

Jong-San Chang

List of Publications by Year in descending order

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85
papers

8,406
citations

76294

40
h-index

48277

88
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96
all docs

96
docs citations

96
times ranked

8378
citing authors

#	ARTICLE	IF	CITATIONS
1	Separation of ethane/ethylene gas mixture by ethane-selective CAU-3-NDCA adsorbent. Microporous and Mesoporous Materials, 2022, 330, 111572.	2.2	9
2	CCIQS-1: A Dynamic Metal-Organic Framework with Selective Guest-Triggered Porosity Switching. Chemistry of Materials, 2022, 34, 669-677.	3.2	6
3	Hydrothermal Green Synthesis of a Robust Al Metal-Organic-Framework Effective for Water Adsorption Heat Allocations. ACS Sustainable Chemistry and Engineering, 2022, 10, 7010-7019.	3.2	9
4	Washable and Reusable Zr-Metal-Organic Framework Nanostructure/Polyacrylonitrile Fibrous Mats for Catalytic Degradation of Real Chemical Warfare Agents. ACS Applied Nano Materials, 2022, 5, 9657-9665.	2.4	4
5	Water adsorption fingerprinting of structural defects/capping functions in Zr-fumarate MOFs: a hybrid computational-experimental approach. Dalton Transactions, 2021, 50, 1324-1333.	1.6	10
6	Defective Zr-Fumarate MOFs Enable High-Efficiency Adsorption Heat Allocations. ACS Applied Materials & Interfaces, 2021, 13, 1723-1734.	4.0	29
7	A Fluorinated Metal-Organic Framework, FMOF-2, for Preferential Adsorption of Ethane over Ethylene. Bulletin of the Korean Chemical Society, 2021, 42, 286-289.	1.0	13
8	Crystals springing into action: metal-organic framework CUK-1 as a pressure-driven molecular spring. Chemical Science, 2021, 12, 5682-5687.	3.7	21
9	Catalytic Performance of Zr-Based Metal-Organic Frameworks Zr-btc and MIP-200 in Selective Oxidations with H ₂ O ₂ . Chemistry - A European Journal, 2021, 27, 6985-6992.	1.7	20
10	Low-Valent Metal Ions as MOF Pillars: A New Route Toward Stable and Multifunctional MOFs. Journal of the American Chemical Society, 2021, 143, 13710-13720.	6.6	43
11	Rational design of a robust aluminum metal-organic framework for multi-purpose water-sorption-driven heat allocations. Nature Communications, 2020, 11, 5112.	5.8	68
12	Catalytic Transfer Hydrogenation of Furfural to Furfuryl Alcohol under Mild Conditions over Zr-MOFs: Exploring the Role of Metal Node Coordination and Modification. ACS Catalysis, 2020, 10, 3720-3732.	5.5	187
13	Microporous 3D Graphene-like Zeolite-Templated Carbons for Preferential Adsorption of Ethane. ACS Applied Materials & Interfaces, 2020, 12, 28484-28495.	4.0	25
14	C ₂ /C ₃ Hydrocarbon Separation by Pressure Swing Adsorption on MIL-100(Fe). Industrial & Engineering Chemistry Research, 2020, 59, 10568-10582.	1.8	15
15	Unique design of superior metal-organic framework for removal of toxic chemicals in humid environment via direct functionalization of the metal nodes. Journal of Hazardous Materials, 2020, 398, 122857.	6.5	28
16	Porous Metal-Organic Framework CUK-1 for Adsorption Heat Allocation toward Green Applications of Natural Refrigerant Water. ACS Applied Materials & Interfaces, 2019, 11, 25778-25789.	4.0	45
17	Unraveling the Water Adsorption Mechanism in the Mesoporous MIL-100(Fe) Metal-Organic Framework. Journal of Physical Chemistry C, 2019, 123, 23014-23025.	1.5	51
18	Protons Make Possible Heterolytic Activation of Hydrogen Peroxide over Zr-Based Metal-Organic Frameworks. ACS Catalysis, 2019, 9, 9699-9704.	5.5	41

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19	Molecular Encapsulation of Trimeric Chromium Carboxylate Clusters in Metal-Organic Frameworks and Propylene Sorption. <i>Chemistry - A European Journal</i> , 2019, 25, 12889-12894.	1.7	8
20	Investigating the effect of alumina shaping on the sorption properties of promising metal-organic frameworks. <i>RSC Advances</i> , 2019, 9, 7128-7135.	1.7	14
21	Towards polymer grade ethylene production with Cu-BTC: gas-phase SMB versus PSA. <i>Adsorption</i> , 2018, 24, 203-219.	1.4	14
22	Novel amine-functionalized iron trimesates with enhanced peroxidase-like activity and their applications for the fluorescent assay of choline and acetylcholine. <i>Biosensors and Bioelectronics</i> , 2018, 100, 161-168.	5.3	93
23	A robust large-pore zirconium carboxylate metal-organic framework for energy-efficient water-sorption-driven refrigeration. <i>Nature Energy</i> , 2018, 3, 985-993.	19.8	217
24	Organoarsine Metal-Organic Framework with <i>cis</i> -Diarsine Pockets for the Installation of Uniquely Confined Metal Complexes. <i>Journal of the American Chemical Society</i> , 2018, 140, 9806-9809.	6.6	29
25	A Metal-Organic Framework with Cooperative Phosphines That Permit Post-Synthetic Installation of Open Metal Sites. <i>Angewandte Chemie</i> , 2018, 130, 9439-9443.	1.6	13
26	A Metal-Organic Framework with Cooperative Phosphines That Permit Post-Synthetic Installation of Open Metal Sites. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9295-9299.	7.2	52
27	Synthesis Optimization, Shaping, and Heat Reallocation Evaluation of the Hydrophilic Metal-Organic Framework MIL-60(Al). <i>ChemSusChem</i> , 2017, 10, 1419-1426.	3.6	122
28	Screening the Effect of Water Vapour on Gas Adsorption Performance: Application to CO ₂ Capture from Flue Gas in Metal-Organic Frameworks. <i>ChemSusChem</i> , 2017, 10, 1543-1553.	3.6	89
29	Highly selective adsorption of <i>p</i> -xylene over other C ₈ aromatic hydrocarbons by Co-CUK-1: a combined experimental and theoretical assessment. <i>Dalton Transactions</i> , 2017, 46, 16096-16101.	1.6	20
30	Shaping of porous metal-organic framework granules using mesoporous γ-alumina as a binder. <i>RSC Advances</i> , 2017, 7, 55767-55777.	1.7	81
31	Freestanding fiber mats of zeolitic imidazolate framework 7 via one-step, scalable electrospinning. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	19
32	Adsorption Properties of MFM-400 and MFM-401 with CO ₂ and Hydrocarbons: Selectivity Derived from Directed Supramolecular Interactions. <i>Inorganic Chemistry</i> , 2016, 55, 7219-7228.	1.9	41
33	Observing the Effects of Shaping on Gas Adsorption in Metal-Organic Frameworks. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 4416-4423.	1.0	40
34	Enhanced adsorptive desulfurization with flexible metal-organic frameworks in the presence of diethyl ether and water. <i>Chemical Communications</i> , 2016, 52, 8667-8670.	2.2	32
35	Catalytic transfer hydrogenation of ethyl levulinate to γ-valerolactone over zirconium-based metal-organic frameworks. <i>Green Chemistry</i> , 2016, 18, 4542-4552.	4.6	197
36	Decoration of the internal structure of mesoporous chromium terephthalate MIL-101 with NiO using atomic layer deposition. <i>Microporous and Mesoporous Materials</i> , 2016, 221, 101-107.	2.2	20

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37	Design of Hydrophilic Metal Organic Framework Water Adsorbents for Heat Reallocation. <i>Advanced Materials</i> , 2015, 27, 4775-4780.	11.1	253
38	Preparation and characterization of carbon-encapsulated iron nanoparticles and their catalytic activity in the hydrogenation of levulinic acid. <i>Journal of Materials Science</i> , 2015, 50, 334-343.	1.7	23
39	The Structure of the Aluminum Fumarate Metal-Organic Framework A520. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 3664-3668.	7.2	206
40	Separation of <i>p</i> -divinylbenzene by Selective Room-Temperature Adsorption Inside Mg-Cu Prepared by Aqueous Microwave Synthesis. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 5394-5398.	7.2	53
41	Ethane/ethylene separation on a copper benzene-1,3,5-tricarboxylate MOF. <i>Separation and Purification Technology</i> , 2015, 149, 445-456.	3.9	72
42	Syngas Purification by Porous Amino-Functionalized Titanium Terephthalate MIL-125. <i>Energy & Fuels</i> , 2015, 29, 4654-4664.	2.5	48
43	Size and morphological control of a metal-organic framework Cu-BTC by variation of solvent and modulator. <i>Journal of Porous Materials</i> , 2015, 22, 171-178.	1.3	17
44	Metal Organic Framework: Design of Hydrophilic Metal Organic Framework Water Adsorbents for Heat Reallocation (<i>Adv. Mater.</i> 32/2015). <i>Advanced Materials</i> , 2015, 27, 4803-4803.	11.1	10
45	Highly Selective H ₂ O ₂ -Based Oxidation of Alkylphenols to <i>p</i> -Benzoquinones Over MIL-125 Metal-Organic Frameworks. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 132-139.	1.0	50
46	In Situ Energy-Dispersive X-ray Diffraction for the Synthesis Optimization and Scale-up of the Porous Zirconium Terephthalate UiO-66. <i>Inorganic Chemistry</i> , 2014, 53, 2491-2500.	1.9	157
47	Plasma-Enhanced Methane Direct Conversion over Particle-Size Adjusted MOx/Al ₂ O ₃ (Mg-Ti and Mg) Catalysts. <i>Plasma Chemistry and Plasma Processing</i> , 2014, 34, 1317-1330.	1.1	44
48	Propylene/Nitrogen Separation in a By-Stream of the Polypropylene Production: From Pilot Test and Model Validation to Industrial Scale Process Design and Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 9199-9213.	1.8	10
49	Chemical conversion of biomass-derived hexose sugars to levulinic acid over sulfonic acid-functionalized graphene oxide catalysts. <i>Green Chemistry</i> , 2013, 15, 2935.	4.6	195
50	Pressure swing adsorption process for the separation of nitrogen and propylene with a MOF adsorbent MIL-100(Fe). <i>Separation and Purification Technology</i> , 2013, 110, 101-111.	3.9	39
51	Liquid Phase Oxidation of Organic Compounds by Metal-Organic Frameworks. , 2013, , 371-409.		8
52	Green Microwave Synthesis of MIL-100(Al, Cr, Fe) Nanoparticles for Thin-Film Elaboration. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 5165-5174.	1.0	176
53	How Water Fosters a Remarkable 5-Fold Increase in Low-Pressure CO ₂ Uptake within Mesoporous MIL-100(Fe). <i>Journal of the American Chemical Society</i> , 2012, 134, 10174-10181.	6.6	198
54	Propylene/propane separation by vacuum swing adsorption using Cu-BTC spheres. <i>Separation and Purification Technology</i> , 2012, 90, 109-119.	3.9	85

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55	Large scale fluorine-free synthesis of hierarchically porous iron(III) trimesate MIL-100(Fe) with a zeolite MTN topology. <i>Microporous and Mesoporous Materials</i> , 2012, 157, 137-145.	2.2	305
56	Energy-Efficient Dehumidification over Hierachically Porous Metal-Organic Frameworks as Advanced Water Adsorbents. <i>Advanced Materials</i> , 2012, 24, 806-810.	11.1	298
57	Porous Materials: Energy-Efficient Dehumidification over Hierachically Porous Metal-Organic Frameworks as Advanced Water Adsorbents (<i>Adv. Mater.</i> 6/2012). <i>Advanced Materials</i> , 2012, 24, 710-710.	11.1	7
58	A coordination polymer of (Ph ₃ P)AuCl prepared by post-synthetic modification and its application in 1-hexene/n-hexane separation. <i>Chemical Communications</i> , 2011, 47, 11855.	2.2	84
59	Stable polyoxometalate insertion within the mesoporous metal organic framework MIL-100(Fe). <i>Journal of Materials Chemistry</i> , 2011, 21, 1226-1233.	6.7	251
60	A Composite Formation Route to Well-Crystalline Manganese Oxide Nanocrystals: High Catalytic Activity of Manganate-Alumina Nanocomposites. <i>Advanced Functional Materials</i> , 2011, 21, 2301-2310.	7.8	14
61	Innentitelbild: Controlled Reducibility of a Metal-Organic Framework with Coordinatively Unsaturated Sites for Preferential Gas Sorption (<i>Angew. Chem.</i> 34/2010). <i>Angewandte Chemie</i> , 2010, 122, 5940-5940.	1.6	4
62	Controlled Reducibility of a Metal-Organic Framework with Coordinatively Unsaturated Sites for Preferential Gas Sorption. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5949-5952.	7.2	526
63	Inside Cover: Controlled Reducibility of a Metal-Organic Framework with Coordinatively Unsaturated Sites for Preferential Gas Sorption (<i>Angew. Chem. Int. Ed.</i> 34/2010). <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5804-5804.	7.2	10
64	Trimerization of Isobutene Over Solid Acid Catalysts. <i>Catalysis Surveys From Asia</i> , 2009, 13, 229-236.	1.0	28
65	Oligomerization of isobutene over aluminum chloride-loaded USY zeolite catalysts. <i>Journal of Porous Materials</i> , 2009, 16, 631-634.	1.3	17
66	Effect of Mg in Alumina-Supported Sb-V=O Catalysts for the Ammoxidation of Propane into Acrylonitrile. <i>Catalysis Letters</i> , 2008, 125, 192-196.	1.4	6
67	Amine Grafting on Coordinatively Unsaturated Metal Centers of MOFs: Consequences for Catalysis and Metal Encapsulation. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 4144-4148.	7.2	1,111
68	Cover Picture: Amine Grafting on Coordinatively Unsaturated Metal Centers of MOFs: Consequences for Catalysis and Metal Encapsulation (<i>Angew. Chem. Int. Ed.</i> 22/2008). <i>Angewandte Chemie - International Edition</i> , 2008, 47, 4029-4029.	7.2	0
69	Three-Dimensional Cage Type Mesoporous CN-Based Hybrid Material with Very High Surface Area and Pore Volume. <i>Chemistry of Materials</i> , 2007, 19, 4367-4372.	3.2	127
70	Porous Cobalt(II)-Organic Frameworks with Corrugated Walls: Structurally Robust Gas-Sorption Materials. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 272-275.	7.2	194
71	Synthesis and catalytic properties of MIL-100(Fe), an iron(iii) carboxylate with large pores. <i>Chemical Communications</i> , 2007, , 2820-2822.	2.2	1,218
72	Microwave synthesis, characterization and catalytic properties of titanium-incorporated ZSM-5 zeolite. <i>Research on Chemical Intermediates</i> , 2007, 33, 501-512.	1.3	14

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73	An Overview on the Dehydrogenation of Alkylbenzenes with Carbon Dioxide over Supported Vanadium–Antimony Oxide Catalysts. <i>Catalysis Surveys From Asia</i> , 2007, 11, 59-69.	1.0	27
74	Selective formation of styrene via oxidative dehydrogenation of 4-vinylcyclohexene over ZrO ₂ -Supported iron oxide catalysts. <i>Studies in Surface Science and Catalysis</i> , 2004, 153, 347-350.	1.5	5
75	Nanoporous Metal-Containing Nickel Phosphates: A Class of Shape-Selective Catalyst. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 2819-2822.	7.2	47
76	Template-Free Synthesis of the Nanoporous Nickel Phosphate VSB-5 under Microwave Irradiation. <i>Chemistry of Materials</i> , 2004, 16, 1394-1396.	3.2	43
77	Crystal morphology control of AFI type molecular sieves with microwave irradiation. <i>Journal of Materials Chemistry</i> , 2004, 14, 280.	6.7	107
78	Oxidative dehydrogenation of ethane with carbon dioxide over supported chromium oxide catalysts. <i>Studies in Surface Science and Catalysis</i> , 2004, 153, 339-342.	1.5	8
79	Preparation and application of nanocatalysts via surface functionalization of mesoporous materials. <i>Research on Chemical Intermediates</i> , 2003, 29, 921-938.	1.3	27
80	Utilization of carbon dioxide as soft oxidant in the dehydrogenation of ethylbenzene over supported vanadium–antimony oxide catalysts. <i>Green Chemistry</i> , 2003, 5, 587-590.	4.6	77
81	CO ₂ reforming of methane over modified Ni/ZrO ₂ catalysts. <i>Applied Organometallic Chemistry</i> , 2001, 15, 109-112.	1.7	40
82	CO ₂ utilization for the formation of styrene from ethylbenzene over zirconia-supported iron oxide catalysts. <i>Applied Organometallic Chemistry</i> , 2000, 14, 815-818.	1.7	29
83	Title is missing!. <i>Catalysis Letters</i> , 2000, 69, 93-101.	1.4	14
84	Granulation and Shaping of Metal-Organic Frameworks. , 0, , 551-572.		5
85	Nanoporous 3D Graphene-like Zeolite-Templated Carbon for High-Affinity Separation of Xenon from Krypton. <i>ACS Applied Nano Materials</i> , 0, , .	2.4	6