry Research, 2018, 57, 2123-2130. | 1.8 | 7 |
| 28 | A Baâ€free sealing glass with a high coefficient of thermal expansion and excellent interface stability optimized for SOFC/SOEC stack applications. International Journal of Applied Ceramic Technology, 2018, 15, 1011-1022. | 1.1 | 27 |
| 29 | Continuous hydrothermal flow synthesis of Gdâ€doped CeO<sub>2</sub> (<scp>GDC</scp>) nanoparticles for inkjet printing of <scp>SOFC</scp> electrolytes. International Journal of Applied Ceramic Technology, 2018, 15, 315-327. | 1.1 | 12 |
| 30 | Effect of spherical porosity on co-fired dense/porous zirconia bi-layers cambering. Journal of the European Ceramic Society, 2018, 38, 173-179. | 2.8 | 5 |
| 31 | Exploring the Processing of Tubular Chromite- and Zirconia-Based Oxygen Transport Membranes. Ceramics, 2018, 1, 229-245. | 1.0 | 5 |
| 32 | Continuous Hydrothermal Flow Synthesis of Co<sub>1â€“x</sub>Ni<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> (x = 0â€“0.8) Nanoparticles and Their Catalytic Properties for CO Oxidation and Oxygen Evolution Reaction. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1727-1733. | 0.6 | 6 |
| 33 | Hydrothermal Synthesis, Characterization, and Sintering Behavior of Core-Shell Particles: A Principle Study on Lanthanum Strontium Cobaltite Coated with Nanosized Gadolinium Doped Ceria. Ceramics, 2018, 1, 246-260. | 1.0 | 3 |
| 34 | Joining of solid oxide fuel/electrolysis cells at low temperature: A novel method to obtain high strength seals already at 300â€Â°C. Journal of Power Sources, 2018, 400, 296-304. | 4.0 | 9 |
| 35 | Enhanced densification of thin tape cast Ceria-Gadolinium Oxide (CGO) layers by rheological optimization of slurries. Ceramics International, 2017, 43, 5647-5653. | 2.3 | 15 |
| 36 | On the Properties and Long-Term Stability of Infiltrated Lanthanum Cobalt Nickelates (LCN) in Solid Oxide Fuel Cell Cathodes. Journal of the Electrochemical Society, 2017, 164, F748-F758. | 1.3 | 8 |

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| 37 | In-situ formed Ce0.8Gd0.2O1.9 barrier layers on yttria stabilized zirconia backbones by infiltration - A promising path to high performing oxygen electrodes of solid oxide cells. Solid State Ionics, 2017, 304, 51-59. | 1.3 | 10 |
| 38 | Investigation of a Spinelâ€forming Cuâ€Mn Foam as an Oxygen Electrode Contact Material in a Solid Oxide Cell Single Repeating Unit. Fuel Cells, 2017, 17, 730-734. | 1.5 | 17 |
| 39 | A Novel SOFC/SOEC Sealing Glass with a Low SiO<sub>2</sub>Content and a High Thermal Expansion Coefficient. ECS Transactions, 2017, 78, 1739-1747. | 0.3 | 15 |
| 40 | Modeling of Ni Diffusion Induced Austenite Formation in Ferritic Stainless Steel Interconnects. Journal of the Electrochemical Society, 2017, 164, F1005-F1010. | 1.3 | 15 |
| 41 | Stability and performance of robust dual-phase (ZrO2)0.89(Y2O3)0.01(Sc2O3)0.10-Al0.02Zn0.98O1.01 oxygen transport membranes. Journal of Membrane Science, 2017, 543, 18-27. | 4.1 | 12 |
| 42 | Simulation, design and proof-of-concept of a two-stage continuous hydrothermal flow synthesis reactor for synthesis of functionalized nano-sized inorganic composite materials. Journal of Supercritical Fluids, 2016, 117, 1-12. | 1.6 | 25 |
| 43 | Oxygen permeation flux through 10Sc1YSZ-MnCo 2 O 4 asymmetric membranes prepared by two-step sintering. Fuel Processing Technology, 2016, 152, 192-199. | 3.7 | 16 |
| 44 | Infiltration of SOFC Stacks: Evaluation ofÂthe Electrochemical Performance Enhancement and the Underlying Changes in the Microstructure. Fuel Cells, 2016, 16, 80-88. | 1.5 | 26 |
| 45 | An Ag based brazing system with a tunable thermal expansion for the use as sealant for solid oxide cells. Journal of Power Sources, 2016, 315, 339-350. | 4.0 | 46 |
| 46 | Joining of ceramic Ba0.5Sr0.5Co0.8Fe0.2O3 membranes for oxygen production to high temperature alloys. Journal of Membrane Science, 2016, 506, 11-21. | 4.1 | 23 |
| 47 | Poly(vinylpyrrolidone) as dispersing agent for cerium-gadolinium oxide (CGO) suspensions. Journal of Materials Science, 2016, 51, 1098-1106. | 1.7 | 11 |
| 48 | Influence of hydroxyl content of binders on rheological properties of ceriumâ€“gadolinium oxide (CGO) screen printing inks. Journal of the European Ceramic Society, 2015, 35, 1495-1504. | 2.8 | 31 |
| 49 | Stability of La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3 /Ce 0.9 Gd 0.1 O 2 cathodes during sintering and solid oxide fuel cell operation. Journal of Power Sources, 2015, 283, 151-161. | 4.0 | 77 |
| 50 | Colloidal stabilization of cerium-gadolinium oxide (CGO) suspensions via rheology. Journal of the European Ceramic Society, 2015, 35, 2823-2832. | 2.8 | 6 |
| 51 | Modeling of Ni Diffusion Induced Austenite Formation in Ferritic Stainless Steel Interconnects. ECS Transactions, 2015, 68, 1691-1700. | 0.3 | 5 |
| 52 | TOF-SIMS characterization of impurity enrichment and redistribution in solid oxide electrolysis cells during operation. Dalton Transactions, 2014, 43, 14949-14958. | 1.6 | 13 |
| 53 | Infiltration of ionic-, electronic- and mixed-conducting nano particles into La0.75Sr0.25MnO3â€“Y0.16Zr0.84O2 cathodes â€“ A comparative study of performance enhancement and stability atÂdifferent temperatures. Journal of Power Sources, 2013, 228, 170-177. | 4.0 | 46 |
| 54 | Characterization of impregnated GDC nano structures and their functionality in LSM based cathodes. Solid State Ionics, 2012, 224, 21-31. | 1.3 | 38 |

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| 55 | Determination of redox-active centers in praseodymium doped ceria by in situ-XANES spectroscopy. Chemical Physics Letters, 2012, 537, 80-83. | 1.2 | 3 |
| 56 | Spectroelectrochemical cell forin situstudies of solid oxide fuel cells. Journal of Synchrotron Radiation, 2012, 19, 400-407. | 1.0 | 20 |
| 57 | Investigation of Failure Mechanisms in Ti Containing Brazing Alloys Used in SOFC/SOEC Environments. , 2010, , . | | 1 |
| 58 | Photoluminescence from Si nanocrystals obtained by electrochemical methods embedded in a silicon oxide matrix. , 2009, , . | | 1 |
| 59 | [Fe(C<sub>6</sub>H<sub>14</sub>N<sub>2</sub>)<sub>2</sub>][Sb<sub>6</sub>S<sub>10</sub>] â€“ Using a Transition Metal Complex Acting as a Pillar for the Generation of a Threeâ€dimensional Thioantimonate(III) Network. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2009, 635, 988-994. | 0.6 | 26 |
| 60 | THE DEPOSITION AND CONTROL OF SELF ASSEMBLED SILICON NANO ISLANDS ON CRYSTALLINE SILICON. Selected Topics in Electornics and Systems, 2009, , 143-152. | 0.2 | 0 |
| 61 | Tuning the Magnetic Properties of Li<sub>x</sub>CrTi<sub>0.25</sub>Se<sub>2</sub> (0.03â‰¤xâ‰¤0.7) by Directed Deintercalation of Lithium. Chemistry - A European Journal, 2008, 14, 5021-5029. | 1.7 | 8 |
| 62 | Controlling the Size and Density of Silicon Nanostructures by Incorporation of Nitrogen. Chemical Vapor Deposition, 2008, 14, 353-357. | 1.4 | 1 |
| 63 | Room temperature quantum tunneling and Coulomb blockade in silicon-rich oxide. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 41, 264-268. | 1.3 | 4 |
| 64 | Hydrothermal Formation of W/Mo-Oxides: A Multidisciplinary Study of Growth and Shape. Chemistry of Materials, 2008, 20, 3022-3033. | 3.2 | 64 |
| 65 | THE DEPOSITION AND CONTROL OF SELF ASSEMBLED SILICON NANO ISLANDS ON CRYSTALLINE SILICON. International Journal of High Speed Electronics and Systems, 2008, 18, 901-910. | 0.3 | 2 |
| 66 | Room temperature current oscillations in naturally grown silicon nanocrystallites embedded in oxide films. Journal of Applied Physics, 2008, 103, 063706. | 1.1 | 6 |
| 67 | [VIV15SbIII6O42]6â€“: An antimony analogue of the molecular magnet [V15As6O42(H2O)]6â€“. Dalton Transactions, 2007, , 3221. | 1.6 | 64 |
| 68 | Morphological and Kinetic Studies on Hexagonal Tungstates. Chemistry of Materials, 2007, 19, 185-197. | 3.2 | 54 |
| 69 | Syntheses and X-ray Diffraction, Photochemical, and Optical Characterization of Cu2SixSn1-xS3(0.4) Tj ETQq1 1 0.784314 rgBT /Ove | 1.9 | 16 |
| 70 | Synthesis of Thin Cr3Se4Films from Modulated Elemental Reactants via Two Amorphous Intermediates:Â A Detailed Examination of the Reaction Mechanism. Inorganic Chemistry, 2006, 45, 2704-2712. | 1.9 | 18 |
| 71 | Combined In Situ EDXRD/EXAFS Investigation of the Crystal Growth of [Co(C6H18N4)][Sb2S4] under Solvothermal Conditions:Â Two Different Reaction Pathways Leading to the Same Product. Chemistry of Materials, 2006, 18, 1196-1205. | 3.2 | 64 |
| 72 | [C6H21N4][Sb9S14O]: Solvothermal synthesis, crystal structure and characterization of the first non-centrosymmetric open Sbâ€“Sâ€“O framework containing the new [SbS2O] building unit. Journal of Solid State Chemistry, 2006, 179, 3082-3086. | 1.4 | 11 |

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| 73 | A study of the reactivity of elemental Cr/Se/Te thin multilayers using X-ray reflectometry, in situ X-ray diffraction and X-ray absorption spectroscopy. Journal of Solid State Chemistry, 2006, 179, 3330-3337. | 1.4 | 6 |
| 74 | [C3H10NO]2[Sb4S7]: Solvothermal syntheses, crystal structures and properties of the first thioantimonates containing aminoalcohols as structure directors. Solid State Sciences, 2006, 8, 541-547. | 1.5 | 13 |
| 75 | [C6H17N3]4[Sb4V16O42]â‹…2H2O and [NH4]4[Sb8V14O42]â‹…2H2Oâ€" the first isolated Sb derivates of the [V18O42] family. Solid State Sciences, 2006, 8, 964-970. | 1.5 | 60 |
| 76 | The structure directing effect of organic cations onto the crystal structures of layered thioantimonates(III): Solvothermal synthesis and crystal structures of five new compounds containing the 2âˆž[Sb8S13]2â^' anion. Solid State Sciences, 2006, 8, 1085-1097. | 1.5 | 19 |
| 77 | The Reaction Mechanism of a Complex Intercalation System: In Situ X-ray Diffraction Studies of the Chemical and Electrochemical Lithium Intercalation in Cr4TiSe8. Chemistry - A European Journal, 2006, 12, 6348-6355. | 1.7 | 19 |
| 78 | Studying the Solvothermal Formation of MoO3 Fibers by Complementary In Situ EXAFS/EDXRD Techniques. Angewandte Chemie - International Edition, 2005, 44, 5643-5647. | 7.2 | 100 |
| 79 | Four New Thioantimonates(III) with the General Formula [TM(ten)]Sb4S7 (TM: Mn, Fe, Co, Zn) with the Transition Metal as Part of a Thioantimonate(III) Network Synthesized under Solvothermal Conditions and Tuning of the Optical Band Gap by the Transition Metal Cation.. ChemInform, 2005, 36, no. | 0.1 | 0 |
| 80 | In-situ Energy Dispersive X-ray Diffraction Studies of the Crystallization of (1, 2-DAPH2)2Ge9(OH)4O18 ï¿½ 2 H2O under Solvothermal Conditions. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2005, 631, 369-374. | 0.6 | 31 |
| 81 | Four New Thioantimonates(III) with the General Formula [TM(tren)]Sb4S7 (TM = Mn, Fe, Co, Zn) with the Transition Metal as Part of a Thioantimonate(III) Network Synthesized under Solvothermal Conditions and Tuning of the Optical Band Gap by the Transition Metal Cation. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2004, 630, 1816-1822. | 0.6 | 81 |
| 82 | Two Novel Thioantimonates(III) with the Same Stoichiometric Sb:S Ratio but Different Crystal Structures: Solvothermal Synthesis, Crystal Structures, Thermal Stability and Spectroscopy of (C6N3H17)Sb6S10 and (C7N2H13)3Sb9S15. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2004, 630, 2398-2404. | 0.6 | 31 |
| 83 | [Ni(C4H13N3)2]3(Sb3S6)2: The First Structure Containing Isolated Heterocyclic [Sb3S6]3â^' Anions. European Journal of Inorganic Chemistry, 2004, 2004, 2553-2556. | 1.0 | 52 |
| 84 | [Ni(C4H13N3)2]3(Sb3S6)2: The First Structure Containing Isolated Heterocyclic [Sb3S6]3- Anions.. ChemInform, 2004, 35, no. | 0.1 | 0 |
| 85 | Solvothermal Synthesis and Characterization of the New Iron Thioantimonates(III) [Fe(C6H18N4)]FeSbS4 and [Fe(C4H13N3)2] Fe2Sb4S10 Containing FeII and FeIII and Protein-Analogous [2FeIII-2S]2+ Clusters.. ChemInform, 2003, 34, no. | 0.1 | 0 |