

# Cher Hon Lau

## List of Publications by Year in descending order

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55  
papers

4,633  
citations

101543

36  
h-index

149698

56  
g-index

57  
all docs

57  
docs citations

57  
times ranked

4551  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in PIM-1 based membranes for sustainable CO <sub>2</sub> separations: Polymer structure manipulation and mixed matrix membrane design. Separation and Purification Technology, 2022, 284, 120277.	7.9	64
2	Enhancement of performance and stability of thin-film nanocomposite membranes for organic solvent nanofiltration using hypercrosslinked polymer additives. Journal of Membrane Science, 2022, 644, 120172.	8.2	11
3	Symbiosis-inspired de novo synthesis of ultrahigh MOF growth mixed matrix membranes for sustainable carbon capture. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	99
4	Breaking through permeability-selectivity trade-off of thin-film composite membranes assisted with crown ethers. AIChE Journal, 2021, 67, e17173.	3.6	17
5	Membrane Surface Functionalization with Imidazole Derivatives to Benefit Dye Removal and Fouling Resistance in Forward Osmosis. ACS Applied Materials & Interfaces, 2021, 13, 6710-6719.	8.0	25
6	Aqueous One-Step Modulation for Synthesizing Monodispersed ZIF-8 Nanocrystals for Mixed-Matrix Membrane. ACS Applied Materials & Interfaces, 2021, 13, 11296-11305.	8.0	83
7	Molecularly soldered covalent organic frameworks for ultrafast precision sieving. Science Advances, 2021, 7, .	10.3	185
8	State-of-the-Art and Opportunities for Forward Osmosis in Sewage Concentration and Wastewater Treatment. Membranes, 2021, 11, 305.	3.0	13
9	Polymer Chemistry Applications of Cyrene and its Derivative Cygnet 0.0 as Safer Replacements for Polar Aprotic Solvents. ChemSusChem, 2021, 14, 3367-3381.	6.8	28
10	Critical operation factors and proposed testing protocol of nanofiltration membranes for developing advanced membrane materials. Advanced Composites and Hybrid Materials, 2021, 4, 1092-1101.	21.1	39
11	Fabricating thin-film composite membranes for pervaporation desalination via photo-crosslinking. Desalination, 2021, 512, 115128.	8.2	22
12	Tailoring molecular interactions between microporous polymers in high performance mixed matrix membranes for gas separations. Nanoscale, 2020, 12, 17405-17410.	5.6	18
13	Recycling Plastic Waste for Environmental Remediation in Water Purification and CO <sub>2</sub> Capture. ACS Applied Polymer Materials, 2020, 2, 2586-2593.	4.4	22
14	Tailoring the molecular structure of crosslinked polymers for pervaporation desalination. Nature Communications, 2020, 11, 1461.	12.8	141
15	Robust natural nanocomposites realizing unprecedented ultrafast precise molecular separations. Materials Today, 2020, 36, 40-47.	14.2	180
16	Control of Physical Aging in Super-Glassy Polymer Mixed Matrix Membranes. Accounts of Chemical Research, 2020, 53, 1381-1388.	15.6	35
17	Compatibilizing hydrophilic and hydrophobic polymers via spray coating for desalination. Journal of Materials Chemistry A, 2020, 8, 8462-8468.	10.3	60
18	Solvation Effects on the Permeation and Aging Performance of PIM-1-Based MMMs for Gas Separation. ACS Applied Materials & Interfaces, 2019, 11, 6502-6511.	8.0	43

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19	Highly permeable Thermally Rearranged Mixed Matrix Membranes (TR-MMM). <i>Journal of Membrane Science</i> , 2019, 585, 260-270.	8.2	47
20	Continuous flow knitting of a triptycene hypercrosslinked polymer. <i>Chemical Communications</i> , 2019, 55, 8571-8574.	4.1	22
21	Novel Ionic Grafts That Enhance Arsenic Removal via Forward Osmosis. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 17828-17835.	8.0	35
22	Zwitterion- $\text{Ag}$ Complexes That Simultaneously Enhance Biofouling Resistance and Silver Binding Capability of Thin Film Composite Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 15698-15708.	8.0	64
23	Tailoring the Porosity in Iron Phosphosulfide Nanosheets to Improve the Performance of Photocatalytic Hydrogen Evolution. <i>ChemSusChem</i> , 2019, 12, 2651-2659.	6.8	35
24	Elucidating the impact of polymer crosslinking and fixed carrier on enhanced water transport during desalination using pervaporation membranes. <i>Journal of Membrane Science</i> , 2019, 575, 135-146.	8.2	49
25	A Novel Multi-Charged Draw Solute That Removes Organic Arsenicals from Water in a Hybrid Membrane Process. <i>Environmental Science &amp; Technology</i> , 2018, 52, 3812-3819.	10.0	32
26	Towards sustainable ultrafast molecular-separation membranes: From conventional polymers to emerging materials. <i>Progress in Materials Science</i> , 2018, 92, 258-283.	32.8	253
27	Electrospun nanofiber substrates that enhance polar solvent separation from organic compounds in thin-film composites. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15047-15056.	10.3	125
28	Hyper-Cross-Linked Additives that Impede Aging and Enhance Permeability in Thin Polyacetylene Films for Organic Solvent Nanofiltration. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 14401-14408.	8.0	69
29	Organic Microporous Nanofillers with Unique Alcohol Affinity for Superior Ethanol Recovery toward Sustainable Biofuels. <i>ChemSusChem</i> , 2017, 10, 1887-1891.	6.8	27
30	Building Additional Passageways in Polyamide Membranes with Hydrostable Metal Organic Frameworks To Recycle and Remove Organic Solutes from Various Solvents. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 38877-38886.	8.0	93
31	Post-Synthetic Annealing: Linker Self-Exchange in UiO-66 and Its Effect on Polymer-Metal Organic Framework Interaction. <i>Crystal Growth and Design</i> , 2017, 17, 4384-4392.	3.0	37
32	Hypercrosslinked Additives for Ageless Gas Separation Membranes. <i>Angewandte Chemie</i> , 2016, 128, 2038-2041.	2.0	17
33	Physical aging in glassy mixed matrix membranes; tuning particle interaction for mechanically robust nanocomposite films. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10627-10634.	10.3	62
34	Hypercrosslinked Additives for Ageless Gas Separation Membranes. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1998-2001.	13.8	105
35	Gas Separation Membranes Loaded with Porous Aromatic Frameworks that Improve with Age. <i>Angewandte Chemie</i> , 2015, 127, 2707-2711.	2.0	33
36	Gas Separation Membranes Loaded with Porous Aromatic Frameworks that Improve with Age. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 2669-2673.	13.8	175

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37	Post-synthetic Ti Exchanged UiO-66 Metal-Organic Frameworks that Deliver Exceptional Gas Permeability in Mixed Matrix Membranes. <i>Scientific Reports</i> , 2015, 5, 7823.	3.3	168
38	Tailoring Physical Aging in Super Glassy Polymers with Functionalized Porous Aromatic Frameworks for CO <sub>2</sub> Capture. <i>Chemistry of Materials</i> , 2015, 27, 4756-4762.	6.7	107
39	Mussel-Inspired Hybrid Coatings that Transform Membrane Hydrophobicity into High Hydrophilicity and Underwater Superoleophobicity for Oil-in-Water Emulsion Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9534-9545.	8.0	276
40	Using intermolecular interactions to crosslink PIM-1 and modify its gas sorption properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4855-4864.	10.3	52
41	AIMs: a new strategy to control physical aging and gas transport in mixed-matrix membranes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15241-15247.	10.3	72
42	Mussel-inspired tailoring of membrane wettability for harsh water treatment. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2650-2657.	10.3	175
43	High flux polyethylene glycol based nanofiltration membranes for water environmental remediation. <i>Journal of Membrane Science</i> , 2015, 476, 95-104.	8.2	99
44	Ending Aging in Super Glassy Polymer Membranes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5322-5326.	13.8	275
45	Reverse-selective polymeric membranes for gas separations. <i>Progress in Polymer Science</i> , 2013, 38, 740-766.	24.7	166
46	A route to drastic increase of CO <sub>2</sub> uptake in Zr metal organic framework UiO-66. <i>Chemical Communications</i> , 2013, 49, 3634.	4.1	201
47	Recent progress in the design of advanced PEO-containing membranes for CO <sub>2</sub> removal. <i>Progress in Polymer Science</i> , 2013, 38, 1089-1120.	24.7	259
48	Molecular design of nanohybrid gas separation membranes for optimal CO <sub>2</sub> separation. <i>Polymer</i> , 2012, 53, 454-465.	3.8	16
49	Effects of Si-O-Si Agglomerations on CO <sub>2</sub> Transport and Separation Properties of Sol-Derived Nanohybrid Membranes. <i>Macromolecules</i> , 2011, 44, 6057-6066.	4.8	21
50	Liquidlike Poly(ethylene glycol) Supported in the Organic-Inorganic Matrix for CO <sub>2</sub> Removal. <i>Macromolecules</i> , 2011, 44, 5268-5280.	4.8	41
51	Characterizing free volumes and layer structures in polymeric membranes using slow positron annihilation spectroscopy. <i>Journal of Physics: Conference Series</i> , 2011, 262, 012027.	0.4	4
52	Silica Nanohybrid Membranes with High CO <sub>2</sub> Affinity for Green Hydrogen Purification. <i>Advanced Energy Materials</i> , 2011, 1, 634-642.	19.5	59
53	A vapor-phase surface modification method to enhance different types of hollow fiber membranes for industrial scale hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 8970-8982.	7.1	40
54	A novel strategy for surface modification of polyimide membranes by vapor-phase ethylenediamine (EDA) for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 8716-8722.	7.1	87

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55	The effect of functionalization on structure and electrical conductivity of multi-walled carbon nanotubes. Journal of Nanoparticle Research, 2008, 10, 77-88.	1.9	110