

as of January 4, 2018

Functional Materials related papers

(other than sensor papers, ceramic microsystems related papers, and aerosol deposition papers)

M. Bektas, T. Stöcker, G. Hagen, R. Moos:

On the defect chemistry of $\text{BaFe}_{0.89}\text{Al}_{0.01}\text{Ta}_{0.1}\text{O}_{3-\delta}$, a material for temperature independent resistive and thermoelectric oxygen sensors
Solid State Ionics, **316**, 1-8 (2018), doi: 10.1016/j.ssi.2017.12.017

M. Daab, P. Loch, W. Milius, D. Schönauer-Kamin, M. Schubert, A. Wunder, R. Moos, F.E Wagner, J. Breu:

Single-Crystal Structure and Electronic Conductivity of Melt Synthesized Fe-rich, near End-Member Ferro-Kinoshitalite
Zeitschrift für anorganische und allgemeine Chemie, **643**, 1661-1667, (2017) doi: 10.1002/zaac.201700265

O. Isakin, R. Schneider, M. Ringl, O. Struck, T. Gerdes, M. Willert-Porada, R. Moos:

High-yield synthesis of ZnO nanoparticles homogeneously coated on exfoliated graphite and simplified method to determine the surface coverage
Surface and Coatings Technology, **325**, 445-453 (2017), doi: 10.1016/j.surfcoat.2017.07.002

S. Kauffmann-Weiss, W. Hässler, E. Guenther, J. Scheiter, S. Denneker, P. Glosse, T. Berthold, M. Oomen, T. Arndt, T. Stöcker, D. Hanft, R. Moos, M. Weiss, F. Weis, B. Holzapfel:

Superconducting properties of thick films on Hastelloy prepared by the Aerosol Deposition Method with ex-situ MgB_2 powder
IEEE Transactions on Applied Superconductivity, **27**, 6200904 (2017), doi: 10.1109/TASC.2017.2669479

A. Engelbrecht, M. Hämmerle, R. Moos, M. Fleischer, G. Schmid:

Improvement of the selectivity of the electrochemical conversion of CO_2 to hydrocarbons using cupreous electrodes with in-situ oxidation by oxygen
Electrochimica Acta, **224**, 642-648 (2017), doi: 10.1016/j.electacta.2016.12.059

F. Panzer, S. Baderschneider, T. Gujar, T. Unger, S. Bagnich, H. Bässler, M. Jakoby, S. Hüttner, J. Köhler, R. Moos, M. Thelakkat, R. Hildner, A. Köhler:

Reversible Laser Induced Amplified Spontaneous Emission from Coexisting Tetragonal and Orthorhombic Phases in Hybrid Lead Halide Perovskites
Advanced Optical Materials, **4**, 917-928 (2016), doi: 10.1002/adom.201500765

F. Panzer, D. Hanft, T.P. Gujar, F.-J. Kahle, M. Thelakkat, A. Köhler, R. Moos:

Compact Layers of Hybrid Halide Perovskites Fabricated via the Aerosol Deposition Process – Uncoupling Material Synthesis and Layer Formation
Materials, **9**, 277 (2016), doi: 10.3390/ma9040277

T. Stöcker, J. Exner, M. Schubert, M. Streibl, R. Moos:

Influence of Oxygen Partial Pressure during Processing on the Thermoelectric Properties of Aerosol-Deposited CuFeO_2
Materials, **9**, 227 (2016), doi: 10.3390/ma9040227

F. Schubert, S. Wollenhaupt, J. Kita, G. Hagen, R. Moos:

Platform to develop exhaust gas sensors manufactured by glass-solder-supported joining of sintered yttria-stabilized zirconia
Journal of Sensors and Sensor Systems, **5**, 25-32 (2016), doi: 10.5194/jsss-5-25-2016

D. Ortolino, J. Kita, K. Beart, R. Wurm, S. Kleinewig, A. Pletsch, R. Moos:

Failure of electrical vias manufactured in thick-film technology when loaded with short high current pulses
Microelectronics Reliability, **56**, 121-128 (2016), doi: 10.1016/j.microrel.2015.10.011

I. Pricha, W. Rossner, R. Moos:

Layered Ceramic Phosphors Based on $\text{CaAlSiN}_3:\text{Eu}$ and $\text{YAG}:\text{Ce}$ for White Light-Emitting Diodes
Journal of the American Ceramic Society, **99**, 211-217 (2016), doi: 10.1111/jace.13948

D. Hanft, J. Exner, M. Schubert, T. Stöcker, P. Fuierer, R. Moos:

An Overview of the Aerosol Deposition Method: Process Fundamentals and New Trends in Materials Applications
Journal of Ceramic Science and Technology, **6**, 147-182 (2015), doi: 10.4416/JCST2015-00018

J. Exner, M. Hahn, M. Schubert, D. Hanft, P. Fuierer, R. Moos:

Powder requirements for aerosol deposition of alumina films
Advanced Powder Technology, **26**, 1143-1151 (2015), doi: 10.1016/j.apt.2015.05.016

I. Pricha, W. Rossner, R. Moos:

Pressureless sintering of luminescent $\text{CaAlSiN}_3:\text{Eu}$ ceramics
Journal of Ceramic Science and Technology, **6**, 63-68 (2015), doi: 10.4416/JCST2014-00047

J. Kita, A. Engelbrecht, F. Schubert, A. Groß, F. Rettig, R. Moos:

Some practical points to consider with respect to thermal conductivity and electrical resistivity of ceramic substrates for high-temperature gas sensors
Sensors and Actuators B: Chemical, **213**, 541-546 (2015), doi: 10.1016/j.snb.2015.01.041

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Journal of Ceramic Science and Technology, **6**, 63-68 (2015), doi: 10.4416/JCST2014-00047

J. Exner, P. Fuierer, R. Moos:

Aerosol Codeposition of Ceramics: Mixtures of $\text{Bi}_2\text{O}_3\text{-TiO}_2$ and $\text{Bi}_2\text{O}_3\text{-V}_2\text{O}_5$
Journal of the American Ceramic Society, **98**, 717-723 (2015), doi: 10.1111/jace.13364

J. Exner, P. Fuierer, R. Moos:
Aerosol Deposition of (Cu,Ti) substituted Bismuth Vanadate Films
Thin Solid Films, **573**, 185-190 (2014), doi: 10.1016/j.tsf.2014.11.037

M. Schubert, J. Exner, R. Moos:
Influence of Carrier Gas Composition on the Stress of Al_2O_3 Coatings Prepared by the Aerosol Deposition Method
Materials, **7**, 5633-5642 (2014), doi: 10.3390/ma7085633

J.C. Brendel, M.M. Schmidt, G. Hagen, R. Moos, M. Thelakkat:
Controlled Synthesis of Water-Soluble Conjugated Polyelectrolytes Leading to Excellent Hole Transport Mobility
Chemistry of Materials, **26**, 1992-1998 (2014), doi: 10.1021/cm500500t

B. Plochmann, S. Lang, R. Rüger, R. Moos:
Optimization of thermoelectric properties of metal-oxide based polymer composites
Journal of Applied Polymer Science, **131**, 40038 (2014), doi: 10.1002/app.40038

D. Chen, A. Groß, D.C. Bono, J. Kita, R. Moos, H.L. Tuller:
Electrical conductivity relaxation measurements: Application of low thermal mass heater stick
Solid State Ionics, **262**, 914-917 (2014), doi: 10.1016/j.ssi.2014.01.023

P. Fuierer, M. Maier, J. Exner, R. Moos:
Anisotropy and thermal stability of hot-forged BICUTIVOX oxygen ion conducting ceramics
Journal of the European Ceramic Society, **34**, 943-951 (2014), doi: 10.1016/j.jeurceramsoc.2013.10.016

G. Hagen, J. Kita, N. Izu, U. Röder-Roith, D. Schönauer-Kamin, R. Moos:
Planar platform for temperature dependent four-wire impedance spectroscopy – a novel tool for the characterization of functional materials
Sensors and Actuators B: Chemical, **187**, 174-183 (2013), doi: 10.1016/j.snb.2012.10.068

D. Chen, A. Groß, D.C. Bono, R. Moos, H.L. Tuller:
Electrical conductivity relaxation measurements: Application of low thermal mass heater stick
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Aerosol Deposition of Bismuth Vanadates
Solid State Ionics **18**, June 2-7, 2013, Kyoto, Japan, Abstracts, p. 132

A. Groß, T. Weller, H.L. Tuller, R. Moos:
Electrical Conductivity Study of NO_x Trap Materials BaCO_3 and $\text{K}_2\text{CO}_3/\text{La-Al}_2\text{O}_3$ during NO_x Exposure
Sensors and Actuators B: Chemical, **187**, 461-470 (2013), doi: 10.1016/j.snb.2013.01.083

T. Stöcker, R. Moos, R. Rüger:
Defect chemistry and thermoelectric properties of doped Delafossite-type oxide CuFeO_2
2nd International Conference on Materials for Energy, EnMat II, Karlsruhe, Germany, May 12-16, 2013, 1.02-04

S. Fischer, R. Pohle, E. Magori, D. Schönauer-Kamin, M. Fleischer, R. Moos:
Pulsed Polarization of Platinum Electrodes on YSZ
Solid State Ionics, **225**, 371-375 (2012), doi: 10.1016/j.ssi.2012.03.020

S. Denneler, C. Schuh, K. Benkert, R. Moos:
Influence of sintering conditions on doped PZT ceramics for base-metal electrode multilayer actuators
Functional Materials Letters, **5**, 1250022 (2012), doi: 10.1142/S1793604712500221

T. Stöcker, A. Köhler, R. Moos:
Why does the electrical conductivity in PEDOT: PSS decrease with PSS content? A study combining thermoelectric measurements with impedance spectroscopy
Journal of Polymer Science Part B: Polymer Physics, **50**, 976-983 (2012), doi: 10.1002/polb.23089

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Processing Issues Related to the Bi-dimensional Ionic Conductivity of BIMEVOX Ceramics
Journal of Materials Science, **46**, 5447-545 (2011), doi: 10.1007/s10853-011-5486-8

S. Denneler, C. Schuh, K. Benkert, R. Moos:
Piezoelectric ceramic compositions for oxygen poor sintering conditions
Electroceramics XII, June 13-16, 2010, Trondheim, Norway

K. Sahner, M. Kaspar, R. Moos:
Assessment of the novel aerosol deposition method for room temperature preparation of metal oxide gas sensor films
Sensors and Actuators B: Chemical, **139**, 394-399 (2009), doi: 10.1016/j.snb.2009.03.011

- T. Richter, C. Schuh, E. Suvaci, R. Moos:
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In W. Kollenberg (Hrsg.): Technische Keramik, Vulkan-Verlag GmbH, Essen (2009), 121-135, 2. Auflage, ISBN 978-3-8027-2953-9
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Influence of sintering conditions on doped PZT ceramics for base-metal electrode multilayer actuators
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Synthesis, Structure, and Electric Conductivity of Ferrous Tainiolite and its Oxidative Conversion into Coarse-Grained Swellable Smectite
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