

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
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all docs

57
docs citations

57
times ranked

4551
citing authors

#	ARTICLE	IF	CITATIONS
1	Mussel-Inspired Hybrid Coatings that Transform Membrane Hydrophobicity into High Hydrophilicity and Underwater Superoleophobicity for Oil-in-Water Emulsion Separation. ACS Applied Materials & Interfaces, 2015, 7, 9534-9545.	8.0	276
2	Ending Aging in Super Glassy Polymer Membranes. Angewandte Chemie - International Edition, 2014, 53, 5322-5326.	13.8	275
3	Recent progress in the design of advanced PEO-containing membranes for CO ₂ removal. Progress in Polymer Science, 2013, 38, 1089-1120.	24.7	259
4	Towards sustainable ultrafast molecular-separation membranes: From conventional polymers to emerging materials. Progress in Materials Science, 2018, 92, 258-283.	32.8	253
5	A route to drastic increase of CO ₂ uptake in Zr metal organic framework UiO-66. Chemical Communications, 2013, 49, 3634.	4.1	201
6	Molecularly soldered covalent organic frameworks for ultrafast precision sieving. Science Advances, 2021, 7, .	10.3	185
7	Robust natural nanocomposites realizing unprecedented ultrafast precise molecular separations. Materials Today, 2020, 36, 40-47.	14.2	180
8	Gas Separation Membranes Loaded with Porous Aromatic Frameworks that Improve with Age. Angewandte Chemie - International Edition, 2015, 54, 2669-2673.	13.8	175
9	Mussel-inspired tailoring of membrane wettability for harsh water treatment. Journal of Materials Chemistry A, 2015, 3, 2650-2657.	10.3	175
10	Post-synthetic Ti Exchanged UiO-66 Metal-Organic Frameworks that Deliver Exceptional Gas Permeability in Mixed Matrix Membranes. Scientific Reports, 2015, 5, 7823.	3.3	168
11	Reverse-selective polymeric membranes for gas separations. Progress in Polymer Science, 2013, 38, 740-766.	24.7	166
12	Tailoring the molecular structure of crosslinked polymers for pervaporation desalination. Nature Communications, 2020, 11, 1461.	12.8	141
13	Electrospun nanofiber substrates that enhance polar solvent separation from organic compounds in thin-film composites. Journal of Materials Chemistry A, 2018, 6, 15047-15056.	10.3	125
14	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
15	Tailoring Physical Aging in Super Glassy Polymers with Functionalized Porous Aromatic Frameworks for CO ₂ Capture. Chemistry of Materials, 2015, 27, 4756-4762.	6.7	107
16	Hypercrosslinked Additives for Ageless Gas Separation Membranes. Angewandte Chemie - International Edition, 2016, 55, 1998-2001.	13.8	105
17	High flux polyethylene glycol based nanofiltration membranes for water environmental remediation. Journal of Membrane Science, 2015, 476, 95-104.	8.2	99
18	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

#	ARTICLE	IF	CITATIONS
19	Building Additional Passageways in Polyamide Membranes with Hydrostable Metal Organic Frameworks To Recycle and Remove Organic Solutes from Various Solvents. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 38877-38886.	8.0	93
20	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
21	Aqueous One-Step Modulation for Synthesizing Monodispersed ZIF-8 Nanocrystals for Mixed-Matrix Membrane. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11296-11305.	8.0	83
22	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
23	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.	8.0	69
24	Zwitterion- Ag Complexes That Simultaneously Enhance Biofouling Resistance and Silver Binding Capability of Thin Film Composite Membranes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 15698-15708.	8.0	64
25	Recent progress in PIM-1 based membranes for sustainable CO ₂ separations: Polymer structure manipulation and mixed matrix membrane design. <i>Separation and Purification Technology</i> , 2022, 284, 120277.	7.9	64
26	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
27	Compatibilizing hydrophilic and hydrophobic polymers <i>via</i> spray coating for desalination. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8462-8468.	10.3	60
28	Silica Nanohybrid Membranes with High CO ₂ Affinity for Green Hydrogen Purification. <i>Advanced Energy Materials</i> , 2011, 1, 634-642.	19.5	59
29	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
30	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
31	Highly permeable Thermally Rearranged Mixed Matrix Membranes (TR-MMM). <i>Journal of Membrane Science</i> , 2019, 585, 260-270.	8.2	47
32	Solvation Effects on the Permeation and Aging Performance of PIM-1-Based MMMs for Gas Separation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6502-6511.	8.0	43
33	Liquidlike Poly(ethylene glycol) Supported in the Organic-Inorganic Matrix for CO ₂ Removal. <i>Macromolecules</i> , 2011, 44, 5268-5280.	4.8	41
34	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
35	Critical operation factors and proposed testing protocol of nanofiltration membranes for developing advanced membrane materials. <i>Advanced Composites and Hybrid Materials</i> , 2021, 4, 1092-1101.	21.1	39
36	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

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37	Novel Ionic Grafts That Enhance Arsenic Removal via Forward Osmosis. ACS Applied Materials & Interfaces, 2019, 11, 17828-17835.	8.0	35
38	Tailoring the Porosity in Iron Phosphosulfide Nanosheets to Improve the Performance of Photocatalytic Hydrogen Evolution. ChemSusChem, 2019, 12, 2651-2659.	6.8	35
39	Control of Physical Aging in Super-Glassy Polymer Mixed Matrix Membranes. Accounts of Chemical Research, 2020, 53, 1381-1388.	15.6	35
40	Gas Separation Membranes Loaded with Porous Aromatic Frameworks that Improve with Age. Angewandte Chemie, 2015, 127, 2707-2711.	2.0	33
41	A Novel Multi-Charged Draw Solute That Removes Organic Arsenicals from Water in a Hybrid Membrane Process. Environmental Science & Technology, 2018, 52, 3812-3819.	10.0	32
42	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
43	Organic Microporous Nanofillers with Unique Alcohol Affinity for Superior Ethanol Recovery toward Sustainable Biofuels. ChemSusChem, 2017, 10, 1887-1891.	6.8	27
44	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
45	Continuous flow knitting of a triptycene hypercrosslinked polymer. Chemical Communications, 2019, 55, 8571-8574.	4.1	22
46	Recycling Plastic Waste for Environmental Remediation in Water Purification and CO ₂ Capture. ACS Applied Polymer Materials, 2020, 2, 2586-2593.	4.4	22
47	Fabricating thin-film composite membranes for pervaporation desalination via photo-crosslinking. Desalination, 2021, 512, 115128.	8.2	22
48	Effects of SiO ₂ Agglomerations on CO ₂ Transport and Separation Properties of Sol-Derived Nanohybrid Membranes. Macromolecules, 2011, 44, 6057-6066.	4.8	21
49	Tailoring molecular interactions between microporous polymers in high performance mixed matrix membranes for gas separations. Nanoscale, 2020, 12, 17405-17410.	5.6	18
50	Hypercrosslinked Additives for Ageless Gas Separation Membranes. Angewandte Chemie, 2016, 128, 2038-2041.	2.0	17
51	Breaking through permeability-selectivity tradeoff of thin-film composite membranes assisted with crown ethers. AIChE Journal, 2021, 67, e17173.	3.6	17
52	Molecular design of nanohybrid gas separation membranes for optimal CO ₂ separation. Polymer, 2012, 53, 454-465.	3.8	16
53	State-of-the-Art and Opportunities for Forward Osmosis in Sewage Concentration and Wastewater Treatment. Membranes, 2021, 11, 305.	3.0	13
54	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

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55	Characterizing free volumes and layer structures in polymeric membranes using slow positron annihilation spectroscopy. Journal of Physics: Conference Series, 2011, 262, 012027.	0.4	4