Matthias Thommes

List of Publications by Year in Descending Order

39 papers	12,617 citations	24 h-index	41 g-index
41 ext. papers	15,502 ext. citations	9.1 avg, IF	6.63 L-index

#	Paper	IF	Citations
39	Spray-Drying and Atomic Layer Deposition: Complementary Tools toward Fully Orthogonal Control of Bulk Composition and Surface Identity of Multifunctional Supraparticles (Small Methods 1/2022). *Small Methods*, **2022**, 6, 2270006	12.8	
38	Spray-Drying and Atomic Layer Deposition: Complementary Tools toward Fully Orthogonal Control of Bulk Composition and Surface Identity of Multifunctional Supraparticles.. *Small Methods*, **2022**, 6, e2101296	12.8	2
37	Reliable surface area determination of powders and meso/macroporous materials: Small-angle X-ray scattering and gas physisorption. *Microporous and Mesoporous Materials*, **2021**, 111554	5.3	3
36	Porosimetry for Thin Films of Metal-Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorption-Based Methods. *Advanced Materials*, **2021**, 33, e2006993	24	14
35	Porosimetry: Porosimetry for Thin Films of Metal□Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorption-Based Methods (Adv. Mater. 17/2021). *Advanced Materials*, **2021**, 33, 2170133	24	1
34	Pore size characterization of micro-mesoporous carbons using CO2 adsorption. *Carbon*, **2021**, 173, 842-848	10.4	10
33	Characterization of Hierarchically Ordered Porous Materials by Physisorption and Mercury Porosimetry□A Tutorial Review. *Advanced Materials Interfaces*, **2021**, 8, 2002181	4.6	23
32	Hierarchically-Ordered Materials. *Advanced Materials Interfaces*, **2021**, 8, 2100057	4.6	1
31	Fingerprinting diverse nanoporous materials for optimal hydrogen storage conditions using meta-learning. *Science Advances*, **2021**, 7,	14.3	8
30	Gas-Phase Hydroformylation Using Supported Ionic Liquid Phase (SILP) Catalysts □Influence of Support Texture on Effective Kinetics. *ChemCatChem*, **2021**, 13, 4192	5.2	2
29	Pore Size Gradient Effect in Monolithic Silica Mesopore Networks Revealed by In-Situ SAXS Physisorption. *Langmuir*, **2020**, 36, 11996-12009	4	4
28	Modeling the Impact of Mesoporous Silica Microstructures on the Adsorption Hysteresis Loop. *Journal of Physical Chemistry C*, **2020**, 124, 21646-21655	3.8	11
27	Phase Behavior and Capillary Condensation Hysteresis of Carbon Dioxide in Mesopores. *Langmuir*, **2019**, 35, 11291-11298	4	21
26	Scale-dependent diffusion anisotropy in nanoporous silicon. *Scientific Reports*, **2017**, 7, 40207	4.9	33
25	Selectively Tuned Pore Condensation and Hysteresis Behavior in Mesoporous SBA-15 Silica: Correlating Material Synthesis to Advanced Gas Adsorption Analysis. *Journal of Physical Chemistry C* , **2017**, 121, 24505-24526	3.8	34
24	Recent advances in the textural characterization of hierarchically structured nanoporous materials. *Chemical Society Reviews*, **2017**, 46, 389-414	58.5	553
23	Insights into the pore structure of KIT-6 and SBA-15 ordered mesoporous silica □recent advances by combining physical adsorption with mercury porosimetry. *New Journal of Chemistry*, **2016**, 40, 4351-4360	3.6	34

22	Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report). *Pure and Applied Chemistry*, **2015**, 87, 1051-1069	2.1	7465
21	Physical adsorption characterization of nanoporous materials: progress and challenges. *Adsorption*, **2014**, 20, 233-250	2.6	389
20	Evidences of Intracrystalline Mesostructured Porosity in Zeolites by Advanced Gas Sorption, Electron Tomography and Rotation Electron Diffraction. *ChemCatChem*, **2014**, 6, 3031-3031	5.2	
19	Evidence of Intracrystalline Mesostructured Porosity in Zeolites by Advanced Gas Sorption, Electron Tomography and Rotation Electron Diffraction. *ChemCatChem*, **2014**, 6, 3110-3115	5.2	79
18	Combining nitrogen, argon, and water adsorption for advanced characterization of ordered mesoporous carbons (CMKs) and periodic mesoporous organosilicas (PMOs). *Langmuir*, **2013**, 29, 14893-902	4	115
17	Experimental and theoretical studies of scanning adsorption–desorption isotherms. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2013**, 437, 76-89	5.1	61
16	Characterization of the pore structure of three-dimensionally ordered mesoporous carbons using high resolution gas sorption. *Langmuir*, **2012**, 28, 12647-54	4	79
15	Advanced Physical Adsorption Characterization of Nanoporous Carbons **2012**, 107-145		28
14	Synthesis of self-pillared zeolite nanosheets by repetitive branching. *Science*, **2012**, 336, 1684-7	33.3	559
13	Quenched solid density functional theory method for characterization of mesoporous carbons by nitrogen adsorption. *Carbon*, **2012**, 50, 1583-1590	10.4	311
12	A microporous copper metal-organic framework with high H2 and CO2 adsorption capacity at ambient pressure. *Angewandte Chemie - International Edition*, **2011**, 50, 10344-8	16.4	102
11	Liquid intrusion and alternative methods for the characterization of macroporous materials (IUPAC Technical Report). *Pure and Applied Chemistry*, **2011**, 84, 107-136	2.1	108
10	Probing Adsorption, Pore Condensation, and Hysteresis Behavior of Pure Fluids in Three-Dimensional Cubic Mesoporous KIT-6 Silica. *Journal of Physical Chemistry C*, **2010**, 114, 9344-9355	3.8	167
9	Cavitation in metastable liquid nitrogen confined to nanoscale pores. *Langmuir*, **2010**, 26, 10147-57	4	153
8	Quenched solid density functional theory and pore size analysis of micro-mesoporous carbons. *Carbon*, **2009**, 47, 1617-1628	10.4	611
7	RECENT ADVANCES IN THE CHARACTERIZATION OF MESOPOROUS MATERIALS BY PHYSICAL ADSORPTION. *Annual Review of Nano Research*, **2009**, 515-555		7
6	Adsorption hysteresis of nitrogen and argon in pore networks and characterization of novel micro- and mesoporous silicas. *Langmuir*, **2006**, 22, 756-64	4	445
5	Characterization of Porous Solids and Powders: Surface Area, Pore Size and Density. *Particle Technology Series*, **2004**,	0	665

4	PHYSICAL ADSORPTION CHARACTERIZATION OF ORDERED AND AMORPHOUS MESOPOROUS MATERIALS. *Series on Chemical Engineering*, **2004**, 317-364	1.5	78
3	Sorption and pore condensation behavior of pure fluids in mesoporous MCM-48 silica, MCM-41 silica, SBA-15 silica and controlled-pore glass at temperatures above and below the bulk triple point. *Applied Surface Science*, **2002**, 196, 239-249	6.7	159
2	Sorption and Pore Condensation Behavior of Nitrogen, Argon, and Krypton in Mesoporous MCM-48 Silica Materials. *Journal of Physical Chemistry B*, **2000**, 104, 7932-7943	3.4	112
1	Pore Condensation and Critical-Point Shift of a Fluid in Controlled-Pore Glass. *Langmuir*, **1994**, 10, 4270-4277	4	170