Takeo Yamaguchi

List of Publications by Year
in descending order

256	8,206	36203	66788
papers	citations	51 h-index	78 g-index

260	260	260	6789
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Plasma-graft filling polymerization: preparation of a new type of pervaporation membrane for organic liquid mixtures. Macromolecules, 1991, 24, 5522-5527.	2.2	262
2	A Molecular-Recognition Microcapsule for Environmental Stimuli-Responsive Controlled Release. Advanced Materials, 2002, 14, 386.	11.1	224
3	Development of a Molecular Recognition Ion Gating Membrane and Estimation of Its Pore Size Control. Journal of the American Chemical Society, 2002, 124, 7840-7846.	6.6	194
4	Preparation of thermo-responsive core-shell microcapsules with a porous membrane and poly(N-isopropylacrylamide) gates. Journal of Membrane Science, 2001, 192, 27-39.	4.1	182
5	An Extremely Low Methanol Crossover and Highly Durable Aromatic Pore-Filling Electrolyte Membrane for Direct Methanol Fuel Cells. Advanced Materials, 2007, 19, 592-596.	11.1	181
6	Pore-filling type polymer electrolyte membranes for a direct methanol fuel cell. Journal of Membrane Science, 2003, 214, 283-292.	4.1	174
7	Diffusive separation of propylene/propane with ZIF-8 membranes. Journal of Membrane Science, 2014, 450, 215-223.	4.1	172
8	Preparation of Micron-Sized Monodispersed Thermoresponsive Coreâ^'Shell Microcapsules. Langmuir, 2002, 18, 1856-1864.	1.6	148
9	Development of a Fast Response Molecular Recognition Ion Gating Membrane. Journal of the American Chemical Society, 1999, 121, 4078-4079.	6.6	142
10	Graphene Oxide Sheathed ZIF-8 Microcrystals: Engineered Precursors of Nitrogen-Doped Porous Carbon for Efficient Oxygen Reduction Reaction (ORR) Electrocatalysis. ACS Applied Materials & Interfaces, 2016, 8, 29373-29382.	4.0	139
11	Lithium based ceramic materials and membranes for high temperature CO2 separation. Progress in Materials Science, 2009, 54, 511-541.	16.0	134
12	Thermoresponsive transport through porous membranes with grafted PNIPAM gates. AICHE Journal, 2003, 49, 896-909.	1.8	130
13	Silicalite Membranes Modified by Counterdiffusion CVD Technique. Industrial & Engineering Chemistry Research, 1997, 36, 4217-4223.	1.8	129
14	Ethanol/water transport through silicalite membranes. Journal of Membrane Science, 1998, 144, 161-171.	4.1	121
15	Polymer Electrolyte Membranes with a Pore-Filling Structure for a Direct Methanol Fuel Cell. Advanced Materials, 2003, 15, 1198-1201.	11.1	121
16	Preparation of Zeolite A and Faujasite Membranes from a Clear Solution. Industrial & Engineering Chemistry Research, 1999, 38, 4682-4688.	1.8	116
17	A Novel Separation System Using Porous Thermosensitive Membranes. Industrial & Engineering Chemistry Research, 2000, 39, 2491-2495.	1.8	115
18	Sol-gel synthesis of molecular sieving silica membranes. Journal of Membrane Science, 1997, 135, 237-243.	4.1	102

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19	Processing of Lithium Zirconate for Applications in Carbon Dioxide Separation: Structure and Properties of the Powders. Journal of the American Ceramic Society, 2004, 87, 68-74.	1.9	101
20	Ether cleavage-triggered degradation of benzyl alkylammonium cations for polyethersulfone anion exchange membranes. Physical Chemistry Chemical Physics, 2016, 18, 12009-12023.	1.3	98
21	DMFC performances using a pore-filling polymer electrolyte membrane for portable usages. Electrochemistry Communications, 2005, 7, 730-734.	2.3	89
22	Enhanced CO₂absorption kinetics in lithium silicate platelets synthesized by a solâ€“gel approach. Journal of Materials Chemistry A, 2014, 2, 12792.	5.2	87
23	Study of SPG membrane emulsification processes for the preparation ofÂmonodisperse coreâ€“shell microcapsules. Journal of Colloid and Interface Science, 2003, 265, 187-196.	5.0	84
24	Transport Properties of Carbon Dioxide through Amine Functionalized Carrier Membranes. Industrial & Engineering Chemistry Research, 1995, 34, 4071-4077.	1.8	82
25	An Autonomous Phase Transitionâ^'Complexation/Decomplexation Polymer System with a Molecular Recognition Property. Macromolecules, 2006, 39, 2614-2620.	2.2	82
26	Lithium silicate based membranes for high temperature CO2 separation. Journal of Membrane Science, 2007, 294, 16-21.	4.1	81
27	Highly Active Bimetallic PdPt and CoPt Nanocrystals for Methanol Electro-oxidation. Journal of Physical Chemistry C, 2012, 116, 7464-7470.	1.5	76
28	Preparation of pervaporation membranes for removal of dissolved organics from water by plasma-graft filling polymerization. Journal of Membrane Science, 1994, 95, 39-49.	4.1	75
29	The proton conduction mechanism in a material consisting of packed acids. Chemical Science, 2014, 5, 4878-4887.	3.7	72
30	Osmotic Pressure Control in Response to a Specific Ion Signal at Physiological Temperature Using a Molecular Recognition Ion Gating Membrane. Journal of the American Chemical Society, 2004, 126, 6202-6203.	6.6	71
31	Transport phenomena through intercrystalline and intracrystalline pathways of silicalite zeolite membranes. Journal of Membrane Science, 2001, 187, 203-212.	4.1	70
32	Controlled Release of Model Drugs through a Molecular Recognition Ion Gating Membrane in Response to a Specific Ion Signal. Langmuir, 2006, 22, 3945-3949.	1.6	69
33	Connected nanoparticle catalysts possessing a porous, hollow capsule structure as carbon-free electrocatalysts for oxygen reduction in polymer electrolyte fuel cells. Energy and Environmental Science, 2015, 8, 3545-3549.	15.6	67
34	Cobalt-Modified Palladium Bimetallic Catalyst: A Multifunctional Electrocatalyst with Enhanced Efficiency and Stability toward the Oxidation of Ethanol and Formate in Alkaline Medium. ACS Applied Energy Materials, 2018, 1, 4140-4149.	2.5	67
35	Beneficial Role of Copper in the Enhancement of Durability of Ordered Intermetallic PtFeCu Catalyst for Electrocatalytic Oxygen Reduction. ACS Applied Materials & Interfaces, 2015, 7, 16311-16321.	4.0	66
36	Response Mechanism of a Molecular Recognition Ion Gating Membrane. Macromolecules, 2004, 37, 3407-3414.	2.2	65

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37	Immobilization of Hydroquinone through a Spacer to Polymer Grafted on Carbon Black for a High-Surface-Area Biofuel Cell Electrode. Journal of Physical Chemistry B, 2007, 111, 10312-10319.	1.2	65
38	Evidence and mechanisms of filling polymerization by plasma-induced graft polymerization. , 1996, 34, 1203-1208.		64
39	Transport mechanism of carbon dioxide through perfluorosulfonate ionomer membranes containing an amine carrier. Chemical Engineering Science, 1996, 51, 4781-4789.	1.9	64
40	A Pore-Filling Electrolyte Membrane-Electrode Integrated System for a Direct Methanol Fuel Cell Application. Journal of the Electrochemical Society, 2002, 149, A1448.	1.3	63
41	The degradation mechanism of sulfonated poly(arylene ether sulfone)s in an oxidative environment. Journal of Membrane Science, 2008, 325, 633-640.	4.1	61
42	High-Surface-Area Three-Dimensional Biofuel Cell Electrode Using Redox-Polymer-Grafted Carbon. Industrial & Engineering Chemistry Research, 2006, 45, 3050-3058.	1.8	59
43	Differentiating Grotthuss Proton Conduction Mechanisms by Nuclear Magnetic Resonance Spectroscopic Analysis of Frozen Samples. Analytical Chemistry, 2014, 86, 9362-9366.	3.2	59
44	Title is missing!. Catalysis Letters, 2003, 86, 273-278.	1.4	58
45	Rapid Proton Conduction through Unfreezable and Bound Water in a Wholly Aromatic Pore-Filling Electrolyte Membrane. Journal of Physical Chemistry B, 2009, 113, 4656-4663.	1.2	56
46	Low fuel crossover anion exchange pore-filling membrane for solid-state alkaline fuel cells. Journal of Membrane Science, 2011, 373, 107-111.	4.1	56
47	Solubility and pervaporation properties of the filling-polymerized membrane prepared by plasma-graft polymerization for pervaporation of organic-liquid mixtures. Industrial & Engineering Chemistry Research, 1992, 31, 1914-1919.	1.8	55
48	Proton conducting phosphated zirconiaâ€“sulfonated polyether sulfone nanohybrid electrolyte for low humidity, wide-temperature PEMFC operation. Electrochemistry Communications, 2006, 8, 133-136.	2.3	55
49	Transport mechanism of deformable droplets in microfiltration of emulsions. Chemical Engineering Science, 2001, 56, 3539-3548.	1.9	53
50	Development of a Regenerable Cell Culture System That Senses and Releases Dead Cells. Langmuir, 2005, 21, 4043-4049.	1.6	53
51	Enhanced activity and durability for the electroreduction of oxygen at a chemically ordered intermetallic PtFeCo catalyst. RSC Advances, 2014, 4, 27510.	1.7	52
52	Olefin separation using silver impregnated ion-exchange membranes and silver salt/polymer blend membranes. Journal of Membrane Science, 1996, 117, 151-161.	4.1	51
53	Development of a Molecular Recognition Separation Membrane Using Cyclodextrin Complexation Controlled by Thermosensitive Polymer Chains. Industrial & Engineering Chemistry Research, 2003, 42, 380-385.	1.8	51
54	Design of pervaporation membrane for organic-liquid separation based on solubility control by plasma-graft filling polymerization technique. Industrial & Engineering Chemistry Research, 1993, 32, 848-853.	1.8	50

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55	Application of a Zeolite A Membrane to Reverse Osmosis Process.. Journal of Chemical Engineering of Japan, 2000, 33, 333-336.	0.3	46
56	Solvent diffusion in amorphous glassy polymers. , 2000, 38, 846-856.		46
57	Synthesis of 3D graphite oxide-exfoliated carbon nanotube carbon composite and its application as catalyst support for fuel cells. Journal of Power Sources, 2014, 260, 338-348.	4.0	46
58	Improvement in the solid-state alkaline fuel cell performance through efficient water management strategies. Journal of Power Sources, 2017, 345, 221-226.	4.0	45
59	Pure Water Solid Alkaline Water Electrolyzer Using Fully Aromatic and High-Molecular-Weight Poly(fluorene-alt-tetrafluorophenylene)-trimethyl Ammonium Anion Exchange Membranes and Ionomers. ACS Applied Energy Materials, 2021, 4, 1053-1058.	2.5	45
60	Nonlinear Self-Excited Oscillation of a Synthetic Ion-Channel-Inspired Membrane. Angewandte Chemie - International Edition, 2006, 45, 5630-5633.	7.2	42
61	CO₂ Absorption Studies on Mixed Alkali Orthosilicates Containing Rare-Earth Second-Phase Additives. Journal of Physical Chemistry C, 2015, 119, 5319-5326.	1.5	42
62	Morphologically and compositionally tuned lithium silicate nanorods as high-performance carbon dioxide sorbents. Journal of Materials Chemistry A, 2016, 4, 16928-16935.	5.2	42
63	Optimum preparation conditions of amidoxime hollow fiber synthesized by radiation-induced grafting. Journal of Applied Polymer Science, 1990, 39, 2153-2163.	1.3	40
64	Permeation properties of templated and template-free ZSM-5 membranes. Journal of Membrane Science, 2006, 274, 102-107.	4.1	40
65	Isolation and analysis of a grafted polymer onto a straight cylindrical pore in a thermal-responsive gating membrane and elucidation of its permeation behavior. Journal of Membrane Science, 2010, 352, 22-31.	4.1	40
66	An anion-conductive microporous membrane composed of a rigid ladder polymer with a spirobiindane backbone. Journal of Materials Chemistry A, 2016, 4, 17655-17659.	5.2	40
67	Morphological control of PEMFC electrode by graft polymerization of polymer electrolyte onto platinum-supported carbon black. Journal of Power Sources, 2004, 138, 25-30.	4.0	37
68	Novel Preparation Method for Obtaining pH-Responsive Coreâ^'Shell Microcapsule Reactors. Industrial & Engineering Chemistry Research, 2007, 46, 124-130.	1.8	37
69	The effect of particle size and surface area on the ion conductivity of layered double hydroxide. Electrochemistry Communications, 2012, 25, 50-53.	2.3	37
70	Enhanced oxygen reduction reaction by bimetallic CoPt and PdPt nanocrystals. RSC Advances, 2013, 3, 10487.	1.7	37
71	Highly active and durable chemically ordered Ptâ€“Feâ€“Co intermetallics as cathode catalysts of membraneâ€“electrode assemblies in polymer electrolyte fuel cells. Journal of Power Sources, 2014, 271, 346-353.	4.0	37
72	Synthesis and Property of Semicrystalline Anion Exchange Membrane with Well-Defined Ion Channel Structure. Macromolecules, 2015, 48, 2576-2584.	2.2	37

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73	A microscope FTIR mapping study on diffusion of hydrocarbons in single silicalite crystal particles. Microporous and Mesoporous Materials, 2000, 38, 207-220.	2.2	36
74	Hollow-fiber-type pore-filling membranes made by plasma-graft polymerization for the removal of chlorinated organics from water. Journal of Membrane Science, 2001, 194, 217-228.	4.1	36
75	Stability Improvement of Rh/Î³-Al2O3Catalyst Layer by Ceria Doping for Steam Reforming in an Integrated Catalytic Membrane Reactor System. Catalysis Letters, 2004, 92, 181-187.	1.4	36
76	Membrane Design for Pervaporation or Vapor Permeation Separation Using a Filling-Type Membrane Concept. Industrial & Engineering Chemistry Research, 1998, 37, 177-184.	1.8	35
77	Reaction control of tetraethyl orthosilicate (TEOS)/O3 and tetramethyl orthosilicate (TMOS)/O3 counter diffusion chemical vapour deposition for preparation of molecular-sieve membranes. Physical Chemistry Chemical Physics, 2000, 2, 4465-4469.	1.3	35
78	Thin pore-filling membrane with highly packed-acid structure for high temperature and low humidity operating polymer electrolyte fuel cells. Journal of Power Sources, 2018, 394, 67-73.	4.0	35
79	Highly conductive mechanically robust high M_w polyfluorene anion exchange membrane for alkaline fuel cell and water electrolysis application. Polymer Chemistry, 2020, 11, 3812-3820.	1.9	35
80	Extremely Active Hydrogen Evolution Catalyst Electrochemically Generated from a Ruthenium-Based Perovskite-Type Precursor. ACS Applied Energy Materials, 2019, 2, 956-960.	2.5	34
81	Metalâ€“organic framework membranes with layered structure prepared within the porous support. RSC Advances, 2013, 3, 14233.	1.7	33
82	Platinumâ€“Ironâ€“Nickel Trimetallic Catalyst with Superlattice Structure for Enhanced Oxygen Reduction Activity and Durability. Industrial & Engineering Chemistry Research, 2016, 55, 11458-11466.	1.8	33
83	Highly durable spirobifluorene-based aromatic anion conducting polymer for a solid ionomer of alkaline fuel cells and water electrolysis cells. Journal of Materials Chemistry A, 2019, 7, 2219-2224.	5.2	33
84	Analysis of the degradation mechanism of the polyarylene ether anion-exchange membrane for alkaline fuel cell and water-splitting cell applications. New Journal of Chemistry, 2017, 41, 8036-8044.	1.4	32
85	ZIF-8 membranes prepared at miscible and immiscible liquidâ€“liquid interfaces. Microporous and Mesoporous Materials, 2015, 206, 75-80.	2.2	30
86	In-plane and through-plane non-uniform carbon corrosion of polymer electrolyte fuel cell cathode catalyst layer during extended potential cycles. Journal of Power Sources, 2017, 362, 291-298.	4.0	30
87	Germanium-incorporated lithium silicate composites as highly efficient low-temperature sorbents for CO₂ capture. Journal of Materials Chemistry A, 2018, 6, 7913-7921.	5.2	30
88	Estimation of Gas Permeability of a Zeolite Membrane, Based on a Molecular Simulation Technique and Permeation Model. Journal of Physical Chemistry B, 2000, 104, 1971-1976.	1.2	29
89	Low methanol crossover and high performance of DMFCs achieved with a pore-filling polymer electrolyte membrane. Journal of Power Sources, 2007, 174, 170-175.	4.0	29
90	Modelling of Reaction and Diffusion Processes in a Highâ€surfaceâ€area Biofuel Cell Electrode Made of Redox Polymerâ€grafted Carbon. Fuel Cells, 2009, 9, 37-43.	1.5	29

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91	Microstructural pore analysis of the catalyst layer in a polymer electrolyte membrane fuel cell: A combination of resin pore-filling and FIB/SEM. International Journal of Hydrogen Energy, 2015, 40, 15663-15671.	3.8	29
92	Binary Pdâ^'Ni Nanoalloy Particles over Carbon Support with Superior Alkaline Formate Fuel Electrooxidation Performance. ChemCatChem, 2019, 11, 4731-4737.	1.8	29
93	Dual-Ion Conducting Lithium Zirconate-Based Membranes for High Temperature CO2 Separation. Journal of Chemical Engineering of Japan, 2005, 38, 322-328.	0.3	29
94	Swelling behavior of the filling-type membrane. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 469-477.	2.4	28
95	Aniosotropically Organized LDH on PVDF: A Geometrically Templated Electrospun Substrate for Advanced Anion Conducting Membranes. ACS Applied Materials & Interfaces, 2015, 7, 6397-6401.	4.0	28
96	Electro-oxidation competency of palladium nanocatalysts over ceriaâ€"carbon composite supports during alkaline ethylene glycol oxidation. Catalysis Science and Technology, 2019, 9, 493-501.	2.1	28
97	Chlorinated organics removal from water by plasma-graft filling polymerized membranes. AICHE Journal, 1996, 42, 892-895.	1.8	27
98	Water Movement in a Solid-State Alkaline Fuel Cell Affected by the Anion-Exchange Pore-Filling Membrane Properties. Journal of Physical Chemistry C, 2013, 117, 16791-16801.	1.5	27
99	Theoretical Studies on Proton Transfer among a High Density of Acid Groups: Surface of Zirconium Phosphate with Adsorbed Water Molecules. Journal of Physical Chemistry C, 2011, 115, 5599-5606.	1.5	26
100	Mgâ€"Al layered double hydroxides containing glycine betaine as low humidity-dependent anion conducting electrolyte material for Solid State Alkaline Fuel Cell (SAFC). Journal of Power Sources, 2013, 230, 225-229.	4.0	26
101	Correlation between the carbon structures and their tolerance to carbon corrosion as catalyst supports for polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2018, 43, 6406-6412.	3.8	26
102	Transport Mechanism of Aromatic Vapor through Silver Salt Carrier/Polymer Blend Membrane and Its Humidity Effect. Journal of Physical Chemistry B, 1999, 103, 1831-1835.	1.2	25
103	Application of dense membrane theory for differential permeation of vegetable oil constituents. Journal of Food Engineering, 2003, 60, 249-256.	2.7	25
104	New morphological control for thick, porous membranes with a plasma graft-filling polymerization. Journal of Polymer Science Part A, 2003, 41, 1216-1224.	2.5	25
105	Regulation of cell adhesion using a signal-responsive membrane substrate. Biotechnology and Bioengineering, 2005, 91, 237-243.	1.7	25
106	Biomolecule-Recognition Gating Membrane Using Biomolecular Cross-Linking and Polymer Phase Transition. Analytical Chemistry, 2011, 83, 9226-9229.	3.2	25
107	A durable anion conducting membrane with packed anion-exchange sites and an aromatic backbone for solid-state alkaline fuel cells. Polymer Chemistry, 2015, 6, 7964-7973.	1.9	25
108	Preparation of Organic/Inorganic Composite Membranes by Plasma-Graft Filling Polymerization Technique for Organic-Liquid Separation. Industrial & Engineering Chemistry Research, 2000, 39, 3284-3290.	1.8	24

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109	Cross-sectional observation of nanostructured catalyst layer of polymer electrolyte fuel cell using FIB/SEM. Journal of Power Sources, 2015, 280, 210-216.	4.0	24
110	Prediction and estimation of solvent diffusivities in polyacrylate and polymethacrylates. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 1393-1400.	2.4	23
111	Effect of the pore surface modification of an inorganic substrate on the plasma-grafting behavior of pore-filling-type organic/inorganic composite membranes. Journal of Polymer Science Part A, 2006, 44, 846-856.	2.5	23
112	Design of a vapor permeation membrane for VOC removal by the filling membrane concept. Journal of Membrane Science, 2000, 164, 25-35.	4.1	22
113	Direction and Management of Water Movement in Solid-State Alkaline Fuel Cells. Journal of Physical Chemistry C, 2012, 116, 7650-7657.	1.5	22
114	Mgâ€“Al layered double hydroxides: a correlation between synthesis-structure and ionic conductivity. RSC Advances, 2014, 4, 41051-41058.	1.7	22
115	Connected iridium nanoparticle catalysts coated onto silica with high density for oxygen evolution in polymer electrolyte water electrolysis. Nanoscale Advances, 2020, 2, 171-175.	2.2	22
116	Efficient Oxygen Evolution Electrocatalysis on CaFe₂O₄ and Its Reaction Mechanism. ACS Applied Energy Materials, 2021, 4, 3057-3066.	2.5	22
117	Reverse Response of an Ion-Recognition Polyampholyte to Specific Ion Signals at Different pHs. Macromolecules, 2009, 42, 980-986.	2.2	21
118	Control of the poly(N-isopropylacrylamide) phase transition via a single strandâ€“double strand transformation of conjugated DNA. Soft Matter, 2013, 9, 3331.	1.2	21
119	Tuning Palladium Nickel Phosphide toward Efficient Oxygen Evolution Performance. ACS Applied Energy Materials, 2020, 3, 879-888.	2.5	21
120	Precise surface modification of porous membranes with well-defined zwitterionic polymer for antifouling applications. Journal of Membrane Science, 2021, 619, 118772.	4.1	21
121	Development of crosslinked plasma-graft filling polymer membranes for the reverse osmosis of organic liquid mixtures. Journal of Membrane Science, 2005, 265, 101-107.	4.1	20
122	Quantitative analysis of oxygen-containing species adsorbed on the Pt surface of a polymer electrolyte fuel cell membrane electrode assembly electrode using stripping voltammetry. Journal of Power Sources, 2008, 185, 217-221.	4.0	20
123	Influence of Spacer Length between Actuator and Sensor on Their Mutual Communications in Poly(N-Isopropylacrylamide-co-Î²-Cyclodextrin), an Autonomous Coordinative Shrinking/Swelling Polymer. Macromolecules, 2012, 45, 9742-9750.	2.2	20
124	Zn2+ substitution effects in layered double hydroxide (Mg(1â^'x)Znx)2Al: textural properties, water content and ionic conductivity. Journal of Materials Chemistry A, 2013, 1, 13348.	5.2	20
125	Thickness Reduction of the Zeolitic Imidazolate Framework-8 Membrane by Controlling the Reaction Rate during the Membrane Preparation. Journal of Chemical Engineering of Japan, 2014, 47, 770-776.	0.3	20
126	Effect of Temperature on Synthesis of ZIF-8 Membranes for Propylene/propane Separation by Counter Diffusion Method. Journal of the Japan Petroleum Institute, 2015, 58, 237-244.	0.4	20

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127	The Effect of Methanol Crossover on the Cathode Overpotential of DMFCs. Fuel Cells, 2011, 11, 394-403.	1.5	19
128	Melamine formaldehydeâ€“metal organic gel interpenetrating polymer network derived intrinsic Feâ€“N-doped porous graphitic carbon electrocatalysts for oxygen reduction reaction. New Journal of Chemistry, 2018, 42, 18690-18701.	1.4	19
129	Catalyst Slurry Preparation Using a Hydrodynamic Cavitation Dispersion Method for Polymer Electrolyte Fuel Cells. Industrial & Engineering Chemistry Research, 2019, 58, 19545-19550.	1.8	19
130	Performance of a Pore-Filling Electrolyte Membrane in Hydrogen-Oxygen PEFC. Electrochemical and Solid-State Letters, 2004, 7, A385.	2.2	17
131	Role of vacuum ultraviolet irradiation in plasma-induced graft polymerization in the pore-filling polymerization of porous materials. Journal of Polymer Science Part A, 2005, 43, 2068-2074.	2.5	17
132	Prediction of solvent solubility, diffusivity and permeability in glassy polymeric membranes. Polymer, 2001, 42, 5225-5232.	1.8	16
133	Evaluation of Immobilized Enzyme in a High-Surface-Area Biofuel Cell Electrode Made of Redox-Polymer-Grafted Carbon Black. Industrial & Engineering Chemistry Research, 2010, 49, 6394-6398.	1.8	16
134	Discrete Self-Assembly and Functionality of Guest Molecules in an Organic Framework. Chemistry of Materials, 2016, 28, 5847-5854.	3.2	16
135	Direct synthesis of a carbon nanotube interpenetrated doped porous carbon alloy as a durable Pt-free electrocatalyst for the oxygen reduction reaction in an alkaline medium. Sustainable Energy and Fuels, 2017, 1, 1524-1532.	2.5	16
136	Highly stable membraneâ€“electrode assembly using ether-linkage-free spirobifluorene-based aromatic polyelectrolytes for direct formate solid alkaline fuel cells. Journal of Power Sources, 2019, 438, 226997.	4.0	16
137	Effect of Metal Coordination Fashion on Oxygen Electrocatalysis of Cobaltâ€“Manganese Oxides. ACS Omega, 2020, 5, 29388-29397.	1.6	16
138	An enhanced electrochemical CO₂ reduction reaction on the SnO_xâ€“PdO surface of SnPd nanoparticles decorated on N-doped carbon fibers. Catalysis Science and Technology, 2021, 11, 143-151.	2.1	16
139	Nanoscale Morphological Control of Anode Electrodes by Grafting of Methylsulfonic Acid Groups onto Platinumâ€“Ruthenium-Supported Carbon Blacks. Journal of the Electrochemical Society, 2006, 153, A1417.	1.3	15
140	Modeling for PEFC MEAs Based on Reaction Rate on Pt Surface and Microstructures of Catalyst Layers. Journal of Chemical Engineering of Japan, 2009, 42, 616-631.	0.3	15
141	Refined Structural Analysis of Connected Platinumâ€“Iron Nanoparticle Catalysts with Enhanced Oxygen Reduction Activity. ACS Applied Energy Materials, 2018, 1, 324-330.	2.5	15
142	Template assisted synthesis of Ni,N co-doped porous carbon from Ni incorporated ZIF-8 frameworks for electrocatalytic oxygen reduction reaction. New Journal of Chemistry, 2020, 44, 12343-12354.	1.4	15
143	Non-humidified proton conduction between a Lewis acidâ€“base pair. Physical Chemistry Chemical Physics, 2013, 15, 13814.	1.3	14
144	Correlating electronic structure and chemical durability of sulfonated poly(arylene ether sulfone)s. Journal of Power Sources, 2015, 279, 48-54.	4.0	14

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145	Quantum chemical approach for highly durable anion exchange groups in solid-state alkaline fuel cells. RSC Advances, 2016, 6, 36269-36272.	1.7	14
146	Analysis of Oxygen Reduction Reaction Activity of Pt/C Catalysts for Actual PEFC MEAs. Journal of Chemical Engineering of Japan, 2009, 42, 39-46.	0.3	13
147	Nanostructural Control and Performance Analysis of Carbon-Free Catalyst Layers Using Nanoparticle-Connected Hollow Capsules for PEFCs. Journal of the Electrochemical Society, 2016, 163, F927-F932.	1.3	13
148	Evaluation of performance and durability of platinumâ€“ironâ€“copper with L10 ordered face-centered tetragonal structure as cathode catalysts in polymer electrolyte fuel cells. Journal of Applied Electrochemistry, 2018, 48, 773-782.	1.5	13
149	Control of Target Molecular Recognition in a Small Pore Space with Biomoleculeâ€Recognition Gating Membrane. Small, 2018, 14, e1702267.	5.2	13
150	Novel mild conversion routes of surface-modified nano zirconium oxide precursor to layered proton conductors. Journal of Materials Chemistry, 2010, 20, 6239.	6.7	12
151	Development of an aptamer-functionalized molecular recognition gating membrane targeting a specific protein on the basis of the aggregation phenomena of DNAâ€“PNIPAM. Polymer, 2015, 62, 86-93.	1.8	12
152	Chitosan Intercalated Metal Organic Gel as a Green Precursor of Fe Entrenched and Fe Distributed N-Doped Mesoporous Graphitic Carbon for Oxygen Reduction Reaction. ChemistrySelect, 2017, 2, 8762-8770.	0.7	12
153	Cut-off of dilute O/W emulsions through a microfiltration membrane. Journal of Membrane Science, 2001, 190, 167-178.	4.1	11
154	Plasma-graft Pore-filling Electrolyte Membranes Using a Porous Poly(tetrafluoroethylene) Substrate. Electrochemistry, 2002, 70, 950-952.	0.6	11
155	Theoretical Studies of the Mechanism of Proton Transfer at the Surface of Zirconium Phosphate. Chemistry Letters, 2010, 39, 736-737.	0.7	11
156	Prediction of Self-Diffusivity in Multicomponent Polymeric Systems Using Shell-Like Free Volume Theory. Industrial & Engineering Chemistry Research, 2010, 49, 11676-11681.	1.8	11
157	Effect of Solution Concentration on Structure and Permeation Properties of ZIF-8 Membranes for Propylene/Propane Separation. Journal of Chemical Engineering of Japan, 2016, 49, 97-103.	0.3	11
158	Carbon-Free Platinumâ€“Iron Nanonetworks with Chemically Ordered Structures as Durable Oxygen Reduction Electrocatalysts for Polymer Electrolyte Fuel Cells. ACS Applied Nano Materials, 2020, 3, 9912-9923.	2.4	11
159	Prediction of the Solubility of Chloroform in Acrylate Polymer Mixtures with Inclusion of the Hydrogen-bonding Effect. Journal of Physical Chemistry B, 2001, 105, 3143-3149.	1.2	10
160	Development of a novel durable aromatic anion exchange membrane using a thermally convertible precursor. Chemical Communications, 2018, 54, 10820-10823.	2.2	10
161	Micro-structure change of polycrystalline FAU zeolite membranes during a hydrothermal synthesis in a dilute solution. Microporous and Mesoporous Materials, 2018, 272, 53-60.	2.2	10
162	Proton diffusion facilitated by indirect interactions between proton donors through several hydrogen bonds. Chemical Physics Letters, 2019, 731, 136627.	1.2	10

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163	Chemical durability of thin pore-filling membrane in open-circuit voltage hold test. International Journal of Hydrogen Energy, 2019, 44, 28996-29001.	3.8	10
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