Michael Tiemann

List of Publications by Year
in descending order

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	Pyrolysis of sucrose-derived hydrochar. Journal of Analytical and Applied Pyrolysis, 2022, 161, 105404.	5.5	17
2	The Structure of Water in Silica Mesopores â€“ Influence of the Pore Wall Polarity. Advanced Materials Interfaces, 2022, 9, .	3.7	5
3	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
4	Selective Modification of Hierarchical Pores and Surfaces in Nanoporous Materials. Advanced Materials Interfaces, 2021, 8, 2001153.	3.7	14
5	Examination of the evolution of iron oxide nanoparticles in flame spray pyrolysis by tailored in situ particle sampling techniques. Journal of Aerosol Science, 2021, 154, 105722.	3.8	23
6	Review of infrared spectroscopy techniques for the determination of internal structure in thin SiO2 films. Vibrational Spectroscopy, 2021, 114, 103256.	2.2	10
7	<scp>TiO₂</scp> 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
8	New isoreticular phosphonate MOFs based on a tetratopic linker. Dalton Transactions, 2021, 50, 13572-13579.	3.3	13
9	Nano-architectural complexity of zinc oxide nanowall hollow microspheres and their structural properties. Nanotechnology, 2020, 31, 095701.	2.6	4
10	Cellulose Nanocrystal-Templated Tin Dioxide Thin Films for Gas Sensing. ACS Applied Materials & Interfaces, 2020, 12, 12639-12647.	8.0	19
11	Chemical and Morphological Transition of Poly(acrylonitrile)/Poly(vinylidene Fluoride) Blend Nanofibers during Oxidative Stabilization and Incipient Carbonization. Nanomaterials, 2020, 10, 1210.	4.1	20
12	Humidity-Mediated Anisotropic Proton Conductivity through the 1D Channels of Co-MOF-74. Nanomaterials, 2020, 10, 1263.	4.1	14
13	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
14	Functional Nanoporous Materials. Nanomaterials, 2020, 10, 699.	4.1	2
15	Proton Conduction in a Single Crystal of a Phosphonatoâ€Sulfonateâ€Based Coordination Polymer: Mechanistic Insight. ChemPhysChem, 2020, 21, 605-609.	2.1	14
16	Nanoporous aluminum oxide micropatterns prepared by hydrogel templating. Nanotechnology, 2020, 31, 445601.	2.6	1
17	Gas Responsive Nanoswitch: Copper Oxide Composite for Highly Selective H₂S Detection. Advanced Functional Materials, 2019, 29, 1904505.	14.9	26
18	Phase Transitions of Ice in Aqueous Salt Solutions within Nanometer-Sized Pores. Journal of Physical Chemistry C, 2019, 123, 24566-24574.	3.1	7

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19	Copper Oxide/Silica Nanocomposites for Selective and Stable H₂S Gas Detection. ACS Applied Nano Materials, 2019, 2, 3335-3338.	5.0	15
20	Straightforward Immobilization of Phosphonic Acids and Phosphoric Acid Esters on Mesoporous Silica and Their Application in an Asymmetric Aldol Reaction. Nanomaterials, 2019, 9, 249.	4.1	16
21	Anisotropic Water-Mediated Proton Conductivity in Large Iron(II) Metalâ€“Organic Framework Single Crystals for Proton-Exchange Membrane Fuel Cells. ACS Applied Nano Materials, 2019, 2, 291-298.	5.0	39
22	Water adsorption and capillary bridge formation on silica micro-particle layers modified with perfluorinated organosilane monolayers. Applied Surface Science, 2019, 475, 873-879.	6.1	10
23	Selective pore filling of mesoporous CMK-5 carbon studied by XRD: Comparison between theoretical simulations and experimental results. Microporous and Mesoporous Materials, 2018, 266, 24-31.	4.4	6
24	Bimodal Mesoporous CMK-5 Carbon: Selective Pore Filling with Sulfur and SnO₂ for Lithium Battery Electrodes. ACS Applied Nano Materials, 2018, 1, 455-462.	5.0	19
25	Hydrogels as Porogens for Nanoporous Inorganic Materials. Gels, 2018, 4, 83.	4.5	5
26	Porous Aluminum Oxide and Magnesium Oxide Films Using Organic Hydrogels as Structure Matrices. Nanomaterials, 2018, 8, 186.	4.1	6
27	Graphene oxide as flexibilizer for epoxy amine resins. Progress in Organic Coatings, 2018, 122, 280-289.	3.9	26
28	Photoâ€Crossâ€Linked Polydimethylacrylamide Hydrogels as Porogens for Mesoporous Alumina. European Journal of Inorganic Chemistry, 2017, 2017, 1026-1031.	2.0	5
29	Kinetics of ozone decomposition in porous In₂O₃ monoliths. Physical Chemistry Chemical Physics, 2017, 19, 10326-10332.	2.8	3
30	Organic Polymers as Porogenic Structure Matrices for Mesoporous Alumina and Magnesia. Processes, 2017, 5, 70.	2.8	5
31	Selective surface modification in bimodal mesoporous CMK-5 carbon. Journal of Materials Chemistry A, 2016, 4, 18426-18431.	10.3	14
32	Assessment of the density of (meso)porous materials from standard volumetric physisorption data. Microporous and Mesoporous Materials, 2016, 223, 53-57.	4.4	16
33	Screening of mixed-linker CAU-10 MOF materials for humidity sensing by impedance spectroscopy. Microporous and Mesoporous Materials, 2016, 220, 39-43.	4.4	34
34	Synthesis of Mesoporous Metal Oxides by Structure Replication: Thermal Analysis of Metal Nitrates in Porous Carbon Matrices. Nanomaterials, 2015, 5, 1431-1441.	4.1	10
35	Light-activated resistive ozone sensing at room temperature utilizing nanoporous In2O3 particles: Influence of particle size. Sensors and Actuators B: Chemical, 2015, 217, 181-185.	7.8	36
36	Surface-modified CAU-10 MOF materials as humidity sensors: impedance spectroscopic study on water uptake. Physical Chemistry Chemical Physics, 2015, 17, 21634-21642.	2.8	42

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37	Nanostructured Co3O4 as a CO gas sensor: Temperature-dependent behavior. Sensors and Actuators B: Chemical, 2015, 206, 133-138.	7.8	128
38	Fructose as a Precursor for Mesoporous Carbon: Straightforward Solvent-Free Synthesis by Nanocasting. ACS Symposium Series, 2014, , 3-12.	0.5	2
39	Synthesis of mesoporous alumina through photo cross-linked poly(dimethylacrylamide) hydrogels. Colloid and Polymer Science, 2014, 292, 3055-3060.	2.1	10
40	Fructose and Urea as Precursors for Nâ€‰Oâ€Modified Mesoporous Carbon with Enhanced Sorption Capacity for Heavy Metal Ions. European Journal of Inorganic Chemistry, 2014, 2014, 2787-2792.	2.0	11
41	One-step synthesis of multi-modal pore systems in mesoporous In2O3: A detailed study. Microporous and Mesoporous Materials, 2014, 188, 133-139.	4.4	12
42	A synthesis concept for a nanostructured CoFe2O4/BaTiO3 composite: Towards multiferroics. Microporous and Mesoporous Materials, 2014, 196, 300-304.	4.4	20
43	Nanoporous Materials: Synthesis Concepts and Model Experiments for School Chemistry Education. Journal of Nano Education (Print), 2014, 6, 117-123.	0.3	5
44	Arduino-Based Shield for Resistive Gas Sensor Array Characterization Under UV Light Exposure. Lecture Notes in Electrical Engineering, 2014, , 411-415.	0.4	0
45	New Sensing Model of (Mesoporous) In2O3. Springer Series on Chemical Sensors and Biosensors, 2013, , 175-211.	0.5	2
46	Nanostructure-Related Magnetic Properties of Various Mesoporous Cobalt Oxide and Cobalt Ferrite Spinel Phases. Journal of Physical Chemistry C, 2013, 117, 24471-24478.	3.1	23
47	Mesoporous materials as gas sensors. Chemical Society Reviews, 2013, 42, 4036-4053.	38.1	547
48	UV light-enhanced NO2 sensing by mesoporous In2O3: Interpretation of results by a new sensing model. Sensors and Actuators B: Chemical, 2013, 187, 488-494.	7.8	63
49	Mesoporous In2O3: Photoreduction and Gas-Sensing Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 1563-1563.	1.2	1
50	Porous Metal Oxides and Composites with Ferroic Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 1577-1577.	1.2	1
51	Mesoporous Al₂O₃ by Nanocasting: Relationship between Crystallinity and Mesoscopic Order. European Journal of Inorganic Chemistry, 2012, 2012, 3283-3288.	2.0	33
52	Photoreduction of Mesoporous In₂O₃: Mechanistic Model and Utility in Gas Sensing. Chemistry - A European Journal, 2012, 18, 8216-8223.	3.3	61
53	MesporÃ¶se Silica. Chemkon - Chemie Konkret, Forum Fuer Unterricht Und Didaktik, 2012, 19, 67-72.	0.4	6
54	NO2 Sensors with Reduced Power Consumption Based on Mesoporous Indium Oxide. Lecture Notes in Electrical Engineering, 2012, , 55-59.	0.4	0

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55	Photoluminescence Properties of Ordered Mesoporous ZnO. Journal of Physical Chemistry C, 2011, 115, 1375-1379.	3.1	24
56	Photocatalytic ozone sensor based on mesoporous indium oxide: Influence of the relative humidity on the sensing performance. Thin Solid Films, 2011, 520, 918-921.	1.8	34
57	X-ray absorption near-edge spectroscopy investigation of the oxidation state of Pd species in nanoporous SnO2 gas sensors for methane detection. Thin Solid Films, 2011, 520, 909-912.	1.8	33
58	Micrometer-sized nanoporous tin dioxide spheres for gas sensing. Sensors and Actuators B: Chemical, 2011, 155, 483-488.	7.8	20
59	A High Temperature Capacitive Humidity Sensor Based on Mesoporous Silica. Sensors, 2011, 11, 3135-3144.	3.8	47
60	Periodic Mesoporous Organosilica (PMO) Materials with Uniform Spherical Coreâ€Shell Structure. Chemistry - A European Journal, 2010, 16, 10447-10452.	3.3	40
61	Ordered nanoporous SnO2 gas sensors with high thermal stability. Sensors and Actuators B: Chemical, 2010, 150, 788-793.	7.8	81
62	Accessing Ultrashort Reaction Times in Particle Formation with SAXS Experiments: ZnS Precipitation on the Microsecond Time Scale. Journal of the American Chemical Society, 2010, 132, 6822-6826.	13.7	22
63	Mesoporous In₂O₃ with Regular Morphology by Nanocasting: A Simple Relation between Defined Particle Shape and Growth Mechanism. Journal of Physical Chemistry C, 2010, 114, 2075-2081.	3.1	34
64	Ordered Mesoporous In₂O₃: Synthesis by Structure Replication and Application as a Methane Gas Sensor. Advanced Functional Materials, 2009, 19, 653-661.	14.9	298
65	â€žIch rieche was, was du nicht riechstâ€¦. Chemkon - Chemie Konkret, Forum Fuer Unterricht Und Didaktik, 2009, 16, 183-186.	0.4	1
66	Timeâ€resolved photoluminescence study of mesoporous ZnO nanostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 542-545.	0.8	4
67	Gas sensor based on ordered mesoporous In2O3. Thin Solid Films, 2009, 517, 6170-6175.	1.8	61
68	Synthese und neue Anwendungen geordneter nanporÃ¶ser Metalloxide. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2008, 634, 2019-2019.	1.2	0
69	Iron oxide nanoparticles supported on mesoporous MgO and CeO2: A comparative physicochemical and catalytic study. Microporous and Mesoporous Materials, 2008, 110, 339-346.	4.4	24
70	Critical evaluation of the state of iron oxide nanoparticles on different mesoporous silicas prepared by an impregnation method. Microporous and Mesoporous Materials, 2008, 112, 327-337.	4.4	48
71	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
72	Repeated Templating. Chemistry of Materials, 2008, 20, 961-971.	6.7	254

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73	Ripening Effects in ZnS Nanoparticle Growth. Journal of Physical Chemistry C, 2008, 112, 1463-1467.	3.1	63
74	New mesoporous metal oxides as gas sensors. Studies in Surface Science and Catalysis, 2008, 174, 401-404.	1.5	13
75	MESOPOROUS CERIA BY STRUCTURE REPLICATION FROM VARIOUS POROUS MATRICES. , 2008, , .		0
76	Crystalline ZnO with an enhanced surface area obtained by nanocasting. Applied Physics Letters, 2007, 90, 123108.	3.3	45
77	Gas-sensing properties of ordered mesoporous Co3O4 synthesized by replication of SBA-15 silica. Studies in Surface Science and Catalysis, 2007, 165, 347-350.	1.5	11
78	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
79	Porous Metal Oxides as Gas Sensors. Chemistry - A European Journal, 2007, 13, 8376-8388.	3.3	612
80	Mesoporous CeO2: Synthesis by nanocasting, characterisation and catalytic properties. Microporous and Mesoporous Materials, 2007, 101, 335-341.	4.4	118
81	Ordered mesoporous ZnO for gas sensing. Thin Solid Films, 2007, 515, 8360-8363.	1.8	128
82	Early Stages of ZnS Growth Studied by Stopped-Flow UV Absorption Spectroscopy:Â Effects of Educt Concentrations on the Nanoparticle Formation. Journal of Physical Chemistry B, 2006, 110, 23142-23147.	2.6	32
83	Synthesis of Mesoporous Magnesium Oxide by CMK-3 Carbon Structure Replication. Chemistry of Materials, 2006, 18, 4151-4156.	6.7	127
84	Geordnete porÃ¶se Metalloxide durch Replikation rigider Strukturmatrizes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2006, 632, 2079-2079.	1.2	0
85	Gas Sensing Properties of Ordered Mesoporous SnO2. Sensors, 2006, 6, 318-323.	3.8	84
86	Early Stages of ZnS Nanoparticle Growth Studied by In-Situ Stopped-Flow UV Absorption Spectroscopy. ChemPhysChem, 2005, 6, 2113-2119.	2.1	37
87	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
88	In situ Synchrotron SAXS/XRD Study on the Formation of Ordered Mesoscopic Hybrid Materials with Crystal-Like Walls. Chemistry of Materials, 2004, 16, 5564-5566.	6.7	38
89	Mesoporous aluminophosphates from a single-source precursor. Chemical Communications, 2002, , 406-407.	4.1	19
90	In-Situ SAXS Studies on the Formation of Silicate/Surfactant Mesophases with Solubilized Benzene under Acidic Conditions. Langmuir, 2002, 18, 10053-10057.	3.5	24

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91	Mesoporous Aluminophosphate Molecular Sieves Synthesized under Nonaqueous Conditions. Chemistry of Materials, 2001, 13, 2885-2891.	6.7	41
92	Mesostructured Aluminophosphates Synthesized with Supramolecular Structure Directors. Chemistry of Materials, 2001, 13, 3211-3217.	6.7	101
93	In-situ small angle x-ray scattering (SAXS) studies on the formation of mesostructured aluminophosphate / surfactant composite materials. Studies in Surface Science and Catalysis, 2000, , 559-566.	1.5	6
94	NMR Characterization of Mesostructured Aluminophosphates. Journal of Physical Chemistry B, 2000, 104, 10473-10481.	2.6	27
95	Nonaqueous Synthesis of Mesostructured Aluminophosphate/Surfactant Composites:Â Synthesis, Characterization, and In-Situ SAXS Studies. Chemistry of Materials, 2000, 12, 1342-1348.	6.7	33
96	MultipleK-edge XAS for the structural analysis of thiophenolate bridged heterotrinuclear complexes. Journal of Synchrotron Radiation, 1999, 6, 397-399.	2.4	1
97	A New Role of the Surfactant in the Synthesis of Mesostructured Phases:Â Dodecyl Phosphate as Template and Reactant for Aluminophosphates. Chemistry of Materials, 1998, 10, 3475-3483.	6.7	55
98	Stimulation and Enhancement of Nearâ€Bandâ€Edge Emission in Zinc Oxide by Distributed Bragg Reflectors. Advanced Materials Interfaces, 0, , 2102357.	3.7	3
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