

Matthias Thommes

List of Publications by Citations

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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	Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2015 , 87, 1051-1069	2.1	7465
38	Characterization of Porous Solids and Powders: Surface Area, Pore Size and Density. <i>Particle Technology Series</i> , 2004 ,	0	665
37	Quenched solid density functional theory and pore size analysis of micro-mesoporous carbons. <i>Carbon</i> , 2009 , 47, 1617-1628	10.4	611
36	Synthesis of self-pillared zeolite nanosheets by repetitive branching. <i>Science</i> , 2012 , 336, 1684-7	33.3	559
35	Recent advances in the textural characterization of hierarchically structured nanoporous materials. <i>Chemical Society Reviews</i> , 2017 , 46, 389-414	58.5	553
34	Adsorption hysteresis of nitrogen and argon in pore networks and characterization of novel micro- and mesoporous silicas. <i>Langmuir</i> , 2006 , 22, 756-64	4	445
33	Physical adsorption characterization of nanoporous materials: progress and challenges. <i>Adsorption</i> , 2014 , 20, 233-250	2.6	389
32	Quenched solid density functional theory method for characterization of mesoporous carbons by nitrogen adsorption. <i>Carbon</i> , 2012 , 50, 1583-1590	10.4	311
31	Pore Condensation and Critical-Point Shift of a Fluid in Controlled-Pore Glass. <i>Langmuir</i> , 1994 , 10, 4270-4277	170	
30	Probing Adsorption, Pore Condensation, and Hysteresis Behavior of Pure Fluids in Three-Dimensional Cubic Mesoporous KIT-6 Silica. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 9344-9355	3.8	167
29	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. <i>Applied Surface Science</i> , 2002 , 196, 239-249	6.7	159
28	Cavitation in metastable liquid nitrogen confined to nanoscale pores. <i>Langmuir</i> , 2010 , 26, 10147-57	4	153
27	Combining nitrogen, argon, and water adsorption for advanced characterization of ordered mesoporous carbons (CMKs) and periodic mesoporous organosilicas (PMOs). <i>Langmuir</i> , 2013 , 29, 14893-902	4	115
26	Sorption and Pore Condensation Behavior of Nitrogen, Argon, and Krypton in Mesoporous MCM-48 Silica Materials. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 7932-7943	3.4	112
25	Liquid intrusion and alternative methods for the characterization of macroporous materials (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2011 , 84, 107-136	2.1	108
24	A microporous copper metal-organic framework with high H ₂ and CO ₂ adsorption capacity at ambient pressure. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 10344-8	16.4	102
23	Evidence of Intracrystalline Mesostructured Porosity in Zeolites by Advanced Gas Sorption, Electron Tomography and Rotation Electron Diffraction. <i>ChemCatChem</i> , 2014 , 6, 3110-3115	5.2	79

22	Characterization of the pore structure of three-dimensionally ordered mesoporous carbons using high resolution gas sorption. <i>Langmuir</i> , 2012 , 28, 12647-54	4	79
21	PHYSICAL ADSORPTION CHARACTERIZATION OF ORDERED AND AMORPHOUS MESOPOROUS MATERIALS. <i>Series on Chemical Engineering</i> , 2004 , 317-364	1.5	78
20	Experimental and theoretical studies of scanning adsorption-desorption isotherms. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013 , 437, 76-89	5.1	61
19	Selectively Tuned Pore Condensation and Hysteresis Behavior in Mesoporous SBA-15 Silica: Correlating Material Synthesis to Advanced Gas Adsorption Analysis. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 24505-24526	3.8	34
18	Insights into the pore structure of KIT-6 and SBA-15 ordered mesoporous silica ¶recent advances by combining physical adsorption with mercury porosimetry. <i>New Journal of Chemistry</i> , 2016 , 40, 4351-4360	3.6	34
17	Scale-dependent diffusion anisotropy in nanoporous silicon. <i>Scientific Reports</i> , 2017 , 7, 40207	4.9	33
16	Advanced Physical Adsorption Characterization of Nanoporous Carbons 2012 , 107-145		28
15	Characterization of Hierarchically Ordered Porous Materials by Physisorption and Mercury Porosimetry¶ Tutorial Review. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2002181	4.6	23
14	Phase Behavior and Capillary Condensation Hysteresis of Carbon Dioxide in Mesopores. <i>Langmuir</i> , 2019 , 35, 11291-11298	4	21
13	Porosimetry for Thin Films of Metal-Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorption-Based Methods. <i>Advanced Materials</i> , 2021 , 33, e2006993	24	14
12	Modeling the Impact of Mesoporous Silica Microstructures on the Adsorption Hysteresis Loop. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 21646-21655	3.8	11
11	Pore size characterization of micro-mesoporous carbons using CO2 adsorption. <i>Carbon</i> , 2021 , 173, 842-848	11.4	10
10	Fingerprinting diverse nanoporous materials for optimal hydrogen storage conditions using meta-learning. <i>Science Advances</i> , 2021 , 7,	14.3	8
9	RECENT ADVANCES IN THE CHARACTERIZATION OF MESOPOROUS MATERIALS BY PHYSICAL ADSORPTION. <i>Annual Review of Nano Research</i> , 2009 , 515-555		7
8	Pore Size Gradient Effect in Monolithic Silica Mesopore Networks Revealed by In-Situ SAXS Physisorption. <i>Langmuir</i> , 2020 , 36, 11996-12009	4	4
7	Reliable surface area determination of powders and meso/macroporous materials: Small-angle X-ray scattering and gas physisorption. <i>Microporous and Mesoporous Materials</i> , 2021 , 111554	5.3	3
6	Spray-Drying and Atomic Layer Deposition: Complementary Tools toward Fully Orthogonal Control of Bulk Composition and Surface Identity of Multifunctional Supraparticles.. <i>Small Methods</i> , 2022 , 6, e2101296	12.8	2
5	Gas-Phase Hydroformylation Using Supported Ionic Liquid Phase (SILP) Catalysts ¶Influence of Support Texture on Effective Kinetics. <i>ChemCatChem</i> , 2021 , 13, 4192	5.2	2

4	Porosimetry: Porosimetry for Thin Films of Metal-Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorption-Based Methods (Adv. Mater. 17/2021). <i>Advanced Materials</i> , 2021 , 33, 2170133	24	1
3	Hierarchically-Ordered Materials. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2100057	4.6	1
2	Evidences of Intracrystalline Mesostructured Porosity in Zeolites by Advanced Gas Sorption, Electron Tomography and Rotation Electron Diffraction. <i>ChemCatChem</i> , 2014 , 6, 3031-3031	5.2	
1	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). <i>Small Methods</i> , 2022 , 6, 2270006	12.8	