

Michael J Katz

List of Publications by Year in descending order

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60
papers

6,936
citations

126907

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docs citations

65
times ranked

9216
citing authors

#	ARTICLE	IF	CITATIONS
1	A facile synthesis of UiO-66, UiO-67 and their derivatives. <i>Chemical Communications</i> , 2013, 49, 9449.	4.1	1,340
2	Destruction of chemical warfare agents using metal-organic frameworks. <i>Nature Materials</i> , 2015, 14, 512-516.	27.5	790
3	Simple and Compelling Biomimetic Metal-Organic Framework Catalyst for the Degradation of Nerve Agent Simulants. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 497-501.	13.8	364
4	The use of aurophilic and other metal-metal interactions as crystal engineering design elements to increase structural dimensionality. <i>Chemical Society Reviews</i> , 2008, 37, 1884.	38.1	332
5	High Efficiency Adsorption and Removal of Selenate and Selenite from Water Using Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2015, 137, 7488-7494.	13.7	330
6	Are Zr ₆ -based MOFs water stable? Linker hydrolysis vs. capillary-force-driven channel collapse. <i>Chemical Communications</i> , 2014, 50, 8944.	4.1	277
7	Directed Growth of Electroactive Metal-Organic Framework Thin Films Using Electrophoretic Deposition. <i>Advanced Materials</i> , 2014, 26, 6295-6300.	21.0	265
8	Exploiting parameter space in MOFs: a 20-fold enhancement of phosphate-ester hydrolysis with UiO-66-NH ₂ . <i>Chemical Science</i> , 2015, 6, 2286-2291.	7.4	265
9	Remnant PbI ₂ , an unforeseen necessity in high-efficiency hybrid perovskite-based solar cells?. <i>APL Materials</i> , 2014, 2, .	5.1	264
10	Toward solar fuels: Water splitting with sunlight and α -rust. <i>Coordination Chemistry Reviews</i> , 2012, 256, 2521-2529.	18.8	209
11	Turning On Catalysis: Incorporation of a Hydrogen-Bond-Donating Squaramide Moiety into a Zr Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2015, 137, 919-925.	13.7	186
12	Polymorphism of Zn[Au(CN) ₂] ₂ and Its Luminescent Sensory Response to NH ₃ Vapor. <i>Journal of the American Chemical Society</i> , 2008, 130, 10662-10673.	13.7	182
13	The dual capture of As ^V and As ^{III} by UiO-66 and analogues. <i>Chemical Science</i> , 2016, 7, 6492-6498.	7.4	181
14	A historical perspective on porphyrin-based metal-organic frameworks and their applications. <i>Coordination Chemistry Reviews</i> , 2021, 429, 213615.	18.8	140
15	A UiO-66 analogue with uncoordinated carboxylic acids for the broad-spectrum removal of toxic chemicals. <i>New Journal of Chemistry</i> , 2015, 39, 2396-2399.	2.8	133
16	Dihydrolevoglucosenone (Cyrene) As a Green Alternative to <i>N,N</i> -Dimethylformamide (DMF) in MOF Synthesis. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 7186-7192.	6.7	123
17	Impact of Metallophilicity on α -Colossal-Positive and Negative Thermal Expansion in a Series of Isostructural Dicyanometallate Coordination Polymers. <i>Journal of the American Chemical Society</i> , 2009, 131, 4866-4871.	13.7	109
18	High volumetric uptake of ammonia using Cu-MOF-74/Cu-CPO-27. <i>Dalton Transactions</i> , 2016, 45, 4150-4153.	3.3	102

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19	Bistable Dithienylethene-Based Metal-Organic Framework Illustrating Optically Induced Changes in Chemical Separations. <i>Journal of the American Chemical Society</i> , 2017, 139, 13280-13283.	13.7	98
20	One Step Backward Is Two Steps Forward: Enhancing the Hydrolysis Rate of UiO-66 by Decreasing [OH ⁺]. <i>ACS Catalysis</i> , 2015, 5, 4637-4642.	11.2	84
21	Structure and Multinuclear Solid-State NMR of a Highly Birefringent Lead-Gold Cyanide Coordination Polymer. <i>Journal of the American Chemical Society</i> , 2006, 128, 3669-3676.	13.7	73
22	Highly Birefringent Materials Designed Using Coordination Polymer Synthetic Methodology. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 8804-8807.	13.8	63
23	NHC Complexes of Osmium Clusters: A Structural and Reactivity Study. <i>Organometallics</i> , 2008, 27, 5777-5799.	2.3	53
24	Diamido-Ether Actinide Complexes as Initiators for Lactide Ring-Opening Polymerization. <i>Organometallics</i> , 2013, 32, 1183-1192.	2.3	53
25	Synthesis and structure of diamido ether uranium(IV) and thorium(IV) halide complexes and their conversion to salt-free bis(alkyl) complexes. <i>Dalton Transactions</i> , 2005, , 3083.	3.3	51
26	Structural and Spectroscopic Impact of Tuning the Stereochemical Activity of the Lone Pair in Lead(II) Cyanoaurate Coordination Polymers via Ancillary Ligands. <i>Inorganic Chemistry</i> , 2008, 47, 6353-6363.	4.0	50
27	Characterising Lone Pair Activity of Lead(II) by ²⁰⁷ Pb Solid-State NMR Spectroscopy: Coordination Polymers of [N(CN) ₂] ⁺ and [Au(CN) ₂] ⁺ with Terpyridine Ancillary Ligands. <i>Chemistry - A European Journal</i> , 2011, 17, 3609-3618.	3.3	49
28	Catalytic conversion of glucose to 5-hydroxymethylfurfural using zirconium-containing metal-organic frameworks using microwave heating. <i>RSC Advances</i> , 2018, 8, 31618-31627.	3.6	49
29	One Electron Changes Everything. A Multispecies Copper Redox Shuttle for Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3731-3740.	3.1	45
30	Highly Birefringent Cyanoaurate Coordination Polymers: The Effect of Polarizable C-X Bonds (X = Cl, I). <i>Journal of Physical Chemistry C</i> , 2016, 120, 1337-1344.	13.7	44
31	Determining the structural stability of UiO-67 with respect to time: a solid-state NMR investigation. <i>Chemical Communications</i> , 2016, 52, 4971-4974.	4.1	41
32	Effects of Adsorbed Pyridine Derivatives and Ultrathin Atomic-Layer-Deposited Alumina Coatings on the Conduction Band-Edge Energy of TiO ₂ and on Redox-Shuttle-Derived Dark Currents. <i>Langmuir</i> , 2013, 29, 806-814.	3.5	34
33	A New Basic Motif in Cyanometallate Coordination Polymers: Structure and Magnetic Behavior of M(1/4-OH ₂) ₂ [Au(CN) ₂] ₂ (M=Cu, Ni). <i>Chemistry - A European Journal</i> , 2006, 12, 6748-6761.	3.3	33
34	Class III Delocalization and Exciton Coupling in a Bimetallic Bisligand Radical Complex. <i>Chemistry - A European Journal</i> , 2013, 19, 9606-9618.	3.3	32
35	Vapochromic Behaviour of M[Au(CN) ₂] ₂ -Based Coordination Polymers (M = Co, Ni). <i>Sensors</i> , 2012, 12, 3669-3692.	3.8	31
36	Alkaline Earth Metal-Organic Frameworks with Tailorable Ion Release: A Path for Supporting Biomineralization. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32739-32745.	8.0	30

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37	[Au(CN) ₄]-as Both an Intramolecular and Intermolecular Bidentate Ligand with [(tmeda)Cu(1/4-OH)] Dimers: From Antiferro- to Ferromagnetic Coupling in Polymorphs. <i>Inorganic Chemistry</i> , 2006, 45, 1757-1765.	4.0	29
38	Fabrication of Transparent-Conducting-Oxide-Coated Inverse Opals as Mesostructured Architectures for Electrocatalysis Applications: A Case Study with NiO. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12290-12294.	8.0	28
39	Selective decontamination of the reactive air pollutant nitrous acid via node-linker cooperativity in a metal-organic framework. <i>Chemical Science</i> , 2019, 10, 5576-5581.	7.4	28
40	Changes in Electronic Properties of Polymeric One-Dimensional {[M(CN) ₂] ^{sup>â} </sup>} _n (M = Au, Ag) Chains Due to Neighboring Closed-Shell Zn(II) or Open-Shell Cu(II) Ions. <i>Inorganic Chemistry</i> , 2011, 50, 231-237.	4.0	24
41	Structural Design Parameters for Highly Birefringent Coordination Polymers. <i>Inorganic Chemistry</i> , 2015, 54, 6462-6471.	4.0	23
42	Analysis of the Water Adsorption Isotherms in UiO-Based Metal-Organic Frameworks. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1107-1114.	3.1	21
43	Natural abundance ¹³ C and ¹⁵ N solid-state NMR analysis of paramagnetic transition-metal cyanide coordination polymers. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 6925.	2.8	20
44	High-Surface-Area Architectures for Improved Charge Transfer Kinetics at the Dark Electrode in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8646-8650.	8.0	17
45	Significant Variability in the Photocatalytic Activity of Natural Titanium-Containing Minerals: Implications for Understanding and Predicting Atmospheric Mineral Dust Photochemistry. <i>Environmental Science & Technology</i> , 2020, 54, 13509-13516.	10.0	17
46	Diamidosilylether complexes of yttrium(III) and chromium(III): Synthetic challenges and surprises. <i>Inorganica Chimica Acta</i> , 2006, 359, 2826-2834.	2.4	15
47	Dynamics of Back Electron Transfer in Dye-Sensitized Solar Cells Featuring 4- <i>tert</i> -Butyl-Pyridine and Atomic-Layer-Deposited Alumina as Surface Modifiers. <i>Journal of Physical Chemistry B</i> , 2015, 119, 7162-7169.	2.6	15
48	The perils and opportunities of reactive building blocks: Attempted synthesis of new Hg(CN) ₂ -based coordination polymers and the structures of the resulting products. <i>Journal of Molecular Structure</i> , 2006, 796, 223-229.	3.6	14
49	Preparation and characterization of two chiral Au(CN) ₂ -based coordination polymers containing (1R,2R)-N,N'-dimethylcyclohexanediamine. <i>CrystEngComm</i> , 2007, 9, 1078.	2.6	14
50	Synthesis and characterization of a series of halide-bridged, multinuclear iron(ii) and cobalt(ii) diamido complexes and a dinuclear, high-spin cobalt(ii) alkyl derivative. <i>Dalton Transactions</i> , 2010, 39, 9889.	3.3	12
51	A Concert of Weak Interactions Generates the Very Complex {Cu(tmeda)[Au(CN) ₄] ₂ }·3H ₂ O Structure. <i>Crystal Growth and Design</i> , 2007, 7, 1946-1948.	3.0	11
52	Barrier-Layer-Mediated Electron Transfer from Semiconductor Electrodes to Molecules in Solution: Sensitivity of Mechanism to Barrier-Layer Thickness. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20922-20928.	3.1	9
53	Synthesis, Structures, and Kinetics of Mixed-Donor Amido-Amino-Siloxo Ligands from Symmetrical Diamidosilyl Ether Ligands via a Retro-Brook Rearrangement. <i>Inorganic Chemistry</i> , 2008, 47, 812-822.	4.0	8
54	Ultrahigh Size Exclusion Selectivity for Carbon Dioxide from Nitrogen/Methane in an Ultramicroporous Metal-Organic Framework. <i>Inorganic Chemistry</i> , 2022, 61, 7970-7979.	4.0	8

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55	Directed ortho,ortho'-dimetalation of hydrobenzoin: Rapid access to hydrobenzoin derivatives useful for asymmetric synthesis. Beilstein Journal of Organic Chemistry, 2011, 7, 1315-1322.	2.2	7
56	Structural Pitstops and Turnoffs on the Way to the Birefringent 2-D Layer Structure $[\text{M}(\text{tmeda})_2(\text{Hg}(\text{CN})_2)_2(\text{HgCl}_4)]$ (M=Cu, Ni). Journal of Inorganic and Organometallic Polymers and Materials, 2005, 15, 447-458.	3.7	6
57	Investigating the cheletropic reaction between sulfur dioxide and butadiene-containing linkers in UiO-66. Canadian Journal of Chemistry, 2018, 96, 139-143.	1.1	5
58	Photochromic benzo[g]quinoxalines. Canadian Journal of Chemistry, 2011, 89, 297-302.	1.1	4
59	Investigating the crystal engineering of the pillared paddlewheel metal-organic framework $\text{Zn}_2(\text{NH}_2\text{BDC})_2\text{DABCO}$. CrystEngComm, 2018, 20, 6082-6087.	2.6	3
60	Unexpected Transformation of a Schiff Base Pyridine N-Oxide in the Presence of $\text{Pr}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$. Phosphorus, Sulfur and Silicon and the Related Elements, 2013, 188, 111-115.	1.6	0