Shuang Gu

List of Publications by Year
in descending order

57 papers	7,729 citations	87888 38 h-index	128289 60 g-index
65 all docs	65 docs citations	65 times ranked	8975 citing authors

#	Article	IF	Citations
1	Electrochemical nitrogen reduction: an intriguing but challenging quest. Trends in Chemistry, 2022, 4, 142-156.	8.5	24
2	Electrocatalytic Nitrate Reduction on Oxide-Derived Silver with Tunable Selectivity to Nitrite and Ammonia. ACS Catalysis, 2021, 11, 8431-8442.	11.2	125
3	Preparation and characterization of KOH-treated electrospun nanofiber mats as electrodes for iron-based redox-flow batteries. Journal of Energy Storage, 2020, 27, 101053.	8.1	14
4	Revealing nitrogen-containing species in commercial catalysts used for ammonia electrosynthesis. Nature Catalysis, 2020, 3, 1055-1061.	34.4	73
5	BCC-Phased PdCu Alloy as a Highly Active Electrocatalyst for Hydrogen Oxidation in Alkaline Electrolytes. Journal of the American Chemical Society, 2018, 140, 16580-16588.	13.7	149
6	Relating alkaline stability to the structure of quaternary phosphonium cations. RSC Advances, 2018, 8, 26640-26645.	3.6	12
7	A General, Analytical Model for Flow Battery Costing and Design. Journal of the Electrochemical Society, 2018, 165, A2209-A2216.	2.9	7
8	A quaternary-ammonium-functionalized covalent organic framework for anion conduction. CrystEngComm, 2017, 19, 4905-4910.	2.6	49
9	Exploiting Immiscible Aqueous-Nonaqueous Electrolyte Interface toward a Membraneless Redox-Flow Battery Concept. Journal of the Electrochemical Society, 2017, 164, A2590-A2593.	2.9	19
10	Lowâ€Voltage Gaseous HCl Electrolysis with an Iron Redoxâ€Mediated Cathode for Chlorine Regeneration. Angewandte Chemie - International Edition, 2017, 56, 10735-10739.	13.8	7
11	Lowâ€Voltage Gaseous HCl Electrolysis with an Iron Redoxâ€Mediated Cathode for Chlorine Regeneration. Angewandte Chemie, 2017, 129, 10875-10879.	2.0	3
12	Iodine Redox-Mediated Electrolysis for Energy-Efficient Chlorine Regeneration from Gaseous HCl. Journal of the Electrochemical Society, 2017, 164, E138-E143.	2.9	5
13	Process engineering in electrochemical energy devices innovation. Chinese Journal of Chemical Engineering, 2016, 24, 39-47.	3.5	11
14	Size-Dependent Hydrogen Oxidation and Evolution Activities on Supported Palladium Nanoparticles in Acid and Base. Journal of the Electrochemical Society, 2016, 163, F499-F506.	2.9	110
15	All-Soluble All-Iron Aqueous Redox-Flow Battery. ACS Energy Letters, 2016, 1, 89-93.	17.4	213
16	A New Alkaliâ€Stable Phosphonium Cation Based on Fundamental Understanding of Degradation Mechanisms. ChemSusChem, 2016, 9, 2374-2379.	6.8	45
17	Structureâ€“Property Relationships in Hydroxideâ€Exchange Membranes with Cation Strings and High Ionâ€Exchange Capacity. ChemSusChem, 2015, 8, 4229-4234.	6.8	85
18	Nonaqueous redox-flow batteries: features, challenges, and prospects. Current Opinion in Chemical Engineering, 2015, 8, 105-113.	7.8	71

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19	Manipulating Water in High-Performance Hydroxide Exchange Membrane Fuel Cells through Asymmetric Humidification and Wetproofing. Journal of the Electrochemical Society, 2015, 162, F483-F488.	2.9	71
20	Permethyl Cobaltocenium (Cp*2Co+) as an Ultra-Stable Cation for Polymer Hydroxide-Exchange Membranes. Scientific Reports, 2015, 5, 11668.	3.3	111
21	3D Porous Crystalline Polyimide Covalent Organic Frameworks for Drug Delivery. Journal of the American Chemical Society, 2015, 137, 8352-8355.	13.7	838
22	Exchange current density of the hydrogen oxidation reaction on Pt/C in polymer solid base electrolyte. Electrochemistry Communications, 2015, 61, 57-60.	4.7	15
23	Nonaqueous redox-flow batteries: organic solvents, supporting electrolytes, and redox pairs. Energy and Environmental Science, 2015, 8, 3515-3530.	30.8	364
24	A zincâ€“iron redox-flow battery under $100 per kW h of system capital cost. Energy and Environmental Science, 2015, 8, 2941-2945.	30.8	185
25	A methanesulfonic acid/sulfuric acidâ€based route for easilyâ€controllable chloromethylation of poly(ether ether ketone). Journal of Applied Polymer Science, 2015, 132, .	2.6	4
26	Facilitated Transport in Hydroxideâ€Exchange Membranes for Postâ€Combustion CO₂ Separation. ChemSusChem, 2014, 7, 114-116.	6.8	15
27	Imidazolium-functionalized poly(ether ether ketone) as membrane and electrode ionomer for low-temperature alkaline membrane direct methanol fuel cell. Journal of Power Sources, 2014, 250, 90-97.	7.8	112
28	Quaternary phosphonium-functionalized poly(ether ether ketone) as highly conductive and alkali-stable hydroxide exchange membrane for fuel cells. Journal of Membrane Science, 2014, 466, 220-228.	8.2	63
29	3D Microporous Baseâ€Functionalized Covalent Organic Frameworks for Sizeâ€Selective Catalysis. Angewandte Chemie - International Edition, 2014, 53, 2878-2882.	13.8	554
30	A multiple ion-exchange membrane design for redox flow batteries. Energy and Environmental Science, 2014, 7, 2986-2998.	30.8	98
31	Efficient Water Oxidation Using Nanostructured Î±-Nickel-Hydroxide as an Electrocatalyst. Journal of the American Chemical Society, 2014, 136, 7077-7084.	13.7	1,202
32	Designed synthesis of large-pore crystalline polyimide covalent organic frameworks. Nature Communications, 2014, 5, 4503.	12.8	535
33	Electrochemical Energy Engineering: A New Frontier of Chemical Engineering Innovation. Annual Review of Chemical and Biomolecular Engineering, 2014, 5, 429-454.	6.8	64
34	Montmorilloniteâ€reinforced sulfonated poly(phthalazinone ether sulfone ketone) nanocomposite proton exchange membranes for direct methanol fuel cells. Journal of Applied Polymer Science, 2014, 131, .	2.6	7
35	An efficient Agâ€“ionomer interface for hydroxide exchange membrane fuel cells. Chemical Communications, 2013, 49, 131-133.	4.1	113
36	Stabilizing the Imidazolium Cation in Hydroxideâ€Exchange Membranes for Fuel Cells. ChemSusChem, 2013, 6, 2079-2082.	6.8	92

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37	Tertiary sulfonium as a cationic functional group for hydroxide exchange membranes. RSC Advances, 2012, 2, 12683.	3.6	165
38	Stringing Cations in Hydroxide Exchange Membranes for Low Water-Uptake and High Hydroxide-Conductivity. ECS Meeting Abstracts, 2012, , .	0.0	0
39	Engineering the Van der Waals Interaction in Crossâ€Linkingâ€Free Hydroxide Exchange Membranes for Low Swelling and High Conductivity. ChemSusChem, 2012, 5, 843-848.	6.8	67
40	Imidazolium-functionalized polysulfone hydroxide exchange membranes for potential applications in alkaline membrane direct alcohol fuel cells. International Journal of Hydrogen Energy, 2012, 37, 5216-5224.	7.1	102
41	Self-crosslinking for dimensionally stable and solvent-resistant quaternary phosphonium based hydroxide exchange membranes. Chemical Communications, 2011, 47, 2856.	4.1	241
42	Quaternized poly(ether ether ketone) hydroxide exchange membranes for fuel cells. Journal of Membrane Science, 2011, 375, 204-211.	8.2	115
43	Designing Alkaline Exchange Membranes from Scratch. ECS Transactions, 2011, 41, 1761-1774.	0.5	2
44	Preparation and characterization of poly(vinylidene fluoride)/sulfonated poly(phthalazinone ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 852-860.	2.6	36
45	Quaternary Phosphoniumâ€Based Polymers as Hydroxide Exchange Membranes. ChemSusChem, 2010, 3, 555-558.	6.8	155
46	Porous Platinum Nanotubes for Oxygen Reduction and Methanol Oxidation Reactions. Advanced Functional Materials, 2010, 20, 3742-3746.	14.9	243
47	The state of water in the series of sulfonated poly (phthalazinone ether sulfone ketone) (SPPESK) proton exchange membranes. Chemical Engineering Journal, 2010, 156, 578-581.	12.7	25
48	Ambient Pressure Dry-Gel Conversion Method for Zeolite MFI Synthesis Using Ionic Liquid and Microwave Heating. Journal of the American Chemical Society, 2010, 132, 12776-12777.	13.7	111
49	Titelbild: A Soluble and Highly Conductive Ionomer for High-Performance Hydroxide Exchange Membrane Fuel Cells (Angew. Chem. 35/2009). Angewandte Chemie, 2009, 121, 6481-6481.	2.0	2
50	A Soluble and Highly Conductive Ionomer for Highâ€Performance Hydroxide Exchange Membrane Fuel Cells. Angewandte Chemie - International Edition, 2009, 48, 6499-6502.	13.8	541
51	Cover Picture: A Soluble and Highly Conductive Ionomer for High-Performance Hydroxide Exchange Membrane Fuel Cells (Angew. Chem. Int. Ed. 35/2009). Angewandte Chemie - International Edition, 2009, 48, 6363-6363.	13.8	2
52	Preparation and characteristics of crosslinked sulfonated poly(phthalazinone ether sulfone ketone) with poly(vinyl alcohol) for proton exchange membrane. Journal of Membrane Science, 2008, 312, 48-58.	8.2	84
53	Sulfonation of poly(phthalazinone ether sulfone ketone) by heterogeneous method and its potential application on proton exchange membrane (PEM). Journal of Applied Polymer Science, 2007, 104, 1002-1009.	2.6	13
54	Freeze/thaw induced demulsification of water-in-oil emulsions with loosely packed droplets. Separation and Purification Technology, 2007, 56, 175-183.	7.9	47

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55	Novel interpenetrating polymer network sulfonated poly (phthalazinone ether sulfone) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 74 295, 80-87.	8.2	50
56	Evaluation of Calculating the Isotonic Swelling Ratio of Emulsion Liquid Membrane by Theoretical Viscosity Models. Journal of Dispersion Science and Technology, 2006, 27, 773-779.	2.4	3
57	Synthesis and characteristics of sulfonated poly(phthalazinone ether sulfone ketone) (SPPESK) for direct methanol fuel cell (DMFC). Journal of Membrane Science, 2006, 281, 121-129.	8.2	63