Stefan Wuttke

List of Publications by Citations

113 papers	5,978 citations	43 h-index	75 g-index
131 ext. papers	7,454 ext. citations	11.6 avg, IF	6.21 L-index

#	Paper	IF	Citations
113	Controlled reducibility of a metal-organic framework with coordinatively unsaturated sites for preferential gas sorption. *Angewandte Chemie - International Edition*, **2010**, 49, 5949-52	16.4	430
112	Metal-Organic Framework Nanoparticles in Photodynamic Therapy: Current Status and Perspectives. *Advanced Functional Materials*, **2017**, 27, 1606314	15.6	340
111	How linkers modification controls swelling properties of highly flexible iron(III) dicarboxylates MIL-88. *Journal of the American Chemical Society*, **2011**, 133, 17839-47	16.4	307
110	Energy-efficient dehumidification over hierachically porous metal-organic frameworks as advanced water adsorbents. *Advanced Materials*, **2012**, 24, 806-10	24	237
109	Nitric Oxide Adsorption and Delivery in Flexible MIL-88(Fe) Metal–Organic Frameworks. *Chemistry of Materials*, **2013**, 25, 1592-1599	9.6	199
108	Positioning metal-organic framework nanoparticles within the context of drug delivery - A comparison with mesoporous silica nanoparticles and dendrimers. *Biomaterials*, **2017**, 123, 172-183	15.6	176
107	Multifunctional Efficiency: Extending the Concept of Atom Economy to Functional Nanomaterials. *ACS Nano*, **2018**, 12, 2094-2105	16.7	165
106	Imparting Functionality to MOF Nanoparticles by External Surface Selective Covalent Attachment of Polymers. *Chemistry of Materials*, **2016**, 28, 3318-3326	9.6	157
105	MOF nanoparticles coated by lipid bilayers and their uptake by cancer cells. *Chemical Communications*, **2015**, 51, 15752-5	5.8	152
104	Sequential Pore Wall Modification in a Covalent Organic Framework for Application in Lactic Acid Adsorption. *Chemistry of Materials*, **2016**, 28, 626-631	9.6	141
103	Exosome-Coated Metal–Organic Framework Nanoparticles: An Efficient Drug Delivery Platform. *Chemistry of Materials*, **2017**, 29, 8042-8046	9.6	134
102	Multifunctional Nanoparticles by Coordinative Self-Assembly of His-Tagged Units with Metal-Organic Frameworks. *Journal of the American Chemical Society*, **2017**, 139, 2359-2368	16.4	127
101	A rare example of a porous Ca-MOF for the controlled release of biologically active NO. *Chemical Communications*, **2013**, 49, 7773-5	5.8	120
100	Pore Chemistry of Metal–Organic Frameworks. *Advanced Functional Materials*, **2020**, 30, 2000238	15.6	110
99	Nanoparticle Characterization: What to Measure?. *Advanced Materials*, **2019**, 31, e1901556	24	107
98	Validating Metal-Organic Framework Nanoparticles for Their Nanosafety in Diverse Biomedical Applications. *Advanced Healthcare Materials*, **2017**, 6, 1600818	10.1	107
97	Controlling the morphology of metal-organic frameworks and porous carbon materials: metal oxides as primary architecture-directing agents. *Chemical Society Reviews*, **2020**, 49, 3348-3422	58.5	104

96	Tuning porosity in macroscopic monolithic metal-organic frameworks for exceptional natural gas storage. *Nature Communications*, **2019**, 10, 2345	17.4	100
95	On-Surface Synthesis of Highly Oriented Thin Metal-Organic Framework Films through Vapor-Assisted Conversion. *Journal of the American Chemical Society*, **2018**, 140, 4812-4819	16.4	96
94	Highly sensitive and selective fluoride detection in water through fluorophore release from a metal-organic framework. *Scientific Reports*, **2013**, 3, 2562	4.9	91
93	Novel sol-gel synthesis of acidic MgF(2-x)(OH)(x) materials. *Chemistry - A European Journal*, **2008**, 14, 11488-99	4.8	88
92	Chemical diversity in a metal-organic framework revealed by fluorescence lifetime imaging. *Nature Communications*, **2018**, 9, 1647	17.4	80
91	The Chemistry of Reticular Framework Nanoparticles: MOF, ZIF, and COF Materials. *Advanced Functional Materials*, **2020**, 30, 1909062	15.6	79
90	Exploration of MOF nanoparticle sizes using various physical characterization methods Is what you measure what you get?. *CrystEngComm*, **2016**, 18, 4359-4368	3.3	79
89	Discovering the active sites for C3 separation in MIL-100(Fe) by using operando IR spectroscopy. *Chemistry - A European Journal*, **2012**, 18, 11959-67	4.8	77
88	The Current Status of MOF and COF Applications. *Angewandte Chemie - International Edition*, **2021**, 60, 23975-24001	16.4	75
87	Metal Organic framework nanoparticles for magnetic resonance imaging. *Inorganic Chemistry Frontiers*, **2018**, 5, 1760-1779	6.8	74
86	Highly selective metal fluoride catalysts for the dehydrohalogenation of 3-chloro-1,1,1,3-tetrafluorobutane. *Journal of Catalysis*, **2011**, 282, 175-182	7.3	71
85	Series of Porous 3-D Coordination Polymers Based on Iron(III) and Porphyrin Derivatives. *Chemistry of Materials*, **2011**, 23, 4641-4651	9.6	66
84	Tailor-Made MgF2-Based Catalysts by Sol Gel Synthesis. *European Journal of Inorganic Chemistry*, **2011**, 2011, 4773-4794	2.3	64
83	Solvent-Free and Time Efficient Postsynthetic Modification of Amino-Tagged Metal Organic Frameworks with Carboxylic Acid Derivatives. *Chemistry of Materials*, **2014**, 26, 6722-6728	9.6	61
82	Sol Gel-Based Advanced Porous Silica Materials for Biomedical Applications. *Advanced Functional Materials*, **2020**, 30, 1909539	15.6	59
81	SupraCells: Living Mammalian Cells Protected within Functional Modular Nanoparticle-Based Exoskeletons. *Advanced Materials*, **2019**, 31, e1900545	24	56
80	Liposome-Coated Iron Fumarate Metal-Organic Framework Nanoparticles for Combination Therapy. *Nanomaterials*, **2017**, 7,	5.4	56
79	Controlled Reducibility of a Metal Organic Framework with Coordinatively Unsaturated Sites for Preferential Gas Sorption. *Angewandte Chemie*, **2010**, 122, 6085-6088	3.6	53

78	Metal-Organic Framework Nanoparticles Induce Pyroptosis in Cells Controlled by the Extracellular pH. *Advanced Materials*, **2020**, 32, e1907267	24	50
77	Highly stable and porous porphyrin-based zirconium and hafnium phosphonates - electron crystallography as an important tool for structure elucidation. *Chemical Science*, **2018**, 9, 5467-5478	9.4	50
76	25 Years of Reticular Chemistry. *Angewandte Chemie - International Edition*, **2021**, 60, 23946-23974	16.4	50
75	Postsynthetic modification of an amino-tagged MOF using peptide coupling reagents: a comparative study. *Chemical Communications*, **2014**, 50, 11472-5	5.8	47
74	One-pot synthesis of menthol catalyzed by a highly diastereoselective Au/MgF2 catalyst. *Angewandte Chemie - International Edition*, **2010**, 49, 8134-8	16.4	47
73	Hydroxylated magnesium fluorides as environmentally friendly catalysts for glycerol acetylation. *Applied Catalysis B: Environmental*, **2011**, 107, 260-267	21.8	46
72	Metal-Organic Framework Nanoparticle-Assisted Cryopreservation of Red Blood Cells. *Journal of the American Chemical Society*, **2019**, 141, 7789-7796	16.4	44
71	Sol□gel prepared nanoscopic metal fluorides □a new class of tunable acid□base catalysts. *Catalysis Today*, **2010**, 152, 2-10	5.3	43
70	Catalytic Performance of Nanoscopic, Aluminium Trifluoride-Based Catalysts in the Synthesis of (all-rac)-□-Tocopherol. *Advanced Synthesis and Catalysis*, **2008**, 350, 2517-2524	5.6	43
69	Variation of sol□gel synthesis parameters and their consequence for the surface area and structure of magnesium fluoride. *Journal of Materials Chemistry*, **2007**, 17, 4980		43
68	How Interpenetration Ensures Rigidity and Permanent Porosity in a Highly Flexible Hybrid Solid. *Chemistry of Materials*, **2012**, 24, 2486-2492	9.6	42
67	Cyclisation of citronellal over heterogeneous inorganic fluorides--highly chemo- and diastereoselective catalysts for (+/-)-isopulegol. *Chemical Communications*, **2009**, 460-2	5.8	42
66	Coordinative Binding of Polymers to Metal-Organic Framework Nanoparticles for Control of Interactions at the Biointerface. *ACS Nano*, **2019**, 13, 3884-3895	16.7	41
65	Expanding the Group of Porous Interpenetrated Zr-Organic Frameworks (PIZOFs) with Linkers of Different Lengths. *Inorganic Chemistry*, **2017**, 56, 748-761	5.1	40
64	Turn-on fluorescence triggered by selective internal dye replacement in MOFs. *Chemical Communications*, **2014**, 50, 3599-601	5.8	38
63	Bringing Porous Organic and Carbon-Based Materials toward Thin-Film Applications. *Advanced Functional Materials*, **2018**, 28, 1801545	15.6	38
62	Infrared Investigation of the Acid and Basic Properties of a Sol□Gel Prepared MgF2. *Journal of Physical Chemistry C*, **2010**, 114, 5113-5120	3.8	37
61	Synthesis, functionalisation and post-synthetic modification of bismuth metal-organic frameworks. *Dalton Transactions*, **2017**, 46, 8658-8663	4.3	36

60	Synthesis of Vitamin K1 and K1-Chromanol by Friedel□rafts Alkylation in Heterogeneous Catalysis. *ChemCatChem*, **2010**, 2, 92-97	5.2	33
59	Digital Reticular Chemistry. *CheM*, **2020**, 6, 2219-2241	16.2	31
58	Friedel□rafts alkylations on nanoscopic inorganic fluorides. *Applied Catalysis A: General*, **2011**, 391, 169-174	5.4	29
57	Beyond Frameworks: Structuring Reticular Materials across Nano-, Meso-, and Bulk Regimes. *Angewandte Chemie - International Edition*, **2020**, 59, 22350-22370	16.4	27
56	Highly oriented surface-growth and covalent dye labeling of mesoporous metal-organic frameworks. *Dalton Transactions*, **2012**, 41, 3899-901	4.3	26
55	Novel sol□el prepared zinc fluoride: synthesis, characterisation and acid□base sites analysis. *Journal of Materials Chemistry*, **2012**, 22, 14587		25
54	Nanoscale Synthesis of Two Porphyrin-Based MOFs with Gallium and Indium. *Inorganic Chemistry*, **2016**, 55, 5312-9	5.1	24
53	Kinetic Analysis of the Uptake and Release of Fluorescein by Metal-Organic Framework Nanoparticles. *Materials*, **2017**, 10,	3.5	23
52	Switch-On Fluorescence of a Perylene-Dye-Functionalized Metal-Organic Framework through Postsynthetic Modification. *Chemistry - A European Journal*, **2015**, 21, 10714-20	4.8	23
51	Nanoparticle Characterization: Nanoparticle Characterization: What to Measure? (Adv. Mater. 32/2019). *Advanced Materials*, **2019**, 31, 1970226	24	21
50	Sn-doped hydroxylated MgF□catalysts for the fast and selective saccharification of cellulose to glucose. *ChemSusChem*, **2012**, 5, 1708-11	8.3	21
49	A comparative study of surface acidity in the amorphous, high surface area solids, aluminium fluoride, magnesium fluoride and magnesium fluoride containing iron(III) or aluminium(III) fluorides. *Journal of Fluorine Chemistry*, **2008**, 129, 366-375	2.1	21
48	A Chemiluminescent Metal-Organic Framework. *Chemistry - A European Journal*, **2019**, 25, 6349-6354	4.8	19
47	Investigation of the fluorolysis of magnesium methoxide. *Dalton Transactions*, **2009**, 4729-34	4.3	19
46	Bifunctional Nanoscopic Catalysts for the One-Pot Synthesis of (□)-Menthol from Citral. *Topics in Catalysis*, **2012**, 55, 680-687	2.3	18
45	Mg6F2(OMe)10(MeOH)14--an alkoxide fluoride of an alkaline earth metal. *Angewandte Chemie - International Edition*, **2008**, 47, 190-2	16.4	18
44	Toxicity of metal-organic framework nanoparticles: from essential analyses to potential applications.. *Chemical Society Reviews*, **2022**,	58.5	17
43	Investigation of the Co-Dependence of Morphology and Fluorescence Lifetime in a Metal-Organic Framework. *Small*, **2016**, 12, 3651-7	11	17

42	Applications of reticular diversity in metal–organic frameworks: An ever-evolving state of the art. *Coordination Chemistry Reviews*, **2021**, 430, 213655	23.2	17
41	Impact of plasma protein binding on cargo release by thermosensitive liposomes probed by fluorescence correlation spectroscopy. *European Journal of Pharmaceutics and Biopharmaceutics*, **2017**, 119, 215-223	5.7	16
40	Metal–Organic Framework Based PVDF Separators for High Rate Cycling Lithium-Ion Batteries. *ACS Applied Energy Materials*, **2020**, 3, 11907-11919	6.1	15
39	Functionalized PCN-6 metal-organic frameworks. *Microporous and Mesoporous Materials*, **2015**, 216, 51-55	5.3	14
38	Mass Measurements Reveal Preferential Sorption of Mixed Solvent Components in Porous Nanoparticles. *Small*, **2018**, 14, e1800826	11	14
37	Adsorption and Reactive Desorption on Metal-Organic Frameworks: A Direct Strategy for Lactic Acid Recovery. *ChemSusChem*, **2017**, 10, 643-650	8.3	13
36	Modular Assembly of Red Blood Cell Superstructures from Metal–Organic Framework Nanoparticle-Based Building Blocks. *Advanced Functional Materials*, **2021**, 31, 2005935	15.6	12
35	Topology-guided functional multiplicity of iron(III)-based metal–organic frameworks. *Materials Chemistry Frontiers*, **2017**, 1, 1965-1974	7.8	11
34	One-Pot Hydroacetylation of Menadione (Vitamin K3) to Menadiol Diacetate (Vitamin K4) by Heterogeneous Catalysis. *Advanced Synthesis and Catalysis*, **2012**, 354, 1301-1306	5.6	11
33	Circumventing Wear and Tear of Adaptive Porous Materials. *Advanced Functional Materials*, **2020**, 30, 1908547	15.6	10
32	Replacing benzyl chloride with benzyl alcohol in heterogeneous catalytic benzylation of aromatic compounds. *Pure and Applied Chemistry*, **2012**, 84, 427-437	2.1	10
31	Eintopfsynthese von Menthol in Gegenwart eines hoch diastereoselektiven Au/MgF2-Katalysators. *Angewandte Chemie*, **2010**, 122, 8311-8315	3.6	10
30	Clinically Approved MRI Contrast Agents as Imaging Labels for a Porous Iron-Based MOF Nanocarrier: A Systematic Investigation in a Clinical MRI Setting. *Advanced Therapeutics*, **2020**, 3, 1900126	4.9	10
29	Metallodrugs in cancer nanomedicine.. *Chemical Society Reviews*, **2022**,	58.5	10
28	Inside Cover: Controlled Reducibility of a Metal–Organic Framework with Coordinatively Unsaturated Sites for Preferential Gas Sorption (Angew. Chem. Int. Ed. 34/2010). *Angewandte Chemie - International Edition*, **2010**, 49, 5804-5804	16.4	8
27	Tuning the Morphological Appearance of Iron(III) Fumarate: Impact on Material Characteristics and Biocompatibility. *Chemistry of Materials*, **2020**, 32, 2253-2263	9.6	7
26	Core-Shell Functionalized Zirconium-Pemetrexed Coordination Nanoparticles as Carriers with a High Drug Content. *Advanced Therapeutics*, **2019**, 2, 1900120	4.9	7
25	Porous Materials: Energy-Efficient Dehumidification over Hierachically Porous Metal–Organic Frameworks as Advanced Water Adsorbents (Adv. Mater. 6/2012). *Advanced Materials*, **2012**, 24, 710-710	24	7

24	Stereoselective Synthesis of Alicylic Amines. *Topics in Catalysis*, **2010**, 53, 1121-1125	2.3	7
23	MOF Synthesis Prediction Enabled by Automatic Data Mining and Machine Learning.. *Angewandte Chemie - International Edition*, **2022**,	16.4	7
22	Overcoming the paracetamol dose challenge with wrinkled mesoporous carbon spheres. *Journal of Colloid and Interface Science*, **2021**, 586, 673-682	9.3	7
21	Artificial Bioaugmentation of Biomacromolecules and Living Organisms for Biomedical Applications. *ACS Nano*, **2021**, 15, 3900-3926	16.7	6
20	Mehr als nur ein Netzwerk: Strukturierung retikulärer Materialien im Nano-, Meso- und Volumenbereich. *Angewandte Chemie*, **2020**, 132, 22534-22556	3.6	5
19	Printed Capacitive Sensors Based on Ionic Liquid/Metal-Organic Framework Composites for Volatile Organic Compounds Detection. *Advanced Functional Materials*, **2021**, 31, 2010703	15.6	4
18	Chitin/Metal-Organic Framework Composites as Wide-Range Adsorbent. *ChemSusChem*, **2021**, 14, 2892-2901	8.9	4
17	Der derzeitige Stand von MOF- und COF-Anwendungen. *Angewandte Chemie*, **2021**, 133, 24174	3.6	4
16	Linker Exchange via Migration along the Backbone in Metal-Organic Frameworks. *Journal of the American Chemical Society*, **2021**, 143, 10541-10546	16.4	4
15	Mg6F2(OMe)10(MeOH)14 – ein Alkoxidfluorid eines Erdalkalimetalls. *Angewandte Chemie*, **2008**, 120, 196-198	3.6	3
14	Ferromagnetic supramolecular metal-organic frameworks for active capture and magnetic sensing of emerging drug pollutants. *Cell Reports Physical Science*, **2021**, 2, 100421	6.1	3
13	Single Crystals Heterogeneity Impacts the Intrinsic and Extrinsic Properties of Metal-Organic Frameworks. *Advanced Materials*, **2021**, e2104530	24	2
12	Nanoparticles **2016**, 491-521		2
11	Nanoscience versus Viruses: The SARS-CoV-2 Case. *Advanced Functional Materials*, **2022**, 32, 2107826	15.6	2
10	Colloidal nanoparticles as pharmaceutical agents. *Frontiers of Nanoscience*, **2020**, 16, 89-115	0.7	1
9	MOF Synthesis Prediction Enabled by Automatic Data Mining and Machine Learning. *Angewandte Chemie*,	3.6	1
8	Identification of the Physicochemical Factors Involved in the Dye Separation via Methionine-Functionalized Mesoporous Carbons. *Advanced Sustainable Systems*, **2021**, 5, 2100013	5.9	1
7	From Molecules to Frameworks to Superframework Crystals. *Advanced Materials*, **2021**, 33, e2103808	24	1

6	Living Cell Nanoporation and Exosomal RNA Analysis Platform for Real-Time Assessment of Cellular Therapies. *Journal of the American Chemical Society*, **2022**, 144, 9443-9450	16.4	1
5	MRI-Active Metal-Organic Frameworks: Concepts for the Translation from Lab to Clinic. *Advanced Therapeutics*, **2021**, 4, 2100067	4.9	0
4	25 Jahre retikulöse Chemie. *Angewandte Chemie*, **2021**, 133, 24142	3.6	0
3	Multivariate Functionalization of UiO-66 for Photocatalytic Water Remediation. *Advanced Sustainable Systems*,2200024	5.9	0
2	The chemistry of metal–organic framework nanoparticles. *Acta Crystallographica Section A: Foundations and Advances*, **2017**, 73, C1282-C1283	1.7	
1	Ionic Liquids: Printed Capacitive Sensors Based on Ionic Liquid/Metal-Organic Framework Composites for Volatile Organic Compounds Detection (Adv. Funct. Mater. 25/2021). *Advanced Functional Materials*, **2021**, 31, 2170182	15.6	