

# Paul Forster

## List of Publications by Year in descending order

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77  
papers

4,730  
citations

147786

31  
h-index

95259

68  
g-index

89  
all docs

89  
docs citations

89  
times ranked

4518  
citing authors

#	ARTICLE	IF	CITATIONS
1	Zeolite-like Metal-Organic Frameworks (ZMOFs) as Hydrogen Storage Platform: Lithium and Magnesium Ion-Exchange and H <sub>2</sub> -ZMOF Interaction Studies. <i>Journal of the American Chemical Society</i> , 2009, 131, 2864-2870.	13.7	456
2	The role of temperature in the synthesis of hybrid inorganic-organic materials: the example of cobalt succinates. <i>Chemical Communications</i> , 2004, , 368-369.	4.1	382
3	Nickel(II) Phosphate VSB-5: A Magnetic Nanoporous Hydrogenation Catalyst with 24-Ring Tunnels. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2831-2834.	13.8	319
4	Open-Framework Nickel Succinate, [Ni <sub>7</sub> (C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> ) <sub>6</sub> (OH) <sub>2</sub> (H <sub>2</sub> O) <sub>2</sub> ] $\cdot$ ... $\cdot$ 2H <sub>2</sub> O: A New Hybrid Material with Three-Dimensional Ni-O-Ni Connectivity. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 457-459.	13.8	309
5	Enhancing H <sub>2</sub> Uptake by Close-Packing-Alignment of Open Copper Sites in Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 7263-7266.	13.8	306
6	A High-Throughput Investigation of the Role of pH, Temperature, Concentration, and Time on the Synthesis of Hybrid Inorganic-Organic Materials. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7608-7611.	13.8	286
7	Hydrogen Adsorption in Nanoporous Nickel(II) Phosphates. <i>Journal of the American Chemical Society</i> , 2003, 125, 1309-1312.	13.7	261
8	Hybrid Inorganic-Organic Solids: An Emerging Class of Nanoporous Catalysts. <i>Topics in Catalysis</i> , 2003, 24, 79-86.	2.8	203
9	Adsorption of Molecular Hydrogen on Coordinatively Unsaturated Ni(II) Sites in a Nanoporous Hybrid Material. <i>Journal of the American Chemical Society</i> , 2006, 128, 16846-16850.	13.7	191
10	Microwave Synthesis of Hybrid Inorganic-Organic Porous Materials: Phase-Selective and Rapid Crystallization. <i>Chemistry - A European Journal</i> , 2006, 12, 7899-7905.	3.3	149
11	Further Investigation of the Effect of Framework Catenation on Hydrogen Uptake in Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2008, 130, 15896-15902.	13.7	148
12	Synchrotron X-ray Powder Diffraction and Computational Investigation of Purely Siliceous Zeolite Y under Pressure. <i>Journal of the American Chemical Society</i> , 2004, 126, 12015-12022.	13.7	104
13	Noble Gas Adsorption in Copper Trimesate, HKUST-1: An Experimental and Computational Study. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20116-20126.	3.1	92
14	Synthesis and Structural Characterization of Magnesium Based Coordination Networks in Different Solvents. <i>Crystal Growth and Design</i> , 2011, 11, 2572-2579.	3.0	90
15	Biphasic Solvothermal Synthesis: A New Approach for Hybrid Inorganic-Organic Materials. <i>Chemistry of Materials</i> , 2002, 14, 17-20.	6.7	86
16	Readily available phosphate from minerals in early aqueous environments on Mars. <i>Nature Geoscience</i> , 2013, 6, 824-827.	12.9	84
17	Synthesis and characterization of Co <sub>7</sub> (OH) <sub>12</sub> (C <sub>2</sub> H <sub>4</sub> S <sub>2</sub> O <sub>6</sub> )(H <sub>2</sub> O) <sub>2</sub> a single crystal structural study of a ferrimagnetic layered cobalt hydroxide. <i>Journal of Physics and Chemistry of Solids</i> , 2004, 65, 11-16.	4.0	54
18	Effect of Mixing of Metal Cations on the Topology of Metal Oxide Networks. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5877-5879.	13.8	51

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19	A Three-Dimensional Porous Metal-Organic Framework Constructed from Two-Dimensional Sheets via Interdigitation Exhibiting Dynamic Features. <i>Inorganic Chemistry</i> , 2009, 48, 4616-4618.	4.0	44
20	Template-Free Synthesis of the Nanoporous Nickel Phosphate VSB-5 under Microwave Irradiation. <i>Chemistry of Materials</i> , 2004, 16, 1394-1396.	6.7	43
21	Gaining Insights on the H <sub>2</sub> -Sorbent Interactions: Robust soc-MOF Platform as a Case Study. <i>Chemistry of Materials</i> , 2016, 28, 7353-7361.	6.7	43
22	Structural Diversity in Coordination Polymers Composed of Divalent Transition Metals, 2,2'-Bipyridine, and Perfluorinated Dicarboxylates. <i>Crystal Growth and Design</i> , 2009, 9, 4759-4765.	3.0	42
23	Synthesis and Characterization of Two Polymorphic Crystalline Phases and an Amorphous Powder of Nickel(II) Bisimidazolate. <i>Inorganic Chemistry</i> , 2003, 42, 6147-6152.	4.0	39
24	The role of reaction conditions and ligand flexibility in metal-organic hybrid materials—examples from metal diglycolates and iminodiacetates. <i>Microporous and Mesoporous Materials</i> , 2004, 73, 57-64.	4.4	39
25	Structural Diversity and Energetics in Anhydrous Lithium Tartrates: Experimental and Computational Studies of Novel Chiral Polymorphs and Their Racemic and Meso Analogues. <i>Crystal Growth and Design</i> , 2011, 11, 221-230.	3.0	39
26	Self-assembly of halogen substituted phenazines. <i>Journal of Materials Chemistry</i> , 2010, 20, 867-873.	6.7	34
27	Preparation of the Binary Technetium Bromides: TcBr <sub>3</sub> and TcBr <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2009, 131, 910-911.	13.7	32
28	Single-crystal characterization of Co <sub>7</sub> (OH) <sub>6</sub> (H <sub>2</sub> O) <sub>3</sub> (C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> ) <sub>4</sub> ·7H <sub>2</sub> O; A new cobalt succinate identified through high-throughput synthesis. <i>Solid State Sciences</i> , 2005, 7, 1549-1555.	3.2	31
29	Two Coordination Polymers Created via In Situ Ligand Synthesis Involving C-N and C-C Bond Formation. <i>Inorganic Chemistry</i> , 2007, 46, 8717-8721.	4.0	31
30	Crystal structure of octabromoditechnetate(III) and a multi-configurational quantum chemical study of the $\hat{\rho}^{\dagger}\hat{\rho}^*$ transition in quadruply bonded [M <sub>2</sub> X <sub>8</sub> ] <sup>2-</sup> dimers (M = Tc, Re; X = Cl, Br). <i>Dalton Transactions</i> , 2009, , 5954.	3.3	31
31	Pair distribution function analysis of pressure treated zeolite Na-A. <i>Chemical Communications</i> , 2009, , 3383.	4.1	31
32	Synthesis and Structure of Technetium Trichloride. <i>Journal of the American Chemical Society</i> , 2010, 132, 15864-15865.	13.7	31
33	Technetium Dichloride: A New Binary Halide Containing Metal-Metal Multiple Bonds. <i>Journal of the American Chemical Society</i> , 2011, 133, 8814-8817.	13.7	31
34	A thermally stable nanoporous nickel 5-sulfoisophthalate; crystal structure and adsorption properties. <i>Chemical Communications</i> , 2004, , 2148.	4.1	29
35	Metal-oxygen-metal arrays in lamellar hybrid materials: Cobalt and manganese 4-cyclohexene-1,2-dicarboxylates. <i>Dalton Transactions</i> , 2004, , 3365-3369.	3.3	28
36	Utility of Bifunctional N-Heterocyclic Phosphine (NHP)-Thioureas for Metal-Free Carbon-Phosphorus Bond Construction toward Regio- and Stereoselective Formation of Vinylphosphonates. <i>Journal of Organic Chemistry</i> , 2016, 81, 77-88.	3.2	25

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37	Self-Assembly of Pyrazine-Containing Tetrachloroacenes. <i>Langmuir</i> , 2011, 27, 14615-14620.	3.5	22
38	$\hat{\nu}^2$ -Technetium Trichloride: Formation, Structure, and First-Principles Calculations. <i>Inorganic Chemistry</i> , 2012, 51, 4915-4917.	4.0	21
39	Assessing zeolite frameworks for noble gas separations through a joint experimental and computational approach. <i>Microporous and Mesoporous Materials</i> , 2016, 222, 104-112.	4.4	20
40	Synthesis, structure, and first-principles calculations of $[\text{TcBr}_2(\text{PMe}_3)_4]$ and $[\text{Tc}_2\text{Br}_4(\text{PMe}_3)_4]$ complexes. <i>Dalton Transactions</i> , 2009, , 10338.	3.3	19
41	Structural, Spectroscopic, and Multiconfigurational Quantum Chemical Investigations of the Electron-Rich Metal $\hat{\nu}$ Metal Triple-Bonded $\text{Tc}_{2}\text{X}_{4}(\text{PMe}_3)_4$ ( $\text{X} = \text{Cl}, \text{Br}$ ) Complexes. <i>Inorganic Chemistry</i> , 2010, 49, 6646-6654.	4.0	19
42	Temperature-Programmed Desorption for Isotope Separation in Nanoporous Materials. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1995-2001.	3.1	19
43	Technetium Tetrachloride Revisited: A Precursor to Lower-Valent Binary Technetium Chlorides. <i>Inorganic Chemistry</i> , 2012, 51, 8462-8467.	4.0	18
44	Trivalent Actinide and Lanthanide Complexation of 5,6-Dialkyl-2,6-bis(1,2,4-triazin-3-yl)pyridine (RBTP; R =) <i>Journal of Physical Chemistry C</i> , 2018, 122, 761-776.	4.0	18
45	Ditechnetium Heptoxide Revisited: Solid-State, Gas-Phase, and Theoretical Studies. <i>Inorganic Chemistry</i> , 2016, 55, 10445-10452.	4.0	17
46	Molecular and Electronic Structures of $\text{M}_2\text{O}_7$ ( $\text{M} = \text{Mn}, \text{Tc}, \text{Re}$ ). <i>Inorganic Chemistry</i> , 2017, 56, 2448-2458.	4.0	16
47	Ionothermal Synthesis and Magnetic Studies of Novel Two-Dimensional Metal $\hat{\nu}$ Formate Frameworks. <i>Inorganic Chemistry</i> , 2011, 50, 2159-2167.	4.0	15
48	Synthesis and characterization of the Mars-relevant phosphate minerals Fe- and Mg-whitlockite and merrillite and a possible mechanism that maintains charge balance during whitlockite to merrillite transformation. <i>American Mineralogist</i> , 2014, 99, 1221-1232.	1.9	14
49	Hydrogen Uptake on Coordinatively Unsaturated Metal Sites in VSB-5: Strong Binding Affinity Leading to High-Temperature $\text{D}_2/\text{H}_2$ Selectivity. <i>Langmuir</i> , 2017, 33, 14586-14591.	3.5	13
50	Two coordination polymers based on a new nickel fluoride cluster. <i>Solid State Sciences</i> , 2005, 7, 594-602.	3.2	12
51	Multi-configurational quantum chemical studies of the $\text{Tc}_2\text{X}_8^{n-}$ ( $\text{X} = \text{Cl}, \text{Br}; n = 2, 3$ ) anions. Crystallographic structure of octabromoditechnetate( $3\hat{\nu}$ ). <i>Dalton Transactions</i> , 2012, 41, 2869.	3.3	12
52	Capturing the Details of $\text{N}_2$ Adsorption in Zeolite X Using Stroboscopic Isotope Contrasted Neutron Total Scattering. <i>Chemistry of Materials</i> , 2018, 30, 296-302.	6.7	12
53	$\hat{\nu}^2$ -Technetium Dichloride: Solid-State Modulated Structure, Electronic Structure, and Physical Properties. <i>Journal of the American Chemical Society</i> , 2013, 135, 15955-15962.	13.7	10
54	A 70-Year-Old Mystery in Technetium Chemistry Explained by the New Technetium Polyoxometalate $[\text{H}_7\text{O}_3]_4[\text{Tc}_{20}\text{O}_{68}]_4\text{H}_2$ . <i>Chemistry - A European Journal</i> , 2021, 27, 13624-13631.		

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55	Open framework metal monocarboxylates: nickel cyclopropionates containing 16- and 18-membered rings. <i>Solid State Sciences</i> , 2003, 5, 635-642.	3.2	9
56	Interaction of Hydrogen with Extraframework Cations in Zeolite Hosts Probed by Inelastic Neutron Scattering Spectroscopy. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 49-59.	0.9	9
57	Probing the Presence of Multiple Metal-Metal Bonds in Technetium Chlorides by X-ray Absorption Spectroscopy: Implications for Synthetic Chemistry. <i>Inorganic Chemistry</i> , 2012, 51, 9563-9570.	4.0	9
58	A Trigonal-Prismatic Hexanuclear Technetium(II) Bromide Cluster: Solid-State Synthesis and Crystallographic and Electronic Structure. <i>Inorganic Chemistry</i> , 2013, 52, 5660-5662.	4.0	9
59	Unraveling the mystery of "tech red" a volatile technetium oxide. <i>Chemical Communications</i> , 2018, 54, 1261-1264.	4.1	9
60	Hydrothermal synthesis and solid-state structure of $Tc_2(\frac{1}{4}\text{-O}_2\text{CCH}_3)_4\text{Cl}_2$ . <i>Polyhedron</i> , 2013, 58, 115-119.	2.2	8
61	Lanthanide Complexation of 2,6-Bis(5,6-dipyridyl-1,2,4-triazinyl)pyridine "Solvent" and Lanthanide-Controlled Ligand Coordination Mode and Denticity. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 921-927.	2.0	8
62	The Nature of the Technetium Species Formed During the Oxidation of Technetium Dioxide with Oxygen and Water. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 1137-1144.	2.0	8
63	Predicting partial atomic charges in siliceous zeolites. <i>Microporous and Mesoporous Materials</i> , 2019, 277, 184-196.	4.4	8
64	A hybrid cobalt disulfonate with a novel inorganic layer architecture exhibiting a field-induced magnetic transition. <i>Journal of Materials Chemistry</i> , 2009, 19, 2604.	6.7	7
65	Molecular and electronic structure of $Tc_2(\text{O}_2\text{CCH}_3)_2\text{Cl}_4$ studied by multiconfigurational quantum chemical methods. <i>Polyhedron</i> , 2014, 70, 144-147.	2.2	5
66	A Decade of Dinuclear Technetium Complexes with Multiple Metal-Metal Bonds. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 4484-4495.	2.0	5
67	Equation of state for technetium from X-ray diffraction and first-principle calculations. <i>Journal of Physics and Chemistry of Solids</i> , 2016, 95, 6-11.	4.0	5
68	Investigating $H_2$ Adsorption in Isostructural Metal-Organic Frameworks M-CUK-1 (M = Co) <i>ETQq0 0 0 rgBT/Overlock</i> 14, 8126-8136.	8.0	5
69	Synthetic and Coordination Chemistry of the Heavier Trivalent Technetium Binary Halides: Uncovering Technetium Triiodide. <i>Inorganic Chemistry</i> , 2013, 52, 14309-14316.	4.0	4
70	X-ray Crystallographic and First-Principles Theoretical Studies of $K_2[TcOCl_5]$ and UV/Vis Investigation of the $[TcOCl_5]^{2+}$ and $[TcOCl_4]^{+}$ Ions. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 1097-1104.	2.0	3
71	Hydrothermal synthesis and solid-state structures of polynuclear technetium iodide compounds. <i>Inorganica Chimica Acta</i> , 2015, 424, 329-335.	2.4	3
72	Evaluating the Selectivity of Sorbents for Noble Gas Separations across a Range of Temperatures, Loadings, and Gas Compositions. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2016, 642, 1377-1385.	1.2	3

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73	Synthesis and chemical stability of technetium nitrides. <i>Chemical Communications</i> , 2021, 57, 8079-8082.	4.1	3
74	$\delta^2$ -Technetium: An allotrope with a nonstandard volume-pressure relationship. <i>Physical Review Materials</i> , 2021, 5, .	2.4	2
75	Molecular and Electronic Structure of $\text{Re}_2\text{Br}_4(\text{PMe}_3)_4$ . <i>Inorganic Chemistry</i> , 2016, 55, 7111-7116.	4.0	1
76	An Atomistic Understanding of the Unusual Thermal Behavior of the Molecular Oxide $\text{Tc}_2\text{O}_7$ . <i>Inorganic Chemistry</i> , 2019, 58, 5468-5475.	4.0	1
77	Solvothermal synthesis and solid-state characterization of metal-metal bonded tetracarboxylatoditechnetium(II,III) polymers. <i>Polyhedron</i> , 2020, 180, 114418.	2.2	1