

Vincent Guillerm

List of Publications by Year in descending order

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58
papers

8,617
citations

57758

44
h-index

149698

56
g-index

63
all docs

63
docs citations

63
times ranked

8942
citing authors

#	ARTICLE	IF	CITATIONS
1	A supermolecular building approach for the design and construction of metal-organic frameworks. <i>Chemical Society Reviews</i> , 2014, 43, 6141-6172.	38.1	708
2	Zeolite-like metal-organic frameworks (ZMOFs): design, synthesis, and properties. <i>Chemical Society Reviews</i> , 2015, 44, 228-249.	38.1	662
3	Made-to-order metal-organic frameworks for trace carbon dioxide removal and air capture. <i>Nature Communications</i> , 2014, 5, 4228.	12.8	510
4	A Series of Isorecticular, Highly Stable, Porous Zirconium Oxide Based Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9267-9271.	13.8	407
5	Co-adsorption and Separation of CO ₂ and CH ₄ Mixtures in the Highly Flexible MIL-53(Cr) MOF. <i>Journal of the American Chemical Society</i> , 2009, 131, 17490-17499.	13.7	398
6	Discovery and introduction of a (3,18)-connected net as an ideal blueprint for the design of metal-organic frameworks. <i>Nature Chemistry</i> , 2014, 6, 673-680.	13.6	396
7	Functionalizing porous zirconium terephthalate UiO-66(Zr) for natural gas upgrading: a computational exploration. <i>Chemical Communications</i> , 2011, 47, 9603.	4.1	345
8	Direct covalent post-synthetic chemical modification of Cr-MIL-101 using nitrating acid. <i>Chemical Communications</i> , 2011, 47, 2838.	4.1	265
9	Post-Synthetic Anisotropic Wet-Chemical Etching of Colloidal Sodalite ZIF Crystals. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14417-14421.	13.8	262
10	Low concentration CO ₂ capture using physical adsorbents: Are metal-organic frameworks becoming the new benchmark materials?. <i>Chemical Engineering Journal</i> , 2016, 296, 386-397.	12.7	260
11	Effect of NH ₂ and CF ₃ functionalization on the hydrogen sorption properties of MOFs. <i>Dalton Transactions</i> , 2011, 40, 4879.	3.3	257
12	Reverse shape selectivity in the adsorption of hexane and xylene isomers in MOF UiO-66. <i>Microporous and Mesoporous Materials</i> , 2011, 139, 67-73.	4.4	257
13	A zirconium methacrylate oxocluster as precursor for the low-temperature synthesis of porous zirconium dicarboxylates. <i>Chemical Communications</i> , 2010, 46, 767-769.	4.1	243
14	25 Years of Reticular Chemistry. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23946-23974.	13.8	204
15	Structure and Dynamics of the Functionalized MOF Type UiO-66(Zr): NMR and Dielectric Relaxation Spectroscopies Coupled with DFT Calculations. <i>Chemistry of Materials</i> , 2012, 24, 2168-2177.	6.7	200
16	An Evaluation of UiO-66 for Gas-Based Applications. <i>Chemistry - an Asian Journal</i> , 2011, 6, 3270-3280.	3.3	192
17	CH ₄ storage and CO ₂ capture in highly porous zirconium oxide based metal-organic frameworks. <i>Chemical Communications</i> , 2012, 48, 9831.	4.1	180
18	Acid-functionalized UiO-66(Zr) MOFs and their evolution after intra-framework cross-linking: structural features and sorption properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3294-3309.	10.3	174

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19	Understanding the Thermodynamic and Kinetic Behavior of the CO ₂ /CH ₄ Gas Mixture within the Porous Zirconium Terephthalate UiO-66(Zr): A Joint Experimental and Modeling Approach. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13768-13774.	3.1	166
20	Quest for Highly Connected Metal-Organic Framework Platforms: Rare-Earth Polynuclear Clusters Versatility Meets Net Topology Needs. <i>Journal of the American Chemical Society</i> , 2015, 137, 5421-5430.	13.7	163
21	Probing the Dynamics of CO ₂ and CH ₄ within the Porous Zirconium Terephthalate UiO-66(Zr): A Synergic Combination of Neutron Scattering Measurements and Molecular Simulations. <i>Chemistry - A European Journal</i> , 2011, 17, 8882-8889.	3.3	137
22	A robust amino-functionalized titanium(IV) based MOF for improved separation of acid gases. <i>Chemical Communications</i> , 2013, 49, 10082.	4.1	135
23	Molecular Insight into the Adsorption and Diffusion of Water in the Versatile Hydrophilic/Hydrophobic Flexible MIL-53(Cr) MOF. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10764-10776.	3.1	128
24	Dynamics of Benzene Rings in MIL-53(Cr) and MIL-47(V) Frameworks Studied by ² H NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4791-4794.	13.8	127
25	Porous organic polymers with anchored aldehydes: a new platform for post-synthetic amine functionalization en route for enhanced CO ₂ adsorption properties. <i>Chemical Communications</i> , 2014, 50, 1937.	4.1	112
26	A Method for Screening the Potential of MOFs as CO ₂ Adsorbents in Pressure Swing Adsorption Processes. <i>ChemSusChem</i> , 2012, 5, 762-776.	6.8	109
27	Applying the Power of Reticular Chemistry to Finding the Missing alb-MOF Platform Based on the (6,12)-Coordinated Edge-Transitive Net. <i>Journal of the American Chemical Society</i> , 2017, 139, 3265-3274.	13.7	104
28	Probing the Dynamics of the Porous Zr Terephthalate UiO-66 Framework Using ² H NMR and Neutron Scattering. <i>Journal of Physical Chemistry C</i> , 2012, 116, 12131-12136.	3.1	97
29	Postsynthetic Selective Ligand Cleavage by Solid-Gas Phase Ozonolysis Fuses Micropores into Mesopores in Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2018, 140, 15022-15030.	13.7	91
30	Comparative Guest, Thermal, and Mechanical Breathing of the Porous Metal Organic Framework MIL-53(Cr): A Computational Exploration Supported by Experiments. <i>Journal of Physical Chemistry C</i> , 2012, 116, 13289-13295.	3.1	90
31	Geometry Mismatch and Reticular Chemistry: Strategies To Assemble Metal-Organic Frameworks with Non-default Topologies. <i>Journal of the American Chemical Society</i> , 2019, 141, 16517-16538.	13.7	90
32	High-Throughput and Time-Resolved Energy-Dispersive X-Ray Diffraction (EDXRD) Study of the Formation of CAU-1(OH) ₂ : Microwave and Conventional Heating. <i>Chemistry - A European Journal</i> , 2011, 17, 6462-6468.	3.3	84
33	Adsorption and Diffusion of Light Hydrocarbons in UiO-66(Zr): A Combination of Experimental and Modeling Tools. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27470-27482.	3.1	84
34	Separation of CO ₂ -CH ₄ mixtures in the mesoporous MIL-100(Cr) MOF: experimental and modelling approaches. <i>Dalton Transactions</i> , 2012, 41, 4052.	3.3	78
35	Switchable Surface Hydrophobicity-Hydrophilicity of a Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 16049-16053.	13.8	76
36	Influence of the Amide Groups in the CO ₂ /N ₂ Selectivity of a Series of Isoreticular, Interpenetrated Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , 2016, 16, 6016-6023.	3.0	73

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37	Enzyme-Powered Porous Micromotors Built from a Hierarchical Micro- and Mesoporous UiO-Type Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2020, 142, 20962-20967.	13.7	67
38	A Coordinative Solubilizer Method to Fabricate Soft Porous Materials from Insoluble Metal-Organic Polyhedra. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6347-6350.	13.8	62
39	Topology Meets Reticular Chemistry for Chemical Separations: MOFs as a Case Study. <i>CheM</i> , 2020, 6, 1613-1633.	11.7	62
40	The Importance of Highly Connected Building Units in Reticular Chemistry: Thoughtful Design of Metal-Organic Frameworks. <i>Accounts of Chemical Research</i> , 2021, 54, 3298-3312.	15.6	62
41	Impact of the Metal Centre and Functionalization on the Mechanical Behaviour of MIL-53 Metal-Organic Frameworks. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 4424-4429.	2.0	60
42	Zigzag Ligands for Transversal Design in Reticular Chemistry: Unveiling New Structural Opportunities for Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2018, 140, 10153-10157.	13.7	60
43	Confining Functional Nanoparticles into Colloidal Imine-Based COF Spheres by a Sequential Encapsulation-Crystallization Method. <i>Chemistry - A European Journal</i> , 2017, 23, 8623-8627.	3.3	58
44	Diffusion of Binary CO ₂ /CH ₄ Mixtures in the MIL-47(V) and MIL-53(Cr) Metal-Organic Framework Type Solids: A Combination of Neutron Scattering Measurements and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11275-11284.	3.1	51
45	Synthesis of Polycarboxylate Rhodium(III) Metal-Organic Polyhedra (MOPs) and their use as Building Blocks for Highly Connected Metal-Organic Frameworks (MOFs). <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5729-5733.	13.8	45
46	Effect of pendant isophthalic acid moieties on the adsorption properties of light hydrocarbons in HKUST-1-like tbo-MOFs: application to methane purification and storage. <i>RSC Advances</i> , 2014, 4, 63855-63859.	3.6	37
47	Comparison of the dynamics of MIL-53(Cr) and MIL-47(V) frameworks using neutron scattering and DFT methods. <i>European Physical Journal: Special Topics</i> , 2010, 189, 263-271.	2.6	31
48	Introducing a Cantellation Strategy for the Design of Mesoporous Zeolite-like Metal-Organic Frameworks: Zr-sod-ZMOFs as a Case Study. <i>Journal of the American Chemical Society</i> , 2020, 142, 20547-20553.	13.7	31
49	Continuous One-Step Synthesis of Porous MF ₆ -Based Metal-Organic and Hydrogen-Bonded Frameworks. <i>Chemistry - A European Journal</i> , 2017, 23, 6829-6835.	3.3	28
50	Net-Clipping: An Approach to Deduce the Topology of Metal-Organic Frameworks Built with Zigzag Ligands. <i>Journal of the American Chemical Society</i> , 2020, 142, 9135-9140.	13.7	27
51	Octahedral hexanuclear complexes involving light lanthanide ions. <i>Inorganica Chimica Acta</i> , 2008, 361, 2349-2356.	2.4	23
52	A Coordinative Solubilizer Method to Fabricate Soft Porous Materials from Insoluble Metal-Organic Polyhedra. <i>Angewandte Chemie</i> , 2019, 131, 6413-6416.	2.0	17
53	Squaramide-IRMOF-16 Analogue for Catalysis of Solvent-Free, Epoxide Ring-Opening Tandem and Multicomponent Reactions. <i>ChemCatChem</i> , 2018, 10, 3995-3998.	3.7	13
54	Clip-Off Chemistry: Synthesis by Programmed Disassembly of Reticular Materials**. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	10

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55	25 Jahre retikuläre Chemie. Angewandte Chemie, 2021, 133, 24142.	2.0	6
56	Synthesis of Polycarboxylate Rhodium(II) Metal-Organic Polyhedra (MOPs) and their use as Building Blocks for Highly Connected Metal-Organic Frameworks (MOFs). Angewandte Chemie, 2021, 133, 5793-5797.	2.0	3
57	Clip-Off Chemistry: Synthesis by Programmed Disassembly of Reticular Materials. Angewandte Chemie, 2021, 133, 5793-5797.	2.0	0
58	Titelbild: Clip-Off Chemistry: Synthesis by Programmed Disassembly of Reticular Materials (Angew.)	2.0	0