Paul Forster

List of Publications by Year in Descending Order

79 papers	4,285 citations	29 h-index	65 g-index
89 ext. papers	4,477 ext. citations	6.7 avg, IF	5.14 L-index

#	Paper	IF	Citations
79	Technetium: An allotrope with a nonstandard volume-pressure relationship. *Physical Review Materials*, **2021**, 5,	3.2	1
78	Synthesis and chemical stability of technetium nitrides. *Chemical Communications*, **2021**, 57, 8079-8082	5.8	1
77	A 70-Year-Old Mystery in Technetium Chemistry Explained by the New Technetium Polyoxometalate [H O] [Tc O] ? 4H O. *Chemistry - A European Journal*, **2021**, 27, 13624-13631	4.8	0
76	Solvothermal synthesis and solid-state characterization of metal-metal bonded tetracarboxylatoditechnetium(II,III) polymers. *Polyhedron*, **2020**, 180, 114418	2.7	1
75	An Atomistic Understanding of the Unusual Thermal Behavior of the Molecular Oxide TcO. *Inorganic Chemistry*, **2019**, 58, 5468-5475	5.1	1
74	Predicting partial atomic charges in siliceous zeolites. *Microporous and Mesoporous Materials*, **2019**, 277, 184-196	5.3	6
73	The Nature of the Technetium Species Formed During the Oxidation of Technetium Dioxide with Oxygen and Water. *European Journal of Inorganic Chemistry*, **2018**, 2018, 1137-1144	2.3	6
72	Unraveling the mystery of "tech red" - a volatile technetium oxide. *Chemical Communications*, **2018**, 54, 1261-1264	5.8	5
71	Temperature-Programmed Desorption for Isotope Separation in Nanoporous Materials. *Journal of Physical Chemistry C*, **2018**, 122, 1995-2001	3.8	15
70	Capturing the Details of N2 Adsorption in Zeolite X Using Stroboscopic Isotope Contrasted Neutron Total Scattering. *Chemistry of Materials*, **2018**, 30, 296-302	9.6	8
69	Molecular and Electronic Structures of MO (M = Mn, Tc, Re). *Inorganic Chemistry*, **2017**, 56, 2448-2458	5.1	13
68	Hydrogen Uptake on Coordinatively Unsaturated Metal Sites in VSB-5: Strong Binding Affinity Leading to High-Temperature D/H Selectivity. *Langmuir*, **2017**, 33, 14586-14591	4	10
67	Molecular and Electronic Structure of Re2Br4(PMe3)4. *Inorganic Chemistry*, **2016**, 55, 7111-6	5.1	1
66	Ditechnetium Heptoxide Revisited: Solid-State, Gas-Phase, and Theoretical Studies. *Inorganic Chemistry*, **2016**, 55, 10445-10452	5.1	12
65	Lanthanide Complexation of 2,6-Bis(5,6-dipyridyl-1,2,4-triazinyl)pyridine Solvent- and Lanthanide-Ion-Controlled Ligand Coordination Mode and Denticity. *European Journal of Inorganic Chemistry*, **2016**, 2016, 921-927	2.3	7
64	Utility of Bifunctional N-Heterocyclic Phosphine (NHP)-Thioureas for Metal-Free Carbon-Phosphorus Bond Construction toward Regio- and Stereoselective Formation of Vinylphosphonates. *Journal of Organic Chemistry*, **2016**, 81, 77-88	4.2	19
63	Assessing zeolite frameworks for noble gas separations through a joint experimental and computational approach. *Microporous and Mesoporous Materials*, **2016**, 222, 104-112	5.3	13

62	Evaluating the Selectivity of Sorbents for Noble Gas Separations across a Range of Temperatures, Loadings, and Gas Compositions. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2016**, 642, 1377-1385	1.2	3
61	Equation of state for technetium from X-ray diffraction and first-principle calculations. *Journal of Physics and Chemistry of Solids*, **2016**, 95, 6-11	3.9	4
60	Gaining Insights on the H2Sorbent Interactions: Robust soc-MOF Platform as a Case Study. *Chemistry of Materials*, **2016**, 28, 7353-7361	9.6	30
59	Hydrothermal synthesis and solid-state structures of polynuclear technetium iodide compounds. *Inorganica Chimica Acta*, **2015**, 424, 329-335	2.7	3
58	Molecular and electronic structure of Tc2(O2CCH3)2Cl4 studied by multiconfigurational quantum chemical methods. *Polyhedron*, **2014**, 70, 144-147	2.7	5
57	A Decade of Dinuclear Technetium Complexes with Multiple MetalMetal Bonds. *European Journal of Inorganic Chemistry*, **2014**, 2014, 4484-4495	2.3	3
56	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. *American Mineralogist*, **2014**, 99, 1221-1232	2.9	10
55	Readily available phosphate from minerals in early aqueous environments on Mars. *Nature Geoscience*, **2013**, 6, 824-827	18.3	62
54	Technetium dichloride: solid-state modulated structure, electronic structure, and physical properties. *Journal of the American Chemical Society*, **2013**, 135, 15955-62	16.4	7
53	Hydrothermal synthesis and solid-state structure of Tc2(O2CCH3)4Cl2. *Polyhedron*, **2013**, 58, 115-119	2.7	7
52	Trivalent actinide and lanthanide complexation of 5,6-dialkyl-2,6-bis(1,2,4-triazin-3-yl)pyridine (RBTP; R = H, Me, Et) derivatives: a combined experimental and first-principles study. *Inorganic Chemistry*, **2013**, 52, 761-76	5.1	17
51	X-ray Crystallographic and First-Principles Theoretical Studies of K2[TcOCl5] and UV/Vis Investigation of the [TcOCl5]2and [TcOCl4]ions. *European Journal of Inorganic Chemistry*, **2013**, 2013, 1097-1104	2.3	1
50	A trigonal-prismatic hexanuclear technetium(II) bromide cluster: solid-state synthesis and crystallographic and electronic structure. *Inorganic Chemistry*, **2013**, 52, 5660-2	5.1	7
49	Synthetic and coordination chemistry of the heavier trivalent technetium binary halides: uncovering technetium triiodide. *Inorganic Chemistry*, **2013**, 52, 14309-16	5.1	2
48	Noble Gas Adsorption in Copper Trimesate, HKUST-1: An Experimental and Computational Study. *Journal of Physical Chemistry C*, **2013**, 117, 20116-20126	3.8	80
47	Multi-configurational quantum chemical studies of the Tc2X8(n-) (X = Cl, Br; n = 2, 3) anions. Crystallographic structure of octabromoditechnetate(3-). *Dalton Transactions*, **2012**, 41, 2869-72	4.3	12
46	Probing the presence of multiple metal-metal bonds in technetium chlorides by X-ray absorption spectroscopy: implications for synthetic chemistry. *Inorganic Chemistry*, **2012**, 51, 9563-70	5.1	7
45	Technetium trichloride: formation, structure, and first-principles calculations. *Inorganic Chemistry*, **2012**, 51, 4915-7	5.1	16

44	Technetium tetrachloride revisited: a precursor to lower-valent binary technetium chlorides. *Inorganic Chemistry*, **2012**, 51, 8462-7	5.1	14
43	Self-assembly of pyrazine-containing tetrachloroacenes. *Langmuir*, **2011**, 27, 14615-20	4	22
42	Synthesis and Structural Characterization of Magnesium Based Coordination Networks in Different Solvents. *Crystal Growth and Design*, **2011**, 11, 2572-2579	3.5	78
41	Technetium dichloride: a new binary halide containing metal-metal multiple bonds. *Journal of the American Chemical Society*, **2011**, 133, 8814-7	16.4	27
40	Ionothermal synthesis and magnetic studies of novel two-dimensional metal-formate frameworks. *Inorganic Chemistry*, **2011**, 50, 2159-67	5.1	14
39	Structural Diversity and Energetics in Anhydrous Lithium Tartrates: Experimental and Computational Studies of Novel Chiral Polymorphs and Their Racemic and Meso Analogues. *Crystal Growth and Design*, **2011**, 11, 221-230	3.5	39
38	Interaction of hydrogen with extraframework cations in zeolite hosts probed by inelastic neutron scattering spectroscopy. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 49-59	1.3	9
37	Synthesis and structure of technetium trichloride. *Journal of the American Chemical Society*, **2010**, 132, 15864-5	16.4	27
36	Structural, spectroscopic, and multiconfigurational quantum chemical investigations of the electron-rich metal-metal triple-bonded Tc(2)X(4)(PMe(3))(4) (X = Cl, Br) complexes. *Inorganic Chemistry*, **2010**, 49, 6646-54	5.1	19
35	Self-assembly of halogen substituted phenazines. *Journal of Materials Chemistry*, **2010**, 20, 867-873		32
34	Preparation of the binary technetium bromides: TcBr3 and TcBr4. *Journal of the American Chemical Society*, **2009**, 131, 910-1	16.4	27
33	A three-dimensional porous metal-organic framework constructed from two-dimensional sheets via interdigitation exhibiting dynamic features. *Inorganic Chemistry*, **2009**, 48, 4616-8	5.1	40
32	Structural Diversity in Coordination Polymers Composed of Divalent Transition Metals, 2,2?-Bipyridine, and Perfluorinated Dicarboxylates. *Crystal Growth and Design*, **2009**, 9, 4759-4765	3.5	41
31	Crystal structure of octabromoditechnetate(III) and a multi-configurational quantum chemical study of the delta-->delta* transition in quadruply bonded [M2X8]2- dimers (M = Tc, Re; X = Cl, Br). *Dalton Transactions*, **2009**, 5954-9	4.3	29
30	Zeolite-like metal-organic frameworks (ZMOFs) as hydrogen storage platform: lithium and magnesium ion-exchange and H(2)-(rho-ZMOF) interaction studies. *Journal of the American Chemical Society*, **2009**, 131, 2864-70	16.4	424
29	Synthesis, structure, and first-principles calculations of [TcBr2(PMe3)4] and [Tc2Br4(PMe3)4] complexes. *Dalton Transactions*, **2009**, 10338-42	4.3	19
28	A hybrid cobalt disulfonate with a novel inorganic layer architecture exhibiting a field-induced magnetic transition. *Journal of Materials Chemistry*, **2009**, 19, 2604		6
27	Pair distribution function analysis of pressure treated zeolite Na-A. *Chemical Communications*, **2009**, 3383-5	3.5	28

26	Enhancing H2 uptake by "close-packing" alignment of open copper sites in metal-organic frameworks. *Angewandte Chemie - International Edition*, **2008**, 47, 7263-6	16.4	291
25	Further investigation of the effect of framework catenation on hydrogen uptake in metal-organic frameworks. *Journal of the American Chemical Society*, **2008**, 130, 15896-902	16.4	141
24	Two coordination polymers created via in situ ligand synthesis involving C-N and C-C bond formation. *Inorganic Chemistry*, **2007**, 46, 8717-21	5.1	30
23	Effect of mixing of metal cations on the topology of metal oxide networks. *Angewandte Chemie - International Edition*, **2007**, 46, 5877-9	16.4	47
22	Microwave synthesis of hybrid inorganic-organic porous materials: phase-selective and rapid crystallization. *Chemistry - A European Journal*, **2006**, 12, 7899-905	4.8	133
21	Adsorption of molecular hydrogen on coordinatively unsaturated Ni(II) sites in a nanoporous hybrid material. *Journal of the American Chemical Society*, **2006**, 128, 16846-50	16.4	183
20	Two coordination polymers based on a new nickel fluoride cluster. *Solid State Sciences*, **2005**, 7, 594-602	3.4	11
19	Single-crystal characterization of Co7(OH)6(H2O)3(C4H4O4)4?7H2O; A new cobalt succinate identified through high-throughput synthesis. *Solid State Sciences*, **2005**, 7, 1549-1555	3.4	28
18	A high-throughput investigation of the role of pH, temperature, concentration, and time on the synthesis of hybrid inorganic-organic materials. *Angewandte Chemie - International Edition*, **2005**, 44, 7608-11	16.4	264
17	Hochdurchsatz-Untersuchung organisch-anorganischer Hybridmaterialien: Einfluss von pH-Wert, Temperatur, Konzentration und Zeit bei der Synthese. *Angewandte Chemie*, **2005**, 117, 7780-7784	3.6	30
16	Synchrotron X-ray powder diffraction and computational investigation of purely siliceous zeolite Y under pressure. *Journal of the American Chemical Society*, **2004**, 126, 12015-22	16.4	94
15	The role of reaction conditions and ligand flexibility in metal-organic hybrid materials□examples from metal diglycolates and iminodiacetates. *Microporous and Mesoporous Materials*, **2004**, 73, 57-64	5.3	38
14	Synthesis and characterization of Co7(OH)12(C2H4S2O6)(H2O)2□ single crystal structural study of a ferrimagnetic layered cobalt hydroxide. *Journal of Physics and Chemistry of Solids*, **2004**, 65, 11-16	3.9	52
13	Metal-oxygen-metal arrays in lamellar hybrid materials: cobalt and manganese 4-cyclohexene-1,2-dicarboxylates. *Dalton Transactions*, **2004**, 3365-9	4.3	28
12	A thermally stable nanoporous nickel 5-sulfoisophthalate; crystal structure and adsorption properties. *Chemical Communications*, **2004**, 2148-9	5.8	29
11	Template-Free Synthesis of the Nanoporous Nickel Phosphate VSB-5 under Microwave Irradiation. *Chemistry of Materials*, **2004**, 16, 1394-1396	9.6	41
10	The role of temperature in the synthesis of hybrid inorganic-organic materials: the example of cobalt succinates. *Chemical Communications*, **2004**, 368-9	5.8	369
9	Hybrid Inorganic□Organic Solids: An Emerging Class of Nanoporous Catalysts. *Topics in Catalysis*, **2003**, 24, 79-86	2.3	188

8	Open framework metal monocarboxylates: nickel cyclopropionates containing 16- and 18-membered rings. *Solid State Sciences*, **2003**, 5, 635-642	3.4	6
7	Hydrogen adsorption in nanoporous nickel(II) phosphates. *Journal of the American Chemical Society*, **2003**, 125, 1309-12	16.4	247
6	Synthesis and characterization of two polymorphic crystalline phases and an amorphous powder of nickel(II) bisimidazolate. *Inorganic Chemistry*, **2003**, 42, 6147-52	5.1	33
5	Open-Framework Nickel Succinate, [Ni7(C4H4O4)6(OH)2(H2O)2]?2 H2O: A New Hybrid Material with Three-Dimensional Ni□Ni Connectivity. *Angewandte Chemie*, **2002**, 114, 475-477	3.6	23
4	Open-framework nickel succinate, [Ni(7)(C(4)H(4)O(4))(6)(OH)(2)(H(2)O)(2)].2 H(2)O: a new hybrid material with three-dimensional Ni-O-Ni Connectivity. *Angewandte Chemie - International Edition*, **2002**, 41, 457-9	16.4	280
3	Biphasic Solvothermal Synthesis: A New Approach for Hybrid Inorganic□Organic Materials. *Chemistry of Materials*, **2002**, 14, 17-20	9.6	74
2	Nickel(II) Phosphate VSB-5: A Magnetic Nanoporous Hydrogenation Catalyst with 24-Ring Tunnels. *Angewandte Chemie*, **2001**, 113, 2913-2916	3.6	47
1	Nickel(II) Phosphate VSB-5: A Magnetic Nanoporous Hydrogenation Catalyst with 24-Ring Tunnels. *Angewandte Chemie - International Edition*, **2001**, 40, 2831-2834	16.4	285