

Prashant Kumar

List of Publications by Year in descending order

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42
papers

2,236
citations

331259

21
h-index

360668

35
g-index

45
all docs

45
docs citations

45
times ranked

3059
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-selective high-flux membranes from directly synthesized zeolite nanosheets. <i>Nature</i> , 2017, 543, 690-694.	13.7	446
2	Zeolitic imidazolate framework membranes made by ligand-induced permselectivation. <i>Science</i> , 2018, 361, 1008-1011.	6.0	324
3	Emergence of complexity in hierarchically organized chiral particles. <i>Science</i> , 2020, 368, 642-648.	6.0	179
4	Self-Pillared, Single-Unit-Cell Sn-MFI Zeolite Nanosheets and Their Use for Glucose and Lactose Isomerization. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10848-10851.	7.2	138
5	On the direct synthesis of Cu(BDC) MOF nanosheets and their performance in mixed matrix membranes. <i>Journal of Membrane Science</i> , 2018, 549, 312-320.	4.1	116
6	Open-Pore Two-Dimensional MFI Zeolite Nanosheets for the Fabrication of Hydrocarbon-Selective Membranes on Porous Polymer Supports. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 7184-7187.	7.2	100
7	One-dimensional intergrowths in two-dimensional zeolite nanosheets and their effect on ultra-selective transport. <i>Nature Materials</i> , 2020, 19, 443-449.	13.3	91
8	Self-Assembly of Chiral Nanoparticles into Semiconductor Helices with Tunable near-Infrared Optical Activity. <i>Chemistry of Materials</i> , 2020, 32, 476-488.	3.2	79
9	A Chromium Hydroxide/MIL-101(Cr) MOF Composite Catalyst and Its Use for the Selective Isomerization of Glucose to Fructose. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4926-4930.	7.2	73
10	Enantiomeric Discrimination by Surface-Enhanced Raman Scattering-Chiral Anisotropy of Chiral Nanostructured Gold Films. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15226-15231.	7.2	70
11	2D Zeolite Coatings: Langmuir-Schaefer Deposition of 3-nm Thick MFI Zeolite Nanosheets. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 6571-6575.	7.2	67
12	A high-performance adsorbent for hydrogen sulfide removal. <i>Microporous and Mesoporous Materials</i> , 2014, 190, 152-155.	2.2	63
13	Controlling Dissolution and Transformation of Zeolitic Imidazolate Frameworks by using Electron-Beam-Induced Amorphization. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13592-13597.	7.2	57
14	Factors Governing the Formation of Hierarchically and Sequentially Intergrown MFI Zeolites by Using Simple Diquaternary Ammonium Structure-Directing Agents. <i>Chemistry of Materials</i> , 2016, 28, 8997-9007.	3.2	41
15	Pillared MWW Prepared by a Solid-State Exchange Method and its Use as a Lewis Acid Catalyst. <i>ChemCatChem</i> , 2016, 8, 1274-1278.	1.8	40
16	Direct Synthesis of 7 nm-Thick Zinc(II)-Benzimidazole-Acetate Metal-Organic Framework Nanosheets. <i>Chemistry of Materials</i> , 2018, 30, 69-73.	3.2	40
17	Quantification of thickness and wrinkling of exfoliated two-dimensional zeolite nanosheets. <i>Nature Communications</i> , 2015, 6, 7128.	5.8	39
18	Mechanisms of plasticity in near-theoretical strength sub-100 nm Si nanocubes. <i>Acta Materialia</i> , 2015, 100, 256-265.	3.8	38

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19	A Chromium Hydroxide/MIL-101(Cr) MOF Composite Catalyst and Its Use for the Selective Isomerization of Glucose to Fructose. <i>Angewandte Chemie</i> , 2018, 130, 5020-5024.	1.6	30
20	Enantiomeric Discrimination by Surface-Enhanced Raman Scattering: Chiral Anisotropy of Chiral Nanostructured Gold Films. <i>Angewandte Chemie</i> , 2020, 132, 15338-15343.	1.6	22
21	Epitaxial growth: rapid synthesis of highly permeable and selective zeolite-T membranes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17828-17832.	5.2	17
22	Two Distinct Stages of Structural Modification of ZIF-L MOF under Electron-Beam Irradiation. <i>Chemistry of Materials</i> , 2021, 33, 5681-5689.	3.2	16
23	Nucleation, Growth, and Robust Synthesis of SPP Zeolite: Effect of Ethanol, Sodium, and Potassium. <i>Topics in Catalysis</i> , 2015, 58, 545-558.	1.3	15
24	Electron-Beam-Damage in Metal Organic Frameworks in the TEM. <i>Microscopy and Microanalysis</i> , 2019, 25, 1704-1705.	0.2	10
25	Open-Pore Two-Dimensional MFI Zeolite Nanosheets for the Fabrication of Hydrocarbon-Selective Membranes on Porous Polymer Supports. <i>Angewandte Chemie</i> , 2016, 128, 7300-7303.	1.6	9
26	Engineering of inorganic nanostructures with hierarchy of chiral geometries at multiple scales. <i>AIChE Journal</i> , 2022, 68, e17438.	1.8	9
27	Direct Synthesis and Pseudomorphic Transformation of Mixed Metal Oxide Nanostructures with Non-Close-Packed Hollow Sphere Arrays. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15707-15711.	7.2	7
28	Controlling Dissolution and Transformation of Zeolitic Imidazolate Frameworks by using Electron-Beam-Induced Amorphization. <i>Angewandte Chemie</i> , 2018, 130, 13780-13785.	1.6	6
29	Direct Synthesis and Pseudomorphic Transformation of Mixed Metal Oxide Nanostructures with Non-Close-Packed Hollow Sphere Arrays. <i>Angewandte Chemie</i> , 2018, 130, 15933-15937.	1.6	3
30	Atomic and Electronic Structure Evolution of ZIF-L Metal Organic Framework During Amorphization. <i>Microscopy and Microanalysis</i> , 2020, 26, 2968-2969.	0.2	3
31	Real-Time 3D Analysis During Tomographic Experiments on tomviz. <i>Microscopy and Microanalysis</i> , 2021, 27, 2860-2862.	0.2	2
32	Structural Rearrangement of 2-D Zeolite Nanosheets under Electron Beam. <i>Microscopy and Microanalysis</i> , 2015, 21, 1323-1324.	0.2	1
33	Characterization of MEL defects in 2 - Dimensional MFI nanosheets. <i>Microscopy and Microanalysis</i> , 2017, 23, 1802-1803.	0.2	1
34	Crystallographic Structure Determination of MFI-Zeolite Nanosheets. <i>Microscopy and Microanalysis</i> , 2014, 20, 390-391.	0.2	0
35	Probing Structure-Property Relationship of Active Metal Nanoparticles on Mesoporous Silica Sorbent. <i>Microscopy and Microanalysis</i> , 2014, 20, 464-465.	0.2	0
36	Analytical Method for Thickness and Wrinkling Measurements of 2-D Zeolites. <i>Microscopy and Microanalysis</i> , 2015, 21, 2367-2368.	0.2	0

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37	Titelbild: Openâ€Pore Twoâ€Dimensional MFI Zeolite Nanosheets for the Fabrication of Hydrocarbonâ€Isomerâ€Selective Membranes on Porous Polymer Supports (Angew. Chem. 25/2016). Angewandte Chemie, 2016, 128, 7123-7123.	1.6	0
38	Atomic Structure of Self-Pillared, Single-Unit-Cell Sn-MFI Zeolite Nanosheets. Microscopy and Microanalysis, 2016, 22, 1616-1617.	0.2	0
39	Observation of MEL stacking faults in two-dimensional MFI zeolite nanosheets. Microscopy and Microanalysis, 2016, 22, 1634-1635.	0.2	0
40	Early Growth Stages of Directly Synthesized Large-Area Zeolite Nanosheets. Microscopy and Microanalysis, 2017, 23, 1986-1987.	0.2	0
41	Sulfidation-Oxidation Cycling of a H ₂ S Adsorbing Hollow Sphere Array. Microscopy and Microanalysis, 2018, 24, 1800-1801.	0.2	0
42	Identification and Implication of One-dimensional Intergrowths in Beam-sensitive Two-dimensional MFI Zeolite Nanosheets. Microscopy and Microanalysis, 2020, 26, 164-165.	0.2	0