

Cara M Doherty

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8811955/cara-m-doherty-publications-by-citations.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120
papers

6,636
citations

46
h-index

79
g-index

129
ext. papers

7,779
ext. citations

9.9
avg, IF

5.88
L-index

#	Paper	IF	Citations
120	Biomimetic mineralization of metal-organic frameworks as protective coatings for biomacromolecules. <i>Nature Communications</i> , 2015 , 6, 7240	17.4	747
119	MOF positioning technology and device fabrication. <i>Chemical Society Reviews</i> , 2014 , 43, 5513-60	58.5	516
118	Nanocrack-regulated self-humidifying membranes. <i>Nature</i> , 2016 , 532, 480-3	50.4	281
117	Using functional nano- and microparticles for the preparation of metal-organic framework composites with novel properties. <i>Accounts of Chemical Research</i> , 2014 , 47, 396-405	24.3	230
116	Discriminative separation of gases by a "molecular trapdoor" mechanism in chabazite zeolites. <i>Journal of the American Chemical Society</i> , 2012 , 134, 19246-53	16.4	226
115	Ending aging in super glassy polymer membranes. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5322-6	16.4	222
114	Thermally Rearranged (TR) Polybenzoxazole: Effects of Diverse Imidization Routes on Physical Properties and Gas Transport Behaviors. <i>Macromolecules</i> , 2010 , 43, 7657-7667	5.5	199
113	Hierarchically Porous Monolithic LiFePO ₄ /Carbon Composite Electrode Materials for High Power Lithium Ion Batteries. <i>Chemistry of Materials</i> , 2009 , 21, 5300-5306	9.6	173
112	Colloidal Crystal Templating to Produce Hierarchically Porous LiFePO ₄ Electrode Materials for High Power Lithium Ion Batteries. <i>Chemistry of Materials</i> , 2009 , 21, 2895-2903	9.6	150
111	Tuning microcavities in thermally rearranged polymer membranes for CO ₂ capture. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 4365-73	3.6	114
110	A metal-organic framework with ultrahigh glass-forming ability. <i>Science Advances</i> , 2018 , 4, eaao6827	14.3	112
109	The effect of crosslinking temperature on the permeability of PDMS membranes: Evidence of extraordinary CO ₂ and CH ₄ gas permeation. <i>Separation and Purification Technology</i> , 2014 , 122, 96-104	8.3	104
108	Patterning techniques for metal organic frameworks. <i>Advanced Materials</i> , 2012 , 24, 3153-68	24	102
107	Lithiated porous aromatic frameworks with exceptional gas storage capacity. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 6639-42	16.4	95
106	Cross-Linked Thermally Rearranged Poly(benzoxazole-co-imide) Membranes for Gas Separation. <i>Macromolecules</i> , 2013 , 46, 8179-8189	5.5	92
105	Cavity size, sorption and transport characteristics of thermally rearranged (TR) polymers. <i>Polymer</i> , 2011 , 52, 2244-2254	3.9	91
104	Metal-organic framework glasses with permanent accessible porosity. <i>Nature Communications</i> , 2018 , 9, 5042	17.4	91

103	Nafion [®] Carbon Nanocomposite Membranes Prepared Using Hydrothermal Carbonization for Proton-Exchange-Membrane Fuel Cells. <i>Advanced Functional Materials</i> , 2010 , 20, 4394-4399	15.6	90
102	Tailoring Physical Aging in Super Glassy Polymers with Functionalized Porous Aromatic Frameworks for CO ₂ Capture. <i>Chemistry of Materials</i> , 2015 , 27, 4756-4762	9.6	88
101	Combining UV lithography and an imprinting technique for patterning metal-organic frameworks. <i>Advanced Materials</i> , 2013 , 25, 4701-5	24	84
100	Hypercrosslinked Additives for Ageless Gas-Separation Membranes. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1998-2001	16.4	81
99	Desalination of seawater ion complexes by MFI-type zeolite membranes: Temperature and long term stability. <i>Journal of Membrane Science</i> , 2014 , 453, 126-135	9.6	81
98	Homochiral MOF-Polymer Mixed Matrix Membranes for Efficient Separation of Chiral Molecules. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16928-16935	16.4	77
97	Coordination cages as permanently porous ionic liquids. <i>Nature Chemistry</i> , 2020 , 12, 270-275	17.6	75
96	Cross-Linked Thermally Rearranged Poly(benzoxazole-co-imide) Membranes Prepared from ortho-Hydroxycopolyimides Containing Pendant Carboxyl Groups and Gas Separation Properties. <i>Macromolecules</i> , 2015 , 48, 2603-2613	5.5	72
95	Highly Selective and Permeable Microporous Polymer Membranes for Hydrogen Purification and CO ₂ Removal from Natural Gas. <i>Chemistry of Materials</i> , 2018 , 30, 5322-5332	9.6	67
94	Transparent, Highly Insulating Polyethyl- and Polyvinylsilsesquioxane Aerogels: Mechanical Improvements by Vulcanization for Ambient Pressure Drying. <i>Chemistry of Materials</i> , 2016 , 28, 6860-6868	9.6	66
93	High performance LiFePO ₄ electrode materials: influence of colloidal particle morphology and porosity on lithium-ion battery power capability. <i>Energy and Environmental Science</i> , 2010 , 3, 813	35.4	64
92	Double-Sided Electrochromic Device Based on Metal-Organic Frameworks. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 39930-39934	9.5	63
91	Enhanced Gas Permeation through Graphene Nanocomposites. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 13700-13712	3.8	62
90	Hyper-Cross-Linked Additives that Impede Aging and Enhance Permeability in Thin Polyacetylene Films for Organic Solvent Nanofiltration. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14401-14408	9.5	59
89	Dynamic control of MOF-5 crystal positioning using a magnetic field. <i>Advanced Materials</i> , 2011 , 23, 3901-4	14	59
88	Magnetic framework composites for polycyclic aromatic hydrocarbon sequestration. <i>Journal of Materials Chemistry</i> , 2012 , 22, 11470		56
87	Water vapor sorption and free volume in the aromatic polyamide layer of reverse osmosis membranes. <i>Journal of Membrane Science</i> , 2013 , 425-426, 217-226	9.6	56
86	Biomimetic mineralization of metal-organic frameworks around polysaccharides. <i>Chemical Communications</i> , 2017 , 53, 1249-1252	5.8	54

85	Encapsulation, Visualization and Expression of Genes with Biomimetically Mineralized Zeolitic Imidazolate Framework-8 (ZIF-8). <i>Small</i> , 2019 , 15, e1902268	11	54
84	Structural effects on SAPO-34 and ZIF-8 materials exposed to seawater solutions, and their potential as desalination membranes. <i>Desalination</i> , 2016 , 377, 128-137	10.3	52
83	Water vapor permeation through cellulose acetate membranes and its impact upon membrane separation performance for natural gas purification. <i>Journal of Membrane Science</i> , 2015 , 487, 249-255	9.6	51
82	Porosity in metal-organic framework glasses. <i>Chemical Communications</i> , 2016 , 52, 3750-3	5.8	50
81	Ultra-thin hybrid polyhedral silsesquioxane/polyamide films with potentially unlimited 2D dimensions. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14835		49
80	Effect of polymer structure on gas transport properties of selected aromatic polyimides, polyamides and TR polymers. <i>Journal of Membrane Science</i> , 2015 , 493, 766-781	9.6	48
79	CUB-5: A Contoured Aliphatic Pore Environment in a Cubic Framework with Potential for Benzene Separation Applications. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3828-3832	16.4	48
78	Linking the structures, free volumes, and properties of ionic liquid mixtures. <i>Chemical Science</i> , 2017 , 8, 6359-6374	9.4	47
77	Thermally rearranged (TR) bismaleimide-based network polymers for gas separation membranes. <i>Chemical Communications</i> , 2016 , 52, 13556-13559	5.8	46
76	Characterization of Aluminum-Neutralized Sulfonated Styrenic Pentablock Copolymer Films. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1056-1068	3.9	46
75	Finely Tuning the Free Volume Architecture in Iptycene-Containing Polyimides for Highly Selective and Fast Hydrogen Transport. <i>Macromolecules</i> , 2016 , 49, 3395-3405	5.5	46
74	Effect of heat treatment on pervaporation separation of aqueous salt solution using hybrid PVA/MA/TEOS membrane. <i>Separation and Purification Technology</i> , 2014 , 127, 10-17	8.3	44
73	Modeling of the sorption and transport properties of water vapor in polyimide membranes. <i>Journal of Membrane Science</i> , 2012 , 409-410, 96-104	9.6	43
72	Molecular origins of fast and selective gas transport in pentiptycene-containing polyimide membranes and their physical aging behavior. <i>Journal of Membrane Science</i> , 2016 , 518, 100-109	9.6	43
71	Positioning an individual metal-organic framework particle using a magnetic field. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 42-45	7.1	42
70	Investigation of the effects of ion and water interaction on structure and chemistry of silicalite MFI type zeolite for its potential use as a seawater desalination membrane. <i>Journal of Materials Chemistry</i> , 2010 , 20, 4675		42
69	Enhanced Polymer Crystallinity in Mixed-Matrix Membranes Induced by Metal-Organic Framework Nanosheets for Efficient CO Capture. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 43095-43103	9.5	42
68	Ending Aging in Super Glassy Polymer Membranes. <i>Angewandte Chemie</i> , 2014 , 126, 5426-5430	3.6	40

67	Triptycene-containing poly(benzoxazole-co-imide) membranes with enhanced mechanical strength for high-performance gas separation. <i>Journal of Membrane Science</i> , 2018 , 551, 305-314	9.6	38
66	Ionic transport through a composite structure of N-ethyl-N-methylpyrrolidinium tetrafluoroborate organic ionic plastic crystals reinforced with polymer nanofibres. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 6038-6052	13	37
65	Amino acids as biomimetic crystallization agents for the synthesis of ZIF-8 particles. <i>CrystEngComm</i> , 2016 , 18, 4264-4267	3.3	37
64	Free volume characterization of sulfonated styrenic pentablock copolymers using positron annihilation lifetime spectroscopy. <i>Journal of Membrane Science</i> , 2014 , 453, 425-434	9.6	37
63	Flux melting of metal-organic frameworks. <i>Chemical Science</i> , 2019 , 10, 3592-3601	9.4	37
62	Transparent Ethenylene-Bridged Polymethylsiloxane Aerogels: Mechanical Flexibility and Strength and Availability for Addition Reaction. <i>Langmuir</i> , 2017 , 33, 4543-4550	4	32
61	Pyrite-type ruthenium disulfide with tunable disorder and defects enables ultra-efficient overall water splitting. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14222-14232	13	32
60	Unexpectedly Strong Size-Sieving Ability in Carbonized Polybenzimidazole for Membrane H ₂ /CO Separation. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 47365-47372	9.5	32
59	Membranes with artificial free-volume for biofuel production. <i>Nature Communications</i> , 2015 , 6, 7529	17.4	31
58	Analysis of governing factors controlling gas transport through fresh and aged triptycene-based polyimide films. <i>Journal of Membrane Science</i> , 2017 , 522, 12-22	9.6	31
57	Highly Polar but Amorphous Polymers with Robust Membrane CO ₂ /N ₂ Separation Performance. <i>Joule</i> , 2019 , 3, 1881-1894	27.8	30
56	Ionic liquids as porogens for molecularly imprinted polymers: propranolol, a model study. <i>Organic and Biomolecular Chemistry</i> , 2014 , 12, 7201-10	3.9	30
55	Slow hydrophobic hydration induced polymer ultrafiltration membranes with high water flux. <i>Journal of Membrane Science</i> , 2014 , 471, 27-34	9.6	26
54	The thickness dependence of Matrimid films in water vapor permeation. <i>Chemical Engineering Journal</i> , 2012 , 209, 301-312	14.7	26
53	Using plasticizers to control the hydrocarbon selectivity of a poly(methyl methacrylate)-coated quartz crystal microbalance sensor. <i>Analytical Chemistry</i> , 2012 , 84, 8564-70	7.8	25
52	Metal-organic frameworks for chemical sensing devices. <i>Materials Horizons</i> , 2021 , 8, 2387-2419	14.4	25
51	Organic Microporous Nanofillers with Unique Alcohol Affinity for Superior Ethanol Recovery toward Sustainable Biofuels. <i>ChemSusChem</i> , 2017 , 10, 1887-1891	8.3	24
50	Investigation of the chemical and morphological structure of thermally rearranged polymers. <i>Polymer</i> , 2014 , 55, 6649-6657	3.9	23

49	Preparation and gas separation properties of partially pyrolyzed membranes (PPMs) derived from copolyimides containing polyethylene oxide side chains. <i>Journal of Membrane Science</i> , 2012 , 409-410, 200-211	9.6	21
48	Effect of fixed charge group concentration on salt permeability and diffusion coefficients in ion exchange membranes. <i>Journal of Membrane Science</i> , 2018 , 566, 307-316	9.6	21
47	Lithiated Porous Aromatic Frameworks with Exceptional Gas Storage Capacity. <i>Angewandte Chemie</i> , 2012 , 124, 6743-6746	3.6	20
46	Role of Defects in the High Ionic Conductivity of Choline Triflate Plastic Crystal and Its Acid-Containing Compositions. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 5532-5543	3.8	20
45	Designing hierarchical porous features of ZSM-5 zeolites via Si/Al ratio and their dynamic behavior in seawater ion complexes. <i>Microporous and Mesoporous Materials</i> , 2013 , 173, 78-85	5.3	19
44	Complete Characterization of Hopeite Microparticles: An Ideal Nucleation Seed for Metal Organic Frameworks. <i>Crystal Growth and Design</i> , 2011 , 11, 5268-5274	3.5	19
43	Hypercrosslinked Additives for Ageless Gas-Separation Membranes. <i>Angewandte Chemie</i> , 2016 , 128, 2038-2041	3.6	16
42	Organic salts utilising the hexamethylguanidinium cation: the influence of the anion on the structural, physical and thermal properties. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 12288-12300	3.6	14
41	High-Performance Polybenzimidazole Membranes for Helium Extraction from Natural Gas. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 20098-20103	9.5	14
40	Understanding the transport enhancement of poly (vinyl alcohol) based hybrid membranes with dispersed nanochannels for pervaporation application. <i>Journal of Membrane Science</i> , 2020 , 603, 118005	9.6	14
39	The impact of water and hydrocarbon concentration on the sensitivity of a polymer-based quartz crystal microbalance sensor for organic compounds. <i>Analytica Chimica Acta</i> , 2011 , 703, 70-9	6.6	13
38	Facile and Time-Efficient Carboxylic Acid Functionalization of PIM-1: Effect on Molecular Packing and Gas Separation Performance. <i>Macromolecules</i> , 2020 , 53, 6220-6234	5.5	13
37	ZIF-C for targeted RNA interference and CRISPR/Cas9 based gene editing in prostate cancer. <i>Chemical Communications</i> , 2020 , 56, 15406-15409	5.8	13
36	Advancing Metal-Organic Frameworks toward Smart Sensing: Enhanced Fluorescence by a Photonic Metal-Organic Framework for Organic Vapor Sensing. <i>Advanced Optical Materials</i> , 2020 , 8, 2000961	8.1	12
35	Highly permeable and selective mixed-matrix membranes for hydrogen separation containing PAF-1. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 14713-14720	13	12
34	Architecturing Nanospace via Thermal Rearrangement for Highly Efficient Gas Separations. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 24654-24661	3.8	12
33	Microfabrication of mesoporous silica encapsulated enzymes using deep X-ray lithography. <i>Journal of Materials Chemistry</i> , 2012 , 22, 16191		12
32	Simultaneous microfabrication and tuning of the permselective properties in microporous polymers using X-ray lithography. <i>Small</i> , 2013 , 9, 2277-82	11	12

31	Plastic Crystals Utilising Small Ammonium Cations and Sulfonylimide Anions as Electrolytes for Lithium Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 070529	3.9	12
30	Ultrathin poly (vinyl alcohol)/MXene nanofilm composite membrane with facile intrusion-free construction for pervaporative separations. <i>Journal of Membrane Science</i> , 2020 , 614, 118490	9.6	11
29	Stress-relaxation heat treatment in FeSiBNb amorphous alloy: Thermal, microstructure, nanomechanical and magnetic texture measurements. <i>Journal of Magnetism and Magnetic Materials</i> , 2018 , 456, 62-70	2.8	10
28	Leveraging Free Volume Manipulation to Improve the Membrane Separation Performance of Amine-Functionalized PIM-1. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 6593-6599	16.4	10
27	Diffusion of low-molecular-weight permeants through semi-crystalline polymers: combining molecular dynamics with semi-empirical models. <i>Polymer International</i> , 2018 , 67, 717-725	3.3	9
26	A Crown Ether-Containing Copolyimide Membrane with Improved Free Volume for CO ₂ Separation. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 14357-14367	3.9	8
25	Insights into Nitrogenase Bioelectrocatalysis for Green Ammonia Production. <i>ChemSusChem</i> , 2020 , 13, 4856-4865	8.3	8
24	Multiscale structural control of linked metal-organic polyhedra gel by aging-induced linkage-reorganization. <i>Chemical Science</i> , 2021 , 12, 12556-12563	9.4	8
23	Greatly Enhanced Gas Selectivity in Mixed-Matrix Membranes through Size-Controlled Hyper-cross-linked Polymer Additives. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 13773-13782	3.9	7
22	Probing the Design Rationale of a High-Performing Faujasitic Zeotype Engineered to have Hierarchical Porosity and Moderated Acidity. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 19561-19569	16.4	6
21	Physical Aging Investigations of a Spirobisindane-Locked Polymer of Intrinsic Microporosity 2020 , 2, 993-998		6
20	Tailoring molecular interactions between microporous polymers in high performance mixed matrix membranes for gas separations. <i>Nanoscale</i> , 2020 , 12, 17405-17410	7.7	6
19	Stable MOF@enzyme composites for electrochemical biosensing devices. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 7677-7688	7.1	6
18	Polyethylenimine "Snow": An Emerging Material for Efficient Carbon Removal. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 26770-26780	9.5	5
17	Predicting trends in structural and physical properties of a model polymer with embedded natural fibers: Viability of molecular dynamics studies for a bottom up design. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 48189	2.9	5
16	The influence of alkyl chain branching on the properties of pyrrolidinium-based ionic electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 18102-18113	3.6	5
15	The influence of propane and n-butane on the structure and separation performance of cellulose acetate membranes. <i>Journal of Membrane Science</i> , 2021 , 638, 119677	9.6	5
14	Fabricating Bioactive 3D Metal-Organic Framework Devices. <i>Advanced Sustainable Systems</i> , 2020 , 4, 2000959	9.5	4

13	Evaluation of coupling protocols to bind beta-glucosidase on magnetic nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2014 , 14, 6565-73	1.3	4
12	A Systematic Study of the Stability of Enzyme/Zeolitic Imidazolate Framework-8 Composites in Various Biologically Relevant Solutions. <i>ChemistrySelect</i> , 2020 , 5, 13766-13774	1.8	4
11	Free volume manipulation of a 6FDA-HAB polyimide using a solid-state protection/deprotection strategy. <i>Polymer</i> , 2021 , 212, 123121	3.9	4
10	Gene Therapy: Encapsulation, Visualization and Expression of Genes with Biomimetically Mineralized Zeolitic Imidazolate Framework-8 (ZIF-8) (Small 36/2019). <i>Small</i> , 2019 , 15, 1970193	11	3
9	Polyimide-silica sol-gel membranes from a novel alkoxy silane functionalized polyimide: preparation, characterization and gas separation properties. <i>Journal of Sol-Gel Science and Technology</i> , 2014 , 72, 464-479	2.3	3
8	Gas transport characteristics of supramolecular networks of metal-coordinated highly branched Poly(ethylene oxide). <i>Journal of Membrane Science</i> , 2021 , 120063	9.6	3
7	Isolable 1-Butene Copper(I) Complexes and 1-Butene/Butane Separation Using Structurally Adaptable Copper Pyrazolates. <i>ChemPlusChem</i> , 2021 , 86, 364-372	2.8	3
6	Leveraging Free Volume Manipulation to Improve the Membrane Separation Performance of Amine-Functionalized PIM-1. <i>Angewandte Chemie</i> , 2021 , 133, 6667-6673	3.6	3
5	Probing the Design Rationale of a High-Performing Faujasitic Zeotype Engineered to have Hierarchical Porosity and Moderated Acidity. <i>Angewandte Chemie</i> , 2020 , 132, 19729-19737	3.6	2
4	Origin of CO-philic Sorption by Graphene Oxide Layered Nanosheets and Their Derivatives. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 2356-2362	6.4	2
3	Porous solid inspired hyper-crosslinked polymer liquids with highly efficient regeneration for gas purification. <i>Science China Materials</i> , 1	7.1	1
2	Ionic liquids and plastic crystals utilising the oxazolidinium cation: the effect of ether functionality in the ring. <i>Materials Chemistry Frontiers</i> , 2021 , 5, 6014-6026	7.8	0
1	Enhancing polyimide-based mixed matrix membranes performance for CO ₂ separation containing PAF-1 and p-DCX. <i>Separation and Purification Technology</i> , 2021 , 268, 118677	8.3	0