

# Gaohong He

## List of Publications by Year in descending order

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102  
papers

4,469  
citations

87888

38  
h-index

118850

62  
g-index

102  
all docs

102  
docs citations

102  
times ranked

3312  
citing authors

#	ARTICLE	IF	CITATIONS
1	Micro-phase separation promoted by electrostatic field in electrospinning of alkaline polymer electrolytes: DFT and MD simulations. <i>Chemical Engineering Science</i> , 2022, 248, 117171.	3.8	9
2	Low boiling point solvent-soluble, highly conductive and stable poly (ether phenylene piperidinium) anion exchange membrane. <i>Journal of Membrane Science</i> , 2022, 644, 120185.	8.2	20
3	Membrane crystallization: Engineering the crystallization via microscale interfacial technology. <i>Chemical Engineering Research and Design</i> , 2022, 178, 454-465.	5.6	10
4	Enabling high Anion-selective conductivity in membrane for High-performance neutral organic based aqueous redox flow battery by microstructure design. <i>Chemical Engineering Journal</i> , 2022, 432, 134268.	12.7	7
5	Ion conductive mechanisms and redox flow battery applications of polybenzimidazole-based membranes. <i>Energy Storage Materials</i> , 2022, 45, 595-617.	18.0	25
6	RGB-multicolor fluorescent carbon dots by changing the reaction solvent type for white light-emitting diodes. <i>New Journal of Chemistry</i> , 2022, 46, 4979-4982.	2.8	10
7	Hollow COF Selective Layer Based Flexible Composite Membranes Constructed by an Integrated "Casting-Precipitation-Evaporation" Strategy. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	20
8	Construction of hierarchical proton sieving-conductive channels in sulfated UIO-66 grafted polybenzimidazole ion conductive membrane for vanadium redox flow battery. <i>Journal of Power Sources</i> , 2022, 526, 231132.	7.8	19
9	Hierarchically porous membranes for lithium rechargeable batteries: Recent progress and opportunities. <i>EcoMat</i> , 2022, 4, .	11.9	24
10	Oxygen vacancy enabled fabrication of dual-atom Mn/Co catalysts for high-performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11702-11711.	10.3	24
11	Construction of atomically dispersed Cu-N4 sites via engineered coordination environment for high-efficient CO <sub>2</sub> electroreduction. <i>Chemical Engineering Journal</i> , 2021, 407, 126842.	12.7	91
12	Ion/Molecule-selective transport nanochannels of membranes for redox flow batteries. <i>Energy Storage Materials</i> , 2021, 34, 648-668.	18.0	37
13	Improving CO <sub>2</sub> Electroreduction Activity by Creating an Oxygen Vacancy-Rich Surface with One-Dimensional In-SnO <sub>2</sub> Hollow Nanofiber Architecture. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 1164-1174.	3.7	9
14	Ultra-thin quaternized polybenzimidazole anion exchange membranes with throughout OH <sup>-</sup> conductive highway networks for high-performance fuel cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7522-7530.	10.3	47
15	Engineering amino-mediated copper nanoclusters with dual emission and assembly-to-monodispersion switching by pH-triggered surface modulation. <i>New Journal of Chemistry</i> , 2021, 45, 13262-13265.	2.8	6
16	Electron-Donating C-NH <sub>2</sub> Link Backbone for Highly Alkaline and Mechanical Stable Anion Exchange Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 10490-10499.	8.0	22
17	Pulverizing Fe <sub>2</sub> O <sub>3</sub> Nanoparticles for Developing Fe <sub>3</sub> C/N-Codoped Carbon Nanoboxes with Multiple Polysulfide Anchoring and Converting Activity in Li-S Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2011249.	14.9	79
18	Two-dimensional MoS <sub>2</sub> nanosheets constructing highly ion-selective composite membrane for vanadium redox flow battery. <i>Journal of Membrane Science</i> , 2021, 623, 119051.	8.2	25

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19	Redistributing Li-ion flux and homogenizing Li-metal growth by N-doped hierarchically porous membranes for dendrite-free Lithium metal batteries. <i>Energy Storage Materials</i> , 2021, 37, 233-242.	18.0	41
20	Branched, Side-Chain Grafted Polyarylpiperidine Anion Exchange Membranes for Fuel Cell Application. <i>ACS Applied Energy Materials</i> , 2021, 4, 6957-6967.	5.1	50
21	Constructing ionic channels in anion exchange membrane via a Zn <sup>2+</sup> soft template: Experiment and molecular dynamics simulation. <i>Journal of Membrane Science</i> , 2021, 629, 119293.	8.2	10
22	Structural contribution of cationic groups to water sorption in anion exchange membranes: A combined DFT and MD simulation study. <i>Chemical Engineering Science</i> , 2021, 244, 116791.	3.8	20
23	Amphiphilic cone-shaped cationic calix[4]arene composite anion exchange membranes with continuous ionic channels. <i>Journal of Membrane Science</i> , 2021, 640, 119815.	8.2	12
24	Well-defined Fe <sup>II</sup> -Cu diatomic sites for efficient catalysis of CO <sub>2</sub> electroreduction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 23817-23827.	10.3	77
25	N-Doped Hierarchically Porous CNT@C Membranes for Accelerating Polysulfide Redox Conversion for High-Energy Lithium-Sulfur Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 2521-2529.	8.0	20
26	Polybenzimidazole Ultrathin Anion Exchange Membrane with Comb-Shape Amphiphilic Microphase Networks for a High-Performance Fuel Cell. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 49840-49849.	8.0	29
27	Red fluorescent carbon dots excited by visible light: cell imaging and visual detection of ammonia gas using PVB films. <i>New Journal of Chemistry</i> , 2021, 45, 22869-22875.	2.8	2
28	Blend anion exchange membranes containing polymer of intrinsic microporosity for fuel cell application. <i>Journal of Membrane Science</i> , 2020, 595, 117541.	8.2	32
29	Recent Advances in Rare Earth Complexes Containing N-Heterocyclic Carbenes: Synthesis, Reactivity, and Applications in Polymerization. <i>Catalysts</i> , 2020, 10, 71.	3.5	21
30	Lutetium and yttrium complexes supported by an anilido-oxazoline ligand for polymerization of 1,3-conjugated dienes and $\mu$ -caprolactone. <i>New Journal of Chemistry</i> , 2020, 44, 121-128.	2.8	13
31	A highly proton-conductive and vanadium-rejected long-side-chain sulfonated polybenzimidazole membrane for redox flow battery. <i>Journal of Membrane Science</i> , 2020, 596, 117616.	8.2	68
32	Facile fabrication of titanasilicate zeolites with an unprecedented wide range of Si/Ti ratios by employing transition metal dichalcogenides as metal precursors. <i>CrystEngComm</i> , 2020, 22, 164-168.	2.6	1
33	Covalent/ionic co-crosslinking constructing ultra-densely functionalized ether-free poly(biphenylene) Tj ETQq1 1 0.784314 rgBT /Over 359, 136879.	5.2	12
34	Nanoscale Solid Superacid-Coupled Polybenzimidazole Membrane with High Ion Selectivity for Flow Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 16493-16502.	6.7	11
35	High-Performance Anion Exchange Membranes with Para-Type Cations on Electron-Withdrawing Câ•O Links Free Backbone. <i>Macromolecules</i> , 2020, 53, 10988-10997.	4.8	36
36	Scalable High-Areal-Capacity Liâ€“S Batteries Enabled by Sandwich-Structured Hierarchically Porous Membranes with Intrinsic Polysulfide Adsorption. <i>Nano Letters</i> , 2020, 20, 6922-6929.	9.1	47

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37	Covalent organic framework (COF) constructed proton permselective membranes for acid supporting redox flow batteries. <i>Chemical Engineering Journal</i> , 2020, 399, 125833.	12.7	68
38	The synergistic effect of protonated imidazole-hydroxyl-quaternary ammonium on improving performances of anion exchange membrane assembled flow batteries. <i>Journal of Membrane Science</i> , 2020, 603, 118011.	8.2	39
39	Pre-removal of polybenzimidazole anion to improve flexibility of grafted quaternized side chains for high performance anion exchange membranes. <i>Journal of Power Sources</i> , 2020, 451, 227813.	7.8	45
40	Hydrophilic/hydrophobic-bi-comb-shaped amphoteric membrane for vanadium redox flow battery. <i>Journal of Membrane Science</i> , 2020, 608, 118179.	8.2	26
41	Highly Efficient Polysulfide Trapping and Ion Transferring within a Hierarchical Porous Membrane Interlayer for High-Energy Lithium-Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 5050-5057.	5.1	32
42	“Fishnet-like” ion-selective nanochannels in advanced membranes for flow batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21112-21119.	10.3	50
43	Patterned macroporous Fe <sub>3</sub> C/C membrane-induced high ionic conductivity for integrated Li-sulfur battery cathodes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20614-20623.	10.3	37
44	Amphoteric-Side-Chain-Functionalized “Ether-Free” Poly(arylene piperidinium) Membrane for Advanced Redox Flow Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 44315-44324.	8.0	58
45	Anion exchange membranes with “rigid-side-chain” symmetric piperazinium structures for fuel cell exceeding 1.2 W cm <sup>-2</sup> at 60 °C. <i>Journal of Power Sources</i> , 2019, 438, 227021.	7.8	29
46	Tailored 3D printed micro-crystallization chip for versatile and high-efficiency droplet evaporative crystallization. <i>Lab on A Chip</i> , 2019, 19, 767-777.	6.0	7
47	Anilido-oxazoline-ligated rare-earth metal complexes: synthesis, characterization and highly <i>i</i> -1,4-selective polymerization of isoprene. <i>Dalton Transactions</i> , 2019, 48, 3583-3592.	3.3	18
48	Proton delivery through a dynamic 3D H-bond network constructed from dense hydroxyls for advanced ion-selective membranes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15137-15144.	10.3	50
49	Pendent piperidinium-functionalized blend anion exchange membrane for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15482-15493.	7.1	58
50	Highly active rare-earth metal catalysts for heteroselective ring-opening polymerization of racemic lactide. <i>Dalton Transactions</i> , 2019, 48, 9079-9088.	3.3	14
51	Electrospinning fiberization of carbon nanotube hybrid sulfonated poly (ether ether ketone) ion conductive membranes for a vanadium redox flow battery. <i>Journal of Membrane Science</i> , 2019, 583, 93-102.	8.2	42
52	A graphite intercalation compound associated with liquid Na <sup>+</sup> K towards ultra-stable and high-capacity alkali metal anodes. <i>Energy and Environmental Science</i> , 2019, 12, 1989-1998.	30.8	90
53	Highly Conducting Anion-Exchange Membranes Based on Cross-Linked Poly(norbornene): Ring Opening Metathesis Polymerization. <i>ACS Applied Energy Materials</i> , 2019, 2, 2458-2468.	5.1	109
54	Molecular dynamics simulation on the effect of water uptake on hydrogen bond network for OH <sup>-</sup> conduction in imidazolium-g-PPO membrane. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 3760-3770.	7.1	30

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55	Novel Triple Tertiary Amine Polymer-Based Hydrogen Bond Network Inducing Highly Efficient Proton-Conducting Channels of Amphoteric Membranes for High-Performance Vanadium Redox Flow Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5003-5014.	8.0	91
56	Friedel-Crafts alkylation route for preparation of pendent side chain imidazolium-functionalized polysulfone anion exchange membranes for fuel cells. <i>Journal of Membrane Science</i> , 2019, 573, 157-166.	8.2	29
57	Facile and green fabrication of polybenzoxazine-based composite anion-exchange membranes with a self-cross-linked structure. <i>Ionics</i> , 2018, 24, 3053-3063.	2.4	16
58	Hydrophilic side chain assisting continuous ion-conducting channels for anion exchange membranes. <i>Journal of Membrane Science</i> , 2018, 552, 286-294.	8.2	71
59	Hybrid Control Mechanism of Crystal Morphology Modification for Ternary Solution Treatment via Membrane Assisted Crystallization. <i>Crystal Growth and Design</i> , 2018, 18, 934-943.	3.0	21
60	Polybenzimidazole membranes with nanophase-separated structure induced by non-ionic hydrophilic side chains for vanadium flow batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3895-3905.	10.3	88
61	Gradient-Distributed Metal-Organic Framework-Based Porous Membranes for Nonaqueous Redox Flow Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1802533.	19.5	70
62	Understanding of imidazolium group hydration and polymer structure for hydroxide anion conduction in hydrated imidazolium-g-PPO membrane by molecular dynamics simulations. <i>Chemical Engineering Science</i> , 2018, 192, 1167-1176.	3.8	40
63	Amphiprotic Side-Chain Functionalization Constructing Highly Proton/Vanadium-Selective Transport Channels for High-Performance Membranes in Vanadium Redox Flow Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 32247-32255.	8.0	80
64	Fluorescent carbon dots directly derived from polyethyleneimine and their application for the detection of $\text{Co}^{2+}$ . <i>Analytical Methods</i> , 2018, 10, 2989-2993.	2.7	21
65	Side chain hydrolysis method to prepare nanoporous membranes for vanadium flow battery application. <i>Journal of Membrane Science</i> , 2018, 560, 67-76.	8.2	20
66	One-pot synthesis of highly fluorescent $\text{Fe}^{2+}$ -doped carbon dots for a dual-emissive nanohybrid for the detection of zinc ions and histidine. <i>New Journal of Chemistry</i> , 2018, 42, 13651-13659.	2.8	21
67	Paper-based visual detection of silver ions and $\text{L}$ -cysteine with a dual-emissive nanosystem of carbon quantum dots and gold nanoclusters. <i>Analytical Methods</i> , 2018, 10, 3945-3950.	2.7	28
68	Bis(oxazoline)-derived N-heterocyclic carbene ligated rare-earth metal complexes: synthesis, structure, and polymerization performance. <i>Dalton Transactions</i> , 2018, 47, 13815-13823.	3.3	21
69	Anion exchange membrane with well-ordered arrays of ionic channels based on a porous anodic aluminium oxide template. <i>Journal of Applied Electrochemistry</i> , 2018, 48, 1151-1161.	2.9	7
70	Progress and prospects of next-generation redox flow batteries. <i>Energy Storage Materials</i> , 2018, 15, 324-350.	18.0	239
71	Poly (ether ether ketone ketone) based imidazolium as anion exchange membranes for alkaline fuel cells. <i>Chinese Journal of Chemical Engineering</i> , 2018, 26, 2130-2138.	3.5	12
72	One-pot synthesis of enhanced fluorescent copper nanoclusters encapsulated in metal-organic frameworks. <i>RSC Advances</i> , 2018, 8, 22748-22754.	3.6	26

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73	Thin skinned asymmetric polybenzimidazole membranes with readily tunable morphologies for high-performance vanadium flow batteries. <i>RSC Advances</i> , 2017, 7, 1852-1862.	3.6	50
74	Hybrid anion exchange membrane of hydroxyl-modified polysulfone incorporating guanidinium-functionalized graphene oxide. <i>Ionics</i> , 2017, 23, 3085-3096.	2.4	22
75	One-step extraction of highly fluorescent carbon quantum dots by a physical method from carbon black. <i>New Journal of Chemistry</i> , 2017, 41, 5267-5270.	2.8	21
76	Synthesis of highly luminescent Cu/Ag bimetal nanoclusters and their application in a temperature sensor. <i>Analytical Methods</i> , 2017, 9, 4028-4032.	2.7	12
77	Dimensionally stable hexamethylenetetramine functionalized polysulfone anion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15038-15047.	10.3	47
78	Formation Mechanism of the Spiral-Like Structure of a Hydrogen Bond Network Confined in a Fluorinated Nanochannel: A Molecular Dynamics Simulation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 13840-13847.	3.1	8
79	Improvement of alkaline stability for hydroxide exchange membranes by the interactions between strongly polar nitrile groups and functional cations. <i>Journal of Membrane Science</i> , 2017, 533, 121-129.	8.2	23
80	One-step rapid synthesis of single thymine-templated fluorescent copper nanoclusters for $\text{Mn}^{2+}$ detection of $\text{Mn}^{2+}$ . <i>Analytical Methods</i> , 2017, 9, 2590-2595.	2.7	29
81	Thermoplastic interpenetrating polymer networks based on polybenzimidazole and poly(1,4-phenylene oxide). <i>Journal of Membrane Science</i> , 2017, 532, 107-115.	10.7	33
82	Electrochemical Reduction of $\text{CO}_2$ in Proton Exchange Membrane Reactor: The Function of Buffer Layer. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 10242-10250.	3.7	29
83	Epitaxial growth: rapid synthesis of highly permeable and selective zeolite-T membranes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17828-17832.	10.3	17
84	Design of pendent imidazolium side chain with flexible ether-containing spacer for alkaline anion exchange membrane. <i>Journal of Membrane Science</i> , 2017, 523, 216-224.	8.2	88
85	Tri-quaternized poly(ether sulfone) anion exchange membranes with improved hydroxide conductivity. <i>Journal of Membrane Science</i> , 2016, 514, 613-621.	8.2	56
86	A $\text{H}_3\text{PO}_4$ preswelling strategy to enhance the proton conductivity of a $\text{H}_2\text{SO}_4$ -doped polybenzimidazole membrane for vanadium flow batteries. <i>RSC Advances</i> , 2016, 6, 23479-23488.	3.6	78
87	Poly(2,6-dimethyl-1,4-phenylene oxide) containing imidazolium-terminated long side chains as hydroxide exchange membranes with improved conductivity. <i>Journal of Membrane Science</i> , 2016, 518, 159-167.	8.2	48
88	Guanidimidazole-quaternized and cross-linked alkaline polymer electrolyte membrane for fuel cell application. <i>Journal of Membrane Science</i> , 2016, 501, 100-108.	8.2	56
89	Imidazolium functionalized polysulfone electrolyte membranes with varied chain structures: a comparative study. <i>RSC Advances</i> , 2016, 6, 31336-31346.	3.6	20
90	Coordination Polymerization of $\text{I}^{\pm}$ -Dienes Using Single-Site Metal Catalysts. <i>Mini-Reviews in Organic Chemistry</i> , 2016, 13, 349-362.	1.3	3

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91	Proton conductivity enhancement of SPEEK membrane through n-BuOH assisted self-organization. <i>Journal of Membrane Science</i> , 2015, 479, 46-54.	8.2	42
92	A novel membrane distillation response technology for nucleation detection, metastable zone width measurement and analysis. <i>Chemical Engineering Science</i> , 2015, 134, 671-680.	3.8	27
93	An integrally thin skinned asymmetric architecture design for advanced anion exchange membranes for vanadium flow batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16948-16952.	10.3	59
94	Electrospun nanofiber enhanced imidazolium-functionalized polysulfone composite anion exchange membranes. <i>RSC Advances</i> , 2015, 5, 95118-95125.	3.6	30
95	Modification of hydrophilic channels in Nafion membranes by DMBA: Mechanism and effects on proton conductivity. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1107-1117.	2.1	26
96	Quaternary phosphonium-functionalized poly(ether ether ketone) as highly conductive and alkali-stable hydroxide exchange membrane for fuel cells. <i>Journal of Membrane Science</i> , 2014, 466, 220-228.	8.2	63
97	Enhancement of hydroxide conductivity by the di-quaternization strategy for poly(ether ether ketone) based anion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12222.	10.3	71
98	Crosslinked poly (ether ether ketone) hydroxide exchange membranes with improved conductivity. <i>Journal of Membrane Science</i> , 2014, 459, 86-95.	8.2	59
99	Imidazolium-functionalized polysulfone hydroxide exchange membranes for potential applications in alkaline membrane direct alcohol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 5216-5224.	7.1	102
100	Quaternized poly(ether ether ketone) hydroxide exchange membranes for fuel cells. <i>Journal of Membrane Science</i> , 2011, 375, 204-211.	8.2	115
101	A Soluble and Highly Conductive Ionomer for High-Performance Hydroxide Exchange Membrane Fuel Cells. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6499-6502.	13.8	541
102	Nanocage-oriented induction for highly ion-selective sub-1-nanometer channels of membranes. <i>Journal of Materials Chemistry A</i> , 0, , .	10.3	5