Kui Tan

List of Publications by Year
in descending order

63	4,519	117453	123241
papers	citations	34 h-index	61 g-index

66	66	66	5830
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stability and Hydrolyzation of Metal Organic Frameworks with Paddle-Wheel SBUs upon Hydration. Chemistry of Materials, 2012, 24, 3153-3167.	3.2	368
2	Creating Hierarchical Pores by Controlled Linker Thermolysis in Multivariate Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 2363-2372.	6.6	310
3	Synthesis, Characterization, and Photocatalytic Activity of Y-Doped CeO₂ Nanorods. ACS Catalysis, 2014, 4, 577-584.	5.5	301
4	Topologically guided tuning of Zr-MOF pore structures for highly selective separation of C6 alkane isomers. Nature Communications, 2018, 9, 1745.	5.8	251
5	Simultaneous Trapping of C₂H₂ and C₂H₆ from a Ternary Mixture of C₂H₂/C₂H₄/C₂H₆ in a Robust Metalâ€“Organic Framework for the Purification of C₂H₄. Angewandte Chemie International Edition, 2018, 57, 16067-16071.	7.2	223
6	Metalâ€“Organic Framework Based Hydrogen-Bonding Nanotrap for Efficient Acetylene Storage and Separation. Journal of the American Chemical Society, 2022, 144, 1681-1689.	6.6	172
7	Capture of organic iodides from nuclear waste by metal-organic framework-based molecular traps. Nature Communications, 2017, 8, 485.	5.8	171
8	Competitive Coadsorption of CO₂ with H₂O, NH₃, SO₂, NO, NO₂, N₂, O₂, and CH₄ in M-MOF-74 (M = Mg, Co, Ni): The Role of Hydrogen Bonding. Chemistry of Materials, 2015, 27, 2203-2217.	3.2	158
9	Understanding and controlling water stability of MOF-74. Journal of Materials Chemistry A, 2016, 4, 5176-5183.	5.2	155
10	Water Reaction Mechanism in Metal Organic Frameworks with Coordinatively Unsaturated Metal Ions: MOF-74. Chemistry of Materials, 2014, 26, 6886-6895.	3.2	149
11	Water interactions in metal organic frameworks. CrystEngComm, 2015, 17, 247-260.	1.3	148
12	Mechanism of Preferential Adsorption of SO₂ into Two Microporous Paddle Wheel Frameworks M(bdc)(ted)_{0.5}. Chemistry of Materials, 2013, 25, 4653-4662.	3.2	127
13	Water Cluster Confinement and Methane Adsorption in the Hydrophobic Cavities of a Fluorinated Metalâ€“Organic Framework. Journal of the American Chemical Society, 2013, 135, 12615-12626.	6.6	114
14	Rational design of common transition metal-nitrogen-carbon catalysts for oxygen reduction reaction in fuel cells. Nano Energy, 2016, 30, 443-449.	8.2	114
15	Effective sensing of RDX via instant and selective detection of ketone vapors. Chemical Science, 2014, 5, 4873-4877.	3.7	112
16	Selective, Sensitive, and Reversible Detection of Vapor-Phase High Explosives via Two-Dimensional Mapping: A New Strategy for MOF-Based Sensors. Crystal Growth and Design, 2013, 13, 4204-4207.	1.4	107
17	Interaction of Acid Gases SO₂ and NO₂ with Coordinatively Unsaturated Metal Organic Frameworks: M-MOF-74 (M = Zn, Mg, Ni, Co). Chemistry of Materials, 2017, 29, 4227-4235.	3.2	99
18	Rapid desolvation-triggered domino lattice rearrangement in a metalâ€“organic framework. Nature Chemistry, 2020, 12, 90-97.	6.6	93

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19	Defect Termination in the UiO-66 Family of Metalâ€“Organic Frameworks: The Role of Water and Modulator. Journal of the American Chemical Society, 2021, 143, 6328-6332.	6.6	74
20	Blending Ionic and Coordinate Bonds in Hybrid Semiconductor Materials: A General Approach toward Robust and Solution-Processable Covalent/Coordinate Network Structures. Journal of the American Chemical Society, 2020, 142, 4242-4253.	6.6	72
21	Simultaneous Trapping of C₂H₂ and C₂H₆ from a Ternary Mixture of C₂H₂/C₂H₄/C₂H₆ in a Robust Metalâ€“Organic Framework for the Purification of C₂H₄. Angewandte Chemie, 2019, 131, 16209-16215.	1.6	71
22	Selective Extraction of Thorium from Rare Earth Elements Using Wrinkled Mesoporous Carbon. Journal of the American Chemical Society, 2018, 140, 14735-14739.	6.6	70
23	Breaking the trade-off between selectivity and adsorption capacity for gas separation. CheM, 2021, 7, 3085-3098.	5.8	68
24	Stable and Active Oxidation Catalysis by Cooperative Lattice Oxygen Redox on SmMn₂O₅ Mullite Surface. Journal of the American Chemical Society, 2019, 141, 10722-10728.	6.6	64
25	Crystallizing Atomic Xenon in a Flexible MOF to Probe and Understand Its Temperature-Dependent Breathing Behavior and Unusual Gas Adsorption Phenomenon. Journal of the American Chemical Society, 2020, 142, 20088-20097.	6.6	62
26	Trapping gases in metal-organic frameworks with a selective surface molecular barrier layer. Nature Communications, 2016, 7, 13871.	5.8	60
27	Aminoâ€Functionalised Hybrid Ultramicroporous Materials that Enable Singleâ€Step Ethylene Purification from a Ternary Mixture. Angewandte Chemie - International Edition, 2021, 60, 10902-10909.	7.2	56
28	Engineering Structural Dynamics of Zirconium Metalâ€“Organic Frameworks Based on Natural C4 Linkers. Journal of the American Chemical Society, 2019, 141, 17207-17216.	6.6	54
29	Quenching of photoluminescence in a Zn-MOF sensor by nitroaromatic molecules. Journal of Materials Chemistry C, 2019, 7, 2625-2632.	2.7	54
30	2D-Covalent Organic Frameworks with Interlayer Hydrogen Bonding Oriented through Designed Nonplanarity. Journal of the American Chemical Society, 2020, 142, 12987-12994.	6.6	51
31	Structural, elastic, thermal, and electronic responses of small-molecule-loaded metalâ€“organic framework materials. Journal of Materials Chemistry A, 2015, 3, 986-995.	5.2	42
32	Modulation of Water Vapor Sorption by a Fourth-Generation Metalâ€“Organic Material with a Rigid Framework and Self-Switching Pores. Journal of the American Chemical Society, 2018, 140, 12545-12552.	6.6	42
33	High stability of ultra-small and isolated gold nanoparticles in metalâ€“organic framework materials. Journal of Materials Chemistry A, 2019, 7, 17536-17546.	5.2	41
34	An Encapsulation-Rearrangement Strategy to Integrate Superhydrophobicity into Mesoporous Metal-Organic Frameworks. Matter, 2020, 2, 988-999.	5.0	39
35	Fluorescence Enhancement in the Solid State by Isolating Perylene Fluorophores in Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2020, 12, 26727-26732.	4.0	36
36	Study of van der Waals bonding and interactions in metal organic framework materials. Journal of Physics Condensed Matter, 2014, 26, 133002.	0.7	34

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37	Robust fluorescent calcium coordination polymers as Cu²⁺ sensors with high sensitivity and fast response. Journal of Materials Chemistry C, 2020, 8, 6820-6825.	2.7	30
38	Porous Ti-MOF-74 Framework as a Strong-Binding Nitric Oxide Scavenger. Journal of the American Chemical Society, 2020, 142, 16562-16568.	6.6	27
39	Role of Hydrogen Bonding on Transport of Coadsorbed Gases in Metalâ€“Organic Frameworks Materials. Journal of the American Chemical Society, 2018, 140, 856-859.	6.6	26
40	A switchable sensor and scavenger: detection and removal of fluorinated chemical species by a luminescent metalâ€“organic framework. Chemical Science, 2021, 12, 14189-14197.	3.7	26
41	Ultrastable Zirconium-Based Cationic Metalâ€“Organic Frameworks for Perrhenate Removal from Wastewater. Inorganic Chemistry, 2021, 60, 11730-11738.	1.9	22
42	Flexible Zn-MOF with Rare Underlying scu Topology for Effective Separation of C6 Alkane Isomers. ACS Applied Materials & Interfaces, 2021, 13, 51997-52005.	4.0	22
43	Structure-Driven Photoluminescence Enhancement in a Zn-Based Metalâ€“Organic Framework. Chemistry of Materials, 2019, 31, 7933-7940.	3.2	21
44	Luminescent Metalâ€“Organic Framework for Lithium Harvesting Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 6561-6568.	3.2	21
45	CO₂ Capture by Hybrid Ultramicroporous TIFSIXâ€3â€Ni under Humid Conditions Using Nonâ€Equilibrium Cycling. Angewandte Chemie - International Edition, 2022, 61, .	7.2	17
46	Reactivity of Atomic Layer Deposition Precursors with OH/H2O-Containing Metal Organic Framework Materials. Chemistry of Materials, 2019, 31, 2286-2295.	3.2	16
47	On the UVâ€“Visible Light Synergetic Mechanisms in Au/TiO₂ Hybrid Model Nanostructures Achieving Photoreduction of Water. Journal of Physical Chemistry C, 2020, 124, 25421-25430.	1.5	16
48	Effect of metal/bulk-heterojunction interfacial properties on organic photovoltaic device performance. Journal of Materials Chemistry A, 2014, 2, 15288.	5.2	11
49	A Beehive Inspired Hydrogen Photocatalytic Device Integrating a Carboâ€Benzene Triptych Material for Efficient Solar Photoâ€Reduction of Seawater. Advanced Sustainable Systems, 2020, 4, 2000121.	2.7	11
50	Fluorescent Detection of Carbon Disulfide by a Highly Emissive and Robust Isoreticular Series of Zr-Based Luminescent Metal Organic Frameworks (LMOFs). Chemistry, 2021, 3, 327-337.	0.9	11
51	Cluster assisted water dissociation mechanism in MOF-74 and controlling it using helium. Journal of Materials Chemistry A, 2016, 4, 11524-11530.	5.2	10
52	Controlling Chemical Reactions in Confined Environments: Water Dissociation in MOF-74. Applied Sciences (Switzerland), 2018, 8, 270.	1.3	10
53	Aminoâ€Functionalised Hybrid Ultramicroporous Materials that Enable Singleâ€Step Ethylene Purification from a Ternary Mixture. Angewandte Chemie, 2021, 133, 10997-11004.	1.6	10
54	Identifying the Gate-Opening Mechanism in the Flexible Metalâ€“Organic Framework UTSA-300. Inorganic Chemistry, 2022, 61, 5025-5032.	1.9	9

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55	Thermally Activated Adsorption in Metalâ€“Organic Frameworks with a Temperatureâ€Tunable Diffusion Barrier Layer. Angewandte Chemie - International Edition, 2020, 59, 18468-18472.	7.2	8
56	Peroxide-Templated Assembly of a Trimetal Neodymium Complex Single-Molecule Magnet. Inorganic Chemistry, 2020, 59, 10379-10383.	1.9	8
57	Chemistry in confined spaces: reactivity of the Zn-MOF-74 channels. Journal of Materials Chemistry A, 2016, 4, 13176-13182.	5.2	7
58	Tuning the Adsorption Properties of Metalâ€“Organic Frameworks through Coadsorbed Ammonia. ACS Applied Materials & Interfaces, 2021, 13, 43661-43667.	4.0	6
59	Improving Alkylamine Incorporation in Porous Polymer Networks through Dopant Incorporation. Advanced Sustainable Systems, 2019, 3, 1900051.	2.7	3
60	Decoding the Gate Opening Mechanism of the Flexible Framework RPM3â€“Zn upon Hydrocarbon Inclusion. Chemistry of Materials, 2022, 34, 3246-3252.	3.2	3
61	CO2 Capture by Hybrid Ultramicroporous TIFSIXâ€3â€Ni under Humid Conditions Using Nonâ€Equilibrium Cycling. Angewandte Chemie, 0, , .	1.6	3
62	Interaction of Small Molecules within Metal Organic Frameworks Studied by In Situ Vibrational Spectroscopy. , 0, , .		2
63	Thermally Activated Adsorption in Metalâ€“Organic Frameworks with a Temperatureâ€Tunable Diffusion Barrier Layer. Angewandte Chemie, 2020, 132, 18626-18630.	1.6	0