

Michael T Wharmby

List of Publications by Year in descending order

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papers

4,283
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218592

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52
all docs

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docs citations

52
times ranked

6378
citing authors

#	ARTICLE	IF	CITATIONS
1	Opening the Gate: Framework Flexibility in ZIF-8 Explored by Experiments and Simulations. <i>Journal of the American Chemical Society</i> , 2011, 133, 8900-8902.	6.6	947
2	Cerium-based metal organic frameworks with UiO-66 architecture: synthesis, properties and redox catalytic activity. <i>Chemical Communications</i> , 2015, 51, 12578-12581.	2.2	377
3	Processing two-dimensional X-ray diffraction and small-angle scattering data in <i>DAWN 2</i> . <i>Journal of Applied Crystallography</i> , 2017, 50, 959-966.	1.9	356
4	<i>Data Analysis Workbench</i> (<i>DAWN</i>). <i>Journal of Synchrotron Radiation</i> , 2015, 22, 853-858.	1.0	345
5	Design of Hydrophilic Metal Organic Framework Water Adsorbents for Heat Reallocation. <i>Advanced Materials</i> , 2015, 27, 4775-4780.	11.1	253
6	Flexibility and swing effect on the adsorption of energy-related gases on ZIF-8: combined experimental and simulation study. <i>Dalton Transactions</i> , 2012, 41, 10752.	1.6	176
7	Mechanical Tunability via Hydrogen Bonding in Metal-Organic Frameworks with the Perovskite Architecture. <i>Journal of the American Chemical Society</i> , 2014, 136, 7801-7804.	6.6	160
8	Phase Transitions in Zeolitic Imidazolate Framework 7: The Importance of Framework Flexibility and Guest-Induced Instability. <i>Chemistry of Materials</i> , 2014, 26, 1767-1769.	3.2	150
9	Pressure promoted low-temperature melting of metal-organic frameworks. <i>Nature Materials</i> , 2019, 18, 370-376.	13.3	134
10	Extending the Pore Size of Crystalline Metal Phosphonates toward the Mesoporous Regime by Isorecticular Synthesis. <i>Journal of the American Chemical Society</i> , 2011, 133, 1266-1269.	6.6	128
11	Aerobic Epoxidation of Olefins Catalyzed by the Cobalt-Based Metal-Organic Framework <i>STA-12</i> (Co). <i>Chemistry - A European Journal</i> , 2012, 18, 887-898.	1.7	110
12	A Titanium(IV)-Based Metal-Organic Framework Featuring Defect-Rich TiO Sheets as an Oxidative Desulfurization Catalyst. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9160-9165.	7.2	99
13	Tracking Structural Phase Transitions in Lead-Halide Perovskites by Means of Thermal Expansion. <i>Advanced Materials</i> , 2019, 31, e1900521.	11.1	88
14	Extreme Flexibility in a Zeolitic Imidazolate Framework: Porous to Dense Phase Transition in Desolvated ZIF-4. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 6447-6451.	7.2	87
15	Synthesis and structure of Zr(<i>iv</i>)- and Ce(<i>iv</i>)-based CAU-24 with 1,2,4,5-tetrakis(4-carboxyphenyl)benzene. <i>Dalton Transactions</i> , 2016, 45, 18822-18826.	1.6	76
16	Role of crystal size on swing-effect and adsorption induced structure transition of ZIF-8. <i>Dalton Transactions</i> , 2016, 45, 6893-6900.	1.6	66
17	Pore closure in zeolitic imidazolate frameworks under mechanical pressure. <i>Chemical Science</i> , 2018, 9, 1654-1660.	3.7	63
18	Rietveld Refinement of MIL-160 and Its Structural Flexibility Upon H ₂ O and N ₂ Adsorption. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 3626-3632.	1.0	58

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19	Frustrated flexibility in metal-organic frameworks. <i>Nature Communications</i> , 2021, 12, 4097.	5.8	55
20	Flow-synthesis of carboxylate and phosphonate based metal-organic frameworks under non-solvothermal reaction conditions. <i>Dalton Transactions</i> , 2015, 44, 11235-11240.	1.6	51
21	Synthesis and crystal chemistry of the STA-12 family of metal N,N'-piperazinebis(methylenephosphonate)s and applications of STA-12(Ni) in the separation of gases. <i>Microporous and Mesoporous Materials</i> , 2012, 157, 3-17.	2.2	49
22	The adsorption and stability of sulfur containing amino acids on Cu ₂ (OH) ₂ (CO ₃) ₂ . <i>Surface Science</i> , 2009, 603, 1253-1261.	0.8	44
23	A Breathing Zirconium Metal-Organic Framework with Reversible Loss of Crystallinity by Correlated Nanodomain Formation. <i>Chemistry - A European Journal</i> , 2016, 22, 3264-3267.	1.7	41
24	Mixed-linker solid solutions of functionalized pillared-layer MOFs – adjusting structural flexibility, gas sorption, and thermal responsiveness. <i>Dalton Transactions</i> , 2016, 45, 4230-4241.	1.6	40
25	3D Printing of a Thermo- and Solvatochromic Composite Material Based on a Cu(II)-Thymine Coordination Polymer with Moisture Sensing Capabilities. <i>Advanced Functional Materials</i> , 2019, 29, 1808424.	7.8	35
26	Lanthanide N,N'-piperazine-bis(methylenephosphonates) (Ln=La, Ce, Nd) that display flexible frameworks, reversible hydration and cation exchange. <i>Journal of Solid State Chemistry</i> , 2009, 182, 2769-2778.	1.4	27
27	Layered Zn ₂ [Co(CN) ₆](CH ₃ COO) ₂ double metal cyanide: a two-dimensional DMC phase with excellent catalytic performance. <i>Chemical Science</i> , 2019, 10, 4868-4875.	3.7	24
28	Air-stable metal hydride-polymer composites of Mg(NH ₂) ₂ •LiH and TPX, etc. <i>Materials Today Energy</i> , 2018, 10, 98-107.	2.5	22
29	Yttrium bisphosphonate STA-13: A racemic phosphonate metal organic framework with permanent microporosity. <i>Dalton Transactions</i> , 2010, 39, 6389.	1.6	21
30	Laser-heating system for high-pressure X-ray diffraction at the Extreme Conditions beamline I15 at Diamond Light Source. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 1860-1868.	1.0	21
31	Anharmonicity and scissoring modes in the negative thermal expansion materials ScF_3 and CaZrF_6 . <i>Physical Review B</i> , 2020, 101.	1.1	17
32	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH ₂) ₂ •LiH. <i>Sustainable Energy and Fuels</i> , 2020, 4, 1915-1923.	2.5	16
33	Mechanical Properties of a Calcium Dietary Supplement, Calcium Fumarate Trihydrate. <i>Inorganic Chemistry</i> , 2015, 54, 11186-11192.	1.9	14
34	Quasi-hydrostatic equation of state of silicon up to 1 megabar at ambient temperature. <i>Scientific Reports</i> , 2019, 9, 15537.	1.6	14
35	Topological Transformation of Mg-Containing Layered Double Hydroxide Nanosheets for Efficient Photodriven CH ₄ Coupling. <i>Chemistry - A European Journal</i> , 2021, 27, 13211-13220.	1.7	14
36	Group 13 Metal Carboxylates: Using Molecular Clusters As Hybrid Building Units in a MIL-53 Type Framework. <i>Crystal Growth and Design</i> , 2014, 14, 5310-5317.	1.4	13

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37	Reâ€Determination of the Crystal Structure of MILâ€91(Al). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 137-140.	0.6	12
38	Exploring the origins of crystallisation kinetics in hierarchical materials using <i>in situ</i> X-ray diffraction and pair distribution function analysis. Physical Chemistry Chemical Physics, 2020, 22, 18860-18867.	1.3	12
39	Metal Organic Framework: Design of Hydrophilic Metal Organic Framework Water Adsorbents for Heat Reallocation (Adv. Mater. 32/2015). Advanced Materials, 2015, 27, 4803-4803.	11.1	10
40	Generating large starting configurations for molecular Reverse Monte Carlo modelling of an unique non-linear optical amorphous solid. Journal of Physics Communications, 2020, 4, 035004.	0.5	9
41	In situ Monitoring of the Formation of [Bis(acetylacetonato)manganese(II)] Complexes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1902-1907.	0.6	7
42	The Influence of Isomerism on Crystallization in Aluminum Pyridinedicarboxylate Coordination Compounds. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1816-1825.	0.6	5
43	Design and Precursor-based Solid-State Synthesis of Mixed-Linker Zr-MIL-140A. Inorganic Chemistry, 2020, 59, 15250-15261.	1.9	4
44	Influence of Thermal and Mechanical Stimuli on the Behavior of Al-CAU-13 Metalâ€Organic Framework. Nanomaterials, 2020, 10, 1698.	1.9	3
45	Crystallisation of phosphates revisited: a multi-step formation process for SrHPO ₄ . Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2022, 77, 263-272.	0.3	3
46	Structural flexibility in prototypical zeolitic imidazolate frameworks. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s85-s86.	0.0	1
47	Chapter 10. Open Framework and Microporous Metal Phosphonate MOFs with Piperazine-based Bisphosphonate Linkers. , 2011, , 317-343.		1
48	The automated XPDF beamline at Diamond Light Source. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C69-C69.	0.0	1
49	Pt accelerated coarsening of A15 precipitates in Cr-Si alloys. Materials and Design, 2022, 218, 110655.	3.3	0