Ling-Shu Wan

List of Publications by Year
in descending order

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102 papers	6,731 citations	53794 45 h-index	62596 80 g-index
104 all docs	104 docs citations	104 times ranked	6899 citing authors

#	Article	IF	Citations
1	Mussel-inspired modification of a polymer membrane for ultra-high water permeability and oil-in-water emulsion separation. Journal of Materials Chemistry A, 2014, 2, 10225-10230.	10.3	620
2	Enzyme immobilization on electrospun polymer nanofibers: An overview. Journal of Molecular Catalysis B: Enzymatic, 2009, 56, 189-195.	1.8	469
3	CuSO₄/H₂O₂â€Induced Rapid Deposition of Polydopamine Coatings with High Uniformity and Enhanced Stability. Angewandte Chemie - International Edition, 2016, 55, 3054-3057.	13.8	403
4	Nanofiltration membranes via co-deposition of polydopamine/polyethylenimine followed by cross-linking. Journal of Membrane Science, 2015, 476, 50-58.	8.2	294
5	Surface hydrophilization of microporous polypropylene membrane by grafting zwitterionic polymer for anti-biofouling. Journal of Membrane Science, 2010, 362, 255-264.	8.2	261
6	Ordered Microporous Membranes Templated by Breath Figures for Size-Selective Separation. Journal of the American Chemical Society, 2012, 134, 95-98.	13.7	202
7	Surface engineerings of polyacrylonitrile-based asymmetric membranes towards biomedical applications: An overview. Journal of Membrane Science, 2007, 304, 8-23.	8.2	186
8	Co-deposition of catechol/polyethyleneimine on porous membranes for efficient decolorization of dye water. Journal of Materials Chemistry A, 2015, 3, 14438-14444.	10.3	150
9	Polydopamine-Coated Porous Substrates as a Platform for Mineralized Î²-FeOOH Nanorods with Photocatalysis under Sunlight. ACS Applied Materials & Interfaces, 2015, 7, 11567-11574.	8.0	150
10	Multiple interfaces in self-assembled breath figures. Chemical Communications, 2014, 50, 4024-4039.	4.1	149
11	Surface modification of polypropylene microfiltration membranes by the immobilization of poly(N-vinyl-2-pyrrolidone): a facile plasma approach. Journal of Membrane Science, 2005, 249, 21-31.	8.2	120
12	Janus Membranes with Asymmetric Wettability for Fine Bubble Aeration. Advanced Materials Interfaces, 2016, 3, 1500774.	3.7	119
13	CuSO₄/H₂O₂â€Induced Rapid Deposition of Polydopamine Coatings with High Uniformity and Enhanced Stability. Angewandte Chemie, 2016, 128, 3106-3109.	2.0	117
14	Polypropylene microfiltration membranes modified with TiO2 nanoparticles for surface wettability and antifouling property. Journal of Membrane Science, 2016, 500, 8-15.	8.2	116
15	Structure and performance of polyacrylonitrile membranes prepared via thermally induced phase separation. Journal of Membrane Science, 2012, 409-410, 355-364.	8.2	103
16	Honeycomb-Patterned Film Segregated with Phenylboronic Acid for Glucose Sensing. Langmuir, 2011, 27, 12597-12605.	3.5	100
17	Interactions between Polyacrylonitrile and Solvents: Density Functional Theory Study and Two-Dimensional Infrared Correlation Analysis. Journal of Physical Chemistry B, 2012, 116, 8321-8330.	2.6	97
18	Polydopamine gradients by oxygen diffusion controlled autoxidation. Chemical Communications, 2013, 49, 10522.	4.1	96

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19	Effects of polyethyleneimine molecular weight and proportion on the membrane hydrophilization by codepositing with dopamine. Journal of Applied Polymer Science, 2016, 133, .	2.6	95
20	Membrane surface with antibacterial property by grafting polycation. Journal of Membrane Science, 2011, 376, 132-141.	8.2	86
21	Tethering poly(ethylene glycol)s to improve the surface biocompatibility of poly(acrylonitrile-co-maleic acid) asymmetric membranes. Biomaterials, 2005, 26, 589-598.	11.4	83
22	Surface hydrophilization of microporous polypropylene membrane by the interfacial crosslinking of polyethylenimine. Journal of Membrane Science, 2009, 337, 70-80.	8.2	78
23	Controllable Construction of Carbohydrate Microarrays by Site-Directed Grafting on Self-Organized Porous Films. Langmuir, 2010, 26, 8946-8952.	3.5	76
24	Highly Stable, Protein-Resistant Surfaces via the Layer-by-Layer Assembly of Poly(sulfobetaine) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542	3.5	76
25	Thermally induced phase separation followed by in situ solâ€“gel process: A novel method for PVDF/SiO2 hybrid membranes. Journal of Membrane Science, 2014, 465, 56-67.	8.2	75
26	Electrospun Nanofibers Modified with Phospholipid Moieties for Enzyme Immobilization. Macromolecular Rapid Communications, 2006, 27, 1341-1345.	3.9	74
27	Co-deposition of tannic acid and diethlyenetriamine for surface hydrophilization of hydrophobic polymer membranes. Applied Surface Science, 2016, 360, 291-297.	6.1	74
28	Electrospun nanofibrous membranes filled with carbon nanotubes for redox enzyme immobilization. Enzyme and Microbial Technology, 2008, 42, 332-339.	3.2	72
29	Surface engineering of macroporous polypropylene membranes. Soft Matter, 2009, 5, 1775.	2.7	72
30	Nanofibrous Membranes Containing Carbon Nanotubes: Electrospun for Redox Enzyme Immobilization. Macromolecular Rapid Communications, 2006, 27, 516-521.	3.9	68
31	Bio-inspired CaCO3 coating for superhydrophilic hybrid membranes with high water permeability. Journal of Materials Chemistry, 2012, 22, 22727.	6.7	68
32	Polar polymer membranes via thermally induced phase separation using a universal crystallizable diluent. Journal of Membrane Science, 2013, 446, 482-491.	8.2	67
33	Surface hydrophilization for polypropylene microporous membranes: A facile interfacial crosslinking approach. Journal of Membrane Science, 2009, 326, 372-381.	8.2	66
34	Controlled synthesis of linear and comb-like glycopolymers for preparation of honeycomb-patterned films. Polymer, 2010, 51, 2168-2176.	3.8	66
35	Copolymerization of acrylonitrile with N-vinyl-2-pyrrolidone to improve the hemocompatibility of polyacrylonitrile. Polymer, 2005, 46, 7715-7723.	3.8	62
36	Tunable Assembly of Nanoparticles on Patterned Porous Film. Langmuir, 2010, 26, 15982-15988.	3.5	62

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37	Surface Modification of Polyacrylonitrile-Based Membranes by Chemical Reactions To Generate Phospholipid Moieties. Langmuir, 2005, 21, 2941-2947.	3.5	60
38	Diffusion and Structure of Water in Polymers ContainingN-Vinyl-2-pyrrolidone. Journal of Physical Chemistry B, 2007, 111, 922-928.	2.6	54
39	Polystyrenes with Hydrophilic End Groups: Synthesis, Characterization, and Effects on the Self-Assembly of Breath Figure Arrays. Journal of Physical Chemistry B, 2014, 118, 845-854.	2.6	53
40	Catalase Immobilization on Electrospun Nanofibers:â€‰ Effects of Porphyrin Pendants and Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 14091-14097.	3.1	52
41	Polyacrylonitrile membranes via thermally induced phase separation: Effects of polyethylene glycol with different molecular weights. Journal of Membrane Science, 2013, 437, 227-236.	8.2	51
42	In-Situ Immobilization of Silver Nanoparticles on Self-Assembled Honeycomb-Patterned Films Enables Surface-Enhanced Raman Scattering (SERS) Substrates. Journal of Physical Chemistry C, 2014, 118, 11478-11484.	3.1	51
43	Patterned biocatalytic films via one-step self-assembly. Chemical Communications, 2012, 48, 4417.	4.1	50
44	Fabrication of Perforated Isoporous Membranes via a Transfer-Free Strategy: Enabling High-Resolution Separation of Cells. ACS Applied Materials & Interfaces, 2014, 6, 22400-22407.	8.0	46
45	Poly(vinylidene fluoride) ultrafiltration membranes containing hybrid silica nanoparticles: Preparation, characterization and performance. Polymer, 2014, 55, 1333-1340.	3.8	45
46	Facilitated and Site-Specific Assembly of Functional Polystyrene Microspheres on Patterned Porous Films. ACS Applied Materials & Interfaces, 2010, 2, 3759-3765.	8.0	42
47	Selective layer-by-layer self-assembly on patterned porous films modulated by Cassieâ€“Wenzel transition. Physical Chemistry Chemical Physics, 2011, 13, 4881.	2.8	42
48	Systematic Investigation on the Formation of Honeycomb-Patterned Porous Films from Amphiphilic Block Copolymers. Journal of Physical Chemistry C, 2015, 119, 1971-1979.	3.1	41
49	Pore Shape of Honeycomb-Patterned Films: Modulation and Interfacial Behavior. Journal of Physical Chemistry B, 2012, 116, 40-47.	2.6	40
50	Honeycomb Porous Films Prepared from Porphyrin-Cored Star Polymers: Submicrometer Pores Induced by Transition of Monolayer into Multilayer Structures. Journal of Physical Chemistry C, 2013, 117, 6185-6194.	3.1	40
51	Porphyrinated Nanofibers via Copolymerization and Electrospinning. Macromolecular Rapid Communications, 2006, 27, 1533-1538.	3.9	39
52	Mussel-Inspired Modification of Honeycomb Structured Films for Superhydrophobic Surfaces with Tunable Water Adhesion. Journal of Physical Chemistry C, 2015, 119, 3667-3673.	3.1	37
53	Novel Porphyrinated Polyimide Nanofibers by Electrospinning. Journal of Physical Chemistry C, 2008, 112, 10609-10615.	3.1	35
54	Underwater superoleophobic meshes fabricated by poly(sulfobetaine)/polydopamine co-deposition. RSC Advances, 2015, 5, 47592-47598.	3.6	35

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55	Surface Deposition of Juglone/Fe^{III} on Microporous Membranes for Oil/Water Separation and Dye Adsorption. Langmuir, 2019, 35, 3643-3650.	3.5	35
56	Key progresses of MOE key laboratory of macromolecular synthesis and functionalization in 2021. Chinese Chemical Letters, 2023, 34, 107592.	9.0	35
57	Thermally induced phase separation of poly(vinylidene fluoride)/diluent systems: Optical microscope and infrared spectroscopy studies. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1438-1447.	2.1	34
58	Porphyrinated polyimide honeycomb films with high thermal stability for HCl gas sensing. RSC Advances, 2015, 5, 30472-30477.	3.6	34
59	Engineered Coatings via the Assembly of Aminoâ€Quinone Networks. Angewandte Chemie - International Edition, 2021, 60, 2346-2354.	13.8	34
60	Thermo-responsive polyacrylonitrile membranes prepared with poly(acrylonitrile-g-isopropylacrylamide) as an additive. Journal of Membrane Science, 2013, 432, 42-49.	8.2	30
61	Surface Engineering of Microporous Polypropylene Membrane for Antifouling: A Mini-Review. Journal of Adhesion Science and Technology, 2011, 25, 245-260.	2.6	29
62	Synthesis of polystyrene with cyclic, ionized and neutralized end groups and the self-assemblies templated by breath figures. Polymer Chemistry, 2014, 5, 3666-3672.	3.9	29
63	Novel Acrylonitrile-Based Copolymers Containing Phospholipid Moieties: Synthesis and Characterization. Macromolecular Bioscience, 2005, 5, 322-330.	4.1	27
64	Effects of molecular weight distribution on the self-assembly of end-functionalized polystyrenes. Polymer Chemistry, 2017, 8, 4290-4298.	3.9	27
65	Polystyrene with hydrophobic end groups: synthesis, kinetics, interfacial activity, and self-assemblies templated by breath figures. Polymer Chemistry, 2014, 5, 4311-4320.	3.9	26
66	Poly(vinylidene fluoride) separators with dual-asymmetric structure for high-performance lithium ion batteries. Chinese Journal of Polymer Science (English Edition), 2016, 34, 1423-1435.	3.8	25
67	Grain Boundaries of Self-Assembled Porous Polymer Films for Unclonable Anti-Counterfeiting. ACS Applied Polymer Materials, 2019, 1, 47-53.	4.4	24
68	End-functionalized polymers by controlled/living radical polymerizations: synthesis and applications. Polymer Chemistry, 2022, 13, 300-358.	3.9	24
69	Linear and combâ€like acrylonitrile/Nâ€isopropylacrylamide copolymers synthesized by the combination of RAFT polymerization and ATRP. Journal of Polymer Science Part A, 2009, 47, 92-102.	2.3	23
70	Molecular Simulation on the Interactions of Water with Polypropylene Surfaces. Journal of Physical Chemistry C, 2011, 115, 10702-10708.	3.1	22
71	Self-Assembly of Patterned Porous Films from Cyclic Polystyrenes via the Breath Figure Method. Journal of Physical Chemistry C, 2018, 122, 3926-3933.	3.1	21
72	Fabrication of glycosylated surfaces on microporous polypropylene membranes for protein recognition and adsorption. Journal of Materials Chemistry, 2008, 18, 4663.	6.7	20

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73	Immobilization of catalase on electrospun nanofibrous membranes modified with bovine serum albumin or collagen: Coupling site-dependent activity and protein-dependent stability. Soft Matter, 2009, 5, 4161.	2.7	20
74	Crystallizable diluent-templated polyacrylonitrile foams for macroporous carbon monoliths. Polymer, 2013, 54, 284-291.	3.8	20
75	Nonlithographic Fabrication of Nanostructured Micropatterns via Breath Figures and Solution Growth. Journal of Physical Chemistry C, 2014, 118, 4403-4409.	3.1	20
76	Formation of Metalâ€“Phytic Acid Surface Coatings via Oxidation-Mediated Coordination Assembly. ACS Applied Polymer Materials, 2022, 4, 546-555.	4.4	18
77	Cytocompatibility of poly(acrylonitrile-co-N-vinyl-2-pyrrolidone) membranes with human endothelial cells and macrophages. Acta Biomaterialia, 2007, 3, 183-190.	8.3	17
78	Synthesis of core cross-linked star polystyrene with functional end groups and self-assemblies templated by breath figures. Polymer Chemistry, 2014, 5, 5175-5182.	3.9	17
79	Fibrous Membranes Electrospinning from Acrylonitrile-Based Polymers: Specific Absorption Behaviors and States of Water. Macromolecular Bioscience, 2006, 6, 364-372.	4.1	16
80	Fabrication of Transferable Perforated Isoporous Membranes on Versatile Solid Substrates via the Breath Figure Method. Advanced Materials Interfaces, 2015, 2, 1500285.	3.7	16
81	Janus polymer membranes prepared by single-side polydopamine deposition for dye adsorption and fine bubble aeration. Materials Chemistry Frontiers, 2019, 3, 2102-2109.	5.9	16
82	Macroporous, protein-containing films cast from water-in-oil emulsions featuring a block-copolymer. Soft Matter, 2011, 7, 4221.	2.7	15
83	Surface functionalization of cross-linked polystyrene microspheres via thiolâ€“ene â€œclickâ€•reaction and assembly in honeycomb films for lectin recognition. Journal of Materials Research, 2013, 28, 642-650.	2.6	15
84	Multiple Liquid Manipulations on Patterned Surfaces with Tunable Adhesive Property. Advanced Materials Interfaces, 2017, 4, 1700490.	3.7	14
85	Construction of Glycosylated Surfaces for Poly(propylene) Beads with a Photoinduced Grafting/Chemical Reaction Sequence. Macromolecular Rapid Communications, 2007, 28, 2325-2331.	3.9	13
86	Selective Adsorption of Isopropyl Alcohol Aqueous Solution on Polypropylene Surfaces: A Molecular Dynamics Simulation. Journal of Physical Chemistry C, 2011, 115, 22415-22421.	3.1	13
87	Centimeter-scale giant spherulites in mixtures of polar polymers and crystallizable diluents: Morphology, structure, formation and application. RSC Advances, 2013, 3, 17105.	3.6	13
88	Surface modification of self-assembled isoporous polymer membranes for pressure-dependent high-resolution separation. Polymer Chemistry, 2019, 10, 3201-3209.	3.9	13
89	Vertically Oriented Microporous Membranes Prepared by Bidirectional Freezing. Chinese Journal of Polymer Science (English Edition), 2018, 36, 880-887.	3.8	12
90	Surface Coatings via the Assembly of Metalâ€“Monophenolic Networks. Langmuir, 2021, 37, 3721-3730.	3.5	12

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91	Cross-linked perforated honeycomb membranes with improved mechanical and chemical properties. Materials Chemistry Frontiers, 2017, 1, 1073-1078.	5.9	11
92	Cobalt-porphyrin/dansyl piperazine complex coated filter paper for â€œturn onâ€•fluorescence sensing of ammonia gas. RSC Advances, 2015, 5, 99361-99363.	3.6	10
93	Rapid formation of metalâ^'monophenolic networks on polymer membranes for oil/water separation and dye adsorption. Chinese Chemical Letters, 2021, 32, 3852-3856.	9.0	10
94	Surface Metallization of Porous Polymer Materials for Multifunctional Applications. Langmuir, 2020, 36, 1454-1461.	3.5	9
95	Ag Nanoparticle-Enabled Electroless Deposition of Ni on Mine-Formaldehyde Sponges for Oilâ€“Water Separation, Piezoresistive Sensing, and Electromagnetic Shielding. ACS Applied Nano Materials, 2022, 5, 4204-4213.	5.0	7
96	INTERACTION BETWEEN THE SURFACE GLYCOSYLATED POLYPROPYLENE MAMBRANE AND LECTIN. Chinese Journal of Polymer Science (English Edition), 2008, 26, 363.	3.8	6
97	Engineered Coatings via the Assembly of Aminoâ€Quinone Networks. Angewandte Chemie, 2021, 133, 2376-2384.	2.0	5
98	Effect of polar groups of polystyrenes on the <scp>selfâ€assembly</scp> of breath figure arrays. Journal of Polymer Science, 2022, 60, 2371-2382.	3.8	4
99	Less-Ordered Hydration Shell around Poly(N,N-diethylacrylamide) Is Insensitive to the Clouding Transition. Journal of Physical Chemistry B, 2021, 125, 12104-12109.	2.6	2
100	Transparent and fluorescent breath figure arrays prepared from end-functionalized copolymers. Polymer, 2022, 254, 125079.	3.8	2
101	Conformal and non-conformal surface modification of honeycomb-patterned porous films via tunable Cassieâ€“Wenzel transition. RSC Advances, 2016, 6, 52131-52136.	3.6	1
102	Polymeric Membrane Science and Technology. International Journal of Polymer Science, 2013, 2013, 1-2.	2.7	0