

# Mircea Dinca

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2999471/publications.pdf>

Version: 2024-02-01

184  
papers

36,386  
citations

4955

84  
h-index

3321

184  
g-index

197  
all docs

197  
docs citations

197  
times ranked

25106  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Hydrogen storage in metal-organic frameworks. <i>Chemical Society Reviews</i> , 2009, 38, 1294.   | 18.7 | 4,136     |
| 2  | Conductive MOF electrodes for stable supercapacitors with high areal capacitance. <i>Nature Materials</i> , 2017, 16, 220-224.  | 13.3 | 1,805     |
| 3  | Electrically Conductive Porous Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3566-3579.  | 7.2  | 1,444     |
| 4  | Hydrogen Storage in Microporous Metal-Organic Frameworks with Exposed Metal Sites. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 6766-6779.  | 7.2  | 1,086     |
| 5  | Hydrogen Storage in a Microporous Metal-Organic Framework with Exposed Mn <sup>2+</sup> -Coordination Sites. <i>Journal of the American Chemical Society</i> , 2006, 128, 16876-16883.  | 6.6  | 1,081     |
| 6  | Electrically Conductive Metal-Organic Frameworks. <i>Chemical Reviews</i> , 2020, 120, 8536-8580.   | 23.0 | 989       |
| 7  | High Electrical Conductivity in Ni <sub>3</sub> (2,3,6,7,10,11-hexaiminotriphenylene) <sub>2</sub> , a Semiconducting Metal-Organic Graphene Analogue. <i>Journal of the American Chemical Society</i> , 2014, 136, 8859-8862.  | 6.6  | 893       |
| 8  | Size-Selective Lewis Acid Catalysis in a Microporous Metal-Organic Framework with Exposed Mn <sup>2+</sup> Coordination Sites. <i>Journal of the American Chemical Society</i> , 2008, 130, 5854-5855.  | 6.6  | 804       |
| 9  | Cu <sub>3</sub> (hexaiminotriphenylene) <sub>2</sub> : An Electrically Conductive 2D Metal-Organic Framework for Chemiresistive Sensing. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4349-4352.  | 7.2  | 765       |
| 10 | Strong H <sub>2</sub> Binding and Selective Gas Adsorption within the Microporous Coordination Solid Mg <sub>3</sub> (O <sub>2</sub> C-C <sub>10</sub> H <sub>6</sub> -CO <sub>2</sub> ) <sub>3</sub> . <i>Journal of the American Chemical Society</i> , 2005, 127, 9376-9377. | 6.6  | 727       |
| 11 | Nickel-borate oxygen-evolving catalyst that functions under benign conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10337-10341.   | 3.3  | 709       |
| 12 | Structure and Valency of a Cobalt-Phosphate Water Oxidation Catalyst Determined by in Situ X-ray Spectroscopy. <i>Journal of the American Chemical Society</i> , 2010, 132, 13692-13701.  | 6.6  | 649       |
| 13 | Turn-On Fluorescence in Tetraphenylethylene-Based Metal-Organic Frameworks: An Alternative to Aggregation-Induced Emission. <i>Journal of the American Chemical Society</i> , 2011, 133, 20126-20129.   | 6.6  | 623       |
| 14 | Chemiresistive Sensor Arrays from Conductive 2D Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2015, 137, 13780-13783.   | 6.6  | 615       |
| 15 | Microporous Metal-Organic Frameworks Incorporating 1,4-Benzeneditetrazolate: Syntheses, Structures, and Hydrogen Storage Properties. <i>Journal of the American Chemical Society</i> , 2006, 128, 8904-8913.  | 6.6  | 613       |
| 16 | Electrolyte-Dependent Electrosynthesis and Activity of Cobalt-Based Water Oxidation Catalysts. <i>Journal of the American Chemical Society</i> , 2009, 131, 2615-2620.  | 6.6  | 590       |
| 17 | Electrochemical oxygen reduction catalysed by Ni <sub>3</sub> (hexaiminotriphenylene) <sub>2</sub> . <i>Nature Communications</i> , 2016, 7, 10942.   | 5.8  | 577       |
| 18 | EPR Evidence for Co(IV) Species Produced During Water Oxidation at Neutral pH. <i>Journal of the American Chemical Society</i> , 2010, 132, 6882-6883.  | 6.6  | 488       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 19 | High-Enthalpy Hydrogen Adsorption in Cation-Exchanged Variants of the Microporous Metal-Organic Framework $Mn_3[(Mn_4Cl)_3(BTT)_8(CH_3OH)_{10}]_2$ . Journal of the American Chemical Society, 2007, 129, 11172-11176.             | 6.6  | 470       |
| 20 | Cation exchange at the secondary building units of metal-organic frameworks. Chemical Society Reviews, 2014, 43, 5456-5467.  | 18.7 | 462       |
| 21 | The Current Status of MOF and COF Applications. Angewandte Chemie - International Edition, 2021, 60, 23975-24001.  | 7.2  | 450       |
| 22 | High Charge Mobility in a Tetrathiafulvalene-Based Microporous Metal-Organic Framework. Journal of the American Chemical Society, 2012, 134, 12932-12935.  | 6.6  | 436       |
| 23 | Selective Turn-On Ammonia Sensing Enabled by High-Temperature Fluorescence in Metal-Organic Frameworks with Open Metal Sites. Journal of the American Chemical Society, 2013, 135, 13326-13329.                                    | 6.6  | 409       |
| 24 | Molecular understanding of charge storage and charging dynamics in supercapacitors with MOF electrodes and ionic liquid electrolytes. Nature Materials, 2020, 19, 552-558.   | 13.3 | 405       |
| 25 | Broadly Hysteretic $H_2$ Adsorption in the Microporous Metal-Organic Framework $Co(1,4\text{-benzenedipyrzolate})$ . Journal of the American Chemical Society, 2008, 130, 7848-7850.   | 6.6  | 396       |
| 26 | Observation of $Cu_2-H_2$ Interactions in a Fully Desolvated Sodalite-Type Metal-Organic Framework. Angewandte Chemie - International Edition, 2007, 46, 1419-1422.  | 7.2  | 395       |
| 27 | $Ti^{3+}$ , $V^{2+/3+}$ , $Cr^{2+/3+}$ , $Mn^{2+}$ , and $Fe^{2+}$ -Substituted MOF-5 and Redox Reactivity in Cr- and Fe-MOF-5. Journal of the American Chemical Society, 2013, 135, 12886-12891.                                  | 6.6  | 374       |
| 28 | Phenyl Ring Dynamics in a Tetraphenylethylene-Bridged Metal-Organic Framework: Implications for the Mechanism of Aggregation-Induced Emission. Journal of the American Chemical Society, 2012, 134, 15061-15070.                   | 6.6  | 368       |
| 29 | Cation-Dependent Intrinsic Electrical Conductivity in Isostructural Tetrathiafulvalene-Based Microporous Metal-Organic Frameworks. Journal of the American Chemical Society, 2015, 137, 1774-1777.                                 | 6.6  | 360       |
| 30 | Signature of Metallic Behavior in the Metal-Organic Frameworks $M_3(\text{hexaiminobenzene})_2$ ( $M = Ni, Cu$ ). Journal of the American Chemical Society, 2017, 139, 13608-13611.  | 6.6  | 324       |
| 31 | Grand Challenges and Future Opportunities for Metal-Organic Frameworks. ACS Central Science, 2017, 3, 554-563.   | 5.3  | 311       |
| 32 | Highly-Selective and Reversible $O_2$ Binding in $Cr_3(1,3,5\text{-benzenetricarboxylate})_2$ . Journal of the American Chemical Society, 2010, 132, 7856-7857.  | 6.6  | 307       |
| 33 | Thiophene-based covalent organic frameworks. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4923-4928.  | 3.3  | 291       |
| 34 | $Mn_2(2,5\text{-disulfhydrylbenzene-1,4-dicarboxylate})$ : A Microporous Metal-Organic Framework with Infinite $(Mn-S)$ Chains and High Intrinsic Charge Mobility. Journal of the American Chemical Society, 2013, 135, 8185-8188. | 6.6  | 291       |
| 35 | Million-Fold Electrical Conductivity Enhancement in $Fe_2(EBDC)$ versus $Mn_2(EBDC)$ ( $E = S, O$ ). Journal of the American Chemical Society, 2015, 137, 6164-6167.   | 6.6  | 291       |
| 36 | Record Atmospheric Fresh Water Capture and Heat Transfer with a Material Operating at the Water Uptake Reversibility Limit. ACS Central Science, 2017, 3, 668-672.   | 5.3  | 275       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 37 | Facile Deposition of Multicolored Electrochromic Metal-Organic Framework Thin Films. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 13377-13381.   | 7.2  | 266       |
| 38 | Controlled Gas Uptake in Metal-Organic Frameworks with Record Ammonia Sorption. <i>Journal of the American Chemical Society</i> , 2018, 140, 3461-3466.  | 6.6  | 250       |
| 39 | Single-Ion Li <sup>+</sup> , Na <sup>+</sup> , and Mg <sup>2+</sup> Solid Electrolytes Supported by a Mesoporous Anionic Cu-Azolate Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2017, 139, 13260-13263.                             | 6.6  | 239       |
| 40 | Atomically precise single-crystal structures of electrically conducting 2D metal-organic frameworks. <i>Nature Materials</i> , 2021, 20, 222-228.  | 13.3 | 239       |
| 41 | Reductive Electrosynthesis of Crystalline Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2011, 133, 12926-12929.  | 6.6  | 230       |
| 42 | High and Reversible Ammonia Uptake in Mesoporous Azolate Metal-Organic Frameworks with Open Mn, Co, and Ni Sites. <i>Journal of the American Chemical Society</i> , 2016, 138, 9401-9404.  | 6.6  | 229       |
| 43 | Measuring and Reporting Electrical Conductivity in Metal-Organic Frameworks: Cd <sub>2</sub> (TTFTB) as a Case Study. <i>Journal of the American Chemical Society</i> , 2016, 138, 14772-14782.  | 6.6  | 221       |
| 44 | Kinetic stability of metal-organic frameworks for corrosive and coordinating gas capture. <i>Nature Reviews Materials</i> , 2019, 4, 708-725.  | 23.3 | 214       |
| 45 | Efficient and tunable one-dimensional charge transport in layered lanthanide metal-organic frameworks. <i>Nature Chemistry</i> , 2020, 12, 131-136.  | 6.6  | 214       |
| 46 | Metal-Organic Frameworks as Active Materials in Electronic Sensor Devices. <i>Sensors</i> , 2017, 17, 1108.  | 2.1  | 212       |
| 47 | Single Crystals of Electrically Conductive Two-Dimensional Metal-Organic Frameworks: Structural and Electrical Transport Properties. <i>ACS Central Science</i> , 2019, 5, 1959-1964.  | 5.3  | 211       |
| 48 | Tunable Mixed-Valence Doping toward Record Electrical Conductivity in a Three-Dimensional Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2018, 140, 7411-7414.   | 6.6  | 204       |
| 49 | 2D Conductive Iron-Quinoid Magnets Ordering up to $T_c = 105$ K via Heterogeneous Redox Chemistry. <i>Journal of the American Chemical Society</i> , 2017, 139, 4175-4184.   | 6.6  | 196       |
| 50 | Expanded Sodalite-Type Metal-Organic Frameworks: Increased Stability and H <sub>2</sub> Adsorption through Ligand-Directed Catenation. <i>Inorganic Chemistry</i> , 2008, 47, 11-13.   | 1.9  | 192       |
| 51 | Continuous Partial Oxidation of Methane to Methanol Catalyzed by Diffusion-Paired Copper Dimers in Copper-Exchanged Zeolites. <i>Journal of the American Chemical Society</i> , 2019, 141, 11641-11650.  | 6.6  | 191       |
| 52 | Investigation of the synthesis, activation, and isosteric heats of CO <sub>2</sub> adsorption of the isostructural series of metal-organic frameworks M <sub>3</sub> (BTC) <sub>2</sub> (M = Cr, Fe, Ni, Cu, Mo, Ru). <i>Dalton Transactions</i> , 2012, 41, 7931. | 1.6  | 184       |
| 53 | Hydrogen storage in water-stable metal-organic frameworks incorporating 1,3- and 1,4-benzenedipyrzolate. <i>Energy and Environmental Science</i> , 2010, 3, 117-123.   | 15.6 | 182       |
| 54 | Elektrisch leitfähige poröse Metall-organische Gerüstverbindungen. <i>Angewandte Chemie</i> , 2016, 128, 3628-3642.  | 1.6  | 180       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 55 | Selective Dimerization of Ethylene to 1-Butene with a Porous Catalyst. ACS Central Science, 2016, 2, 148-153.  | 5.3  | 180       |
| 56 | Conformational Locking by Design: Relating Strain Energy with Luminescence and Stability in Rigid Metal-Organic Frameworks. Journal of the American Chemical Society, 2012, 134, 19596-19599.      | 6.6  | 176       |
| 57 | Is iron unique in promoting electrical conductivity in MOFs?. Chemical Science, 2017, 8, 4450-4457.  | 3.7  | 176       |
| 58 | Continuous Electrical Conductivity Variation in M <sub>3</sub> (Hexaiminotriphenylene) <sub>2</sub> (M = Co, Ni, Cu) MOF Alloys. Journal of the American Chemical Society, 2020, 142, 12367-12373. | 6.6  | 169       |
| 59 | High electrical conductivity and carrier mobility in oCVD PEDOT thin films by engineered crystallization and acid treatment. Science Advances, 2018, 4, eaat5780.                                  | 4.7  | 167       |
| 60 | Mechanistic Evidence for Ligand-Centered Electrocatalytic Oxygen Reduction with the Conductive MOF Ni <sub>3</sub> (hexaiminotriphenylene) <sub>2</sub> . ACS Catalysis, 2017, 7, 7726-7731.       | 5.5  | 164       |
| 61 | A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. Joule, 2017, 1, 168-177.   | 11.7 | 159       |
| 62 | Selective formation of biphasic thin films of metal-organic frameworks by potential-controlled cathodic electrodeposition. Chemical Science, 2014, 5, 107-111.                                     | 3.7  | 158       |
| 63 | Single-Site Heterogeneous Catalysts for Olefin Polymerization Enabled by Cation Exchange in a Metal-Organic Framework. Journal of the American Chemical Society, 2016, 138, 10232-10237.           | 6.6  | 153       |
| 64 | Lattice-imposed geometry in metal-organic frameworks: lacunary Zn <sub>4</sub> O clusters in MOF-5 serve as tripodal chelating ligands for Ni <sup>2+</sup> . Chemical Science, 2012, 3, 2110.     | 3.7  | 152       |
| 65 | Transparent-to-Dark Electrochromic Behavior in Naphthalene-Diimide-Based Mesoporous MOF-74 Analogs. Chem, 2016, 1, 264-272.  | 5.8  | 145       |
| 66 | Impact of Metal and Anion Substitutions on the Hydrogen Storage Properties of M-BTT Metal-Organic Frameworks. Journal of the American Chemical Society, 2013, 135, 1083-1091.                      | 6.6  | 139       |
| 67 | High Li <sup>+</sup> and Mg <sup>2+</sup> Conductivity in a Cu-Azolate Metal-Organic Framework. Journal of the American Chemical Society, 2019, 141, 4422-4427.                                    | 6.6  | 139       |
| 68 | Postsynthetic tuning of hydrophilicity in pyrazolate MOFs to modulate water adsorption properties. Energy and Environmental Science, 2013, 6, 2172.  | 15.6 | 138       |
| 69 | On the electrochemical deposition of metal-organic frameworks. Journal of Materials Chemistry A, 2016, 4, 3914-3925.   | 5.2  | 138       |
| 70 | Viewpoint on the Partial Oxidation of Methane to Methanol Using Cu- and Fe-Exchanged Zeolites. ACS Catalysis, 2018, 8, 8306-8313.  | 5.5  | 133       |
| 71 | Diverse π-π stacking motifs modulate electrical conductivity in tetrathiafulvalene-based metal-organic frameworks. Chemical Science, 2019, 10, 8558-8565.  | 3.7  | 128       |
| 72 | Dynamic DMF Binding in MOF-5 Enables the Formation of Metastable Cobalt-Substituted MOF-5 Analogues. ACS Central Science, 2015, 1, 252-260.  | 5.3  | 123       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 73 | Modular O <sub>2</sub> electroreduction activity in triphenylene-based metal-organic frameworks. <i>Chemical Science</i> , 2018, 9, 6286-6291.   | 3.7  | 123       |
| 74 | Mechanism of Single-Site Molecule-Like Catalytic Ethylene Dimerization in Ni-MFU-4l. <i>Journal of the American Chemical Society</i> , 2017, 139, 757-762.   | 6.6  | 122       |
| 75 | Record-Setting Sorbents for Reversible Water Uptake by Systematic Anion Exchanges in Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2019, 141, 13858-13866.                         | 6.6  | 118       |
| 76 | Structure and Charge Control in Metal-Organic Frameworks Based on the Tetrahedral Ligand Tetrakis(4-tetrazolylphenyl)methane. <i>Chemistry - A European Journal</i> , 2008, 14, 10280-10285.                     | 1.7  | 106       |
| 77 | Selective Catalytic Olefin Epoxidation with Mn <sup>II</sup> -Exchanged MOF-5. <i>ACS Catalysis</i> , 2018, 8, 596-601.  | 5.5  | 105       |
| 78 | High-Capacitance Pseudocapacitors from Li <sup>+</sup> Ion Intercalation in Nonporous, Electrically Conductive 2D Coordination Polymers. <i>Journal of the American Chemical Society</i> , 2021, 143, 2285-2292. | 6.6  | 99        |
| 79 | NO Disproportionation at a Mononuclear Site-Isolated Fe <sup>2+</sup> Center in Fe <sup>2+</sup> -MOF-5. <i>Journal of the American Chemical Society</i> , 2015, 137, 7495-7501.                                 | 6.6  | 96        |
| 80 | Reversible Capture and Release of Cl <sub>2</sub> and Br <sub>2</sub> with a Redox-Active Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2017, 139, 5992-5997.                       | 6.6  | 95        |
| 81 | Synthesis and Electrical Properties of Covalent Organic Frameworks with Heavy Chalcogens. <i>Chemistry of Materials</i> , 2015, 27, 5487-5490.   | 3.2  | 91        |
| 82 | A Structural Mimic of Carbonic Anhydrase in a Metal-Organic Framework. <i>CheM</i> , 2018, 4, 2894-2901.   | 5.8  | 91        |
| 83 | Ligand Redox Non-innocence in the Stoichiometric Oxidation of Mn <sub>2</sub> (2,5-dioxidoterephthalate) (Mn-MOF-74). <i>Journal of the American Chemical Society</i> , 2014, 136, 3334-3337.                    | 6.6  | 87        |
| 84 | Photon energy storage materials with high energy densities based on diacetylene-azobenzene derivatives. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16157-16165.  | 5.2  | 86        |
| 85 | High temperature ferromagnetism in $\pi$ -conjugated two-dimensional metal-organic frameworks. <i>Chemical Science</i> , 2017, 8, 2859-2867.   | 3.7  | 86        |
| 86 | Hydrogen bonding structure of confined water templated by a metal-organic framework with open metal sites. <i>Nature Communications</i> , 2019, 10, 4771.  | 5.8  | 86        |
| 87 | Simultaneous interlayer and intralayer space control in two-dimensional metal-organic frameworks for acetylene/ethylene separation. <i>Nature Communications</i> , 2020, 11, 6259.                               | 5.8  | 85        |
| 88 | How Reproducible are Surface Areas Calculated from the BET Equation?. <i>Advanced Materials</i> , 2022, 34, .  | 11.1 | 82        |
| 89 | Chemiresistive Sensing of Ambient CO <sub>2</sub> by an Autogenously Hydrated Cu <sub>3</sub> (hexaminobenzene) <sub>2</sub> Framework. <i>ACS Central Science</i> , 2019, 5, 1425-1431.                         | 5.3  | 79        |
| 90 | Tunable Metal-Organic Frameworks Enable High-Efficiency Cascaded Adsorption Heat Pumps. <i>Journal of the American Chemical Society</i> , 2018, 140, 17591-17596.  | 6.6  | 78        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 91  | Stabilized Vanadium Catalyst for Olefin Polymerization by Site Isolation in a Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8135-8139.  | 7.2  | 73        |
| 92  | First-principles design of a half-filled flat band of the kagome lattice in two-dimensional metal-organic frameworks. <i>Physical Review B</i> , 2016, 94, .  | 1.1  | 72        |
| 93  | The Organic Secondary Building Unit: Strong Intermolecular $\pi$ - $\pi$ Interactions Define Topology in MIT-25, a Mesoporous MOF with Proton-Replete Channels. <i>Journal of the American Chemical Society</i> , 2017, 139, 3619-3622. | 6.6  | 72        |
| 94  | Triphenylene-Bridged Trinuclear Complexes of Cu: Models for Spin Interactions in Two-Dimensional Electrically Conductive Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2019, 141, 10475-10480.            | 6.6  | 72        |
| 95  | Precise control of pore hydrophilicity enabled by post-synthetic cation exchange in metal-organic frameworks. <i>Chemical Science</i> , 2018, 9, 3856-3859.   | 3.7  | 70        |
| 96  | Solvent-Dependent Cation Exchange in Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2014, 20, 6871-6874.   | 1.7  | 66        |
| 97  | Charge Transfer or J-Coupling? Assignment of an Unexpected Red-Shifted Absorption Band in a Naphthalenediimide-Based Metal-Organic Framework. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 453-458.                          | 2.1  | 65        |
| 98  | Introduction: Porous Framework Chemistry. <i>Chemical Reviews</i> , 2020, 120, 8037-8038.   | 23.0 | 65        |
| 99  | On the Mechanism of MOF-5 Formation under Cathodic Bias. <i>Chemistry of Materials</i> , 2015, 27, 3203-3206.   | 3.2  | 64        |
| 100 | Selective Vapor Pressure Dependent Proton Transport in a Metal-Organic Framework with Two Distinct Hydrophilic Pores. <i>Journal of the American Chemical Society</i> , 2018, 140, 2016-2019.   | 6.6  | 64        |
| 101 | Metal-organic frameworks: Evolved oxygen evolution catalysts. <i>Nature Energy</i> , 2016, 1, .   | 19.8 | 63        |
| 102 | Highly Stereoselective Heterogeneous Diene Polymerization by Co-MFU-4l: A Single-Site Catalyst Prepared by Cation Exchange. <i>Journal of the American Chemical Society</i> , 2017, 139, 12664-12669.                                   | 6.6  | 63        |
| 103 | Bioinspired chemistry at MOF secondary building units. <i>Chemical Science</i> , 2020, 11, 1728-1737.   | 3.7  | 63        |
| 104 | Highly Selective Heterogeneous Ethylene Dimerization with a Scalable and Chemically Robust MOF Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 6654-6661.   | 3.2  | 62        |
| 105 | Selective Dimerization of Propylene with Ni-MFU-4l. <i>Organometallics</i> , 2017, 36, 1681-1683.   | 1.1  | 55        |
| 106 | Electrical Conductivity in a Porous, Cubic Rare-Earth Catecholate. <i>Journal of the American Chemical Society</i> , 2020, 142, 6920-6924.  | 6.6  | 53        |
| 107 | Heterogeneous Epoxide Carbonylation by Cooperative Ion-Pair Catalysis in Co(CO) <sub>4</sub> -Incorporated Cr-MIL-101. <i>ACS Central Science</i> , 2017, 3, 444-448.   | 5.3  | 51        |
| 108 | Metal- and covalent-organic frameworks as solid-state electrolytes for metal-ion batteries. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180225.                         | 1.6  | 51        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 109 | Neutron Scattering and Spectroscopic Studies of Hydrogen Adsorption in Cr <sub>3</sub> (BTC) <sub>2</sub> —A Metal-Organic Framework with Exposed Cr <sup>2+</sup> Sites. <i>Journal of Physical Chemistry C</i> , 2011, 115, 8414-8421. | 1.5 | 50        |
| 110 | Cerium(IV) Enhances the Catalytic Oxidation Activity of Single-Site Cu Active Sites in MOFs. <i>ACS Catalysis</i> , 2020, 10, 7820-7825.   | 5.5 | 50        |
| 111 | Quantification of Site-Specific Cation Exchange in Metal-Organic Frameworks Using Multi-Wavelength Anomalous X-ray Dispersion. <i>Chemistry of Materials</i> , 2013, 25, 2998-3002.  | 3.2 | 49        |
| 112 | Reversible Metalation and Catalysis with a Scorpionate-like Metallo-ligand in a Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2018, 140, 17394-17398.   | 6.6 | 48        |
| 113 | Solid-State Redox Switching of Magnetic Exchange and Electronic Conductivity in a Benzoquinoid-Bridged Mn <sub>II</sub> Chain Compound. <i>Journal of the American Chemical Society</i> , 2016, 138, 6583-6590.                          | 6.6 | 47        |
| 114 | Continuous-Flow Production of Succinic Anhydrides via Catalytic $\beta$ -Lactone Carbonylation by Co(CO) <sub>4</sub> –Cr-MIL-101. <i>Journal of the American Chemical Society</i> , 2018, 140, 10669-10672.                             | 6.6 | 47        |
| 115 | Conetronics in 2D metal-organic frameworks: double/half Dirac cones and quantum anomalous Hall effect. <i>2D Materials</i> , 2017, 4, 015015.  | 2.0 | 41        |
| 116 | Large Single Crystals of Two-Dimensional $\pi$ -Conjugated Metal-Organic Frameworks via Biphasic Solution-Solid Growth. <i>ACS Central Science</i> , 2021, 7, 104-109.   | 5.3 | 40        |
| 117 | Toward New 2D Zirconium-Based Metal-Organic Frameworks: Synthesis, Structures, and Electronic Properties. <i>Chemistry of Materials</i> , 2020, 32, 97-104.  | 3.2 | 37        |
| 118 | Activation of Methyltrioxorhenium for Olefin Metathesis in a Zirconium-Based Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2018, 140, 6956-6960.  | 6.6 | 36        |
| 119 | Novel Topology in Semiconducting Tetrathiafulvalene Lanthanide Metal-Organic Frameworks. <i>Israel Journal of Chemistry</i> , 2018, 58, 1119-1122.   | 1.0 | 34        |
| 120 | Waterproof molecular monolayers stabilize 2D materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20844-20849.   | 3.3 | 32        |
| 121 | Thermal Cycling of a MOF-Based NO Disproportionation Catalyst. <i>Journal of the American Chemical Society</i> , 2021, 143, 681-686.   | 6.6 | 32        |
| 122 | Thousand-fold increase in O <sub>2</sub> electroreduction rates with conductive MOFs. <i>ACS Central Science</i> , 2022, 8, 975-982.   | 5.3 | 32        |
| 123 | Metal-Organic Framework-Derived Guerbet Catalyst Effectively Differentiates between Ethanol and Butanol. <i>Journal of the American Chemical Society</i> , 2019, 141, 17477-17481.   | 6.6 | 31        |
| 124 | Thermodynamic parameters of cation exchange in MOF-5 and MFU-4l. <i>Chemical Communications</i> , 2015, 51, 11780-11782.   | 2.2 | 30        |
| 125 | Metal-organic frameworks for electronics and photonics. <i>MRS Bulletin</i> , 2016, 41, 854-857.   | 1.7 | 30        |
| 126 | Thermodynamics of solvent interaction with the metal-organic framework MOF-5. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1158-1162.  | 1.3 | 30        |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 127 | A Three-dimensional Porous Organic Semiconductor Based on Fully sp <sup>2</sup> -Hybridized Graphitic Polymer. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15166-15170.                                     | 7.2 | 29        |
| 128 | Coordination-induced reversible electrical conductivity variation in the MOF-74 analogue Fe <sub>2</sub> (DSBDC). <i>Dalton Transactions</i> , 2018, 47, 11739-11743.  | 1.6 | 27        |
| 129 | Accelerated Synthesis of a Ni <sub>2</sub> Cl <sub>2</sub> (BTDD) Metal-Organic Framework in a Continuous Flow Reactor for Atmospheric Water Capture. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 3996-4003. | 3.2 | 26        |
| 130 | Ammonia Capture via an Unconventional Reversible Guest-Induced Metal-Linker Bond Dynamics in a Highly Stable Metal-Organic Framework. <i>Chemistry of Materials</i> , 2021, 33, 6186-6192.                                   | 3.2 | 26        |
| 131 | Oxidative Dehydrogenation of Propane in the Realm of Metal-Organic Frameworks. <i>ACS Central Science</i> , 2017, 3, 10-12.  | 5.3 | 24        |
| 132 | Dimensionality Modulates Electrical Conductivity in Compositionally Constant One-, Two-, and Three-Dimensional Frameworks. <i>Journal of the American Chemical Society</i> , 2022, 144, 5583-5593.                           | 6.6 | 24        |
| 133 | Synthesis and characterization of the cubic coordination cluster (H3IBT=4,5-bis(tetrazol-5-yl)imidazole). <i>Journal of Molecular Structure</i> , 2008, 890, 139-143.  | 1.8 | 23        |
| 134 | When the Solvent Locks the Cage: Theoretical Insight into the Transmetalation of MOF-5 Lattices and Its Kinetic Limitations. <i>Chemistry of Materials</i> , 2015, 27, 3422-3429.  | 3.2 | 23        |
| 135 | Isorecticular Linker Substitution in Conductive Metal-Organic Frameworks with Through-space Transport Pathways. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19623-19626.                                    | 7.2 | 22        |
| 136 | Rapid and precise determination of zero-field splittings by terahertz time-domain electron paramagnetic resonance spectroscopy. <i>Chemical Science</i> , 2017, 8, 7312-7323.  | 3.7 | 20        |
| 137 | Computational Exploration of NO Single-Site Disproportionation on Fe-MOF-5. <i>Chemistry of Materials</i> , 2019, 31, 8875-8885.   | 3.2 | 20        |
| 138 | Ultrathin, High-Aspect Ratio, and Free-Standing Magnetic Nanowires by Exfoliation of Ferromagnetic Quasi-One-Dimensional van der Waals Lattices. <i>Journal of the American Chemical Society</i> , 2021, 143, 19551-19558.   | 6.6 | 19        |
| 139 | Der derzeitige Stand von MOF- und COF-Anwendungen. <i>Angewandte Chemie</i> , 2021, 133, 24174-24202.  | 1.6 | 18        |
| 140 | Teaching Metal-Organic Frameworks to Conduct: Ion and Electron Transport in Metal-Organic Frameworks. <i>Annual Review of Materials Research</i> , 2022, 52, 103-128.  | 4.3 | 18        |
| 141 | Gas-Phase Ethylene Polymerization by Single-Site Cr Centers in a Metal-Organic Framework. <i>ACS Catalysis</i> , 2020, 10, 3864-3870.  | 5.5 | 17        |
| 142 | Redox Ladder of Ni <sub>3</sub> Complexes with Closed-shell, Mono-, and Diradical Triphenylene Units: Molecular Models for Conductive 2D MOFs. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23784-23789.     | 7.2 | 17        |
| 143 | Dual-ion Intercalation and High Volumetric Capacitance in a Two-dimensional Nonporous Coordination Polymer. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 27119-27125.  | 7.2 | 17        |
| 144 | Dynamic structural flexibility of Fe-MOF-5 evidenced by <sup>57</sup> Fe Mössbauer spectroscopy. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 782-788.  | 3.0 | 15        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 145 | Selective Oxidation of C-H Bonds through a Manganese(III) Hydroperoxo in Mn <sup>II</sup> -Exchanged CFA-1. <i>Inorganic Chemistry</i> , 2019, 58, 13221-13228.  | 1.9 | 15        |
| 146 | <i>Quo vadis niobium?</i> Divergent coordination behavior of early-transition metals towards MOF-5. <i>Chemical Science</i> , 2019, 10, 5906-5910.   | 3.7 | 15        |
| 147 | Observation of Ion Electrosorption in Metal-Organic Framework Micropores with In Operando Small-Angle Neutron Scattering. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9773-9779.  | 7.2 | 15        |
| 148 | Divergent Adsorption Behavior Controlled by Primary Coordination Sphere Anions in the Metal-Organic Framework Ni <sub>2</sub> X <sub>2</sub> BTDD. <i>Journal of the American Chemical Society</i> , 2021, 143, 16343-16347.                               | 6.6 | 15        |
| 149 | Catalysis in MOFs: general discussion. <i>Faraday Discussions</i> , 2017, 201, 369-394.  | 1.6 | 14        |
| 150 | Interdigitated conducting tetrathiafulvalene-based coordination networks. <i>Chemical Communications</i> , 2020, 56, 2407-2410.  | 2.2 | 14        |
| 151 | Colloidal nano-MOFs nucleate and stabilize ultra-small quantum dots of lead bromide perovskites. <i>Chemical Science</i> , 2021, 12, 6129-6135.  | 3.7 | 14        |
| 152 | Frontier Orbital Engineering of Metal-Organic Frameworks with Extended Inorganic Connectivity: Porous Alkaline-Earth Oxides. <i>Inorganic Chemistry</i> , 2016, 55, 7265-7269.   | 1.9 | 13        |
| 153 | Pt Electrodes Enable the Formation of 1/4-O Centers in MOF-5 from Multiple Oxygen Sources. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 33528-33532.   | 4.0 | 12        |
| 154 | Programming Framework Materials for Ammonia Capture. <i>ACS Central Science</i> , 2018, 4, 666-667.  | 5.3 | 12        |
| 155 | A Three-Dimensional Porous Organic Semiconductor Based on Fully sp <sup>2</sup> -Hybridized Graphitic Polymer. <i>Angewandte Chemie</i> , 2020, 132, 15278-15282.  | 1.6 | 12        |
| 156 | Why conductivity is not always king – physical properties governing the capacitance of 2D metal-organic framework-based EDLC supercapacitor electrodes: a Ni <sub>3</sub> (HITP) <sub>2</sub> case study. <i>Faraday Discussions</i> , 2021, 231, 298-304. | 1.6 | 12        |
| 157 | Aperiodic metal-organic frameworks. <i>Chemical Science</i> , 2020, 11, 11094-11103.   | 3.7 | 11        |
| 158 | Spectroscopic Evidence of Hyponitrite Radical Intermediate in NO Disproportionation at a MOF-Supported Mononuclear Copper Site. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 7845-7850.  | 7.2 | 11        |
| 159 | Low-Temperature H <sub>2</sub> /CO <sub>2</sub> /CH <sub>4</sub> Separation in Mixed-Matrix Membranes Containing MFU-4. <i>Chemistry of Materials</i> , 2021, 33, 6825-6831.   | 3.2 | 11        |
| 160 | Fully Conjugated Tetraoxa[8]circulene-Based Porous Semiconducting Polymers. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .   | 7.2 | 11        |
| 161 | Organometallic Chemistry within Metal-Organic Frameworks. <i>Organometallics</i> , 2019, 38, 3389-3391.  | 1.1 | 9         |
| 162 | Molecular Niobium Precursors in Various Oxidation States: An XAS Case Study. <i>Inorganic Chemistry</i> , 2018, 57, 13998-14004.   | 1.9 | 8         |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 163 | Radical PolyMOFs: A Role for Ligand Dispersity in Enabling Crystallinity. <i>Chemistry of Materials</i> , 2021, 33, 9508-9514.  | 3.2  | 8         |
| 164 | Structural Evolution of MOF-Derived RuCo, A General Catalyst for the Guerbet Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, , .  | 4.0  | 7         |
| 165 | New directions in gas sorption and separation with MOFs: general discussion. <i>Faraday Discussions</i> , 2017, 201, 175-194.   | 1.6  | 6         |
| 166 | Stabilized Vanadium Catalyst for Olefin Polymerization by Site Isolation in a Metal-Organic Framework. <i>Angewandte Chemie</i> , 2018, 130, 8267-8271.   | 1.6  | 6         |
| 167 | Tricking Inert Metals into Water-Absorbing MOFs. <i>Joule</i> , 2018, 2, 18-20.   | 11.7 | 6         |
| 168 | Moisture Farming with Metal-Organic Frameworks. <i>CheM</i> , 2017, 2, 757-759.   | 5.8  | 5         |
| 169 | Isorecticular Linker Substitution in Conductive Metal-Organic Frameworks with Through-Space Transport Pathways. <i>Angewandte Chemie</i> , 2020, 132, 19791-19794.  | 1.6  | 5         |
| 170 | Observation of Ion Electrosorption in Metal-Organic Framework Micropores with In Operando Small-Angle Neutron Scattering. <i>Angewandte Chemie</i> , 2020, 132, 9860-9866.  | 1.6  | 4         |
| 171 | Spectroscopic Evidence of Hyponitrite Radical Intermediate in NO Disproportionation at a MOF-Supported Mononuclear Copper Site. <i>Angewandte Chemie</i> , 2021, 133, 7924-7929.  | 1.6  | 4         |
| 172 | MOF-Derived RuCo Catalyzes the Formation of a Plasticizer Alcohol from Renewable Precursors. <i>ACS Catalysis</i> , 2021, 11, 8521-8526.  | 5.5  | 4         |
| 173 | Isolation of a Side-On V(III)-( $\eta^2$ -O <sub>2</sub> ) through the Intermediacy of a Low-Valent V(II) in a Metal-Organic Framework. <i>Inorganic Chemistry</i> , 2021, 60, 18205-18210.   | 1.9  | 4         |
| 174 | Structural, Thermodynamic, and Transport Properties of the Small-Gap Two-Dimensional Metal-Organic Kagom  Materials Cu <sub>3</sub> (hexaiminobenzene) <sub>2</sub> and Ni <sub>3</sub> (hexaiminobenzene) <sub>2</sub> . <i>Inorganic Chemistry</i> , 2022, 61, 6480-6487. | 1.9  | 4         |
| 175 | Structural Characterization of a High-Nuclearity Niobium(V) Carboxylate Cluster Based on Pivalic Acid. <i>Helvetica Chimica Acta</i> , 2020, 103, e2000186.   | 1.0  | 3         |
| 176 | Redox Ladder of Ni <sub>3</sub> Complexes with Closed-Shell, Mono- and Diradical Triphenylene Units: Molecular Models for Conductive 2D MOFs. <i>Angewandte Chemie</i> , 2021, 133, 23977.  | 1.6  | 3         |
| 177 | Dual-Ion Intercalation and High Volumetric Capacitance in a Two-Dimensional Non-Porous Coordination Polymer. <i>Angewandte Chemie</i> , 2021, 133, 27325-27331.   | 1.6  | 2         |
| 178 | Fully Conjugated Tetraoxa[8]circulene-Based Porous Semiconducting Polymers. <i>Angewandte Chemie</i> , 2022, 134, .   | 1.6  | 2         |
| 179 | 9,10-Dibromotriptycene. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2004, 60, o1248-o1249.  | 0.2  | 1         |
| 180 | New talent: Americas. <i>Dalton Transactions</i> , 2012, 41, 7781.  | 1.6  | 1         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 181 | Strong magnetic exchange coupling in a radical-bridged trinuclear nickel complex. Dalton Transactions, 0, , .   | 1.6 | 1         |
| 182 | RÅ¼cktitelbild: Observation of Ion Electrosorption in Metalâ€“Organic Framework Micropores with In Operando Smallâ€“Angle Neutron Scattering (Angew. Chem. 24/2020). Angewandte Chemie, 2020, 132, 9868-9868.     | 1.6 | 0         |
| 183 | Complexes of Platinum Group Metals with a Conformationally Locked Scorpionate in a Metalâ€“Organic Framework: An Unusually Close Apical Interaction of Palladium(II). Inorganic Chemistry, 2021, 60, 11764-11774. | 1.9 | 0         |
| 184 | Surprising Properties of 2D Metal-Organic Frameworks. , 0, , .  |     | 0         |