Kai-Jie Chen

List of Publications by Year
in descending order

63 papers	5,426 citations	101543 36 h-index	110387 64 g-index
64 all docs	64 docs citations	64 times ranked	3870 citing authors

#	Article	IF	Citations
1	Pore chemistry and size control in hybrid porous materials for acetylene capture from ethylene. Science, 2016, 353, 141-144.	12.6	1,088
2	Direct Air Capture of CO₂ by Physisorbent Materials. Angewandte Chemie - International Edition, 2015, 54, 14372-14377.	13.8	382
3	Robust Ultramicroporous Metalâ€“Organic Frameworks with Benchmark Affinity for Acetylene. Angewandte Chemie - International Edition, 2018, 57, 10971-10975.	13.8	365
4	Synergistic sorbent separation for one-step ethylene purification from a four-component mixture. Science, 2019, 366, 241-246.	12.6	360
5	Benchmark C2H2/CO2 and CO2/C2H2 Separation by Two Closely Related Hybrid Ultramicroporous Materials. CheM, 2016, 1, 753-765.	11.7	349
6	Tuning Pore Size in Squareâ€Lattice Coordination Networks for Sizeâ€Selective Sieving of CO₂. Angewandte Chemie - International Edition, 2016, 55, 10268-10272.	13.8	237
7	Turning on the flexibility of isoreticular porous coordination frameworks for drastically tunable framework breathing and thermal expansion. Chemical Science, 2013, 4, 1539.	7.4	163
8	Reversible Switching between Highly Porous and Nonporous Phases of an Interpenetrated Diamondoid Coordination Network That Exhibits Gateâ€Opening at Methane Storage Pressures. Angewandte Chemie - International Edition, 2018, 57, 5684-5689.	13.8	161
9	Pore Engineering for One-Step Ethylene Purification from a Three-Component Hydrocarbon Mixture. Journal of the American Chemical Society, 2021, 143, 1485-1492.	13.7	143
10	Crystal engineering of porous coordination networks to enable separation of C2 hydrocarbons. Chemical Communications, 2020, 56, 10419-10441.	4.1	123
11	Highly Selective Separation of C₂H₂ from CO₂ by a New Dichromate-Based Hybrid Ultramicroporous Material. ACS Applied Materials & Interfaces, 2017, 9, 33395-33400.	8.0	116
12	Hybrid ultramicroporous materials (HUMs) with enhanced stability and trace carbon capture performance. Chemical Communications, 2017, 53, 5946-5949.	4.1	99
13	Poly(dimethylsilylene)diacetylene-Guided ZIF-Based Heterostructures for Full Ku-Band Electromagnetic Wave Absorption. ACS Applied Materials & Interfaces, 2019, 11, 17706-17713.	8.0	94
14	Robust Ultramicroporous Metalâ€“Organic Frameworks with Benchmark Affinity for Acetylene. Angewandte Chemie, 2018, 130, 11137-11141.	2.0	85
15	Flue-gas and direct-air capture of CO ₂ by porous metalâ€“organic materials. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160025.	3.4	80
16	Highly effective electromagnetic wave absorbing Prismatic Co/C nanocomposites derived from cubic metal-organic framework. Composites Part B: Engineering, 2020, 182, 107613.	12.0	80
17	New Zn-Aminotriazolate-Dicarboxylate Frameworks: Synthesis, Structures, and Adsorption Properties. Crystal Growth and Design, 2013, 13, 2118-2123.	3.0	76
18	Bimetallic MOF-derived hollow ZnNiC nano-boxes for efficient microwave absorption. Nanoscale, 2020, 12, 13311-13315.	5.6	75

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19	Co/C Composite Derived from a Newly Constructed Metalâ€“Organic Framework for Effective Microwave Absorption. Crystal Growth and Design, 2019, 19, 1518-1524.	3.0	73
20	Crystal engineering of a family of hybrid ultramicroporous materials based upon interpenetration and dichromate linkers. Chemical Science, 2016, 7, 5470-5476.	7.4	66
21	Tunable Electromagnetic Wave Absorption of Supramolecular Isomerâ€Derived Nanocomposites with Different Morphology. Advanced Materials Interfaces, 2020, 7, 1901820.	3.7	65
22	One-step ethylene production from a four-component gas mixture by a single physisorbent. Nature Communications, 2021, 12, 6507.	12.8	64
23	Efficient CO₂ Removal for Ultraâ€Pure CO Production by Two Hybrid Ultramicroporous Materials. Angewandte Chemie - International Edition, 2018, 57, 3332-3336.	13.8	52
24	Coordination Network That Reversibly Switches between Two Nonporous Polymorphs and a High Surface Area Porous Phase. Journal of the American Chemical Society, 2018, 140, 15572-15576.	13.7	51
25	Carbon Catalysts for Electrochemical CO₂ Reduction toward Multicarbon Products. Advanced Energy Materials, 2022, 12, .	19.5	50
26	Towards an understanding of the propensity for crystalline hydrate formation by molecular compounds. IUCrJ, 2016, 3, 430-439.	2.2	49
27	Electrochemically induced surface reconstruction of Niâ€Co oxide nanosheet arrays for hybrid supercapacitors. Exploration, 2021, 1, .	11.0	49
28	Biowaste-Derived Bimetallic Ruâ€“MoO_{<i>x</i>} Catalyst for the Direct Hydrogenation of Furfural to Tetrahydrofurfuryl Alcohol. ACS Sustainable Chemistry and Engineering, 2019, 7, 12858-12866.	6.7	48
29	Novel mode of 2-fold interpenetration observed in a primitive cubic network of formula [Ni(1,2-bis(4-pyridyl)acetylene)₂(Cr₂O₇)]_n. Chemical Communications, 2015, 51, 14832-14835.	4.1	47
30	Highly efficient and broad electromagnetic wave absorbers tuned via topology-controllable metal-organic frameworks. Science China Materials, 2020, 63, 2050-2061.	6.3	45
31	Tuning Pore Size in Squareâ€Lattice Coordination Networks for Sizeâ€Selective Sieving of CO₂. Angewandte Chemie, 2016, 128, 10424-10428.	2.0	43
32	The effect of centred versus offset interpenetration on C₂H₂ sorption in hybrid ultramicroporous materials. Chemical Communications, 2017, 53, 11592-11595.	4.1	40
33	Enhancing cycling stability of transition metal-based layered double hydroxides through a self-sacrificial strategy for hybrid supercapacitors. Electrochimica Acta, 2020, 334, 135586.	5.2	39
34	Double-walled pyr topology networks from a novel fluoride-bridged heptanuclear metal cluster. Chemical Science, 2015, 6, 4784-4789.	7.4	38
35	Impact of partial interpenetration in a hybrid ultramicroporous material on C₂H₂/C₂H₄ separation performance. Chemical Communications, 2018, 54, 3488-3491.	4.1	38
36	Recyclable switching between nonporous and porous phases of a square lattice (sql) topology coordination network. Chemical Communications, 2018, 54, 7042-7045.	4.1	37

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37	Highly selective CO₂ removal for one-step liquefied natural gas processing by physisorbents. Chemical Communications, 2019, 55, 3219-3222.	4.1	31
38	Synergetic Dielectric and Magnetic Losses of a Coreâ€“Shell Co/MnO/C Nanocomplex toward Highly Efficient Microwave Absorption. Inorganic Chemistry, 2022, 61, 1787-1796.	4.0	31
39	Metal-organic framework derived directional growth of ultrathin amorphous NiCo hydroxide nanosheets on NiCo2O4 nanowire arrays for enhanced electrochemical properties. Ceramics International, 2020, 46, 22934-22943.	4.8	29
40	Reversible Switching between Highly Porous and Nonporous Phases of an Interpenetrated Diamondoid Coordination Network That Exhibits Gateâ€Opening at Methane Storage Pressures. Angewandte Chemie, 2018, 130, 5786-5791.	2.0	27
41	Optimization of metalâ€“organic framework derived transition metal hydroxide hierarchical arrays for high performance hybrid supercapacitors and alkaline Zn-ion batteries. Inorganic Chemistry Frontiers, 2021, 8, 3325-3335.	6.0	27
42	A <scp>Twoâ€Dimensional</scp> Semiconductive <scp>Metalâ€Organic</scp> Framework for Highly Efficient Microwave Absorption. Chinese Journal of Chemistry, 2022, 40, 467-474.	4.9	23
43	Emerging Perovskite Electromagnetic Wave Absorbers from Bi-Metalâ€“Organic Frameworks. Crystal Growth and Design, 2020, 20, 4818-4826.	3.0	21
44	Lewis versus BrÃ¸nsted Acid Activation of a Mn(IV) Catalyst for Alkene Oxidation. Inorganic Chemistry, 2019, 58, 14924-14930.	4.0	20
45	Molecular Sieving of Acetylene from Ethylene in a Rigid Ultraâ€microporous Metal Organic Framework.. Chemistry - A European Journal, 2021, 27, 9446-9453.	3.3	20
46	A rare cationic building block that generates a new type of polyhedral network with â€œcross-linkedâ€• pto topology. Chemical Communications, 2016, 52, 4160-4162.	4.1	18
47	Theoretical Investigations of CO₂ and H₂ Sorption in Robust Molecular Porous Materials. Langmuir, 2016, 32, 11492-11505.	3.5	17
48	Network diversity through two-step crystal engineering of a decorated 6-connected primary molecular building block. CrystEngComm, 2016, 18, 8578-8581.	2.6	14
49	A (3,8)-Connected Metalâ€“Organic Framework with Bending Dicarboxylate Linkers for C₂H₂/CO₂ Separation. Inorganic Chemistry, 2022, 61, 4555-4560.	4.0	13
50	Enhanced Stability toward Humidity in a Family of Hybrid Ultramicroporous Materials Incorporating Cr₂O₇^{2â€“} Pillars. Crystal Growth and Design, 2017, 17, 1933-1937.	3.0	12
51	Efficient CO₂ Removal for Ultraâ€‹Pure CO Production by Two Hybrid Ultramicroporous Materials. Angewandte Chemie, 2018, 130, 3390-3394.	2.0	12
52	Finding the Optimal Balance between the Pore Size and Pore Chemistry in Hybrid Ultramicroporous Materials for Trace Acetylene Capture. ACS Applied Nano Materials, 2018, 1, 6000-6004.	5.0	12
53	Mechanochemical synthesis of three-component metal-organic frameworks for large scale production. Journal of Solid State Chemistry, 2021, 303, 122547.	2.9	12
54	A supermolecular building block approach for construction of chiral metalâ€“organic frameworks. Chemical Communications, 2019, 55, 8639-8642.	4.1	11

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55	In-situ formed hierarchical transition metal oxide nanoarrays with rich antisite defects and oxygen vacancies for high-rate energy storage devices. Chinese Chemical Letters, 2022, 33, 2669-2676.	9.0	11
56	Water-assisted one-pot synthesis of N-doped carbon supported Ru catalysts for heterogeneous catalysis. Chemical Communications, 2020, 56, 11311-11314.	4.1	9
57	Tuning the Selectivity between C2H2 and CO2 in Molecular Porous Materials. Langmuir, 2021, 37, 13838-13845.	3.5	9
58	Band Gap Modulation Enabled by TCNQ Loading in a Ru-Based Metalâ€“Organic Framework for Enhanced Near-Infrared Absorption and Photothermal Conversion. Crystal Growth and Design, 2021, 21, 729-734.	3.0	8
59	General pore features for one-step C₂H₄ production from a C2 hydrocarbon mixture. Chemical Communications, 2022, 58, 4954-4957.	4.1	8
60	A flexible, porous, cluster-based Zn-pyrazolate-dicarboxylate framework showing selective adsorption properties. New Journal of Chemistry, 2014, 38, 2002-2007.	2.8	7
61	Effect of Pore Size on the Separation of Ethylene from Ethane in Three Isostructural Metal Azolate Frameworks. Inorganic Chemistry, 2020, 59, 13019-13023.	4.0	6
62	Lowâ€Concentration C₂H₆ Capture Enabled by Size Matching in the Ultramicropore. Chemistry - A European Journal, 2021, 27, 12753-12757.	3.3	4
63	Picking the Right Material for the Right Application. CheM, 2016, 1, 666-667.	11.7	3