Jared B Decoste

List of Publications by Year
in descending order

61 papers	6,458 citations	109321 35 h-index	128289 60 g-index
62 all docs	62 docs citations	62 times ranked	6977 citing authors

#	Article	IF	Citations
1	BEAMS: a workforce development program to bridge the gap between biologists and material scientists. Synthetic Biology, 2020, 5, ysaa009.	2.2	0
2	High-Throughput Screening of MOFs for Breakdown of V-Series Nerve Agents. ACS Applied Materials & Interfaces, 2020, 12, 14672-14677.	8.0	21
3	Spectroscopically Resolved Binding Sites for the Adsorption of Sarin Gas in a Metalâ€“Organic Framework: Insights beyond Lewis Acidity. Journal of Physical Chemistry Letters, 2019, 10, 5142-5147.	4.6	24
4	Metal Hydroxide/Polymer Textiles for Decontamination of Toxic Organophosphates: An Extensive Study of Wettability, Catalytic Activity, and the Effects of Aggregation. ACS Applied Materials & Interfaces, 2019, 11, 31378-31385.	8.0	19
5	Solid-Phase Detoxification of Chemical Warfare Agents using Zirconium-Based Metal Organic Frameworks and the Moisture Effects: Analyze via Digestion. ACS Applied Materials & Interfaces, 2019, 11, 21109-21116.	8.0	50
6	Single-component frameworks for heterogeneous catalytic hydrolysis of organophosphorous compounds in pure water. Chemical Communications, 2019, 55, 7005-7008.	4.1	28
7	Insight into organophosphate chemical warfare agent simulant hydrolysis in metal-organic frameworks. Journal of Hazardous Materials, 2019, 375, 191-197.	12.4	56
8	Bioderived protoporphyrin IX incorporation into a metal-organic framework for enhanced photocatalytic degradation of chemical warfare agents. MRS Communications, 2019, 9, 464-473.	1.8	12
9	Insights into the solvent-assisted degradation of organophosphorus compounds by a Zr-based metalâ€“organic framework. Dalton Transactions, 2019, 48, 16153-16157.	3.3	8
10	Efficient MOF-based degradation of organophosphorus compounds in non-aqueous environments. Journal of Materials Chemistry A, 2018, 6, 3038-3045.	10.3	42
11	Metalâ€“Organic Framework Modified Glass Substrate for Analysis of Highly Volatile Chemical Warfare Agents by Paper Spray Mass Spectrometry. ACS Applied Materials & Interfaces, 2018, 10, 8359-8365.	8.0	33
12	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
13	Enhancing Van der Waals Interactions of Functionalized UiOâ€66 with Nonâ€polar Adsorbates: The Unique Effect of para Hydroxyl Groups. Chemistry - A European Journal, 2018, 24, 1931-1937.	3.3	7
14	Synthesis and functionalization of phase-pure NU-901 for enhanced CO₂adsorption: the influence of a zirconium salt and modulator on the topology and phase purity. CrystEngComm, 2018, 20, 7066-7070.	2.6	43
15	Chemical Protective Textiles of UiO-66-Integrated PVDF Composite Fibers with Rapid Heterogeneous Decontamination of Toxic Organophosphates. ACS Applied Materials & Interfaces, 2018, 10, 34585-34591.	8.0	82
16	High-throughput screening of solid-state catalysts for nerve agent degradation. Chemical Communications, 2018, 54, 5768-5771.	4.1	55
17	Advancements in MOF characterization for enhanced MALDI sensing. , 2018, , .		0
18	Facile Synthesis and Direct Activation of Zirconium Based Metalâ€“Organic Frameworks from Acetone. Industrial & Engineering Chemistry Research, 2017, 56, 1478-1484.	3.7	31

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19	Cerium(IV) vs Zirconium(IV) Based Metalâ€"Organic Frameworks for Detoxification of a Nerve Agent. Chemistry of Materials, 2017, 29, 2672-2675.	6.7	135
20	Filtration of chlorine and hydrogen chloride gas by engineered UiO-66-NH2 metal-organic framework. Journal of Hazardous Materials, 2017, 332, 162-167.	12.4	28
21	Electrospun metalâ€"organic framework polymer composites for the catalytic degradation of methyl paraoxon. New Journal of Chemistry, 2017, 41, 8748-8753.	2.8	64
22	Tailoring the Adsorption and Reaction Chemistry of the Metalâ€"Organic Frameworks UiO-66, UiO-66-NH₂, and HKUST-1 via the Incorporation of Molecular Guests. ACS Applied Materials & Interfaces, 2017, 9, 21579-21585.	8.0	40
23	MOFabric: Electrospun Nanofiber Mats from PVDF/UiO-66-NH₂ for Chemical Protection and Decontamination. ACS Applied Materials & Interfaces, 2017, 9, 13632-13636.	8.0	187
24	Direct Surface Growth Of UIO-66-NH₂ on Polyacrylonitrile Nanofibers for Efficient Toxic Chemical Removal. Industrial & Engineering Chemistry Research, 2017, 56, 14502-14506.	3.7	69
25	Chemical Warfare Agents Detoxification Properties of Zirconium Metalâ€"Organic Frameworks by Synergistic Incorporation of Nucleophilic and Basic Sites. ACS Applied Materials & Interfaces, 2017, 9, 23967-23973.	8.0	100
26	Postsynthetic Incorporation of a Singlet Oxygen Photosensitizer in a Metalâ€"Organic Framework for Fast and Selective Oxidative Detoxification of Sulfur Mustard. Chemistry - A European Journal, 2017, 23, 214-218.	3.3	98
27	Extraordinary NO₂ Removal by the Metalâ€"Organic Framework UiOâ€66â€NH₂. Angewandte Chemie, 2016, 128, 6343-6346.	2.0	25
28	Poly(3,4-ethylenedioxythiophene) (PEDOT) infused TiO₂nanofibers: the role of hole transport layer in photocatalytic degradation of phenazopyridine as a pharmaceutical contaminant. RSC Advances, 2016, 6, 113884-113892.	3.6	19
29	Detoxification of Chemical Warfare Agents Using a Zr₆â€Based Metalâ€"Organic Framework/Polymer Mixture. Chemistry - A European Journal, 2016, 22, 14864-14868.	3.3	93
30	Efficient and selective oxidation of sulfur mustard using singlet oxygen generated by a pyrene-based metalâ€"organic framework. Journal of Materials Chemistry A, 2016, 4, 13809-13813.	10.3	147
31	The role of ruthenium photosensitizers in the degradation of phenazopyridine with TiO2 electrospun fibers. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 329, 46-53.	3.9	18
32	Extraordinary NO₂ Removal by the Metalâ€"Organic Framework UiOâ€66â€NH₂. Angewandte Chemie - International Edition, 2016, 55, 6235-6238.	13.8	160
33	Enhanced aging properties of HKUST-1 in hydrophobic mixed-matrix membranes for ammonia adsorption. Chemical Science, 2016, 7, 2711-2716.	7.4	145
34	Photocatalytic activity of TiO2 polycrystalline sub-micron fibers with variable rutile fraction. Applied Catalysis B: Environmental, 2016, 187, 154-162.	20.2	32
35	Polymerâ€"Metalâ€"Organic Frameworks (polyMOFs) as Water Tolerant Materials for Selective Carbon Dioxide Separations. Journal of the American Chemical Society, 2016, 138, 920-925.	13.7	214
36	High volumetric uptake of ammonia using Cu-MOF-74/Cu-CPO-27. Dalton Transactions, 2016, 45, 4150-4153.	3.3	102

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37	One-pot synthesis of high aspect ratio titanium dioxide nanorods using oxalic acid as a complexing agent. Materials Letters, 2016, 163, 39-42.	2.6	10
38	Hierarchical Pore Development by Plasma Etching of Zrâ€Based Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2015, 21, 18029-18032.	3.3	36
39	A UiO-66 analogue with uncoordinated carboxylic acids for the broad-spectrum removal of toxic chemicals. New Journal of Chemistry, 2015, 39, 2396-2399.	2.8	133
40	Destruction of chemical warfare agents using metalâ€“organic frameworks. Nature Materials, 2015, 14, 512-516.	27.5	790
41	Removal of chlorine gas by an amine functionalized metalâ€“organic framework via electrophilic aromatic substitution. Chemical Communications, 2015, 51, 12474-12477.	4.1	66
42	Tailoring the Pore Size and Functionality of UiO-Type Metalâ€“Organic Frameworks for Optimal Nerve Agent Destruction. Inorganic Chemistry, 2015, 54, 9684-9686.	4.0	157
43	Effective, Facile, and Selective Hydrolysis of the Chemical Warfare Agent VX Using Zr₆-Based Metalâ€“Organic Frameworks. Inorganic Chemistry, 2015, 54, 10829-10833.	4.0	132
44	Evaluation of MOFs for air purification and air quality control applications: Ammonia removal from air. Chemical Engineering Science, 2015, 124, 118-124.	3.8	194
45	Metalâ€“Organic Frameworks for Air Purification of Toxic Chemicals. Chemical Reviews, 2014, 114, 5695-5727.	47.7	825
46	Metalâ€“Organic Frameworks for Oxygen Storage. Angewandte Chemie - International Edition, 2014, 53, 14092-14095.	13.8	106
47	Bottom-Up Synthesis of Anatase Nanoparticles with Graphene Domains. ACS Applied Materials & Interfaces, 2014, 6, 10638-10648.	8.0	27
48	Engineering UiO-66-NH₂ for Toxic Gas Removal. Industrial & Engineering Chemistry Research, 2014, 53, 701-707.	3.7	127
49	The effect of water adsorption on the structure of the carboxylate containing metalâ€“organic frameworks Cu-BTC, Mg-MOF-74, and UiO-66. Journal of Materials Chemistry A, 2013, 1, 11922.	10.3	466
50	Effects of pelletization pressure on the physical and chemical properties of the metalâ€“organic frameworks Cu3(BTC)2 and UiO-66. Microporous and Mesoporous Materials, 2013, 179, 48-53.	4.4	139
51	Zirconium Hydroxideâ€“Metalâ€“Organic Framework Composites for Toxic Chemical Removal. Industrial & Engineering Chemistry Research, 2013, 52, 5462-5469.	3.7	37
52	Stability and degradation mechanisms of metalâ€“organic frameworks containing the Zr6O4(OH)4 secondary building unit. Journal of Materials Chemistry A, 2013, 1, 5642.	10.3	578
53	Chemisorption of Cyanogen Chloride by Spinel Ferrite Magnetic Nanoparticles. Langmuir, 2013, 29, 5500-5507.	3.5	14
54	Preparation of Hydrophobic Metal-Organic Frameworks via Plasma Enhanced Chemical Vapor Deposition of Perfluoroalkanes for the Removal of Ammonia. Journal of Visualized Experiments, 2013, , .	0.3	7

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55	Organoalkoxysilane-Grafted Silica Composites for Acidic and Basic Gas Adsorption. Langmuir, 2012, 28, 17450-17456.	3.5	20
56	Adsorption of Ammonia by Sulfuric Acid Treated Zirconium Hydroxide. Langmuir, 2012, 28, 10478-10487.	3.5	42
57	Enhanced Stability of Cu-BTC MOF via Perfluorohexane Plasma-Enhanced Chemical Vapor Deposition. Journal of the American Chemical Society, 2012, 134, 1486-1489.	13.7	246
58	Trifluoroethanol and19F Magic Angle Spinning Nuclear Magnetic Resonance as a Basic Surface Hydroxyl Reactivity Probe for Zirconium(IV) Hydroxide Structures. Langmuir, 2011, 27, 9458-9464.	3.5	9
59	The room temperature chemistry of organo-sulfur esters with NaX zeolite. Microporous and Mesoporous Materials, 2011, 143, 141-148.	4.4	3
60	The room temperature chemistries of isocyanates with zeolite NaX. Microporous and Mesoporous Materials, 2011, 139, 110-119.	4.4	4
61	Multiple effects of the presence of water on the nucleophilic substitution reactions of NaX Faujasite zeolite with dimethyl methylphosphonate (DMMP). Microporous and Mesoporous Materials, 2008, 112, 116-124.	4.4	12