

Michael Tiemann

List of Publications by Year in descending order

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99
papers

4,349
citations

126907

33
h-index

106344

65
g-index

108
all docs

108
docs citations

108
times ranked

5136
citing authors

#	ARTICLE	IF	CITATIONS
1	Porous Metal Oxides as Gas Sensors. Chemistry - A European Journal, 2007, 13, 8376-8388.	3.3	612
2	Mesoporous materials as gas sensors. Chemical Society Reviews, 2013, 42, 4036-4053.	38.1	547
3	Ordered Mesoporous In ₂ O ₃ : Synthesis by Structure Replication and Application as a Methane Gas Sensor. Advanced Functional Materials, 2009, 19, 653-661.	14.9	298
4	Repeated Templating. Chemistry of Materials, 2008, 20, 961-971.	6.7	254
5	Ordered Mesoporous Magnesium Oxide with High Thermal Stability Synthesized by Exotemplating Using CMK-3 Carbon. Journal of the American Chemical Society, 2005, 127, 1096-1097.	13.7	222
6	Ordered mesoporous ZnO for gas sensing. Thin Solid Films, 2007, 515, 8360-8363.	1.8	128
7	Nanostructured Co ₃ O ₄ as a CO gas sensor: Temperature-dependent behavior. Sensors and Actuators B: Chemical, 2015, 206, 133-138.	7.8	128
8	Synthesis of Mesoporous Magnesium Oxide by CMK-3 Carbon Structure Replication. Chemistry of Materials, 2006, 18, 4151-4156.	6.7	127
9	Mesoporous CeO ₂ : Synthesis by nanocasting, characterisation and catalytic properties. Microporous and Mesoporous Materials, 2007, 101, 335-341.	4.4	118
10	Mesostructured Aluminophosphates Synthesized with Supramolecular Structure Directors. Chemistry of Materials, 2001, 13, 3211-3217.	6.7	101
11	Gas Sensing Properties of Ordered Mesoporous SnO ₂ . Sensors, 2006, 6, 318-323.	3.8	84
12	Ordered nanoporous SnO ₂ gas sensors with high thermal stability. Sensors and Actuators B: Chemical, 2010, 150, 788-793.	7.8	81
13	Ripening Effects in ZnS Nanoparticle Growth. Journal of Physical Chemistry C, 2008, 112, 1463-1467.	3.1	63
14	UV light-enhanced NO ₂ sensing by mesoporous In ₂ O ₃ : Interpretation of results by a new sensing model. Sensors and Actuators B: Chemical, 2013, 187, 488-494.	7.8	63
15	Gas sensor based on ordered mesoporous In ₂ O ₃ . Thin Solid Films, 2009, 517, 6170-6175.	1.8	61
16	Photoreduction of Mesoporous In ₂ O ₃ : Mechanistic Model and Utility in Gas Sensing. Chemistry - A European Journal, 2012, 18, 8216-8223.	3.3	61
17	A New Role of the Surfactant in the Synthesis of Mesostructured Phases: Dodecyl Phosphate as Template and Reactant for Aluminophosphates. Chemistry of Materials, 1998, 10, 3475-3483.	6.7	55
18	Synthesis of mesoporous metal oxides by structure replication: Strategies of impregnating porous matrices with metal salts. Microporous and Mesoporous Materials, 2008, 113, 575-582.	4.4	49

#	ARTICLE	IF	CITATIONS
19	Critical evaluation of the state of iron oxide nanoparticles on different mesoporous silicas prepared by an impregnation method. <i>Microporous and Mesoporous Materials</i> , 2008, 112, 327-337.	4.4	48
20	A High Temperature Capacitive Humidity Sensor Based on Mesoporous Silica. <i>Sensors</i> , 2011, 11, 3135-3144.	3.8	47
21	Crystalline ZnO with an enhanced surface area obtained by nanocasting. <i>Applied Physics Letters</i> , 2007, 90, 123108.	3.3	45
22	Surface-modified CAU-10 MOF materials as humidity sensors: impedance spectroscopic study on water uptake. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21634-21642.	2.8	42
23	Mesoporous Aluminophosphate Molecular Sieves Synthesized under Nonaqueous Conditions. <i>Chemistry of Materials</i> , 2001, 13, 2885-2891.	6.7	41
24	Periodic Mesoporous Organosilica (PMO) Materials with Uniform Spherical Core-shell Structure. <i>Chemistry - A European Journal</i> , 2010, 16, 10447-10452.	3.3	40
25	Anisotropic Water-Mediated Proton Conductivity in Large Iron(II) Metal-Organic Framework Single Crystals for Proton-Exchange Membrane Fuel Cells. <i>ACS Applied Nano Materials</i> , 2019, 2, 291-298.	5.0	39
26	In situ Synchrotron SAXS/XRD Study on the Formation of Ordered Mesoscopic Hybrid Materials with Crystal-Like Walls. <i>Chemistry of Materials</i> , 2004, 16, 5564-5566.	6.7	38
27	Early Stages of ZnS Nanoparticle Growth Studied by In-Situ Stopped-Flow UV Absorption Spectroscopy. <i>ChemPhysChem</i> , 2005, 6, 2113-2119.	2.1	37
28	Light-activated resistive ozone sensing at room temperature utilizing nanoporous In ₂ O ₃ particles: Influence of particle size. <i>Sensors and Actuators B: Chemical</i> , 2015, 217, 181-185.	7.8	36
29	Mesoporous In ₂ O ₃ with Regular Morphology by Nanocasting: A Simple Relation between Defined Particle Shape and Growth Mechanism. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2075-2081.	3.1	34
30	Photocatalytic ozone sensor based on mesoporous indium oxide: Influence of the relative humidity on the sensing performance. <i>Thin Solid Films</i> , 2011, 520, 918-921.	1.8	34
31	Screening of mixed-linker CAU-10 MOF materials for humidity sensing by impedance spectroscopy. <i>Microporous and Mesoporous Materials</i> , 2016, 220, 39-43.	4.4	34
32	Nonaqueous Synthesis of Mesostructured Aluminophosphate/Surfactant Composites: Synthesis, Characterization, and In-Situ SAXS Studies. <i>Chemistry of Materials</i> , 2000, 12, 1342-1348.	6.7	33
33	X-ray absorption near-edge spectroscopy investigation of the oxidation state of Pd species in nanoporous SnO ₂ gas sensors for methane detection. <i>Thin Solid Films</i> , 2011, 520, 909-912.	1.8	33
34	Mesoporous Al ₂ O ₃ by Nanocasting: Relationship between Crystallinity and Mesoscopic Order. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 3283-3288.	2.0	33
35	Early Stages of ZnS Growth Studied by Stopped-Flow UV Absorption Spectroscopy: Effects of Educt Concentrations on the Nanoparticle Formation. <i>Journal of Physical Chemistry B</i> , 2006, 110, 23142-23147.	2.6	32
36	NMR Characterization of Mesostructured Aluminophosphates. <i>Journal of Physical Chemistry B</i> , 2000, 104, 10473-10481.	2.6	27

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37	Graphene oxide as flexibilizer for epoxy amine resins. <i>Progress in Organic Coatings</i> , 2018, 122, 280-289.	3.9	26
38	Gas Responsive Nanoswitch: Copper Oxide Composite for Highly Selective H ₂ S Detection. <i>Advanced Functional Materials</i> , 2019, 29, 1904505.	14.9	26
39	In-Situ SAXS Studies on the Formation of Silicate/Surfactant Mesophases with Solubilized Benzene under Acidic Conditions. <i>Langmuir</i> , 2002, 18, 10053-10057.	3.5	24
40	Iron oxide nanoparticles supported on mesoporous MgO and CeO ₂ : A comparative physicochemical and catalytic study. <i>Microporous and Mesoporous Materials</i> , 2008, 110, 339-346.	4.4	24
41	Photoluminescence Properties of Ordered Mesoporous ZnO. <i>Journal of Physical Chemistry C</i> , 2011, 115, 1375-1379.	3.1	24
42	Nanostructure-Related Magnetic Properties of Various Mesoporous Cobalt Oxide and Cobalt Ferrite Spinel Phases. <i>Journal of Physical Chemistry C</i> , 2013, 117, 24471-24478.	3.1	23
43	Examination of the evolution of iron oxide nanoparticles in flame spray pyrolysis by tailored in situ particle sampling techniques. <i>Journal of Aerosol Science</i> , 2021, 154, 105722.	3.8	23
44	Accessing Ultrashort Reaction Times in Particle Formation with SAXS Experiments: ZnS Precipitation on the Microsecond Time Scale. <i>Journal of the American Chemical Society</i> , 2010, 132, 6822-6826.	13.7	22
45	Micrometer-sized nanoporous tin dioxide spheres for gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 483-488.	7.8	20
46	A synthesis concept for a nanostructured CoFe ₂ O ₄ /BaTiO ₃ composite: Towards multiferroics. <i>Microporous and Mesoporous Materials</i> , 2014, 196, 300-304.	4.4	20
47	Chemical and Morphological Transition of Poly(acrylonitrile)/Poly(vinylidene Fluoride) Blend Nanofibers during Oxidative Stabilization and Incipient Carbonization. <i>Nanomaterials</i> , 2020, 10, 1210.	4.1	20
48	Mesoporous aluminophosphates from a single-source precursor. <i>Chemical Communications</i> , 2002, , 406-407.	4.1	19
49	Bimodal Mesoporous CMK-5 Carbon: Selective Pore Filling with Sulfur and SnO ₂ for Lithium Battery Electrodes. <i>ACS Applied Nano Materials</i> , 2018, 1, 455-462.	5.0	19
50	Cellulose Nanocrystal-Templated Tin Dioxide Thin Films for Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12639-12647.	8.0	19
51	Pyrolysis of sucrose-derived hydrochar. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 161, 105404.	5.5	17
52	Assessment of the density of (meso)porous materials from standard volumetric physisorption data. <i>Microporous and Mesoporous Materials</i> , 2016, 223, 53-57.	4.4	16
53	Straightforward Immobilization of Phosphonic Acids and Phosphoric Acid Esters on Mesoporous Silica and Their Application in an Asymmetric Aldol Reaction. <i>Nanomaterials</i> , 2019, 9, 249.	4.1	16
54	Copper Oxide/Silica Nanocomposites for Selective and Stable H ₂ S Gas Detection. <i>ACS Applied Nano Materials</i> , 2019, 2, 3335-3338.	5.0	15

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55	Selective surface modification in bimodal mesoporous CMK-5 carbon. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18426-18431.	10.3	14
56	Humidity-Mediated Anisotropic Proton Conductivity through the 1D Channels of Co-MOF-74. <i>Nanomaterials</i> , 2020, 10, 1263.	4.1	14
57	Selective Modification of Hierarchical Pores and Surfaces in Nanoporous Materials. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001153.	3.7	14
58	Proton Conduction in a Single Crystal of a Phosphonate-Sulfonate-Based Coordination Polymer: Mechanistic Insight. <i>ChemPhysChem</i> , 2020, 21, 605-609.	2.1	14
59	New mesoporous metal oxides as gas sensors. <i>Studies in Surface Science and Catalysis</i> , 2008, 174, 401-404.	1.5	13
60	New isorecticular phosphonate MOFs based on a tetratopic linker. <i>Dalton Transactions</i> , 2021, 50, 13572-13579.	3.3	13
61	One-step synthesis of multi-modal pore systems in mesoporous In ₂ O ₃ : A detailed study. <i>Microporous and Mesoporous Materials</i> , 2014, 188, 133-139.	4.4	12
62	Gas-sensing properties of ordered mesoporous Co ₃ O ₄ synthesized by replication of SBA-15 silica. <i>Studies in Surface Science and Catalysis</i> , 2007, 165, 347-350.	1.5	11
63	Fructose and Urea as Precursors for N-Modified Mesoporous Carbon with Enhanced Sorption Capacity for Heavy Metal Ions. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 2787-2792.	2.0	11
64	Synthesis of mesoporous alumina through photo cross-linked poly(dimethylacrylamide) hydrogels. <i>Colloid and Polymer Science</i> , 2014, 292, 3055-3060.	2.1	10
65	Synthesis of Mesoporous Metal Oxides by Structure Replication: Thermal Analysis of Metal Nitrates in Porous Carbon Matrices. <i>Nanomaterials</i> , 2015, 5, 1431-1441.	4.1	10
66	Water adsorption and capillary bridge formation on silica micro-particle layers modified with perfluorinated organosilane monolayers. <i>Applied Surface Science</i> , 2019, 475, 873-879.	6.1	10
67	Review of infrared spectroscopy techniques for the determination of internal structure in thin SiO ₂ films. <i>Vibrational Spectroscopy</i> , 2021, 114, 103256.	2.2	10
68	Phase Transitions of Ice in Aqueous Salt Solutions within Nanometer-Sized Pores. <i>Journal of Physical Chemistry C</i> , 2019, 123, 24566-24574.	3.1	7
69	In-situ small angle x-ray scattering (SAXS) studies on the formation of mesostructured aluminophosphate / surfactant composite materials. <i>Studies in Surface Science and Catalysis</i> , 2000, , 559-566.	1.5	6
70	Mesoporous Silica. <i>Chemkon - Chemie Konkret, Forum Fuer Unterricht Und Didaktik</i> , 2012, 19, 67-72.	0.4	6
71	Selective pore filling of mesoporous CMK-5 carbon studied by XRD: Comparison between theoretical simulations and experimental results. <i>Microporous and Mesoporous Materials</i> , 2018, 266, 24-31.	4.4	6
72	Porous Aluminum Oxide and Magnesium Oxide Films Using Organic Hydrogels as Structure Matrices. <i>Nanomaterials</i> , 2018, 8, 186.	4.1	6

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73	Photo-Cross-Linked Polydimethylacrylamide Hydrogels as Porogens for Mesoporous Alumina. European Journal of Inorganic Chemistry, 2017, 2017, 1026-1031.	2.0	5
74	Organic Polymers as Porogenic Structure Matrices for Mesoporous Alumina and Magnesia. Processes, 2017, 5, 70.	2.8	5
75	Hydrogels as Porogens for Nanoporous Inorganic Materials. Gels, 2018, 4, 83.	4.5	5
76	TiO ₂ nanoparticle coatings on glass surfaces for the selective trapping of leukemia cells from peripheral blood. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 2142-2153.	3.4	5
77	Nanoporous Materials: Synthesis Concepts and Model Experiments for School Chemistry Education. Journal of Nano Education (Print), 2014, 6, 117-123.	0.3	5
78	The Structure of Water in Silica Mesopores – Influence of the Pore Wall Polarity. Advanced Materials Interfaces, 2022, 9, .	3.7	5
79	Time-resolved photoluminescence study of mesoporous ZnO nanostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 542-545.	0.8	4
80	Nano-architectural complexity of zinc oxide nanowall hollow microspheres and their structural properties. Nanotechnology, 2020, 31, 095701.	2.6	4
81	Modeling of gyroidal mesoporous CMK-8 and CMK-9 carbon nanostructures and their X-Ray diffraction patterns. Microporous and Mesoporous Materials, 2021, 310, 110330.	4.4	4
82	Kinetics of ozone decomposition in porous In ₂ O ₃ monoliths. Physical Chemistry Chemical Physics, 2017, 19, 10326-10332.	2.8	3
83	Stimulation and Enhancement of Near-Band-Edge Emission in Zinc Oxide by Distributed Bragg Reflectors. Advanced Materials Interfaces, 0, , 2102357.	3.7	3
84	New Sensing Model of (Mesoporous) In ₂ O ₃ . Springer Series on Chemical Sensors and Biosensors, 2013, , 175-211.	0.5	2
85	Fructose as a Precursor for Mesoporous Carbon: Straightforward Solvent-Free Synthesis by Nanocasting. ACS Symposium Series, 2014, , 3-12.	0.5	2
86	Functional Nanoporous Materials. Nanomaterials, 2020, 10, 699.	4.1	2
87	Multiple K-edge XAS for the structural analysis of thiophenolate bridged heterotrimeric complexes. Journal of Synchrotron Radiation, 1999, 6, 397-399.	2.4	1
88	„Ich rieche was, was du nicht riechst“. Chemkon - Chemie Konkret, Forum Fuer Unterricht Und Didaktik, 2009, 16, 183-186.	0.4	1
89	Mesoporous In ₂ O ₃ : Photoreduction and Gas-Sensing Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 1563-1563.	1.2	1
90	Porous Metal Oxides and Composites with Ferrioc Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 1577-1577.	1.2	1

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91	Synthesis of Metal Oxide Inverse Opals from Metal Nitrates by PMMA Colloidal Crystal Templating. European Journal of Inorganic Chemistry, 2020, 2020, 3402-3407.	2.0	1
92	Nanoporous aluminum oxide micropatterns prepared by hydrogel templating. Nanotechnology, 2020, 31, 445601.	2.6	1
93	Geordnete poröse Metalloxide durch Replikation rigider Strukturmatrizes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2006, 632, 2079-2079.	1.2	0
94	In-situ X-ray diffraction study on the formation of a periodic mesoporous organosilica material. Studies in Surface Science and Catalysis, 2007, 165, 9-12.	1.5	0
95	Synthese und neue Anwendungen geordneter nanoporöser Metalloxide. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2008, 634, 2019-2019.	1.2	0
96	MESOPOROUS CERIA BY STRUCTURE REPLICATION FROM VARIOUS POROUS MATRICES. , 2008, , .		0
97	NO2 Sensors with Reduced Power Consumption Based on Mesoporous Indium Oxide. Lecture Notes in Electrical Engineering, 2012, , 55-59.	0.4	0
98	Arduino-Based Shield for Resistive Gas Sensor Array Characterization Under UV Light Exposure. Lecture Notes in Electrical Engineering, 2014, , 411-415.	0.4	0
99	The role of sulfonate groups and hydrogen bonding in the proton conductivity of two coordination networks. Beilstein Journal of Nanotechnology, 0, 13, 437-443.	2.8	0