

# Carter Abney

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

9,361  
citations

147726

31  
h-index

189801

50  
g-index

56  
all docs

56  
docs citations

56  
times ranked

9608  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enantioselective catalysis with homochiral metal-organic frameworks. <i>Chemical Society Reviews</i> , 2009, 38, 1248.	18.7	2,967
2	A series of isorecticular chiral metal-organic frameworks as a tunable platform for asymmetric catalysis. <i>Nature Chemistry</i> , 2010, 2, 838-846.	6.6	813
3	Postsynthetically Modified Covalent Organic Frameworks for Efficient and Effective Mercury Removal. <i>Journal of the American Chemical Society</i> , 2017, 139, 2786-2793.	6.6	808
4	Materials for the Recovery of Uranium from Seawater. <i>Chemical Reviews</i> , 2017, 117, 13935-14013.	23.0	639
5	Highly porous and stable metal-organic frameworks for uranium extraction. <i>Chemical Science</i> , 2013, 4, 2396.	3.7	506
6	Covalent Organic Frameworks as a Decorating Platform for Utilization and Affinity Enhancement of Chelating Sites for Radionuclide Sequestration. <i>Advanced Materials</i> , 2018, 30, e1705479.	11.1	398
7	Bio-inspired nano-traps for uranium extraction from seawater and recovery from nuclear waste. <i>Nature Communications</i> , 2018, 9, 1644.	5.8	300
8	Efficient Mercury Capture Using Functionalized Porous Organic Polymer. <i>Advanced Materials</i> , 2017, 29, 1700665.	11.1	255
9	Functionalized Porous Aromatic Framework for Efficient Uranium Adsorption from Aqueous Solutions. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 12511-12517.	4.0	215
10	<i>In Situ</i> Doping Strategy for the Preparation of Conjugated Triazine Frameworks Displaying Efficient CO <sub>2</sub> Capture Performance. <i>Journal of the American Chemical Society</i> , 2016, 138, 11497-11500.	6.6	200
11	Entropy-stabilized metal oxide solid solutions as CO oxidation catalysts with high-temperature stability. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11129-11133.	5.2	196
12	Salicylaldimine-Based Metal-Organic Framework Enabling Highly Active Olefin Hydrogenation with Iron and Cobalt Catalysts. <i>Journal of the American Chemical Society</i> , 2014, 136, 13182-13185.	6.6	159
13	Robust and Porous $\beta$ -Diketiminato-Functionalized Metal-Organic Frameworks for Earth-Abundant-Metal-Catalyzed C-H Amination and Hydrogenation. <i>Journal of the American Chemical Society</i> , 2016, 138, 3501-3509.	6.6	158
14	Metal-Organic Framework Templated Inorganic Sorbents for Rapid and Efficient Extraction of Heavy Metals. <i>Advanced Materials</i> , 2014, 26, 7993-7997.	11.1	148
15	Efficient removal of organic dye pollutants using covalent organic frameworks. <i>AIChE Journal</i> , 2017, 63, 3470-3478.	1.8	136
16	Organo-functionalized mesoporous silicas for efficient uranium extraction. <i>Microporous and Mesoporous Materials</i> , 2013, 180, 22-31.	2.2	128
17	XAFS investigation of polyamidoxime-bound uranyl contests the paradigm from small molecule studies. <i>Energy and Environmental Science</i> , 2016, 9, 448-453.	15.6	115
18	Uranium Sorption with Functionalized Mesoporous Carbon Materials. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 15187-15197.	1.8	112

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19	Origin of the unusually strong and selective binding of vanadium by polyamidoximes in seawater. <i>Nature Communications</i> , 2017, 8, 1560.	5.8	110
20	Topotactic Transformations of Metal-Organic Frameworks to Highly Porous and Stable Inorganic Sorbents for Efficient Radionuclide Sequestration. <i>Chemistry of Materials</i> , 2014, 26, 5231-5243.	3.2	107
21	Design Strategies to Enhance Amidoxime Chelators for Uranium Recovery. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 30919-30926.	4.0	91
22	The first chiral diene-based metal-organic frameworks for highly enantioselective carbon-carbon bond formation reactions. <i>Chemical Science</i> , 2015, 6, 7163-7168.	3.7	71
23	A Metal-Organic Framework Containing Unusual Eight-Connected Zr-Oxo Secondary Building Units and Orthogonal Carboxylic Acids for Ultra-sensitive Metal Detection. <i>Chemistry - A European Journal</i> , 2014, 20, 14965-14970.	1.7	58
24	A Poly(acrylonitrile)-Functionalized Porous Aromatic Framework Synthesized by Atom-Transfer Radical Polymerization for the Extraction of Uranium from Seawater. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 4125-4129.	1.8	58
25	Tuning Amidoximate to Enhance Uranyl Binding: A Density Functional Theory Study. <i>Journal of Physical Chemistry A</i> , 2013, 117, 11558-11565.	1.1	53
26	Nanospace Decoration with Uranyl-Specific "Hooks" for Selective Uranium Extraction from Seawater with Ultrahigh Enrichment Index. <i>ACS Central Science</i> , 2021, 7, 1650-1656.	5.3	49
27	Accelerating Membrane-based CO <sub>2</sub> Separation by Soluble Nanoporous Polymer Networks Produced by Mechanochemical Oxidative Coupling. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2816-2821.	7.2	44
28	Toward the Design of a Hierarchical Perovskite Support: Ultra-Sintering-Resistant Gold Nanocatalysts for CO Oxidation. <i>ACS Catalysis</i> , 2017, 7, 3388-3393.	5.5	40
29	Graphene-Immobilized Monomeric Bipyridine-M <sup>x+</sup> (M <sup>x+</sup> =) Tj ETQq1 1 0.784314 rgBT /Overlock Electro-catalytic Water Oxidation. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 18475-18479.	4.0	37
30	Successful Coupling of a Bis-Amidoxime Uranophile with a Hydrophilic Backbone for Selective Uranium Sequestration. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 27894-27904.	4.0	36
31	A High-Throughput Diagnostic Method for Measuring Human Exposure to Organophosphorus Nerve Agents. <i>Analytical Chemistry</i> , 2012, 84, 9470-9477.	3.2	34
32	Selective separation of americium from europium using 2,9-bis(triazine)-1,10-phenanthrolines in ionic liquids: a new twist on an old story. <i>Chemical Communications</i> , 2017, 53, 2744-2747.	2.2	32
33	X-ray Absorption Spectroscopy Investigation of Iodine Capture by Silver-Exchanged Mordenite. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 4837-4846.	1.8	32
34	Superacid-promoted synthesis of highly porous hypercrosslinked polycarbazoles for efficient CO <sub>2</sub> capture. <i>Chemical Communications</i> , 2017, 53, 7645-7648.	2.2	32
35	A new trick for an old support: Stabilizing gold single atoms on LaFeO <sub>3</sub> perovskite. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118178.	10.8	31
36	Design, Synthesis, and Characterization of a Bifunctional Chelator with Ultrahigh Capacity for Uranium Uptake from Seawater Simulant. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 4170-4178.	1.8	25

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37	Capture of Iodine from Nuclear-Fuel-Reprocessing Off-Gas: Influence of Aging on a Reduced Silver Mordenite Adsorbent after Exposure to NO/NO <sub>2</sub> . ACS Applied Materials & Interfaces, 2020, 12, 49680-49693.	4.0	24
38	Engineering nanoporous organic frameworks to stabilize naked Au clusters: a charge modulation approach. Chemical Communications, 2018, 54, 5058-5061.	2.2	19
39	Use of steric encumbrance to develop conjugated nanoporous polymers for metal-free catalytic hydrogenation. Chemical Communications, 2016, 52, 11919-11922.	2.2	17
40	Controlling interfacial properties in supported metal oxide catalysts through metal-organic framework templating. Journal of Materials Chemistry A, 2017, 5, 13565-13572.	5.2	15
41	A report on emergent uranyl binding phenomena by an amidoxime phosphonic acid co-polymer. Physical Chemistry Chemical Physics, 2016, 18, 23462-23468.	1.3	13
42	Pd-Metalated Conjugated Nanoporous Polycarbazoles for Additive-Free Cyanation of Aryl Halides: Boosting Catalytic Efficiency through Spatial Modulation. ChemSusChem, 2017, 10, 2348-2351.	3.6	12
43	High-Throughput Immunomagnetic Scavenging Technique for Quantitative Analysis of Live VX Nerve Agent in Water, Hamburger, and Soil Matrixes. Analytical Chemistry, 2012, 84, 10052-10057.	3.2	11
44	Accelerating Membrane-based CO <sub>2</sub> Separation by Soluble Nanoporous Polymer Networks Produced by Mechanochemical Oxidative Coupling. Angewandte Chemie, 2018, 130, 2866-2871.	1.6	10
45	Peroxide-treated metal-organic framework templated adsorbents for remediation of high level nuclear waste. Journal of Hazardous Materials, 2019, 365, 306-311.	6.5	10
46	Metallopolymerization as a Strategy to Translate Ligand-Modulated Chemoselectivity to Porous Catalysts. Organometallics, 2019, 38, 3436-3443.	1.1	9
47	Novel Dual-Mode Immunomagnetic Method for Studying Reactivation of Nerve Agent-Inhibited Butyrylcholinesterase. Chemical Research in Toxicology, 2013, 26, 775-782.	1.7	8
48	Controlling the Intermediate Structure of an Ionic Liquid for f-Block Element Separations. Journal of Physical Chemistry Letters, 2017, 8, 2049-2054.	2.1	8
49	CO <sub>2</sub> Capture Using PIM-1 Hollow Fiber Sorbents with Enhanced Performance by PEI Infusion. Industrial & Engineering Chemistry Research, 2021, 60, 12709-12718.	1.8	7
50	Polyamidoxime chain length drives emergent metal-binding phenomena. Physical Chemistry Chemical Physics, 2019, 21, 554-560.	1.3	4