Ivo Stassen

List of Publications by Year in descending order

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76 papers	9,371 citations	53660 45 h-index	74018 75 g-index
78 all docs	78 docs citations	78 times ranked	10294 citing authors

#	Article	IF	Citations
1	Direct X-ray and electron-beam lithography of halogenated zeolitic imidazolate frameworks. Nature Materials, 2021, 20, 93-99.	13.3	112
2	Porosimetry for Thin Films of Metalâ€“Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorptionâ€Based Methods. Advanced Materials, 2021, 33, e2006993.	11.1	40
3	What Lies beneath a Metalâ€“Organic Framework Crystal Structure? New Design Principles from Unexpected Behaviors. Journal of the American Chemical Society, 2021, 143, 6705-6723.	6.6	48
4	Porosimetry: Porosimetry for Thin Films of Metalâ€“Organic Frameworks: A Comparison of Positron Annihilation Lifetime Spectroscopy and Adsorptionâ€Based Methods (Adv. Mater. 17/2021). Advanced Materials, 2021, 33, 2170133.	11.1	3
5	From n- to p-Type Material: Effect of Metal Ion on Charge Transport in Metalâ€“Organic Materials. ACS Applied Materials & Interfaces, 2021, 13, 52055-52062.	4.0	10
6	Effect of different oxide and hybrid precursors on MOF-CVD of ZIF-8 films. Dalton Transactions, 2021, 50, 6784-6788.	1.6	13
7	Why conductivity is not always king â€“ physical properties governing the capacitance of 2D metalâ€“organic framework-based EDLC supercapacitor electrodes: a Ni₃(HITP)₂ case study. Faraday Discussions, 2021, 231, 298-304.	1.6	12
8	Solventâ€Free Powder Synthesis and Thin Film Chemical Vapor Deposition of a Zinc Bipyridylâ€Triazolate Framework. European Journal of Inorganic Chemistry, 2020, 2020, 71-74.	1.0	15
9	Electronic Devices Using Open Framework Materials. Chemical Reviews, 2020, 120, 8581-8640.	23.0	185
10	Aqueous Flow Reactor and Vapourâ€Assisted Synthesis of Aluminium Dicarboxylate Metalâ€“Organic Frameworks with Tuneable Water Sorption Properties. Chemistry - A European Journal, 2020, 26, 10841-10848.	1.7	13
11	Solvent-Free Powder Synthesis and MOF-CVD Thin Films of the Large-Pore Metalâ€“Organic Framework MAF-6. Chemistry of Materials, 2020, 32, 1784-1793.	3.2	62
12	Vapor-deposited zeolitic imidazolate frameworks as gap-filling ultra-low-k dielectrics. Nature Communications, 2019, 10, 3729.	5.8	106
13	Vapour-phase deposition of oriented copper dicarboxylate metalâ€“organic framework thin films. Chemical Communications, 2019, 55, 10056-10059.	2.2	64
14	Integrated Cleanroom Process for the Vapor-Phase Deposition of Large-Area Zeolitic Imidazolate Framework Thin Films. Chemistry of Materials, 2019, 31, 9462-9471.	3.2	52
15	Chemiresistive Sensing of Ambient CO₂ by an Autogenously Hydrated Cu₃(hexaiminobenzene)₂ Framework. ACS Central Science, 2019, 5, 1425-1431.	5.3	79
16	Get the light out: nanoscaling MOFs for luminescence sensing and optical applications. Chemical Communications, 2019, 55, 4647-4650.	2.2	38
17	Single Crystals of Electrically Conductive Two-Dimensional Metalâ€“Organic Frameworks: Structural and Electrical Transport Properties. ACS Central Science, 2019, 5, 1959-1964.	5.3	211
18	Effect of Solvent and Substrate on the Surface Binding Mode of Carboxylate-Functionalized Aromatic Molecules. Journal of Physical Chemistry C, 2018, 122, 10846-10856.	1.5	5

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19	Unraveling the Semiconducting/Metallic Discrepancy in Ni₃(HITP)₂. Journal of Physical Chemistry Letters, 2018, 9, 481-486.	2.1	70
20	Mechanical Properties in Metalâ€“Organic Frameworks: Emerging Opportunities and Challenges for Device Functionality and Technological Applications. Advanced Materials, 2018, 30, e1704124.	11.1	165
21	Surface Morphology and Electrical Properties of Cu₃BTC₂ Thin Films Before and After Reaction with TCNQ. ACS Applied Materials & Interfaces, 2018, 10, 39400-39410.	4.0	30
22	Hybrid Polymer/Metalâ€“Organic Framework Films for Colorimetric Water Sensing over a Wide Concentration Range. ACS Applied Materials & Interfaces, 2018, 10, 24201-24208.	4.0	46
23	Metallic Metalâ€“Organic Frameworks Predicted by the Combination of Machine Learning Methods and Ab Initio Calculations. Journal of Physical Chemistry Letters, 2018, 9, 4562-4569.	2.1	84
24	High electrical conductivity and high porosity in a Guest@MOF material: evidence of TCNQ ordering within Cu₃BTC₂ micropores. Chemical Science, 2018, 9, 7405-7412.	3.7	73
25	MOF-Sensitized Solar Cells Enabled by a Pillared Porphyrin Framework. Journal of Physical Chemistry C, 2017, 121, 4816-4824.	1.5	83
26	Photopatterning of fluorescent hostâ€“guest carriers through pore activation of metalâ€“organic framework single crystals. Chemical Communications, 2017, 53, 7222-7225.	2.2	12
27	An updated roadmap for the integration of metalâ€“organic frameworks with electronic devices and chemical sensors. Chemical Society Reviews, 2017, 46, 3185-3241.	18.7	987
28	Gel-based morphological design of zirconium metalâ€“organic frameworks. Chemical Science, 2017, 8, 3939-3948.	3.7	177
29	Stabilising Ni catalysts for the dehydrationâ€“decarboxylationâ€“hydrogenation of citric acid to methylsuccinic acid. Green Chemistry, 2017, 19, 4642-4650.	4.6	9
30	MOFs modeling and theory: general discussion. Faraday Discussions, 2017, 201, 233-245.	1.6	4
31	New directions in gas sorption and separation with MOFs: general discussion. Faraday Discussions, 2017, 201, 175-194.	1.6	6
32	A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. Joule, 2017, 1, 168-177.	11.7	159
33	Highlights from the Faraday Discussion on New Directions in Porous Crystalline Materials, Edinburgh, UK, June 2017. Chemical Communications, 2017, 53, 10750-10756.	2.2	0
34	Two-dimensional metalâ€“organic frameworks with high thermoelectric efficiency through metal ion selection. Physical Chemistry Chemical Physics, 2017, 19, 19461-19467.	1.3	30
35	Thermoelectric Properties of 2D Ni₃(hitp)₂and 3D Cu₃(btc)₂MOFs: First-Principles Studies. ECS Journal of Solid State Science and Technology, 2017, 6, N236-N242.	0.9	7
36	Guest molecules as a design element for metalâ€“organic frameworks. MRS Bulletin, 2016, 41, 865-869.	1.7	26

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37	Silver-induced reconstruction of an adeninate-based metalâ€“organic framework for encapsulation of luminescent adenine-stabilized silver clusters. Journal of Materials Chemistry C, 2016, 4, 4259-4268.	2.7	22
38	Towards metalâ€“organic framework based field effect chemical sensors: UiO-66-NH₂ for nerve agent detection. Chemical Science, 2016, 7, 5827-5832.	3.7	108
39	Waste PET (bottles) as a resource or substrate for MOF synthesis. Journal of Materials Chemistry A, 2016, 4, 9519-9525.	5.2	100
40	ZIF-8 as Nonlinear Optical Material: Influence of Structure and Synthesis. Chemistry of Materials, 2016, 28, 3203-3209.	3.2	57
41	Vaporâ€Phase Deposition and Modification of Metalâ€“Organic Frameworks: Stateâ€ofâ€theâ€Art and Future Directions. Chemistry - A European Journal, 2016, 22, 14452-14460.	1.7	81
42	Thin Film Growth of nbo MOFs and their Integration with Electroacoustic Devices. Advanced Functional Materials, 2016, 26, 1699-1707.	7.8	53
43	Proposed Modification of the Graphene Analogue Ni₃(HITP)₂ To Yield a Semiconducting Material. Journal of Physical Chemistry C, 2016, 120, 15001-15008.	1.5	67
44	Chemical vapour deposition of zeolitic imidazolate framework thinÂfilms. Nature Materials, 2016, 15, 304-310.	13.3	528
45	From conventional to conformal. Nature Materials, 2016, 15, 255-257.	13.3	2
46	Electrochemical Film Deposition of the Zirconium Metalâ€“Organic Framework UiO-66 and Application in a Miniaturized Sorbent Trap. Chemistry of Materials, 2015, 27, 1801-1807.	3.2	159
47	Thin Film Thermoelectric Metalâ€“Organic Framework with High Seebeck Coefficient and Low Thermal Conductivity. Advanced Materials, 2015, 27, 3453-3459.	11.1	227
48	Guest-Induced Emergent Properties in Metalâ€“Organic Frameworks. Journal of Physical Chemistry Letters, 2015, 6, 1182-1195.	2.1	150
49	Green synthesis of zirconium-MOFs. CrystEngComm, 2015, 17, 4070-4074.	1.3	85
50	Ruthenium-catalyzed aerobic oxidative decarboxylation of amino acids: a green, zero-waste route to biobased nitriles. Chemical Communications, 2015, 51, 6528-6531.	2.2	31
51	Resolving Interparticle Heterogeneities in Composition and Hydrogenation Performance between Individual Supported Silver on Silica Catalysts. ACS Catalysis, 2015, 5, 6690-6695.	5.5	22
52	Metalâ€“organic framework deposition on dealloyed substrates. Journal of Materials Chemistry A, 2015, 3, 19747-19753.	5.2	13
53	Improving the mechanical stability of zirconium-based metalâ€“organic frameworks by incorporation of acidic modulators. Journal of Materials Chemistry A, 2015, 3, 1737-1742.	5.2	116
54	Bioâ€Based Nitriles from the Heterogeneously Catalyzed Oxidative Decarboxylation of Amino Acids. ChemSusChem, 2015, 8, 345-352.	3.6	32

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55	Catalytically active gauze-supported skeletal nickel prepared from Niâ€“Zn alloys electrodeposited from an acetamideâ€“dimethyl sulfone eutectic mixture. Catalysis Today, 2015, 246, 191-197.	2.2	5
56	First examples of aliphatic zirconium MOFs and the influence of inorganic anions on their crystal structures. CrystEngComm, 2015, 17, 331-337.	1.3	44
57	Energy and charge transfer by donorâ€“acceptor pairs confined in a metalâ€“organic framework: a spectroscopic and computational investigation. Journal of Materials Chemistry A, 2014, 2, 3389-3398.	5.2	100
58	Novel metalâ€“organic framework linkers for light harvesting applications. Chemical Science, 2014, 5, 2081-2090.	3.7	152
59	Alcohol amination with heterogeneous ruthenium hydroxyapatite catalysts. Applied Catalysis A: General, 2014, 469, 191-197.	2.2	45
60	Tunable Electrical Conductivity in Metal-Organic Framework Thin-Film Devices. Science, 2014, 343, 66-69.	6.0	1,061
61	A zirconium squarate metalâ€“organic framework with modulator-dependent molecular sieving properties. Chemical Communications, 2014, 50, 10055-10058.	2.2	64
62	Controlled Nucleation and Growth of Pillared Paddlewheel Framework Nanostacks onto Chemically Modified Surfaces. ACS Applied Materials & Interfaces, 2014, 6, 1509-1514.	4.0	20
63	Highly active gauze-supported skeletal nickel catalysts. Chemical Communications, 2013, 49, 8498.	2.2	11
64	Mechanical properties of electrochemically synthesised metalâ€“organic framework thin films. Journal of Materials Chemistry C, 2013, 1, 7716.	2.7	53
65	Solvent-free synthesis of supported ZIF-8 films and patterns through transformation of deposited zinc oxide precursors. CrystEngComm, 2013, 15, 9308.	1.3	124
66	Ultrasensitive Humidity Detection Using Metalâ€“Organic Framework-Coated Microsensors. Analytical Chemistry, 2012, 84, 7043-7051.	3.2	111
67	Kinetics and mechanism of metalâ€“organic framework thin film growth: systematic investigation of HKUST-1 deposition on QCM electrodes. Chemical Science, 2012, 3, 1531.	3.7	169
68	MOF @ MEMS: Design optimization for high sensitivity chemical detection. Sensors and Actuators B: Chemical, 2012, 168, 256-262.	4.0	50
69	Ordered metal nanostructureself-assembly using metalâ€“organic frameworks as templates. Chemical Science, 2011, 2, 411-416.	3.7	64
70	A Roadmap to Implementing Metalâ€“Organic Frameworks in Electronic Devices: Challenges and Critical Directions. Chemistry - A European Journal, 2011, 17, 11372-11388.	1.7	403
71	Conductivity, Doping, and Redox Chemistry of a Microporous Dithiolene-Based Metalâ€'Organic Framework. Chemistry of Materials, 2010, 22, 4120-4122.	3.2	459
72	Silver Cluster Formation, Dynamics, and Chemistry in Metalâ€'Organic Frameworks. Nano Letters, 2009, 9, 3413-3418.	4.5	245

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73	Force Field Validation for Molecular Dynamics Simulations of IRMOF-1 and Other Isoreticular Zinc Carboxylate Coordination Polymers. Journal of Physical Chemistry C, 2008, 112, 5795-5802.	1.5	142
74	Stress-Induced Chemical Detection Using Flexible Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2008, 130, 14404-14405.	6.6	469
75	Influence of Connectivity and Porosity on Ligand-Based Luminescence in Zinc Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2007, 129, 7136-7144.	6.6	625
76	Detailed spectral studies of copper acetate: excited-state interactions in copper dimers. Journal of the American Chemical Society, 1989, 111, 4009-4021.	6.6	64