Simon Krause

List of Publications by Year
in descending order

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Version: 2024-02-01

43 papers	2,518 citations	236612 25 h-index	276539 41 g-index
69 all docs	69 docs citations	69 times ranked	2848 citing authors

#	Article	IF	Citations
1	Cooperative light-induced breathing of soft porous crystals via azobenzene buckling. Nature Communications, 2022, 13, 1951.	5.8	33
2	Light-driven molecular motors embedded in covalent organic frameworks. Chemical Science, 2022, 13, 8253-8264.	3.7	19
3	The role of temperature and adsorbate on negative gas adsorption transitions of the mesoporous metalâ€“organic framework DUT-49. Faraday Discussions, 2021, 225, 168-183.	1.6	19
4	Cooperative and synchronized rotation in motorized porous frameworks: impact on local and global transport properties of confined fluids. Faraday Discussions, 2021, 225, 286-300.	1.6	16
5	Towards complex systems and devices: general discussion. Faraday Discussions, 2021, 225, 431-441.	1.6	0
6	Charting the Complete Thermodynamic Landscape of Gas Adsorption for a Responsive Metalâ€“Organic Framework. Journal of the American Chemical Society, 2021, 143, 4143-4147.	6.6	21
7	Massive Pressure Amplification by Stimulated Contraction of Mesoporous Frameworks**. Angewandte Chemie, 2021, 133, 11841-11845.	1.6	2
8	Massive Pressure Amplification by Stimulated Contraction of Mesoporous Frameworks**. Angewandte Chemie - International Edition, 2021, 60, 11735-11739.	7.2	14
9	Materials breaking the rules: general discussion. Faraday Discussions, 2021, 225, 255-270.	1.6	0
10	Novel computational tools: general discussion. Faraday Discussions, 2021, 225, 341-357.	1.6	1
11	Perspectives on the Influence of Crystal Size and Morphology on the Properties of Porous Framework Materials. Frontiers in Chemistry, 2021, 9, 772059.	1.8	11
12	In Situ Imine-Based Linker Formation for the Synthesis of Zirconium MOFs: A Route to CO₂ Capture Materials and Ethylene Oligomerization Catalysts. Inorganic Chemistry, 2020, 59, 350-359.	1.9	18
13	Towards artificial molecular factories from framework-embedded molecular machines. Nature Reviews Chemistry, 2020, 4, 550-562.	13.8	97
14	Engineering micromechanics of soft porous crystals for negative gas adsorption. Chemical Science, 2020, 11, 9468-9479.	3.7	30
15	Die Chemie verformbarer porÃ¶ser Kristalle â€“ Strukturdynamik und Gasadsorptionseigenschaften. Angewandte Chemie, 2020, 132, 15438-15456.	1.6	28
16	Chemistry of Soft Porous Crystals: Structural Dynamics and Gas Adsorption Properties. Angewandte Chemie - International Edition, 2020, 59, 15325-15341.	7.2	236
17	Impact of Defects and Crystal Size on Negative Gas Adsorption in DUT-49 Analyzed by In Situ ¹²⁹Xe NMR Spectroscopy. Chemistry of Materials, 2020, 32, 4641-4650.	3.2	31
18	Structural Transitions of the Metalâ€“Organic Framework DUT-49(Cu) upon Physi- and Chemisorption Studied by in Situ Electron Paramagnetic Resonance Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 5856-5862.	2.1	14

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19	Tunable Flexibility and Porosity of the Metalâ€“Organic Framework DUT-49 through Postsynthetic Metal Exchange. Chemistry of Materials, 2020, 32, 889-896.	3.2	54
20	Low Temperature Calorimetry Coupled with Molecular Simulations for an In-Depth Characterization of the Guest-Dependent Compliant Behavior of MOFs. Chemistry of Materials, 2020, 32, 3489-3498.	3.2	8
21	Visible-Light-Driven Rotation of Molecular Motors in a Dual-Function Metalâ€“Organic Framework Enabled by Energy Transfer. Journal of the American Chemical Society, 2020, 142, 9048-9056.	6.6	86
22	Towards general network architecture design criteria for negative gas adsorption transitions in ultraporous frameworks. Nature Communications, 2019, 10, 3632.	5.8	73
23	New insights into solvent-induced structural changes of ¹³C labelled metalâ€“organic frameworks by solid state NMR. Chemical Communications, 2019, 55, 9140-9143.	2.2	20
24	High-Pressure in Situ ¹²⁹Xe NMR Spectroscopy: Insights into Switching Mechanisms of Flexible Metalâ€“Organic Frameworks Isoreticular to DUT-49. Chemistry of Materials, 2019, 31, 6193-6201.	3.2	41
25	The impact of crystal size and temperature on the adsorption-induced flexibility of the Zr-based metalâ€“organic framework DUT-98. Beilstein Journal of Nanotechnology, 2019, 10, 1737-1744.	1.5	28
26	Experimental Evidence of Confined Methane Hydrate in Hydrophilic and Hydrophobic Model Carbons. Journal of Physical Chemistry C, 2019, 123, 24071-24079.	1.5	52
27	Exploring the thermodynamic criteria for responsive adsorption processes. Chemical Science, 2019, 10, 5011-5017.	3.7	29
28	The effect of crystallite size on pressure amplification in switchable porous solids. Nature Communications, 2018, 9, 1573.	5.8	92
29	Theoretical and experimental investigations of ¹²⁹Xe NMR chemical shift isotherms in metalâ€“organic frameworks. Physical Chemistry Chemical Physics, 2018, 20, 25039-25043.	1.3	8
30	Adsorption Contraction Mechanics: Understanding Breathing Energetics in Isoreticular Metalâ€“Organic Frameworks. Journal of Physical Chemistry C, 2018, 122, 19171-19179.	1.5	52
31	Solvent-free synthesis of a porous thiophene polymer by mechanochemical oxidative polymerization. Journal of Materials Chemistry A, 2018, 6, 21901-21905.	5.2	24
32	In Situ Monitoring of Unique Switching Transitions in the Pressure-Amplifying Flexible Framework Material DUT-49 by High-Pressure ¹²⁹Xe NMR Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 5195-5200.	1.5	41
33	Tailoring adsorption induced phase transitions in the pillared-layer type metalâ€“organic framework DUT-8(Ni). Dalton Transactions, 2017, 46, 4685-4695.	1.6	68
34	Influence of precursor porosity on sodium and sulfur promoted iron/carbon Fischerâ€“Tropsch catalysts derived from metalâ€“organic frameworks. Chemical Communications, 2017, 53, 10204-10207.	2.2	36
35	A Stimuliâ€Responsive Zirconium Metalâ€“Organic Framework Based on Supermolecular Design. Angewandte Chemie, 2017, 129, 10816-10820.	1.6	9
36	A Stimuliâ€Responsive Zirconium Metalâ€“Organic Framework Based on Supermolecular Design. Angewandte Chemie - International Edition, 2017, 56, 10676-10680.	7.2	72

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37	Illuminating solid gas storage in confined spaces â€“ methane hydrate formation in porous model carbons. Physical Chemistry Chemical Physics, 2016, 18, 20607-20614.	1.3	73
38	A pressure-amplifying framework material with negative gas adsorption transitions. Nature, 2016, 532, 348-352.	13.7	490
39	Proline Functionalization of the Mesoporous Metalâ^'Organic Framework DUT-32. Inorganic Chemistry, 2015, 54, 1003-1009.	1.9	73
40	Hydrophilic non-precious metal nitrogen-doped carbon electrocatalysts for enhanced efficiency in oxygen reduction reaction. Chemical Communications, 2015, 51, 17285-17288.	2.2	56
41	Assembly of metalâ€“organic polyhedra into highly porous frameworks for ethene delivery. Chemical Communications, 2015, 51, 1046-1049.	2.2	65
42	A new metalâ€“organic framework with ultra-high surface area. Chemical Communications, 2014, 50, 3450.	2.2	178
43	A highly porous metalâ€“organic framework, constructed from a cuboctahedral super-molecular building block, with exceptionally high methane uptake. Chemical Communications, 2012, 48, 10841.	2.2	197