

Zhe Wang

List of Publications by Year in descending order

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96
papers

3,137
citations

136950

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189892

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96
docs citations

96
times ranked

1925
citing authors

#	ARTICLE	IF	CITATIONS
1	Poly (arylene ether ketone) with carboxyl groups ultrafiltration membrane for enhanced permeability and anti-fouling performance. Separation and Purification Technology, 2022, 281, 119885.	7.9	14
2	Poly (isatin biphenylene) polymer containing ferrocenium derivatives for anion exchange membrane fuel cell. Journal of Membrane Science, 2022, 642, 119986.	8.2	29
3	An all-in-one flexible supercapacitor based on redox ionogel electrolyte with high cycle performance. Journal of Alloys and Compounds, 2022, 893, 162197.	5.5	9
4	Long-term durable anion exchange membranes based on imidazole-functionalized poly(ether ether ketone) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5		35
5	Precise modification of poly(aryl ether ketone sulfone) proton exchange membranes with positively charged bismuth oxide clusters for high proton conduction performance. SusMat, 2022, 2, 76-89.	14.9	5
6	Enhanced proton conductivity of poly (arylene ether ketone sulfone) containing uneven sulfonic acid side chains by incorporating imidazole functionalized metal-organic framework. International Journal of Hydrogen Energy, 2022, 47, 7443-7457.	7.1	29
7	Sandwich-like MXene/Fe ₂ O ₃ @MoS ₂ -PEDOT:PSS/MXene Film Electrodes with Ultrahigh Area Capacitance for Flexible Supercapacitors. ACS Applied Materials & Interfaces, 2022, 14, 9172-9182.	8.0	50
8	High-Performance Proton Exchange Membranes Based on Block Polybenzimidazole and Organic-Inorganic Fillers with a Low Acid Doping Level. ACS Applied Energy Materials, 2022, 5, 2553-2563.	5.1	10
9	Construction of effective transmission channels by anchoring metal-organic framework on side-chain sulfonated poly(arylene ether ketone sulfone) for fuel cells. International Journal of Energy Research, 2022, 46, 11123-11138.	4.5	11
10	Sandwich-like high-load MXene/polyaniline film electrodes with ultrahigh volumetric capacitance for flexible supercapacitors. Journal of Colloid and Interface Science, 2022, 620, 35-46.	9.4	27
11	A novel anion exchange membrane based on silicone/polyphenylene oxide with excellent ionic conductivity for AEMFC. Polymers for Advanced Technologies, 2022, 33, 2656-2666.	3.2	3
12	Diazoniabicyclo-type poly (ionic liquid) cross-linked polybenzimidazole membrane with improved phosphoric acid retention for HT-PEMFCs. International Journal of Hydrogen Energy, 2022, 47, 22522-22531.	7.1	7
13	Antifreezing Zwitterionic-Based Hydrogel Electrolyte for Aqueous Zn Ion Batteries. ACS Applied Energy Materials, 2022, 5, 7530-7537.	5.1	24
14	High alkaline stability and long-term durability of imidazole functionalized poly(ether ether ketone) by incorporating graphene oxide/metal-organic framework complex. International Journal of Hydrogen Energy, 2022, 47, 25755-25768.	7.1	21
15	The impact of poly (ionic liquid) on the phosphoric acid stability of polybenzimidazole-base HT-PEMs. Renewable Energy, 2021, 163, 1692-1700.	8.9	31
16	Prepared poly(aryl piperidinium) anion exchange membranes for acid recovery to improve dialysis coefficients and selectivity. Journal of Membrane Science, 2021, 619, 118805.	8.2	27
17	Synthesis and characterization of long-side-chain type quaternary ammonium-functionalized poly (ether ether ketone) anion exchange membranes. International Journal of Hydrogen Energy, 2021, 46, 8156-8166.	7.1	33
18	Preparation of an Anion Exchange Membrane by Pyridine-Functionalized Polyether Ether Ketone To Improve Alkali Resistance Stability for an Alkali Fuel Cell. Energy & Fuels, 2021, 35, 3360-3367.	5.1	18

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19	Constructing micro-phase separation structure to improve the performance of anion-exchange membrane based on poly(aryl piperidinium) cross-linked membranes. <i>Journal of Power Sources</i> , 2021, 487, 229429.	7.8	91
20	Sodium Alginate Binders for Bivalency Aqueous Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 20681-20688.	8.0	41
21	Improve the hydroxide conductivity and alkaline stability simultaneously of anion exchange membranes by changing quaternary ammonium and imidazole contents. <i>International Journal of Energy Research</i> , 2021, 45, 13668-13680.	4.5	8
22	Multifunctional poly(ionic liquid)s cross-linked polybenzimidazole membrane with excellent long-term stability for high temperature-proton exchange membranes fuel cells. <i>Journal of Power Sources</i> , 2021, 494, 229732.	7.8	53
23	Towards to better permeability and antifouling sulfonated poly (aryl ether ketone sulfone) with carboxyl group ultrafiltration membrane blending with amine functionalization of SBA-15. <i>Separation and Purification Technology</i> , 2021, 265, 118512.	7.9	10
24	Enhanced proton conductivity of sulfonated poly(arylene ether ketone sulfone) polymers by incorporating phosphotungstic acid-ionic-liquid-functionalized metal-organic framework. <i>Journal of Membrane Science</i> , 2021, 630, 119304.	8.2	54
25	A novel anion exchange membrane based on poly (2,6-dimethyl-1,4-phenylene oxide) with excellent alkaline stability for AEMFC. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 24328-24338.	7.1	22
26	High-stable, outstanding heat resistance ionogel electrolyte and the poly(3,4-ethylenedioxythiophene) electrodes with excellent long-term stability for all-solid-state supercapacitor. <i>Chemical Engineering Journal</i> , 2021, 417, 129269.	12.7	21
27	Construction of new alternative transmission sites by incorporating structure-defect metal-organic framework into sulfonated poly(arylene ether ketone sulfone)s. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 27193-27206.	7.1	28
28	HT-PEMs based on carbazole grafted polybenzimidazole with high proton conductivity and excellent tolerance of phosphoric acid. <i>Journal of Membrane Science</i> , 2021, 637, 119610.	8.2	33
29	Novel double cross-linked membrane based on poly (ionic liquid) and polybenzimidazole for high-temperature proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2021, 515, 230637.	7.8	23
30	Polymer Electrolyte Membranes from Microporous Troger's Base Polymers for Fuel Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 13327-13334.	5.1	8
31	Proton exchange membranes with cross-linked interpenetrating network of sulfonated polyvinyl alcohol and poly(2-acrylamido-2-methyl-1-propanesulfonic acid): Excellent relative selectivity. <i>Journal of Membrane Science</i> , 2020, 595, 117511.	8.2	42
32	4-Aminopyridine grafted sulfonated poly(arylene ether ketone sulfone) proton exchange membrane with high relative selectivity for fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 29738-29748.	7.1	9
33	Boosting gravimetric and volumetric energy density via engineering macroporous MXene films for supercapacitors. <i>Chemical Engineering Journal</i> , 2020, 395, 124057.	12.7	77
34	Construction of new transport channels by blending POM-based inorganic-organic complex into sulfonated poly(ether ketone sulfone) for proton exchange membrane fuel cells. <i>Journal of Membrane Science</i> , 2020, 596, 117711.	8.2	31
35	Base-acid doped polybenzimidazole with high phosphoric acid retention for HT-PEMFC applications. <i>Journal of Membrane Science</i> , 2020, 596, 117722.	8.2	74
36	PEMs with high proton conductivity and excellent methanol resistance based on sulfonated poly (aryl ether ketone sulfone) containing comb-shaped structures for DMFCs applications. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 945-957.	7.1	30

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37	Long-term durable solid state electrolyte membranes based on a metal-organic framework with phosphotungstic acid confined in the mesoporous cages. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27527-27538.	7.1	14
38	Cross-linked poly (aryl ether ketone) anion exchange membrane with high ion conductivity by two different functional imidazole side chain. <i>Reactive and Functional Polymers</i> , 2020, 151, 104551.	4.1	18
39	Adjust the arrangement of imidazole on the metal-organic framework to obtain hybrid proton exchange membrane with long-term stable high proton conductivity. <i>Journal of Membrane Science</i> , 2020, 607, 118194.	8.2	86
40	Synthesis and property of novel gas mixed-matrix membrane with carbon nanotubes. <i>Journal of Polymer Research</i> , 2020, 27, 1.	2.4	2
41	Poly(arylene ether ketone) with an Ultrahigh-Selectivity Hydrophilic Phase Proton Transport Channel by Grafting Sulfonated Benzotriazole Groups onto Pendant Chains. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6505-6516.	6.7	22
42	Facilitating Proton Transport with Enhanced Water Conservation Membranes for Direct Methanol Fuel Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5880-5890.	6.7	19
43	Synthesizing spindle-shaped anion exchange membranes to improve conductivity and stability. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 11814-11823.	7.1	14
44	Constructing micro-phase separation structure by multi-arm side chains to improve the property of anion exchange membrane. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17916-17926.	7.1	19
45	Novel cross-linked membranes based on polybenzimidazole and polymeric ionic liquid with improved proton conductivity for HT-PEMFC applications. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 95, 185-194.	5.3	40
46	Improved conductivity and stability of anion exchange membranes by introducing steric hindrance and crosslinked structure. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 22129-22136.	7.1	13
47	Flame-retardant AEMs based on organic-inorganic composite polybenzimidazole membranes with enhanced hydroxide conductivity. <i>Journal of Membrane Science</i> , 2019, 591, 117306.	8.2	21
48	Poly(arylene ether ketone) containing amino and fluorenyl groups for highly selective of gas separation. <i>Journal of Polymer Research</i> , 2019, 26, 1.	2.4	9
49	Double network anion exchange membrane with excellent flexibility and stability. <i>Journal of Membrane Science</i> , 2019, 587, 117178.	8.2	18
50	High-Temperature and All-Solid-State Flexible Supercapacitors with Excellent Long-Term Stability Based on Porous Polybenzimidazole/Functional Ionic Liquid Electrolyte. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17742-17750.	8.0	31
51	Poly (aryl ether ketone)/polymeric ionic liquid with anisotropic swelling behavior for anion exchange membranes. <i>Journal of Membrane Science</i> , 2019, 581, 303-311.	8.2	36
52	Synthesis and properties of sulfonated poly(arylene ether ketone sulfone) containing amino groups/functional titania inorganic particles hybrid membranes for fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 6136-6147.	7.1	27
53	Synthesis and properties of novel cross-linked composite sulfonated poly (aryl ether ketone sulfone) containing multiple sulfonic side chains for high-performance proton exchange membranes. <i>Renewable Energy</i> , 2019, 138, 1104-1113.	8.9	37
54	A simple self-regulating permeability and selectivity of poly (arylene ether ketone) with amino groups for gas separation membrane. <i>Journal of Polymer Research</i> , 2019, 26, 1.	2.4	4

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55	Ultrahigh-Strength Ultrahigh Molecular Weight Polyethylene (UHMWPE)-Based Fiber Electrode for High Performance Flexible Supercapacitors. <i>Advanced Functional Materials</i> , 2018, 28, 1707351.	14.9	44
56	A Conductive and Highly Deformable All-Pseudocapacitive Composite Paper as Supercapacitor Electrode with Improved Areal and Volumetric Capacitance. <i>Small</i> , 2018, 14, e1803786.	10.0	158
57	Enhanced proton conductivity and relative selectivity of sulfonated poly(arylene ether ketone) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 <i>Electrochimica Acta</i> , 2018, 291, 49-63.	5.2	16
58	Cross-Linkable Polymeric Ionic Liquid Improve Phosphoric Acid Retention and Long-Term Conductivity Stability in Polybenzimidazole Based PEMs. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16352-16362.	6.7	63
59	Imidazolium-functionalized poly (arylene ether ketone) cross-linked anion exchange membranes. <i>Journal of Membrane Science</i> , 2018, 566, 205-212.	8.2	59
60	Cage-like cross-linked membranes with excellent ionic liquid retention and elevated proton conductivity for HT-PEMFCs. <i>Electrochimica Acta</i> , 2018, 283, 691-698.	5.2	36
61	HT-PEMs based on nitrogen-heterocycle decorated poly (arylene ether ketone) with enhanced proton conductivity and excellent stability. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 16248-16257.	7.1	10
62	Organic-inorganic composite membrane based on sulfonated poly (arylene ether ketone sulfone) with excellent long-term stability for proton exchange membrane fuel cells. <i>Journal of Membrane Science</i> , 2017, 529, 243-251.	8.2	46
63	Effect of "bridge" on the performance of organic-inorganic crosslinked hybrid proton exchange membranes via KH550. <i>Journal of Power Sources</i> , 2017, 340, 126-138.	7.8	45
64	A facile functionalized routine for the synthesis of side-chain sulfonated poly(arylene ether ketone) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7.1 26	7.1	26
65	Construction of ion transport channels by grafting flexible alkyl imidazolium chain into functional poly(arylene ether ketone sulfone) as anion exchange membranes. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25996-26006.	7.1	24
66	Polybenzimidazole/ionic-liquid-functional silica composite membranes with improved proton conductivity for high temperature proton exchange membrane fuel cells. <i>Journal of Membrane Science</i> , 2017, 541, 492-499.	8.2	121
67	Composite membranes based on polybenzimidazole and ionic liquid functional Si-O-Si network for HT-PEMFC applications. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 21913-21921.	7.1	47
68	Preparation, characterization and enhanced performance of functional crosslinked membranes using poly(vinyl alcohol) as macromolecular crosslinker for fuel cells. <i>RSC Advances</i> , 2016, 6, 41428-41438.	3.6	8
69	Excellent performance of resistance methanol of a novel sulfonated poly (aryl ether ketone) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 <i>International Journal of Hydrogen Energy</i> , 2016, 41, 20536-20548.	7.1	19
70	A facile functionalized routine for the synthesis of imidazolium-based anion-exchange membrane with excellent alkaline stability. <i>Journal of Membrane Science</i> , 2016, 505, 138-147.	8.2	63
71	Direct polymerization of novel functional sulfonated poly(arylene ether ketone sulfone)/sulfonated poly(vinyl alcohol) with high selectivity for fuel cells. <i>RSC Advances</i> , 2016, 6, 27725-27737.	3.6	27
72	Enhanced proton conductivity of sulfonated poly(arylene ether ketone sulfone) for fuel cells by grafting triazole groups onto polymer chains. <i>Journal of Membrane Science</i> , 2016, 509, 173-181.	8.2	61

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73	Direct polymerization of a novel sulfonated poly(arylene ether ketone sulfone)/sulfonated poly(vinylalcohol) crosslinked membrane for direct methanol fuel cell applications. <i>Journal of Membrane Science</i> , 2015, 492, 505-517.	8.2	67
74	Fabrication of sulfonated poly(aryl ether ketone sulfone) membranes blended with phosphotungstic acid and microporous poly(vinylidene fluoride) as a depository for direct-methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 7182-7191.	7.1	25
75	Phosphotungstic acid embedded sulfonated poly(arylene ether ketone sulfone) copolymers with amino groups for proton exchange membranes. <i>RSC Advances</i> , 2015, 5, 83320-83330.	3.6	20
76	Construction of proton transport channels on the same polymer chains by covalent crosslinking. <i>Journal of Membrane Science</i> , 2015, 496, 84-94.	8.2	12
77	Synthesis and properties of a novel sulfonated poly(arylene ether ketone sulfone) membrane with a high λ^2 -value for direct methanol fuel cell applications. <i>Electrochimica Acta</i> , 2014, 146, 688-696.	5.2	35
78	Synthesis and characterization of sulfonated polymers containing triazoles as low-humidity proton exchange membranes. <i>Journal of Polymer Research</i> , 2014, 21, 1.	2.4	9
79	Preparation and behavior of a macromolecular compound through covalent crosslinking between amino and sulfonic groups in single copolymers. <i>Journal of Polymer Research</i> , 2014, 21, 1.	2.4	18
80	Preparation and characterization of sulfonated poly(arylene ether ketone) copolymers with pendant sulfoalkyl groups as proton exchange membranes. <i>Journal of Power Sources</i> , 2014, 260, 307-316.	7.8	53
81	Sulfonated poly(aryl ether sulfone) containing 1, 3, 4-oxadiazole as proton exchange membranes for medium-high temperature fuel cells. <i>Journal of Polymer Research</i> , 2013, 20, 1.	2.4	11
82	Sulfonated poly(arylene ether ketone sulfone)/ZrP composite membranes for medium-high temperature operation of PEMFC. <i>Journal of Polymer Research</i> , 2013, 20, 1.	2.4	10
83	Construction of a new continuous proton transport channel through a covalent crosslinking reaction between carboxyl and amino groups. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 10092-10103.	7.1	32
84	PREPARATION AND PROPERTIES OF AMINO-CONTAINING POLY(ARYLE ETHER KETONE)/POLY(ARYLE ETHER) Tj ETQq0 0 0 rgBT /Overlock 1 <i>Polymerica Sinica</i> , 2012, 012, 972-979.	0.0	1
85	A modified poly(aryle ether ketone sulfone) proton exchange membrane with <i>in situ</i> polymerized polypyrrole for the direct methanol fuel cells. <i>Journal of Applied Polymer Science</i> , 2011, 120, 914-920.	2.6	5
86	Physical and electrochemical behaviors of directly polymerized sulfonated poly(arylene ether ketone) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 <i>Polymer Science</i> , 2009, 112, 858-866.	2.6	22
87	Preparation and characterization of sulfonated poly(arylene ether ketone sulfone)s for ion exchange membranes. <i>Desalination</i> , 2009, 242, 236-244.	8.2	14
88	Sulfonated poly(ether ether sulfone) copolymers for proton exchange membrane fuel cells. <i>Journal of Applied Polymer Science</i> , 2007, 104, 1443-1450.	2.6	36
89	Influence of casting conditions on the properties of sulfonated poly(ether ether ketone) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 <i>Science</i> , 2007, 103, 4020-4026.	2.6	7
90	Blend membranes based on disulfonated poly(aryl ether ether ketone)s (SPEEK) and poly(amide imide) (PAI) for direct methanol fuel cell usages. <i>Polymer</i> , 2007, 48, 3090-3097.	3.8	74

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91	Investigation of sulfonated poly(ether ether ketone sulfone)/heteropolyacid composite membranes for high temperature fuel cell applications. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 1967-1978.	2.1	41
92	Influence of the hydroquinone with different pendant groups on physical and electrochemical behaviors of directly polymerized sulfonated poly(ether ether sulfone) copolymers for proton exchange membranes. <i>Journal of Membrane Science</i> , 2006, 285, 239-248.	8.2	35
93	Synthesis and characterization of sulfonated poly(arylene ether ketone ketone sulfone) membranes for application in proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2006, 160, 969-976.	7.8	38
94	Preparation and properties of sulfonated poly(ether ether ketone)s (SPEEK)/polypyrrole composite membranes for direct methanol fuel cells. <i>Journal of Power Sources</i> , 2006, 162, 1-8.	7.8	71
95	Direct synthesis of sulfonated poly(ether ether ketone ketone)s (SPEEKs) proton exchange membranes for fuel cell application. <i>Polymer</i> , 2005, 46, 5820-5827.	3.8	154
96	Preparation of a new type of ion-exchange membrane based on sulfonated poly(ether ether ketone) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.6	6