

Joel E Schmidt

List of Publications by Year in descending order

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51
papers

1,631
citations

257450

24
h-index

302126

39
g-index

56
all docs

56
docs citations

56
times ranked

1646
citing authors

#	ARTICLE	IF	CITATIONS
1	Enantiomerically enriched, polycrystalline molecular sieves. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5101-5106.	7.1	109
2	Nanoscale tomography reveals the deactivation of automotive copper-exchanged zeolite catalysts. Nature Communications, 2017, 8, 1666.	12.8	105
3	Synthesis of a Specified, Silica Molecular Sieve by Using Computationally Predicted Organic Structure-Directing Agents. Angewandte Chemie - International Edition, 2014, 53, 8372-8374.	13.8	100
4	Methanol-to-Olefins Catalysis with Hydrothermally Treated Zeolite SSZ-39. ACS Catalysis, 2015, 5, 6078-6085.	11.2	92
5	Facile Synthesis and Catalysis of Pure-Silica and Heteroatom LTA. Chemistry of Materials, 2015, 27, 7774-7779.	6.7	75
6	Coke Formation in a Zeolite Crystal During the Methanol-to-Hydrocarbons Reaction as Studied with Atom Probe Tomography. Angewandte Chemie - International Edition, 2016, 55, 11173-11177.	13.8	74
7	Methane-to-methanol conversion over zeolite Cu-SSZ-13, and its comparison with the selective catalytic reduction of NO _x with NH ₃ . Catalysis Science and Technology, 2018, 8, 1028-1038.	4.1	72
8	Deconvoluting the Competing Effects of Zeolite Framework Topology and Diffusion Path Length on Methanol to Hydrocarbons Reaction. ACS Catalysis, 2018, 8, 11042-11053.	11.2	69
9	Template-Framework Interactions in Tetraethylammonium-Directed Zeolite Synthesis. Angewandte Chemie - International Edition, 2016, 55, 16044-16048.	13.8	58
10	Influence of Organic Structure Directing Agent Isomer Distribution on the Synthesis of SSZ-39. Chemistry of Materials, 2015, 27, 2695-2702.	6.7	57
11	Structural and kinetic changes to small-pore Cu-zeolites after hydrothermal aging treatments and selective catalytic reduction of NO _x with ammonia. Reaction Chemistry and Engineering, 2017, 2, 168-179.	3.7	54
12	Computationally-Guided Synthesis of the 8-Ring Zeolite AEI. Topics in Catalysis, 2015, 58, 410-415.	2.8	49
13	Disentangling Reaction Processes of Zeolites within Single-Oriented Channels. Angewandte Chemie - International Edition, 2020, 59, 15502-15506.	13.8	49
14	Synthesis of RTH-Type Zeolites Using a Diverse Library of Imidazolium Cations. Chemistry of Materials, 2015, 27, 3756-3762.	6.7	47
15	CIT-7, a crystalline, molecular sieve with pores bounded by 8 and 10-membered rings. Chemical Science, 2015, 6, 1728-1734.	7.4	40
16	Highly Oriented Growth of Catalytically Active Zeolite ZSM-5 Films with a Broad Range of Si/Al Ratios. Angewandte Chemie - International Edition, 2017, 56, 11217-11221.	13.8	40
17	Synthesis of the RTH-type layer: the first small-pore, two dimensional layered zeolite precursor. Chemical Science, 2015, 6, 5955-5963.	7.4	34
18	Deactivation of Cu-Exchanged Automotive Emission NH ₃ -SCR Catalysts Elucidated with Nanoscale Resolution Using Scanning Transmission X-ray Microscopy. Angewandte Chemie - International Edition, 2020, 59, 15610-15617.	13.8	34

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19	Effect of Pore and Cage Size on the Formation of Aromatic Intermediates During the Methanol-to-Olefins Reaction. <i>Topics in Catalysis</i> , 2015, 58, 416-423.	2.8	31
20	Nanoscale Chemical Imaging of Zeolites Using Atom Probe Tomography. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10422-10435.	13.8	31
21	High-silica, heulandite-type zeolites prepared by direct synthesis and topotactic condensation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12890-12897.	10.3	30
22	The synthesis of aluminophosphate and germanosilicate LTA using a triquaternary structure directing agent. <i>Microporous and Mesoporous Materials</i> , 2014, 200, 132-139.	4.4	27
23	Isolating Clusters of Light Elements in Molecular Sieves with Atom Probe Tomography. <i>Journal of the American Chemical Society</i> , 2018, 140, 9154-9158.	13.7	27
24	Nanoscale infrared imaging of zeolites using photoinduced force microscopy. <i>Chemical Communications</i> , 2017, 53, 13012-13014.	4.1	25
25	Facile Synthesis, Characterization, and Catalytic Behavior of a Large-Pore Zeolite with the IWV Framework. <i>Chemistry - A European Journal</i> , 2016, 22, 4022-4029.	3.3	24
26	Probing Zeolite Crystal Architecture and Structural Imperfections using Differently Sized Fluorescent Organic Probe Molecules. <i>Chemistry - A European Journal</i> , 2017, 23, 6305-6314.	3.3	24
27	Facile Preparation of Aluminosilicate RTH across a Wide Composition Range Using a New Organic Structure-Directing Agent. <i>Chemistry of Materials</i> , 2014, 26, 7099-7105.	6.7	22
28	Uniformly Oriented Zeolite ZSM-5 Membranes with Tunable Wettability on a Porous Ceramic. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12458-12462.	13.8	19
29	Probing the Location and Speciation of Elements in Zeolites with Correlated Atom Probe Tomography and Scanning Transmission X-Ray Microscopy. <i>ChemCatChem</i> , 2019, 11, 488-494.	3.7	19
30	Revealing long- and short-range structural modifications within phosphorus-treated HZSM-5 zeolites by atom probe tomography, nuclear magnetic resonance and powder X-ray diffraction. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 27766-27777.	2.8	18
31	Studies on the use of faujasite as a reagent to deliver silica and alumina in building new zeolite structures with organo-cations. <i>Microporous and Mesoporous Materials</i> , 2020, 300, 110162.	4.4	18
32	Coke Formation in a Zeolite Crystal During the Methanol-to-Hydrocarbons Reaction as Studied with Atom Probe Tomography. <i>Angewandte Chemie</i> , 2016, 128, 11339-11343.	2.0	16
33	SSZ-27: A Small-Pore Zeolite with Large Heart-Shaped Cavities Determined by Using Multi-Crystal Electron Diffraction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13080-13086.	13.8	15
34	Template-Framework Interactions in Tetraethylammonium-Directed Zeolite Synthesis. <i>Angewandte Chemie</i> , 2016, 128, 16278-16282.	2.0	13
35	Nano-scale insights regarding coke formation in zeolite SSZ-13 subject to the methanol-to-hydrocarbons reaction. <i>Catalysis Science and Technology</i> , 2022, 12, 1220-1228.	4.1	13
36	New insights into the NH ₃ -selective catalytic reduction of NO over Cu-ZSM-5 as revealed by <i>operando</i> spectroscopy. <i>Catalysis Science and Technology</i> , 2022, 12, 2589-2603.	4.1	12

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37	Expendable High Energy Density Thermal Management Material: Ammonium Carbamate. Journal of Thermophysics and Heat Transfer, 2012, 26, 345-351.	1.6	10
38	Highly Oriented Growth of Catalytically Active Zeolite ZSM-5 Films with a Broad Range of Si/Al Ratios. Angewandte Chemie, 2017, 129, 11369-11373.	2.0	10
39	Disentangling Reaction Processes of Zeolites within Single-Oriented Channels. Angewandte Chemie, 2020, 132, 15632-15636.	2.0	10
40	Deactivation of Cu-Exchanged Automotive Emission NH ₃ SCR Catalysts Elucidated with Nanoscale Resolution Using Scanning Transmission X-Ray Microscopy. Angewandte Chemie, 2020, 132, 15740-15747.	2.0	8
41	Diagnosing the Internal Architecture of Zeolite Ferrierite. ChemPhysChem, 2018, 19, 367-372.	2.1	7
42	Uniformly Oriented Zeolite ZSM-5 Membranes with Tunable Wettability on a Porous Ceramic. Angewandte Chemie, 2018, 130, 12638-12642.	2.0	7
43	Nanoscale Chemical Imaging of Coking Mechanisms in a Zeolite ZSM-5 Crystal by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 674-675.	0.4	5
44	Multidimensional nanoscopic approaches to new thermoelectric materials. , 2010, , .		2
45	The Use of Ammonium Carbamate as a High Energy Density Thermal Energy Storage Material. Materials Research Society Symposia Proceedings, 2011, 1325, 175.	0.1	2
46	Probing Zeolite Crystal Architecture and Structural Imperfections using Differently Sized Fluorescent Organic Probe Molecules. Chemistry - A European Journal, 2017, 23, 6224-6224.	3.3	2
47	SSZ-27: A Small-Pore Zeolite with Large Heart-Shaped Cavities Determined by Using Multi-Crystal Electron Diffraction. Angewandte Chemie, 2019, 131, 13214-13220.	2.0	2
48	Nanoskalige chemische Bildgebung von Zeolithen durch Atomsondentomographie. Angewandte Chemie, 2018, 130, 10580-10593.	2.0	1
49	The Use of Ammonium Carbamate as a High Specific Thermal Energy Density Material for the Thermal Management of Low Grade Heat. , 2011, , .		0
50	Innen-1/4-cktitelbild: Highly Oriented Growth of Catalytically Active Zeolite ZSM-5 Films with a Broad Range of Si/Al Ratios (Angew. Chem. 37/2017). Angewandte Chemie, 2017, 129, 11427-11427.	2.0	0
51	Nanoscale Chemical Imaging in Zeolite Catalysts by Atom Probe Tomography. Microscopy and Microanalysis, 2021, 27, 984-985.	0.4	0