

# Guangwei He

## List of Publications by Citations

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69

papers

3,907

citations

36

h-index

62

g-index

71

ext. papers

4,710

ext. citations

14.6

avg, IF

5.53

L-index

#	Paper	IF	Citations
69	Advances in high permeability polymer-based membrane materials for CO <sub>2</sub> separations. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 1863-1890	35.4	475
68	Nanostructured Ion-Exchange Membranes for Fuel Cells: Recent Advances and Perspectives. <i>Advanced Materials</i> , <b>2015</b> , 27, 5280-95	24	273
67	Recent advances in the fabrication of advanced composite membranes. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 10058	13	219
66	Facilitated transport of small molecules and ions for energy-efficient membranes. <i>Chemical Society Reviews</i> , <b>2015</b> , 44, 103-18	58.5	165
65	A highly permeable graphene oxide membrane with fast and selective transport nanochannels for efficient carbon capture. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 3107-3112	35.4	155
64	Enhanced proton conductivity of Nafion hybrid membrane under different humidities by incorporating metal-organic frameworks with high phytic acid loading. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 9799-807	9.5	129
63	Single-layer graphene membranes by crack-free transfer for gas mixture separation. <i>Nature Communications</i> , <b>2018</b> , 9, 2632	17.4	111
62	Fabricating graphene oxide-based ultrathin hybrid membrane for pervaporation dehydration via layer-by-layer self-assembly driven by multiple interactions. <i>Journal of Membrane Science</i> , <b>2015</b> , 487, 162-172	9.6	106
61	Efficient CO <sub>2</sub> capture by humidified polymer electrolyte membranes with tunable water state. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 1489	35.4	105
60	Two-dimensional nanochannel membranes for molecular and ionic separations. <i>Chemical Society Reviews</i> , <b>2020</b> , 49, 1071-1089	58.5	103
59	Enhanced proton conductivity of proton exchange membranes by incorporating sulfonated metal-organic frameworks. <i>Journal of Power Sources</i> , <b>2014</b> , 262, 372-379	8.9	95
58	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO Separations. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 14246-14251	16.4	95
57	Incorporating Zwitterionic Graphene Oxides into Sodium Alginate Membrane for Efficient Water/Alcohol Separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 2097-103	9.5	90
56	Constructing efficient ion nanochannels in alkaline anion exchange membranes by the in situ assembly of a poly(ionic liquid) in metal-organic frameworks. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 2340-2348	13	86
55	Tunable Nanochannels along Graphene Oxide/Polymer Core-Shell Nanosheets to Enhance Proton Conductivity. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 7502-7511	15.6	83
54	Preparing alkaline anion exchange membrane with enhanced hydroxide conductivity via blending imidazolium-functionalized and sulfonated poly(ether ether ketone). <i>Journal of Power Sources</i> , <b>2015</b> , 288, 384-392	8.9	80
53	Enhanced proton conductivity of Nafion nanohybrid membrane incorporated with phosphonic acid functionalized graphene oxide at elevated temperature and low humidity. <i>Journal of Membrane Science</i> , <b>2016</b> , 518, 243-253	9.6	79

52	Graphitic carbon nitride nanosheets/sulfonated poly(ether ether ketone) nanocomposite membrane for direct methanol fuel cell application. <i>Journal of Membrane Science</i> , <b>2016</b> , 507, 1-11	9.6	75
51	Restricting Lattice Flexibility in Polycrystalline Metal-Organic Framework Membranes for Carbon Capture. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900855	24	73
50	Bioinspired Ultrastrong Solid Electrolytes with Fast Proton Conduction along 2D Channels. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605898	24	67
49	Enhanced CO <sub>2</sub> permeability of membranes by incorporating polyzwitterion@CNT composite particles into polyimide matrix. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 13051-60	9.5	66
48	High-permeance polymer-functionalized single-layer graphene membranes that surpass the postcombustion carbon capture target. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 3305-3312	35.4	65
47	Manipulating the interfacial interactions of composite membranes via a mussel-inspired approach for enhanced separation selectivity. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 19980-19988	13	64
46	Functionalized carbon nanotube via distillation precipitation polymerization and its application in nafion-based composite membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 15291-301	9.5	63
45	Independent control of water retention and acid-base pairing through double-shelled microcapsules to confer membranes with enhanced proton conduction under low humidity. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 2267-2277	13	62
44	Novel sulfonated poly (ether ether ketone)/phosphonic acid-functionalized titania nanohybrid membrane by an in situ method for direct methanol fuel cells. <i>Journal of Power Sources</i> , <b>2015</b> , 273, 544-553	8.9	61
43	Fabrication of sulfonated poly(ether ether ketone)-based hybrid proton-conducting membranes containing carboxyl or amino acid-functionalized titania by in situ sol-gel process. <i>Journal of Power Sources</i> , <b>2015</b> , 276, 271-278	8.9	61
42	De Novo Design of Covalent Organic Framework Membranes toward Ultrafast Anion Transport. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001284	24	59
41	Constructing facile proton-conduction pathway within sulfonated poly(ether ether ketone) membrane by incorporating poly(phosphonic acid)/silica nanotubes. <i>Journal of Power Sources</i> , <b>2014</b> , 259, 203-212	8.9	55
40	Facilitating Proton Transport in Nafion-Based Membranes at Low Humidity by Incorporating Multifunctional Graphene Oxide Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 27676-27687	8.5	48
39	Electrophoretic Nuclei Assembly for Crystallization of High-Performance Membranes on Unmodified Supports. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1707427	15.6	45
38	Zwitterionic microcapsules as water reservoirs and proton carriers within a Nafion membrane to confer high proton conductivity under low humidity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 5362-6	9.5	44
37	Enhancing water retention and low-humidity proton conductivity of sulfonated poly(ether ether ketone) composite membrane enabled by the polymer-microcapsules with controllable hydrophilicity/hydrophobicity. <i>Journal of Power Sources</i> , <b>2014</b> , 248, 951-961	8.9	43
36	A highly proton-conducting, methanol-blocking Nafion composite membrane enabled by surface-coating crosslinked sulfonated graphene oxide. <i>Chemical Communications</i> , <b>2016</b> , 52, 2173-6	5.8	42
35	Manipulation of interactions at membrane interfaces for energy and environmental applications. <i>Progress in Polymer Science</i> , <b>2018</b> , 80, 125-152	29.6	40

34	Enhancing Hydroxide Conductivity and Stability of Anion Exchange Membrane by Blending Quaternary Ammonium Functionalized Polymers. <i>Electrochimica Acta</i> , <b>2017</b> , 240, 486-494	6.7	38
33	Self-crosslinked blend alkaline anion exchange membranes with bi-continuous phase separated morphology to enhance ion conductivity. <i>Journal of Membrane Science</i> , <b>2020</b> , 597, 117769	9.6	36
32	Crystal Engineering of Metal-Organic Framework Thin Films for Gas Separations. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 49-69	8.3	34
31	Comparison of facilitated transport behavior and separation properties of membranes with imidazole groups and zinc ions as CO <sub>2</sub> carriers. <i>Journal of Membrane Science</i> , <b>2016</b> , 505, 44-52	9.6	26
30	A highly conductive and robust anion conductor obtained via synergistic manipulation in intra- and inter-laminate of layered double hydroxide nanosheets. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 10277-10285 <sup>13,22</sup>	13.2	22
29	Tight Covalent Organic Framework Membranes for Efficient Anion Transport via Molecular Precursor Engineering. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 17638-17646	16.4	21
28	Synergistic CO <sub>2</sub> -Sieving from Polymer with Intrinsic Microporosity Masking Nanoporous Single-Layer Graphene. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003979	15.6	20
27	Highly conductive and robust composite anion exchange membranes by incorporating quaternized MIL-101(Cr). <i>Science Bulletin</i> , <b>2017</b> , 62, 266-276	10.6	19
26	Enhancing the hydroxide conductivity of imidazolium-functionalized polysulfone by incorporating organic microsphere with ionic brushes. <i>Journal of Membrane Science</i> , <b>2018</b> , 554, 6-15	9.6	17
25	Enhancing hydroxide conductivity of anion exchange membrane via incorporating densely imidazolium functionalized graphene oxide. <i>Solid State Ionics</i> , <b>2019</b> , 333, 83-92	3.3	17
24	Engineering Covalent Organic Framework Membranes. <i>Accounts of Materials Research</i> , <b>2021</b> , 2, 630-643	7.5	17
23	Enhanced water retention and low-humidity proton conductivity of sulfonated poly(ether ether ketone) hybrid membrane by incorporating ellipsoidal microcapsules. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8398-8406	6.7	15
22	Highly Hydroxide-Conductive Nanostructured Solid Electrolyte via Predesigned Ionic Nanoaggregates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 28346-28354	9.5	14
21	Enhanced water retention and proton conductivity of proton exchange membranes by incorporating hollow polymer microspheres grafted with sulfonated polystyrene brushes. <i>RSC Advances</i> , <b>2015</b> , 5, 5343-5356	3.7	13
20	Enhanced proton conductivity under low humidity of sulfonated poly(ether ether ketone) composite membrane enabled by multifunctional phosphonic acid polymeric submicrocapsules. <i>Journal of Power Sources</i> , <b>2013</b> , 240, 258-266	8.9	13
19	Centimeter-scale gas-sieving nanoporous single-layer graphene membrane. <i>Journal of Membrane Science</i> , <b>2021</b> , 618, 118745	9.6	12
18	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO <sub>2</sub> Separations. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 14434-14439	3.6	11
17	Ultrathin Carbon Molecular Sieve Films and Room-Temperature Oxygen Functionalization for Gas-Sieving. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 16729-16736	9.5	10

16	Predicting Gas Separation through Graphene Nanopore Ensembles with Realistic Pore Size Distributions. <i>ACS Nano</i> , <b>2021</b> , 15, 1727-1740	16.7	10
15	Accelerating CO <sub>2</sub> capture of highly permeable polymer through incorporating highly selective hollow zeolite imidazolate framework. <i>AIChE Journal</i> , <b>2020</b> , 66, e16800	3.6	9
14	Direct Chemical Vapor Deposition Synthesis of Porous Single-Layer Graphene Membranes with High Gas Permeances and Selectivities. <i>Advanced Materials</i> , <b>2021</b> , 33, e2104308	24	8
13	Polybenzimidazole copolymer derived lacey carbon film for graphene transfer and contamination removal strategies for imaging graphene nanopores. <i>Carbon</i> , <b>2021</b> , 173, 980-988	10.4	7
12	Molecular engineering of organic-inorganic interface towards high-performance polyelectrolyte membrane via amphiphilic block copolymer. <i>Journal of Membrane Science</i> , <b>2018</b> , 563, 1-9	9.6	6
11	Tight Covalent Organic Framework Membranes for Efficient Anion Transport via Molecular Precursor Engineering. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 17779-17787	3.6	5
10	Multipulsed Millisecond Ozone Gasification for Predictable Tuning of Nucleation and Nucleation-Decoupled Nanopore Expansion in Graphene for Carbon Capture. <i>ACS Nano</i> , <b>2021</b> ,	16.7	5
9	MOF-COF "Alloy" Membrane for Efficient Propylene/Propane Separation.. <i>Advanced Materials</i> , <b>2022</b> , e2201423	24	5
8	One-Pot Synthesis of Chloromethylated Mesoporous Silica Nanoparticles as Multifunctional Fillers in Hybrid Anion Exchange Membranes. <i>Chinese Journal of Chemistry</i> , <b>2017</b> , 35, 673-680	4.9	4
7	Irreversible synthesis of an ultrastrong two-dimensional polymeric material.. <i>Nature</i> , <b>2022</b> , 602, 91-95	50.4	3
6	Gas Separations using Nanoporous Atomically Thin Membranes: Recent Theoretical, Simulation, and Experimental Advances.. <i>Advanced Materials</i> , <b>2022</b> , e2201472	24	3
5	Electrophoretic Crystallization of Ultrathin High-performance Metal-organic Framework Membranes. <i>Journal of Visualized Experiments</i> , <b>2018</b> ,	1.6	2
4	Confined facilitated transport within covalent organic frameworks for propylene/propane membrane separation. <i>Chemical Engineering Journal</i> , <b>2022</b> , 439, 135657	14.7	1
3	Advanced organic molecular sieve membranes for carbon capture: Current status, challenges and prospects <b>2022</b> , 2, 100028		0
2	Microstructure Manipulation of Covalent Organic Frameworks (COFs)-based Membrane for Efficient Separations. <i>Chemical Research in Chinese Universities</i> ,1	2.2	0
1	Weakly pressure-dependent molecular sieving of propylene/propane mixtures through mixed matrix membrane with ZIF-8 direct-through channels. <i>Journal of Membrane Science</i> , <b>2022</b> , 648, 120366	9.6	0