

Bin Liu

List of Publications by Year in descending order

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53
papers

2,008
citations

218677

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243625

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docs citations

54
times ranked

1219
citing authors

#	ARTICLE	IF	CITATIONS
1	New method of kinetic modeling for CO_2 absorption into blended amine systems: A case of MEA/EAE/3DEA1P trisolvent blends. <i>AIChE Journal</i> , 2022, 68, .	3.6	18
2	A study of kinetics, equilibrium solubility, speciation and thermodynamics of CO_2 absorption into benzylamine (BZA) solution. <i>Chemical Engineering Science</i> , 2022, 251, 117452.	3.8	10
3	An experimental/computational study of steric hindrance effects on CO_2 absorption in (non)aqueous amine solutions. <i>AIChE Journal</i> , 2022, 68, .	3.6	10
4	Kinetics of CO_2 absorption into ethanolamine+water+ethanol system—mechanism, role of water, and kinetic model. <i>Chemical Engineering Science</i> , 2022, 259, 117732.	3.8	8
5	Application of π - π coordinative effect into tri-solvent MEA+BEA+AMP blends at concentrations of 0.1 + 2 + 2 + 2 mol/L with absorption, desorption and mass transfer analyses. <i>International Journal of Greenhouse Gas Control</i> , 2021, 107, 103267.	4.6	20
6	The Kinetics Investigation of CO_2 Absorption into TEA and DEEA Amine Solutions Containing Carbonic Anhydrase. <i>Processes</i> , 2021, 9, 2140.	2.8	5
7	The comparative kinetics study of CO_2 absorption into non-aqueous DEEA/MEA and DMEA/MEA blended systems solution by using stopped-flow technique. <i>Chemical Engineering Journal</i> , 2020, 386, 121295.	12.7	27
8	Kinetics and new Brønsted correlations study of CO_2 absorption into primary and secondary alkanolamine with and without steric-hindrance. <i>Separation and Purification Technology</i> , 2020, 233, 115998.	7.9	38
9	Study of Equilibrium Solubility, NMR Analysis, and Reaction Kinetics of CO_2 Absorption into Aqueous N1,N2-Dimethylethane-1,2-diamine Solutions. <i>Energy & Fuels</i> , 2020, 34, 672-682.	5.1	10
10	Development of a Promising Biphasic Absorbent for Postcombustion CO_2 Capture: Sulfolane + 2-(Methylamino)ethanol + H_2O . <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 14496-14506.	3.7	32
11	Comparative kinetics of homogeneous reaction of CO_2 and unloaded/loaded amine using stopped-flow technique: A case study of MDEA solution. <i>Separation and Purification Technology</i> , 2020, 242, 116833.	7.9	4
12	Mass transfer performance and correlation for CO_2 absorption into aqueous 3-diethylaminopropylamine solution in a hollow fiber membrane contactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 152, 107932.	3.6	15
13	Novel thermodynamic model for vapor-liquid equilibrium of CO_2 in aqueous solution of 4-(ethyl-methyl-amino)-2-butanol with designed structures. <i>Chemical Engineering Science</i> , 2020, 218, 115557.	3.8	14
14	Efficient One Pot Capture and Conversion of CO_2 into Quinazoline-2,4(1 <i>H</i>),3 <i>H</i> -diones Using Triazolium-Based Ionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2910-2918.	6.7	34
15	Comparative kinetics of carbon dioxide (CO_2) absorption into EAE, 1DMA2P and their blends in aqueous solution using the stopped-flow technique. <i>International Journal of Greenhouse Gas Control</i> , 2020, 94, 102948.	4.6	24
16	Better Choice of Tertiary Alkanolamines for Postcombustion CO_2 Capture: Structure with Linear Alkanol Chain Instead of Branched. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 15344-15352.	3.7	16
17	Characterization and Correlations of CO_2 Absorption Performance into Aqueous Amine Blended Solution of Monoethanolamine (MEA) and N,N-Dimethylethanolamine (DMEA) in a Packed Column. <i>Energy & Fuels</i> , 2019, 33, 7614-7625.	5.1	29
18	New Insights and Assessment of Primary Alkanolamine/Sulfolane Biphasic Solutions for Post-combustion CO_2 Capture: Absorption, Desorption, Phase Separation, and Technological Process. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 20461-20471.	3.7	30

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19	Experimental studies on mass transfer performance for CO ₂ absorption into aqueous N,N-dimethylethanolamine (DMEA) based solutions in a PTFE hollow fiber membrane contactor. <i>International Journal of Greenhouse Gas Control</i> , 2019, 82, 210-217.	4.6	29
20	The Effects of Mass Transfer on the Determination of Gas-Liquid Reaction Kinetics in a Stirred Cell Reactor: In the Case of CO ₂ Absorption by Aqueous Alkanolamine Solution. <i>Energy & Fuels</i> , 2019, 33, 11524-11535.	5.1	4
21	CO ₂ Adsorption on Premodified Li/Al Hydrotalcite Impregnated with Polyethylenimine. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 1177-1189.	3.7	18
22	Kinetics and new mechanism study of CO ₂ absorption into water and tertiary amine solutions by stopped-flow technique. <i>AIChE Journal</i> , 2019, 65, 652-661.	3.6	20
23	Mass transfer performance for CO ₂ absorption into aqueous blended DMEA/MEA solution with optimized molar ratio in a hollow fiber membrane contactor. <i>Separation and Purification Technology</i> , 2019, 211, 628-636.	7.9	29
24	Investigation mechanism of DEA as an activator on aqueous MEA solution for postcombustion CO ₂ capture. <i>AIChE Journal</i> , 2018, 64, 2515-2525.	3.6	38
25	A study of film thickness and hydrodynamic entrance length in liquid laminar film flow along a vertical tube. <i>AIChE Journal</i> , 2018, 64, 2078-2088.	3.6	17
26	A comparative kinetics study of CO ₂ absorption into aqueous DEEA/MEA and DMEA/MEA blended solutions. <i>AIChE Journal</i> , 2018, 64, 1350-1358.	3.6	72
27	Experimental and Theoretical Studies on Mass Transfer Performance for CO ₂ Absorption into Aqueous N,N-Dimethylethanolamine Solution in the Polytetrafluoroethylene Hollow-Fiber Membrane Contactor. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 16862-16874.	3.7	17
28	The study of kinetics of CO ₂ absorption into 3-dimethylaminopropylamine and 3-diethylaminopropylamine aqueous solution. <i>International Journal of Greenhouse Gas Control</i> , 2018, 75, 214-223.	4.6	11
29	Analysis of solubility, absorption heat and kinetics of CO ₂ absorption into 1-(2-hydroxyethyl)pyrrolidine solvent. <i>Chemical Engineering Science</i> , 2017, 162, 120-130.	3.8	40
30	Reaction kinetics of the absorption of carbon dioxide (CO ₂) in aqueous solutions of sterically hindered secondary alkanolamines using the stopped-flow technique. <i>Chemical Engineering Science</i> , 2017, 170, 16-25.	3.8	9
31	Kinetics and mechanism study of homogeneous reaction of CO ₂ and blends of diethanolamine and monoethanolamine using the stopped-flow technique. <i>Chemical Engineering Journal</i> , 2017, 316, 592-600.	12.7	40
32	The development of kinetics model for CO ₂ absorption into tertiary amines containing carbonic anhydrase. <i>AIChE Journal</i> , 2017, 63, 4933-4943.	3.6	17
33	A new model for correlation and prediction of equilibrium CO ₂ solubility in N-methylpiperidinol solvent. <i>AIChE Journal</i> , 2017, 63, 3395-3403.	3.6	34
34	The analysis of solubility, absorption kinetics of CO ₂ absorption into aqueous 1-diethylamino-2-propanol solution. <i>AIChE Journal</i> , 2017, 63, 2694-2704.	3.6	40
35	Analysis of CO ₂ Solubility and Absorption Heat into Aqueous 1-Diethylamino-2-propanol. <i>Energy Procedia</i> , 2017, 114, 873-879.	1.8	0
36	CO ₂ solubility and liquid phase ion speciation determined by  overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	4.6	1

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37	An improved fast screening method for single and blended amine-based solvents for post-combustion CO ₂ capture. Separation and Purification Technology, 2016, 169, 279-288.	7.9	64
38	Experiments and modeling of vapor-liquid equilibrium data in DEEA-CO ₂ -H ₂ O system. International Journal of Greenhouse Gas Control, 2016, 53, 160-168.	4.6	23
39	Solubility, absorption heat and mass transfer studies of CO ₂ absorption into aqueous solution of 1-dimethylamino-2-propanol. Fuel, 2015, 144, 121-129.	6.4	82
40	Recent progress and new developments in post-combustion carbon-capture technology with amine based solvents. International Journal of Greenhouse Gas Control, 2015, 40, 26-54.	4.6	403
41	Experimental study of the kinetics of the homogenous reaction of CO ₂ into a novel aqueous 3-diethylamino-1,2-propanediol solution using the stopped-flow technique. Chemical Engineering Journal, 2015, 270, 485-495.	12.7	28
42	Experimental analyses of mass transfer and heat transfer of post-combustion CO ₂ absorption using hybrid solvent MEA-MeOH in an absorber. Chemical Engineering Journal, 2015, 260, 11-19.	12.7	69
43	Kinetics of CO ₂ absorption into a novel 1-diethylamino-2-propanol solvent using stopped-flow technique. AIChE Journal, 2014, 60, 3502-3510.	3.6	64
44	CO ₂ absorption kinetics of 4-diethylamine-2-butanol solvent using stopped-flow technique. Separation and Purification Technology, 2014, 136, 81-87.	7.9	32
45	The genetic algorithm based back propagation neural network for MMP prediction in CO ₂ -EOR process. Fuel, 2014, 126, 202-212.	6.4	196
46	Comparison of Liquid Phase Ion Speciation in DEAB-CO ₂ -H ₂ O System with IPAB-CO ₂ -H ₂ O System Using ¹³ C NMR Techniques. Energy Procedia, 2014, 63, 1919-1926.	1.8	0
47	1D absorption kinetics modeling of CO ₂ -DEAB-H ₂ O system. International Journal of Greenhouse Gas Control, 2013, 12, 390-398.	4.6	21
48	A novel reactive 4-diethylamino-2-butanol solvent for capturing CO ₂ in the aspect of absorption capacity, cyclic capacity, mass transfer, and reaction kinetics. Energy Procedia, 2013, 37, 477-484.	1.8	11
49	Mass transfer of CO ₂ absorption in hybrid MEA-methanol solvents in packed column. Energy Procedia, 2013, 37, 883-889.	1.8	31
50	¹³ C NMR Spectroscopy of a Novel Amine Species in the DEAB-CO ₂ -H ₂ O system: VLE Model. Industrial & Engineering Chemistry Research, 2012, 51, 8608-8615.	3.7	63
51	Part 5b: Solvent chemistry: reaction kinetics of CO ₂ absorption into reactive amine solutions. Carbon Management, 2012, 3, 201-220.	2.4	60
52	Analysis of reaction kinetics of CO ₂ absorption into a novel reactive 4-diethylamino-2-butanol solvent. Chemical Engineering Science, 2012, 81, 251-259.	3.8	46
53	Part 5a: Solvent chemistry: NMR analysis and studies for amine-CO ₂ -H ₂ O systems with vapor-liquid equilibrium modeling for CO ₂ capture processes. Carbon Management, 2012, 3, 185-200.	2.4	23