

# Xiaomin Zhang

## List of Publications by Year in descending order

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42  
papers

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citations

236925

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265206

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all docs

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docs citations

42  
times ranked

1242  
citing authors

#	ARTICLE	IF	CITATIONS
1	Protic ionic liquids for the selective absorption of H <sub>2</sub> S from CO <sub>2</sub> : Thermodynamic analysis. AICHE Journal, 2014, 60, 4232-4240.	3.6	123
2	SO <sub>2</sub> absorption in acid salt ionic liquids/sulfolane binary mixtures: Experimental study and thermodynamic analysis. Chemical Engineering Journal, 2014, 237, 478-486.	12.7	121
3	Highly efficient and selective absorption of H <sub>2</sub> S in phenolic ionic liquids: A cooperative result of anionic strong basicity and cationic hydrogen-bond donation. Chemical Engineering Science, 2017, 173, 253-263.	3.8	109
4	Highly selective absorption separation of H <sub>2</sub> S and CO <sub>2</sub> from CH <sub>4</sub> by novel azole-based protic ionic liquids. AICHE Journal, 2020, 66, e16936.	3.6	105
5	Hydrophobic protic ionic liquids tethered with tertiary amine group for highly efficient and selective absorption of H <sub>2</sub> S from CO <sub>2</sub> . AICHE Journal, 2016, 62, 4480-4490.	3.6	102
6	Facilitated separation of CO <sub>2</sub> and SO <sub>2</sub> through supported liquid membranes using carboxylate-based ionic liquids. Journal of Membrane Science, 2014, 471, 227-236.	8.2	91
7	Supported Ionic Liquid Gel Membrane Electrolytes for Flexible Supercapacitors. Advanced Energy Materials, 2018, 8, 1702702.	19.5	90
8	Low-viscous fluorine-substituted phenolic ionic liquids with high performance for capture of CO <sub>2</sub> . Chemical Engineering Journal, 2015, 274, 30-38.	12.7	73
9	Task-specific ionic liquids as absorbents and catalysts for efficient capture and conversion of H <sub>2</sub> S into value-added mercaptan acids. Chemical Engineering Journal, 2021, 408, 127866.	12.7	72
10	Selective separation of H <sub>2</sub> S and CO <sub>2</sub> from CH <sub>4</sub> by supported ionic liquid membranes. Journal of Membrane Science, 2017, 543, 282-287.	8.2	71
11	Comparative Study of the Solubilities of SO <sub>2</sub> in Five Low Volatile Organic Solvents (Sulfolane, Ethylene Glycol, Propylene Carbonate, N-Methylimidazole, and Tj ETQq1 1 0.784314 rgBT /Overbøk 10 Tf 50 337 Td		
12	Supported protic-ionic-liquid membranes with facilitated transport mechanism for the selective separation of CO <sub>2</sub> . Journal of Membrane Science, 2017, 527, 60-67.	8.2	59
13	The ionic liquid-mediated Claus reaction: a highly efficient capture and conversion of hydrogen sulfide. Green Chemistry, 2016, 18, 1859-1863.	9.0	58
14	Low viscosity superbase protic ionic liquids for the highly efficient simultaneous removal of H <sub>2</sub> S and CO <sub>2</sub> from CH <sub>4</sub> . Separation and Purification Technology, 2021, 263, 118417.	7.9	57
15	Supported Ionic Liquid Gel Membrane Electrolytes for a Safe and Flexible Sodium Metal Battery. ACS Sustainable Chemistry and Engineering, 2019, 7, 3722-3726.	6.7	56
16	Ionic liquid electrolytes for aluminium secondary battery: Influence of organic solvents. Journal of Electroanalytical Chemistry, 2015, 757, 167-175.	3.8	54
17	Supported Ionic Liquid Membranes with Dual-Site Interaction Mechanism for Efficient Separation of CO <sub>2</sub> . ACS Sustainable Chemistry and Engineering, 2019, 7, 10792-10799.	6.7	54
18	Task-specific deep eutectic solvents for the highly efficient and selective separation of H <sub>2</sub> S. Separation and Purification Technology, 2021, 276, 119357.	7.9	48

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19	Cyano-Containing Protic Ionic Liquids for Highly Selective Absorption of SO <sub>2</sub> from CO <sub>2</sub> : Experimental Study and Theoretical Analysis. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 11012-11021.	3.7	45
20	The efficient conversion of H <sub>2</sub> S into mercaptan alcohols mediated in protic ionic liquids under mild conditions. <i>Green Chemistry</i> , 2021, 23, 7969-7975.	9.0	43
21	Natural deep eutectic solvent-based gels with multi-site interaction mechanism for selective membrane separation of SO <sub>2</sub> from N <sub>2</sub> and CO <sub>2</sub> . <i>Chemical Engineering Journal</i> , 2022, 438, 135626.	12.7	38
22	Highly-selective separation of CO <sub>2</sub> from N <sub>2</sub> or CH <sub>4</sub> in task-specific ionic liquid membranes: Facilitated transport and salting-out effect. <i>Separation and Purification Technology</i> , 2021, 254, 117621.	7.9	36
23	Highly efficient and selective H <sub>2</sub> S capture by task-specific deep eutectic solvents through chemical dual-site absorption. <i>Separation and Purification Technology</i> , 2022, 283, 120167.	7.9	35
24	Low-viscous diamino protic ionic liquids with fluorine-substituted phenolic anions for improving CO <sub>2</sub> reversible capture. <i>Journal of Molecular Liquids</i> , 2018, 268, 617-624.	4.9	29
25	Facilitated transport separation of CO <sub>2</sub> and H <sub>2</sub> S by supported liquid membrane based on task-specific protic ionic liquids. <i>Green Chemical Engineering</i> , 2022, 3, 259-266.	6.3	27
26	Effective absorption of SO <sub>2</sub> by imidazole-based protic ionic liquids with multiple active sites: Thermodynamic and mechanical studies. <i>AIChE Journal</i> , 2022, 68, .	3.6	27
27	Unexpectedly efficient absorption of low-concentration SO <sub>2</sub> with phase-transition mechanism using deep eutectic solvent consisting of tetraethylammonium chloride and imidazole. <i>Separation and Purification Technology</i> , 2022, 286, 120489.	7.9	23
28	Experimental study and thermodynamical modelling of the solubilities of SO <sub>2</sub> , H <sub>2</sub> S and CO <sub>2</sub> in N-dodecylimidazole and 1,1'-[oxybis(2,1-ethanedioxy-2,1-ethanedioyl)]bis(imidazole): An evaluation of their potential application in the separation of acidic gases. <i>Fluid Phase Equilibria</i> , 2014, 378, 21-33.	2.5	22
29	A novel proton-gradient-transfer acid complexes as an efficient and reusable catalyst for fatty acid esterification. <i>Green Energy and Environment</i> , 2022, 7, 137-144.	8.7	18
30	Selective membrane separation of CO <sub>2</sub> using novel epichlorohydrin-amine-based crosslinked protic ionic liquids: Crosslinking mechanism and enhanced salting-out effect. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 46, 101473.	6.8	18
31	Highly efficient absorption of HCl in deep eutectic solvents and their corresponding ethylene glycol blends. <i>Chemical Engineering Journal</i> , 2022, 434, 134707.	12.7	18
32	Reversible absorption of NF <sub>3</sub> with high solubility in Lewis acidic ionic liquids. <i>Chemical Engineering Journal</i> , 2022, 440, 135902.	12.7	17
33	Rich Ether-Based Protic Ionic Liquids with Low Viscosity for Selective Absorption of SO <sub>2</sub> through Multisite Interaction. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 5971-5983.	3.7	16
34	Aerobic oxidation of aldehydes to acids in water with cyclic (alkyl)(amino)carbene copper under mild conditions. <i>Chemical Communications</i> , 2022, 58, 2132-2135.	4.1	13
35	Tuning the composition of deep eutectic solvents consisting of tetrabutylammonium chloride and n-decanoic acid for adjustable separation of ethylene and ethane. <i>Separation and Purification Technology</i> , 2022, 298, 121680.	7.9	11
36	Supported Ionic Liquid Gel Membranes Enhanced by Ionization Modification for Sodium Metal Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 12100-12108.	6.7	9

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37	Homologue-paired liquids as special non-ionic deep eutectic solvents for efficient absorption of SO <sub>2</sub> . <i>Chemical Communications</i> , 2022, 58, 7801-7804.	4.1	9
38	Efficient conversion of H <sub>2</sub> S into mercaptan alcohol by tertiary-amine functionalized ionic liquids. <i>Chinese Journal of Chemical Engineering</i> , 2022, 50, 197-204.	3.5	7
39	Research progress in the ionic liquid-mediated capture and conversion of H <sub>2</sub> S. <i>Scientia Sinica Chimica</i> , 2020, 50, 594-602.	0.4	6
40	Amino Acid Modified Macroreticular Anion Exchange Resins for CO <sub>2</sub> Adsorption. <i>Journal of Chemical Engineering of Japan</i> , 2015, 48, 268-275.	0.6	5
41	Selective and simultaneous membrane separation of CO and H <sub>2</sub> from N <sub>2</sub> by protic chlorocuprate ionic liquids. <i>Renewable Energy</i> , 2022, .	8.9	5
42	Ionic Liquids Endowed with Novel Hybrid Anions for Supercapacitors. <i>ACS Omega</i> , 2022, 7, 26368-26374.	3.5	4