CITATION REPORT List of articles citing

Solubility and diffusivity of acid gases (carbon dioxide, nitrous oxide) in aqueous alkanolamine solutions

DOI: 10.1021/je00051a011 Journal of Chemical & Samp; Engineering Data, 1988, 33, 29-34.

Source: https://exaly.com/paper-pdf/19681218/citation-report.pdf

Version: 2024-04-10

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
778	Kinetics and Thermodynamics of CO2 Absorption into a Novel DETA-AMP-PMDETA Biphasic Solvent.		
777	Density, Viscosity, and N2O Solubility of Aqueous Solutions of MEA, BmimBF4, and Their Mixtures from 293.15 to 333.15 K.		
776	Absorption of CO2 and H2S in aqueous alkanolamine solutions using a fixed-bed reactor with cocurrent downflow operation in the pulsing flow regime. <i>Chemical Engineering and Processing: Process Intensification</i> , 1988 , 24, 163-176	3.7	8
775	Mass transfer with complex reversible chemical reactions Single reversible chemical reaction. <i>Chemical Engineering Science</i> , 1989 , 44, 2295-2310	4.4	77
774	The reaction between CO2 and diethanolamine at 298 K. Chemical Engineering Science, 1989 , 44, 1264-1	2 ₁ 6 <u>.</u> 8	85
773	Mass transfer with complex chemical reactions. 1989 , 3, 75-83		16
772	Multiphase equilibria behavior of nitrous oxide +n-paraffin mixtures. <i>Fluid Phase Equilibria</i> , 1989 , 50, 175-187	2.5	8
771	Calculation of the thermodynamic and transport properties of aqueous species at high pressures and temperatures: Standard partial molal properties of inorganic neutral species. 1989 , 53, 2157-2183		561
770	Mass transfer with complex reversible chemical reactions II. parallel reversible chemical reactions. <i>Chemical Engineering Science</i> , 1990 , 45, 183-197	4.4	69
769	Kinetics of the reaction of CO2 with the sterically hindered amine 2-Amino-2-methylpropanol at 298 K. <i>Chemical Engineering Science</i> , 1990 , 45, 1167-1173	4.4	86
768	A model of acid gas absorption/stripping using methyldiethanolamine with added acid. 1991 , 5, 95-109		13
767	Modelling of simultaneous absorption of H2S and CO2 in alkanolamine solutions: The influence of parallel and consecutive reversible reactions and the coupled diffusion of ionic species. <i>Chemical Engineering Science</i> , 1991 , 46, 2303-2313	4.4	27
766	CO2 absorption/desorption in mixtures of methyldiethanolamine with monoethanolamine or diethanolamine. <i>Chemical Engineering Science</i> , 1991 , 46, 2829-2845	4.4	167
765	The Solubility of Nitrous Oxide in Water at High Temperatures and Pressures. 1992 , 177, 225-239		26
764	Kinetic study of COS with tertiary alkanolamine solutions. 1. Experiments in an intensely stirred batch reactor. <i>Industrial & Engineering Chemistry Research</i> , 1992 , 31, 1262-1269	3.9	20
763	Kinetic study of COS with tertiary alkanolamine solutions. 2. Modeling and experiments in a stirred cell reactor. <i>Industrial & Engineering Chemistry Research</i> , 1992 , 31, 1269-1274	3.9	5
762	Solubility of N2O in alkanolamines and in mixed solvents. 1992 , 48, 31-40		123

[1996-1992]

761	deprotonation kinetics for DEA and DIPA in aqueous blends of alkanolamines. <i>Chemical Engineering Science</i> , 1992 , 47, 2027-2035	4.4	93
760	Kinetics of carbon dioxide absorption in aqueous solutions of diisopropanolamine. <i>Chemical Engineering and Technology</i> , 1992 , 15, 114-118	2	2
759	Kinetics of CO2 with primary and secondary amines in aqueous solutions II. Influence of temperature on zwitterion formation and deprotonation rates. <i>Chemical Engineering Science</i> , 1992 , 47, 2037-2045	4.4	101
758	Determination of mass transfer rates in wetted and non-wetted microporous membranes. <i>Chemical Engineering Science</i> , 1993 , 48, 2093-2102	4.4	151
757	Microporous hollow fibre membrane modules as gas-liquid contactors. Part 1. Physical mass transfer processes. 1993 , 78, 197-216		203
756	Selective removal of H 2S from sour gases with microporous membranes. Part II. A liquid membrane of water-free tertiary amines. 1993 , 82, 185-197		22
755	Mass transfer accompanied by reversible chemical reactions in an inert porous sphere impregnated with a stagnant liquid. <i>Chemical Engineering Science</i> , 1993 , 48, 2727-2740	4.4	7
754	Experimental study of the absorption of acid gases in porous particles impregnated with aqueous alkanolamide solutions. <i>Chemical Engineering Science</i> , 1994 , 49, 3421-3438	4.4	9
753	Equilibrium pressure of CO2 over aqueous alkanolamine solutions: A practical view. 1994 , 8, 161-166		1
752	Correlation and prediction of the solubility of N2O in mixed solvents. <i>Fluid Phase Equilibria</i> , 1994 , 96, 119-142	2.5	16
751	Selective CO2 separation from CO2/C2H6 mixtures by immobilized diethanolamine/PEG membranes. 1995 , 98, 157-171		33
750	Solubility and Diffusivity of N2O and CO2 in (Monoethanolamine + N-Methyldiethanolamine + Water) and in (Monoethanolamine + 2-Amino-2-methyl-1-propanol + Water). <i>Journal of Chemical & Chemical Ramp; Engineering Data</i> , 1995 , 40, 486-492	2.8	77
749	Solubility and Diffusivity of N2O and CO2 in (Diethanolamine + N-Methyldiethanolamine + Water) and in (Diethanolamine + 2-Amino-2-methyl-1-propanol + Water). <i>Journal of Chemical & Engineering Data</i> , 1996 , 41, 551-556	2.8	42
748	SOLUBILITY OF NITROUS OXIDE IN AQUEOUS SOLUTIONS OF METHYLDIETHANOLAMINE, DIETHANOLAMINE AND MIXTURES OF METHYLDIETHANOLAMINE AND DIETHANOLAMINE. 1996 , 144, 85-94		14
747	Absorption of carbon dioxide into loaded aqueous solutions of 2-amino-2-methyl-1-propanol <i>Journal of Chemical Engineering of Japan</i> , 1996 , 29, 534-537	0.8	4
746	Kinetics of Absorption of Carbon Dioxide into Aqueous Solution of Sterically Hindered 2Amono-2-Methyl-1-Propanol <i>Journal of Chemical Engineering of Japan</i> , 1996 , 29, 193-196	0.8	26
745	ON THE KINETICS BETWEEN CO2 AND ALKANOLAMINES BOTH IN AQUEOUS AND NON-AQUEOUS SOLUTIONS. AN OVERVIEW. 1996 , 144, 113-158		485
744	Transport mechanism of carbon dioxide through perfluorosulfonate ionomer membranes containing an amine carrier. <i>Chemical Engineering Science</i> , 1996 , 51, 4781-4789	4.4	57

743	Simulation and parameter sensitivity analysis of acid gas absorption into mixed alkanolamine solutions. 1996 , 20, S1401-S1406		5
742	Absorption of carbon dioxide into aqueous solutions using hollow fiber membrane contactors. 1996 , 112, 229-240		257
741	NEW MODIFIED KENT-EISENBERG MODEL FOR PREDICTING CARBON DIOXIDE SOLUBILITY IN AQUEOUS 2-AMINO-2-METHYL-1-PROPANOL (AMP) SOLUTIONS. 1996 , 144, 73-83		15
740	CORRELATIONS FOR ESTIMATING THE DIFFUSIVITIES OF NITROUS OXIDE IN AQUEOUS SOLUTIONS OF DIETHANOLAMINE AND N-METHYLDIETHANOLAMINE AND THE SOLUTION DENSITIES AND VISCOSITIES. 1997 , 161, 15-24		6
739	Absorption of Nitric Oxide into Aqueous Solutions of Ferrous Chelates Accompanied by Instantaneous Reaction. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 4914-4927	3.9	61
738	Kinetics of Absorption of CO2 in Concentrated Aqueous Methyldiethanolamine Solutions in the Range 296 K to 343 K. <i>Journal of Chemical & Engineering Data</i> , 1997 , 42, 353-359	2.8	50
737	Oxidation of Ferrous Nitrilotriacetic Acid with Oxygen: A Model for Oxygen Mass Transfer Parallel to Reaction Kinetics. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 1989-2005	3.9	13
736	A Thermodynamic Model of Methyldiethanolamine ICO2 H2S Water. <i>Industrial & amp; Engineering Chemistry Research</i> , 1997 , 36, 3944-3953	3.9	99
735	Kinetics of CO2 Desorption from Highly Concentrated and CO2-Loaded Methyldiethanolamine Aqueous Solutions in the Range 312B83 K. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 5384-5391	3.9	35
734	Facilitated transport of CO2 through supported liquid membranes of various amine solutions-effects of rate and equilibrium of reaction between CO2 and amine <i>Journal of Chemical Engineering of Japan</i> , 1997 , 30, 328-335	0.8	33
733	Absorption accompanied with chemical reaction in trickle-bed reactors. <i>Chemical Engineering Science</i> , 1997 , 52, 4057-4067	4.4	8
732	Diffusivities of organic electrolytes in water. <i>Chemical Engineering Journal</i> , 1997 , 66, 111-121	14.7	20
731	Rigorous Simulation of Gas Absorption into Aqueous Solutions. <i>Industrial & Engineering Chemistry Research</i> , 1998 , 37, 1063-1070	3.9	16
730	Rate-Based Modeling of Reactive Absorption of CO2 and H2S into Aqueous Methyldiethanolamine. <i>Industrial & Engineering Chemistry Research</i> , 1998 , 37, 4107-4117	3.9	73
729	Emulsion polymerization of tetrafluoroethylene: effects of reaction conditions on the polymerization rate and polymer molecular weight. 1999 , 73, 777-793		16
728	Solubility of Nitrous Oxide in Amine Solutions. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 328-332	3.9	20
727	Thermal Effects During the Absorption of CO2 in Aqueous Solutions of 3-Amino-1-Propanol. <i>Chemical Engineering and Technology</i> , 2000 , 23, 1073-1080	2	6
726	Kinetics of absorption of carbon dioxide into solutions of N-methyldiethanolamine+water. <i>Chemical Engineering Science</i> , 2000 , 55, 4139-4147	4.4	114

(2002-2000)

725	CO2 absorption into aqueous mixtures of diglycolamine and methyldiethanolamine. <i>Chemical Engineering Science</i> , 2000 , 55, 5125-5140	4.4	58
724	Absorption of carbon dioxide into aqueous piperazine: reaction kinetics, mass transfer and solubility. <i>Chemical Engineering Science</i> , 2000 , 55, 5531-5543	4.4	469
723	Mass transfer with complex chemical reactions in gas[Iquid systems: two-step reversible reactions with unit stoichiometric and kinetic orders. <i>Chemical Engineering Journal</i> , 2000 , 76, 127-152	14.7	35
722	Physical and chemical solubility of carbon dioxide in aqueous methyldiethanolamine. <i>Fluid Phase Equilibria</i> , 2000 , 168, 241-258	2.5	46
721	Kinetics of absorption of carbon dioxide into aqueous solutions of 2-amino-2-methyl-1-propanol+monoethanolamine. <i>Chemical Engineering Science</i> , 2000 , 55, 161-175	4.4	157
720	Absorption of carbon dioxide through hollow fiber membranes using various aqueous absorbents. <i>Separation and Purification Technology</i> , 2000 , 21, 101-109	8.3	145
719	Effect of Carbon Dioxide Loading on the Solubility of Nitrous Oxide in Aqueous Solutions of 2-(tert-Butylamino)ethanol. <i>Journal of Chemical & Engineering Data</i> , 2000 , 45, 1195-1200	2.8	5
718	Solubility of Nitrous Oxide in Alkanolamine Aqueous Solutions. <i>Journal of Chemical & Data</i> , 2000 , 45, 341-347	2.8	53
717	Diffusivity of Nitrous Oxide in Aqueous Alkanolamine Solutions. <i>Journal of Chemical & Engineering Data</i> , 2001 , 46, 160-165	2.8	98
716	Viscosities of Single-Solute and Binary-Solute Aqueous Systems of Monoethanolamine, Diethanolamine, and 2-Amino-2-methyl-1-propanol. <i>Journal of Chemical & Diethanolamine</i> , 2001, 46, 276-280	2.8	21
715	Solubility and Diffusivity of CO2 in Triethanolamine Solutions. <i>Journal of Chemical & C</i>	2.8	19
714	Density, Viscosity, Solubility, and Diffusivity of N2O in Aqueous Amino Acid Salt Solutions. <i>Journal of Chemical & Engineering Data</i> , 2001 , 46, 1357-1361	2.8	72
713	Physical Solubility and Diffusivity of CO2 in Aqueous Diethanolamine Solutions. <i>Journal of Chemical & Engineering Data</i> , 2001 , 46, 516-521	2.8	18
712	On the interfacial mass transfer and the location of the chemical reaction in a fluid/fluid reacting system at elevated temperatures and pressures. 2001 , 66, 335-344		4
711	Gas absorption in an agitated gas[]quid[]quid system. Chemical Engineering Science, 2001, 56, 1075-108	3 4.4	81
710	Gas separation by liquid membrane accompanied by permeation of membrane liquid through membrane physical transport. <i>Separation and Purification Technology</i> , 2001 , 24, 101-112	8.3	32
709	Solubility of Carbon Dioxide and Nitrous Oxide in Water + Methyldiethanolamine and Ethanol + Methyldiethanolamine Solutions. <i>Journal of Chemical & Engineering Data</i> , 2002 , 47, 1506-1509	2.8	30
708	Kinetics of Absorption of Carbon Dioxide into Aqueous 2-Amino-2-ethyl-1,3-propanediol Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 3651-3656	3.9	27

707	Densities, Viscosities, and Surface Tensions of Aqueous 2-Amino-2-ethyl-1,3-propanediol Solutions. Journal of Chemical & Data, 2002, 47, 30-32	2.8	24
706	Kinetics of Absorption of Carbon Dioxide into Aqueous Solutions of Monoethanolamine + Triethanolamine. <i>Industrial & Dioxide into Aqueous Solutions of Monoethanolamine + Triethanolamine industrial & Dioxide into Aqueous Solutions of Monoethanolamine + Triethanolamine industrial & Dioxide into Aqueous Solutions of Monoethanolamine + Triethanolamine + Dioxide into Aqueous Solutions of Monoethanolamine + Dioxide into Aqueous Dioxide </i>	3.9	95
7°5	New absorption liquids for the removal of CO2 from dilute gas streams using membrane contactors. <i>Chemical Engineering Science</i> , 2002 , 57, 1639-1651	4.4	210
704	Kinetics of absorption of carbon dioxide into aqueous solutions of monoethanolamine+N-methyldiethanolamine. <i>Chemical Engineering Science</i> , 2002 , 57, 4569-4582	4.4	136
703	Kinetics and chemical equilibrium of the hydration of formaldehyde. <i>Chemical Engineering Science</i> , 2002 , 57, 4067-4076	4.4	94
702	Determination of gasIlquid reaction kinetics with a stirred cell reactor. <i>Separation and Purification Technology</i> , 2003 , 31, 163-175	8.3	69
701	Kinetics of the reaction of CO2 with aqueous potassium salt of taurine and glycine. 2003 , 49, 203-213		189
700	Kinetics of the reactive absorption of hydrogen sulfide into aqueous ferric sulfate solutions. <i>Chemical Engineering Science</i> , 2003 , 58, 417-427	4.4	43
699	Reduction of CO2 emissions by a membrane contacting process?. Fuel, 2003, 82, 2153-2159	7.1	152
698	Gas absorption into Etring-of-beadsIliquid flow with chemical reaction: application to carbon dioxide separation. 2003 , 46, 457-468		20
697	Kinetics of removal of carbon dioxide by aqueous 2-amino-2-methyl-1,3-propanediol. <i>Chemical Engineering Science</i> , 2003 , 58, 5229-5237	4.4	34
696	Approximate solution to predict the enhancement factor for the reactive absorption of a gas in a liquid flowing through a microporous membrane hollow fiber. 2003 , 213, 231-245		66
695	Solubilities of carbon dioxide in aqueous solutions of triisopropanolamine. <i>Fluid Phase Equilibria</i> , 2003 , 208, 239-245	2.5	13
694	CO2 Absorption Rate and Solubility in Monoethanolamine/Piperazine/Water. 2003 , 38, 337-357		92
693	Determination of Mass Transfer Rates in PVDF and PTFE Hollow Fiber Membranes for CO2 Absorption. 2003 , 38, 271-293		74
692	Absorption and reaction kinetics of amines and ammonia solutions with carbon dioxide in flue gas. 2003 , 53, 246-52		27
691	Carbon dioxide absorption with aqueous potassium carbonate promoted by piperazine. <i>Chemical Engineering Science</i> , 2004 , 59, 3619-3630	4.4	211
690	Modeling of CO2 capture by three typical amine solutions in hollow fiber membrane contactors. <i>Chemical Engineering and Processing: Process Intensification</i> , 2004 , 43, 849-856	3.7	143

689	Reaction and diffusion during demineralization of animal bone. 2004 , 50, 2682-2690		7
688	CO2 absorption at elevated pressures using a hollow fiber membrane contactor. 2004 , 235, 99-109		155
687	Absorption of Carbon Dioxide Characterized by Using the Absorbent Composed of Piperazine and Triethanolamine. 2004 , 39, 3281-3300		18
686	Kinetics of Carbonyl Sulfide (COS) Absorption with Aqueous Solutions of Diethanolamine and Methyldiethanolamine. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 6136-6141	3.9	21
685	Novel Design for the Nozzle of a Laminar Jet Absorber. <i>Industrial & Design Engineering Chemistry Research</i> , 2004 , 43, 2568-2574	3.9	22
684	Physical Solubility and Diffusivity of N2O and CO2 into Aqueous Solutions of (2-Amino-2-methyl-1-propanol + Diethanolamine) and (N-Methyldiethanolamine + Diethanolamine). Journal of Chemical & Diethanolamine Data, 2004, 49, 264-270	2.8	49
683	Influence of membrane wetting on CO2 capture in microporous hollow fiber membrane contactors. <i>Separation and Purification Technology</i> , 2005 , 46, 33-40	8.3	303
682	Modelling of cross-flow membrane contactors: Mass transfer with chemical reactions. 2005 , 255, 275-2	189	64
681	Modelling of cross-flow membrane contactors: physical mass transfer processes. 2005 , 251, 209-222		38
68o	Thermodynamics of aqueous potassium carbonate, piperazine, and carbon dioxide. <i>Fluid Phase Equilibria</i> , 2005 , 227, 197-213	2.5	116
679	Hollow fiber membrane contactor as a gasIlquid model contactor. <i>Chemical Engineering Science</i> , 2005 , 60, 467-479	4.4	74
678	Kinetics of the absorption of carbon dioxide into mixed aqueous solutions of 2-amino-2-methyl-l-propanol and piperazine. <i>Chemical Engineering Science</i> , 2005 , 60, 503-516	4.4	179
677	Electrical Enhancement Technique for CO2 Absorption by Water Flowing on a Plate Electrode. 2005 , 83, 969-978		
676	Review of CO2 absorption using chemical solvents in hollow fiber membrane contactors. <i>Separation and Purification Technology</i> , 2005 , 41, 109-122	8.3	418
675	Gas absorption in a wetted-wire column. 2005 , 51, 2190-2198		22
674	Thermal effects of CO2 absorption in aqueous solutions of 2-amino-2-methyl-1-propanol. 2005 , 51, 270	59-277	7 27
673	GasIIquid mass transfer in a cross-flow hollow fiber module: Analytical model and experimental validation. 2005 , 48, 3352-3362		32
672	Absorption of Carbon Dioxide at High Partial Pressures in Aqueous Solutions of Di-isopropanolamine. <i>Industrial & Di-isopropanolamine</i> .	3.9	17

671	Physical Solubility and Diffusivity of N2O and CO2 into Aqueous Solutions of (2-Amino-2-methyl-1-propanol + Monoethanolamine) and (N-Methyldiethanolamine + Monoethanolamine). <i>Journal of Chemical & Data</i> , 2005, 50, 352-358	2.8	74
670	Experimental and Modeling Studies on the Absorption of NO in Aqueous Ferrous EDTA Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 4234-4242	3.9	28
669	Kinetics of the Reaction of FeII(EDTA) with Oxygen in Aqueous Solutions. <i>Industrial & amp;</i> Engineering Chemistry Research, 2005 , 44, 8190-8198	3.9	31
668	Hollow Fiber Membrane Contactor Based CO2 Absorption Stripping Using Novel Solvents and Membranes. <i>Industrial & Discourse Engineering Chemistry Research</i> , 2005 , 44, 1250-1258	3.9	86
667	Solubility of N2O in and Density, Viscosity, and Surface Tension of Aqueous Piperazine Solutions. Journal of Chemical & Engineering Data, 2005, 50, 1947-1950	2.8	50
666	Absorption of CO2into Aqueous Solutions of Methyldiethanolamine and Activated Methyldiethanolamine from a Gas Mixture in a Hollow Fiber Contactor. <i>Industrial & amp; Engineering Chemistry Research</i> , 2005 , 44, 9230-9238	3.9	63
665	Rigorous Model for Predicting the Behavior of CO2 Absorption into AMP in Packed-Bed Absorption Columns. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 2553-2557	3.9	49
664	Aqueous 2-amino-2-hydroxymethyl-1,3-propanediol as Potential Carbon Dioxide Capture Solutions. 2006 ,		
663	Absorption of CO2 in Aqueous Diglycolamine. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 2473-2482	3.9	30
662	Thermodynamics and Equilibrium Solubility of Carbon Dioxide in Diglycolamine/Morpholine/Water. Journal of Chemical & Dolineering Data, 2006, 51, 708-717	2.8	20
661	Kinetics of Carbon Dioxide Absorption into Aqueous Potassium Carbonate and Piperazine. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 2531-2545	3.9	147
660	Physical Solubility and Diffusivity of N2O and CO2 in Aqueous Sodium Glycinate Solutions. <i>Journal of Chemical & Company: Engineering Data</i> , 2006 , 51, 504-509	2.8	24
659	Absorption of CO2 in aqueous blends of diglycolamine and morpholine. <i>Chemical Engineering Science</i> , 2006 , 61, 3830-3837	4.4	16
658	Solubility of carbon dioxide in binary and ternary mixtures with ethanol and water. <i>Fluid Phase Equilibria</i> , 2006 , 245, 193-200	2.5	122
657	Absorption of carbon dioxide with piperazine and its mixtures in a rotating packed bed. <i>Separation and Purification Technology</i> , 2006 , 49, 174-180	8.3	164
656	A study of mass transfer resistance in membrane gasliquid contacting processes. 2006 , 272, 103-115		181
655	An analytical study of laminar co-current flow gas absorption through a parallel-plate gas[]quid membrane contactor. 2006 , 278, 181-189		15
654	Modeling and experimental study of CO2 absorption in a hollow fiber membrane contactor. 2006 , 279, 301-310		136

(2007-2006)

653	Kinetics of absorption of carbon dioxide in aqueous piperazine solutions. <i>Chemical Engineering Science</i> , 2006 , 61, 6837-6854	4.4	149
652	CO2 Absorption Behavior with a Novel Random Packing: Super Mini Ring. 2007, 42, 701-716		12
651	Solubilities and diffusivities of N2O and CO2 in aqueous sulfolane solutions. 2007 , 51, 197-208		5
650	2 Measurement Methods. <i>Landolt-B</i> dnstein - Group IV Physical Chemistry, 2007 , 9-19		
649	Carbon Dioxide Absorption and Desorption in Aqueous Monoethanolamine Solutions in a Rotating Packed Bed. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 2823-2833	3.9	177
648	Competitive Absorption D esorption of Acid Gas into Water D EA Solutions. <i>Industrial & amp; Engineering Chemistry Research</i> , 2007 , 46, 233-241	3.9	11
647	Physical Solubility and Diffusivity of N2O and CO2 in Aqueous Solutions of Piperazine and (N-Methyldiethanolamine + Piperazine). <i>Journal of Chemical & Data</i> , 2007, 52, 1381-13	38 3 .8	46
646	Kinetics of CO2 Absorption in Aqueous Sodium Glycinate Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 1578-1583	3.9	63
645	Kinetic Study of Carbonyl Sulfide (COS) Absorption by Methyldiethanolamine Aqueous Solutions from 415 mol/m3to 4250 mol/m3and 313 K to 353 K. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 6430-6434	3.9	6
644	Local mass transfer measurements in a bubble column using an electrochemical technique. <i>Chemical Engineering and Processing: Process Intensification</i> , 2007 , 46, 1006-1011	3.7	7
643	The applicability of activities in kinetic expressions: A more fundamental approach to represent the kinetics of the system CO2DH-Balt in terms of activities. <i>Chemical Engineering Science</i> , 2007 , 62, 5753-5	57 89	33
642	Gas solubility of H2S and CO2 in aqueous solutions of N-methyldiethanolamine. 2007 , 55, 122-134		109
641	Effects of activators on mass-transfer enhancement in a hollow fiber contactor using activated alkanolamine solutions. 2007 , 289, 138-149		65
640	Membranes comprising of alkanolamines incorporated into poly(vinyl alcohol) matrix for CO2/N2 separation. 2007 , 303, 54-63		78
639	Separation of CO2 from CH4 by using gas[Iquid membrane contacting process. 2007, 304, 163-172		160
638	Removal of CO2 by Single and Blended Aqueous Alkanolamine Solvents in Hollow-Fiber Membrane Contactor: Modeling and Simulation. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 2576-2007.	2588	56
637	Detailed modelling of hydrodynamics, mass transfer and chemical reactions in a bubble column using a discrete bubble model: Chemisorption of CO2 into NaOH solution, numerical and experimental study. <i>Chemical Engineering Science</i> , 2007 , 62, 2556-2575	4.4	84
636	Characterization of potassium glycinate for carbon dioxide absorption purposes. <i>Chemical Engineering Science</i> , 2007 , 62, 6534-6547	4.4	134

635	Mathematical modeling of gas I quid membrane contactors using random distribution of fibers. 2008 , 325, 98-108		45
634	Effect of bubble contamination on gasIlquid mass transfer coefficient on CO2 absorption in amine solutions. <i>Chemical Engineering Journal</i> , 2008 , 137, 422-427	14.7	28
633	Effect of temperature on carbon dioxide absorption in monoethanolamine solutions. <i>Chemical Engineering Journal</i> , 2008 , 138, 295-300	14.7	33
632	Carbon dioxide absorption kinetics in potassium threonate. <i>Chemical Engineering Science</i> , 2008 , 63, 349	3 ₄ 34503	3 ₄₅
631	The solubility of carbon dioxide in aqueous N-methyldiethanolamine solutions. <i>Fluid Phase Equilibria</i> , 2008 , 264, 99-112	2.5	54
630	Solubility of carbon dioxide in aqueous solutions of 2-amino-2-hydroxymethyl-1,3-propanediol. <i>Fluid Phase Equilibria</i> , 2008 , 268, 121-129	2.5	37
629	Feasibility of a cross-flow rotating packed bed in removing carbon dioxide from gaseous streams. <i>Separation and Purification Technology</i> , 2008 , 62, 507-512	8.3	47
628	Kinetic of CO2 absorption and carbamate formation in aqueous solutions of diethanolamine. 2008 , 25, 451-460		17
627	Kinetics of carbon dioxide absorption into aqueous glucosamine solutions. 2008 , 54, 321-326		11
626	Absorption of carbon dioxide by the absorbent composed of piperazine and 2-amino-2-methyl-1-propanol in PVDF membrane contactor. 2008 , 39, 13-21		53
625	Theoretical and experimental studies of membrane wetting in the membrane gasIlquid contacting process for CO2 absorption. 2008 , 308, 162-170		130
624	Wetting mechanism in mass transfer process of hydrophobic membrane gas absorption. 2008 , 308, 180	-190	128
623	Mathematical modeling of the simultaneous absorption of carbon dioxide and hydrogen sulfide in a hollow fiber membrane contactor. <i>Separation and Purification Technology</i> , 2008 , 63, 145-155	8.3	61
622	. Chemical Engineering Science, 2008 , 63, 5375-5385	4.4	33
621	Acceleration of CO2 Reaction with N,N-Diethylethanolamine in Aqueous Solutions by Piperazine. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 34-38	3.9	71
620	Physiochemical Properties of Several Aqueous Potassium Amino Acid Salts. <i>Journal of Chemical & Engineering Data</i> , 2008 , 53, 1286-1291	2.8	72
619	Absorption of Carbon Dioxide into Aqueous Solution of Sodium Glycinate. 2008 , 43, 3003-3019		28
618	Densities, Viscosities, and Liquid Diffusivities in Aqueous Piperazine and Aqueous (Piperazine + N-Methyldiethanolamine) Solutions. <i>Journal of Chemical & Data</i> , 2008, 53, 1179-1185	2.8	36

(2009-2008)

617	Diffusivities in Aqueous Solutions of the Potassium Salt of Amino Acids. <i>Journal of Chemical & Engineering Data</i> , 2008 , 53, 1141-1145	2.8	34
616	Solubility of N2O in Aqueous Solution of Diethylenetriamine. <i>Journal of Chemical & Data</i> , 2008 , 53, 2696-2700	2.8	41
615	Reaction Kinetics of Carbonyl Sulfide (COS) with Diethanolamine in Methanolic Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 7375-7380	3.9	13
614	Diffusion Coefficients of N2O in Aqueous Piperazine Solutions Using the Taylor Dispersion Technique from (293 to 333) K and (0.3 to 1.4) molយmB. <i>Journal of Chemical & Data</i> , 2008, 53, 1462-1466	2.8	6
613	Performance of Spray Column for CO2 Capture Application. <i>Industrial & Discrete Application and Security Research</i> , 2008 , 47, 145-153	3.9	45
612	Comparison of Separation Performance of a Structured Packed Column with a Tray-Type Column for H2S and CO2. 2009 , 64, 179-190		4
611	CO2 capture by Novel Amine Blends. 2009 , 239-246		1
610	Modeling and Kinetic Study on Absorption of CO2 by Aqueous Solutions of N-methyldiethanolamine in a Modified Wetted Wall Column. <i>Chinese Journal of Chemical Engineering</i> , 2009 , 17, 571-579	3.2	6
609	CO2 Absorption into Aqueous Solutions of Monoethanolamine, Methyldiethanolamine, Piperazine and their Blends. <i>Chemical Engineering and Technology</i> , 2009 , 32, 710-718	2	56
608	A Study on CO2 Absorption Kinetics by Aqueous Solutions of N,N-Diethylethanolamine and N-Ethylethanolamine. <i>Chemical Engineering and Technology</i> , 2009 , 32, 556-563	2	42
607	Kinetics of the reaction of pure CO2 with N-methyldiethanolamine in aqueous solutions. <i>International Journal of Chemical Kinetics</i> , 2009 , 41, 204-214	1.4	11
606	CO2 absorption by using PVDF hollow fiber membrane contactors with various membrane structures. <i>Separation and Purification Technology</i> , 2009 , 69, 210-220	8.3	93
605	Hollow fiber membrane contactor transient experiments for the characterization of gas/liquid thermodynamics and mass transfer properties. <i>Chemical Engineering Science</i> , 2009 , 64, 265-275	4.4	32
604	Acceleration of the reaction of carbon dioxide into aqueous 2-amino-2-hydroxymethyl-1,3-propanediol solutions by piperazine addition. <i>Chemical Engineering Science</i> , 2009 , 64, 2011-2019	4.4	30
603	Kinetics of carbon dioxide absorption in aqueous solution of diethylenetriamine (DETA). <i>Chemical Engineering Science</i> , 2009 , 64, 3205-3213	4.4	109
602	Kinetics study of carbon dioxide absorption into aqueous solutions containing N-methyldiethanolamine + diethanolamine. 2009 , 40, 403-412		23
601	Hollow fiber gas-liquid membrane contactors for acid gas capture: a review. 2009 , 171, 38-53		262
600	Carbon dioxide removal from anaesthetic gas circuits using hollow fiber membrane contactors with amino acid salt solutions. 2009 , 339, 275-286		16

599	Comparing membrane resistance and absorption performance of three different membranes in a gas absorption membrane contactor. <i>Separation and Purification Technology</i> , 2009 , 65, 290-297	144
598	Numerical simulation of mass transfer in gasIlquid hollow fiber membrane contactors for laminar flow conditions. 2009 , 17, 708-718	94
597	Modeling and experimental studies on absorption of CO2 by Benfield solution in rotating packed bed. <i>Chemical Engineering Journal</i> , 2009 , 145, 377-384	117
596	Kinetics of absorption of carbon dioxide into aqueous solutions of 2-amino-2-hydroxymethyl-1,3-propanediol. <i>Chemical Engineering Science</i> , 2009 , 64, 153-162	35
595	Kinetic study of . <i>Chemical Engineering Science</i> , 2009 , 64, 59-68	171
594	Kinetics of absorption of carbon dioxide into aqueous solution of 2-(1-piperazinyl)-ethylamine. Chemical Engineering Science, 2009 , 64, 313-321 4-4	48
593	Absorption of carbon dioxide into aqueous solutions of piperazine activated 2-amino-2-methyl-1-propanol. <i>Chemical Engineering Science</i> , 2009 , 64, 1185-1194 4-4	99
592	Enthalpy of absorption of CO2 with alkanolamine solutions predicted from reaction equilibrium constants. <i>Chemical Engineering Science</i> , 2009 , 64, 2027-2038	121
591	Solubility of carbon dioxide in aqueous solutions of amino acid salts. <i>Chemical Engineering Science</i> , 2009 , 64, 1993-2002	141
590	Determination of mass transfer resistance during absorption of carbon dioxide by mixed absorbents in PVDF and PP membrane contactor. 2009 , 249, 647-653	31
589	Solubility of N2O in aqueous monoethanolamine and 2-(2-Aminoethyl-amino)ethanol solutions from 298 to 343 K. 2009 , 1, 837-843	18
588	Kinetics reaction of primary and secondary amine group in aqueous solution of diethylenetriamine (DETA) with carbon dioxide. 2009 , 1, 853-859	31
587	A new aqueous solvent based on a blend of N-methyldiethanolamine and triethylene tetramine for CO2 recovery in post-combustion: Kinetics study. 2009 , 1, 901-908	11
586	Absorption of carbon dioxide in aqueous ammonia. 2009 , 1, 933-940	70
585	Kinetics of absorption of carbon dioxide in aqueous ammonia solutions. 2009 , 1, 1139-1146	69
584	A new flowsheeting tool for flue gas treating. 2009 , 1, 1481-1488	10
583	Effect of Ammonia on the Absorption Kinetics of Carbon Dioxide into Aqueous 2-Amino-2-methyl-1-propanol Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 4022 ³ 4029	21
582	Simultaneous Absorption of Carbon Dioxide and Sulfur Dioxide into Aqueous 2-Amino-2-Methy-1-Propanol. 2009 , 44, 543-568	9

(2010-2009)

581	Physicochemical Properties of Aqueous Solutions of 2-Amino-2-hydroxymethyl-1,3-propanediol <i>Journal of Chemical & Dournal of Chemical & Dournal of Chemical & Dournal Data</i> , 2009 , 54, 444-447	2.8	15
580	Simultaneous Absorption of Carbon Dioxide and Sulfur Dioxide into Aqueous 1,8-Diamino-p-menthane. 2009 , 44, 3888-3910		4
579	Effect of Water on Solubility of Carbon Dioxide in (Aminomethanamide + 2-Hydroxy-N,N,N-trimethylethanaminium Chloride). <i>Journal of Chemical & Data</i> , 2009, 54, 1951-1955	2.8	110
578	Euler E uler Modeling of Flow, Mass Transfer, and Chemical Reaction in a Bubble Column. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 47-57	3.9	32
577	Kinetics of the Absorption of CO2 in Aqueous Solutions of N-Methyldiethanolamine + Triethylene Tetramine. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 3761-3770	3.9	25
576	Grafted Amine/CO2 Interactions in (GaspliquidBolid Adsorption/Absorption Equilibria. 2009, 113, 2186	6-2187	' 613
575	Kinetics of the Absorption of Carbon Dioxide into Mixed Aqueous Solutions of Piperazine and Triethanolamine. <i>Journal of Chemical Engineering of Japan</i> , 2009 , 42, 29-38	0.8	3
574	Kinetics of CO2 absorption in aqueous ammonia solution. 2010 , 4, 729-738		90
573	CO2 Absorption into Aqueous Solutions of a Polyamine (PZEA), a Sterically Hindered Amine (AMP), and their Blends. <i>Chemical Engineering and Technology</i> , 2010 , 33, 461-467	2	18
572	Separation of carbon dioxide from nitrogen using diethanolamine-impregnated poly(vinyl alcohol) membranes. <i>Separation and Purification Technology</i> , 2010 , 71, 205-213	8.3	40
571	Experimental and theoretical study of the solubility of carbon dioxide in aqueous blends of piperazine and N-methyldiethanolamine. <i>Journal of Chemical Thermodynamics</i> , 2010 , 42, 151-163	2.9	60
570	A mathematical model for gas absorption membrane contactors that studies the effect of partially wetted membranes. 2010 , 347, 228-239		61
569	GasIlquid absorption reaction between (NH4)2SO3 solution and SO2 for ammonia-based wet flue gas desulfurization. 2010 , 87, 2647-2651		87
568	Absorption and desorption mass transfer rates in non-reactive systems. <i>Chemical Engineering Journal</i> , 2010 , 161, 191-195	14.7	24
567	Marangoni effect in a falling film microreactor. Chemical Engineering Journal, 2010, 164, 10-15	14.7	13
566	Gas-side mass transfer coefficients in a falling film microreactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2010 , 49, 820-824	3.7	15
565	Density and N2O solubility of sodium and potassium carbonate solutions in the temperature range 25 to 80 °C. Chemical Engineering Science, 2010 , 65, 2177-2182	4.4	28
564	Chemical Absorption of Carbon Dioxide into Aqueous Solution of Potassium Threonate. 2010 , 45, 497-	507	7

563	Theoretical Studies on Carbon Dioxide Removal from a Gas Stream in Hollow Fiber Membrane Contactors. 2010 , 14, 146-157		9
562	CO2 Capture Using Activated Amino Acid Salt Solutions in a Membrane Contactor. 2010 , 45, 1240-1251		37
561	Amino Acid-Salt-Based Complex Absorbents for CO2 Capture in a Membrane Contactor. <i>Energy & Energy Enels</i> , 2010 , 24, 4617-4626	4.1	19
560	Kinetics of removal of carbon dioxide by aqueous solutions of N,N-diethylethanolamine and piperazine. 2010 , 44, 2138-43		52
559	Kinetics of Carbon Dioxide Removal by Aqueous Alkaline Amino Acid Salts. <i>Industrial & amp;</i> Engineering Chemistry Research, 2010 , 49, 11067-11072	3.9	70
558	Carbon Dioxide Absorption in a Membrane Contactor with Color Change. 2010 , 87, 1377-1379		3
557	Activated DEEA Process for CO2 Capture. 2010 , 21-29		1
556	Simultaneous Absorption of Carbon Dioxide and Nitrogen Dioxide into Aqueous 2-amino-2-methy-1-propanol. 2011 , 46, 1262-1272		1
555	Modeling CO2 mass transfer in amine mixtures: PZ-AMP and PZ-MDEA. 2011 , 45, 2398-405		55
554	Pilot-Scale Experimental Study on the CO2 Capture Process with Existing of SO2: Degradation, Reaction Rate, and Mass Transfer. <i>Energy & Energy & 2011</i> , 25, 5802-5809	4.1	34
553	Experimental measurement and modeling of the rate of absorption of carbon dioxide by aqueous ammonia. 2011 , 5, 1149-1162		64
552	Thermodynamic Modeling for CO2 Absorption in Aqueous MDEA Solution with Electrolyte NRTL Model. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 163-175	3.9	125
551	Mass Transfer Coefficients for CO2 Absorption into Aqueous Ammonia Solution Using a Packed Column. <i>Industrial & Discourse Column Chemistry Research</i> , 2011 , 50, 10168-10175	3.9	57
550	Kinetics of Carbon Dioxide Absorption into Aqueous Amino Acid Salt: Potassium Salt of Sarcosine Solution. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 10465-10475	3.9	54
549	High throughput screening of CO2 solubility in aqueous monoamine solutions. 2011 , 45, 2486-92		54
548	Kinetics of absorption of carbon dioxide in 2-amino-2-methyl-l-propanol+N-methyldiethanolamine+water. 2011 , 42, 76-85		16
547	Transport Process of Carbon Dioxide in Seawater and Synthetic Seawater. 2011 , 5, 302-315		1
546	Surface modification of polyvinylidene fluoride-co-hexafluoropropylene (PVDF⊞FP) hollow fiber membrane for membrane gas absorption. 2011 , 381, 183-191		75

545	Performance evaluation on complex absorbents for CO2 capture. <i>Separation and Purification Technology</i> , 2011 , 82, 87-92	8.3	10
544	Removal of CO2 from indoor air by alkanolamine in a rotating packed bed. <i>Separation and Purification Technology</i> , 2011 , 82, 156-166	8.3	55
543	Numerical Simulation of Concentration Field on Liquid Side around Bubble during Rising and Coalescing Process in Non-Newtonian Fluid. <i>Chinese Journal of Chemical Engineering</i> , 2011 , 19, 799-807	3.2	3
542	The Henry's law constant of N2O and CO2 in aqueous binary and ternary amine solutions (MEA, DEA, DIPA, MDEA, and AMP). <i>Fluid Phase Equilibria</i> , 2011 , 311, 59-66	2.5	51
541	Thermodynamic modeling for CO2 absorption in aqueous MEA solution with electrolyte NRTL model. <i>Fluid Phase Equilibria</i> , 2011 , 311, 67-75	2.5	115
540	Density, viscosity, physical solubility and diffusivity of CO2 in aqueous MDEA + [bmim][BF4] solutions from 303 to 333 K. <i>Chemical Engineering Journal</i> , 2011 , 172, 763-770	14.7	45
539	Kinetics study of carbon dioxide absorption in aqueous solutions of 1,6-hexamethyldiamine (HMDA) and 1,6-hexamethyldiamine, N,N? di-methyl (HMDA, N,N?). <i>Chemical Engineering Science</i> , 2011 , 66, 4521-4532	4.4	28
538	Modeling CO2 absorption into concentrated aqueous monoethanolamine and piperazine. <i>Chemical Engineering Science</i> , 2011 , 66, 5212-5218	4.4	18
537	Kinetics of carbon dioxide absorption into aqueous amine amino acid salt: 3-(methylamino)propylamine/sarcosine solution. <i>Chemical Engineering Science</i> , 2011 , 66, 6109-6119	4.4	21
536	Solubility of CO2 in 15, 30, 45 and 60 mass% MEA from 40 to 120°C and model representation using the extended UNIQUAC framework. <i>Chemical Engineering Science</i> , 2011 , 66, 6393-6406	4.4	198
535	Strong and reversible binding of carbon dioxide in a green metal-organic framework. 2011 , 133, 15312-	5	297
534	Effect of membrane module arrangement of gasliquid membrane contacting process on CO2 absorption performance: A modeling study. 2011 , 372, 75-86		34
533	CO2 stripping from monoethanolamine using a membrane contactor. 2011 , 376, 110-118		86
532	Thermodynamic modeling of CO2 and H2S solubilities in aqueous DIPA solution, aqueous sulfolaneDIPA solution, and aqueous sulfolaneDIPA solution with electrolyte NRTL model. <i>Fluid Phase Equilibria</i> , 2011 , 306, 190-203	2.5	56
531	Mathematical modeling and numerical simulation of CO2 transport through hollow-fiber membranes. 2011 , 35, 174-188		69
530	Absorption of carbon dioxide into piperazine activated aqueous N-methyldiethanolamine. <i>Chemical Engineering Journal</i> , 2011 , 171, 734-741	14.7	44
529	Modelling reactive absorption of CO2 in packed columns for post-combustion carbon capture applications. 2011 , 89, 1600-1608		80
528	Results from trialling aqueous NH3 based post-combustion capture in a pilot plant at Munmorah power station: Absorption. 2011 , 89, 1204-1215		126

527	Simultaneous absorption of carbon dioxide, sulfur dioxide and nitrogen dioxide into aqueous 2-amino-2-methy-1-propanol. 2011 , 28, 1444-1450		1
526	Simultaneous absorption of carbon dioxide, sulfur dioxide, and nitrogen dioxide into aqueous 1, 8-diamino-p-menthane. 2011 , 28, 1754-1760		2
525	The physical solubilities and diffusivities of N2O and CO2 in aqueous ammonia solutions on the additions of AMP, glycerol and ethylene glycol. 2011 , 28, 1698-1705		6
524	Kinetics of carbon dioxide chemical absorption into cyclic amines solutions. 2011 , 57, 2244-2250		18
523	Kinetics of absorption of CO2 in amino-functionalized ionic liquids. <i>Chemical Engineering Journal</i> , 2011 , 166, 1104-1115	14.7	104
522	Kinetics of CO2 desorption from aqueous N-methyldiethanolamine solutions. <i>Chemical Engineering Journal</i> , 2011 , 168, 367-375	14.7	27
521	CFD simulation of natural gas sweetening in a gas[Iquid hollow-fiber membrane contactor. <i>Chemical Engineering Journal</i> , 2011 , 168, 1217-1226	14.7	155
520	Kinetics of carbon dioxide removal by aqueous diamines. <i>Chemical Engineering Journal</i> , 2011 , 169, 144-1	5 4.7	44
519	Kinetics and mass transfer of carbon dioxide absorption into aqueous ammonia. 2011 , 4, 525-532		43
518	Carbon dioxide absorption into aqueous amine based solvents: Modeling and absorption tests. 2011 , 4, 1353-1360		18
517	Describing CO2 mass transfer in amine/ammonia mixtures [No shuttle mechanism required. 2011 , 4, 1369-1376		3
516	A modeling study on the effects of membrane characteristics and operating parameters on physical absorption of CO2 by hollow fiber membrane contactor. 2011 , 380, 21-33		67
515	Simulation of an Amine-based CO2 Recovery Plant. 2011 , 29, 39-47		4
514	Absorption of Carbon Dioxide into Piperazine Activated Diethanolamine Solutions. 2012 , 42-49		1
513	A kinetic and process modeling study of CO2 capture with MEA-promoted potassium carbonate solutions. <i>Chemical Engineering Journal</i> , 2012 , 210, 271-279	14.7	72
512	Comparative kinetics of carbon dioxide absorption in unloaded aqueous monoethanolamine solutions using wetted wall and string of discs columns. <i>Chemical Engineering Science</i> , 2012 , 82, 31-43	4.4	41
511	Influence of Sulphuric Acid on Absorption Kinetic of Carbon Dioxide in Monoethanolamine. 2012 , 42, 397-407		2
510	Solubility of N2O in and Density and Viscosity of Aqueous Solutions of Piperazine, Ammonia, and Their Mixtures from (283.15 to 323.15) K. <i>Journal of Chemical & Chem</i>	338	14

509	Measurements and Correlation of Physical Solubility of Carbon Dioxide in (Monoethanolamine + Water) by a Modified Technique. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 6958-6966	3.9	25
508	Kinetics Study of CO2 Absorption into Solutions of UDS. 2012 , 30, 2563-2570		O
507	Measurements and Correlations of Diffusivities of Nitrous Oxide and Carbon Dioxide in Monoethanolamine + Water by Laminar Liquid Jet. <i>Industrial & Discourse Engineering Chemistry Research</i> , 2012 , 51, 16517-16524	3.9	28
506	Molecular modeling of diffusion coefficient and ionic conductivity of CO2 in aqueous ionic solutions. 2012 , 116, 2787-800		18
505	Sterically Hindered Amine-Based Absorbents for the Removal of CO2 from Gas Streams. <i>Journal of Chemical & Che</i>	2.8	102
504	Solubility and Diffusivity of N2O in Aqueous 4-(Diethylamino)-2-butanol Solutions for Use in Postcombustion CO2 Capture. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 925-930	3.9	22
503	Absorption and desorption mass transfer rates in chemically enhanced reactive systems. Part II: Reverse kinetic rate parameters. <i>Chemical Engineering Journal</i> , 2012 , 198-199, 561-570	14.7	8
502	Absorption and desorption mass transfer rates in chemically enhanced reactive systems. Part I: Chemical enhancement factors. <i>Chemical Engineering Journal</i> , 2012 , 198-199, 555-560	14.7	10
501	Characterization and absorption of carbon dioxide into aqueous solution of amino acid ionic liquid [N1111][Gly] and 2-amino-2-methyl-1-propanol. <i>Chemical Engineering Journal</i> , 2012 , 204-206, 235-243	14.7	57
500	Mass Transfer Performance of CO2 Absorption into Aqueous Solutions of 4-Diethylamino-2-butanol, Monoethanolamine, and N-Methyldiethanolamine. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 6470-6479	3.9	81
499	Kinetics of absorption of carbon dioxide into aqueous potassium salt of proline. 2012 , 8, 169-179		59
498	CO2 capture by alkanolamine solutions containing diethylenetriamine and piperazine in a rotating packed bed. 2012 , 9, 136-147		64
497	Kinetics of absorption of carbon dioxide in aqueous MDEA solutions with carbonic anhydrase at 298K. 2012 , 9, 385-392		71
496	Dynamic modelling, validation and analysis of post-combustion chemical absorption CO2 capture plant. 2012 , 9, 428-445		86
495	CO2 desorption from rich alkanolamine solution by using membrane vacuum regeneration technology. 2012 , 9, 507-521		49
494	Influence of nickel oxide on carbon dioxide adsorption behaviors of activated carbons. <i>Fuel</i> , 2012 , 102, 439-444	7.1	66
493	On the improved absorption of carbon monoxide in the ionic liquid 1-hexyl-3-methylimidazolium chlorocuprate. <i>Separation and Purification Technology</i> , 2012 , 97, 65-72	8.3	36
492	Kinetics of CO2 Absorption Into Aqueous Blends of Diethanolamine and Methyldiethanolamine. 2012 , 64-70		1

491	Secondary amines for CO2 capture: A kinetic investigation using N-ethylmonoethanolamine. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 718-724	14.7	63
490	Thermal Effects in the Absorption of Pure CO2 into Aqueous Solutions of 2-Methyl-amino-ethanol. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 4809-4818	3.9	10
489	Optimal reaction concept and plant wide optimization of the ethylene oxide process. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 656-674	14.7	32
488	Modeling CO2 Solubility in Aqueous N-methyldiethanolamine Solution by Electrolyte Modified Peng R obinson Plus Association Equation of State. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 9875-9885	3.9	41
487	Model Building Methodology for Multiphase Reaction Systems Modeling of CO2 Absorption in Monoethanolamine for Laminar Jet Absorbers and Packing Beds. <i>Industrial & Description Chemistry Research</i> , 2012 , 51, 4328-4346	3.9	10
486	Reaction Kinetics of CO2 in Aqueous Methyl- and Dimethylmonoethanolamine Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 1592-1600	3.9	31
485	Carbon dioxide absorption by monoethanolamine in hollow fiber membrane contactors: A parametric investigation. 2012 , 58, 2843-2855		24
484	Untersuchung der CO2-Absorptionskinetik in Wisrigen Liungen von N,N-Diethylethanolanmin und N-Ethylethanolamin. 2012 , 84, 475-483		6
483	Numerical simulation of CO2 absorption into aqueous methyldiethanolamine solutions. 2012 , 29, 707	-715	9
482	Absorption of carbon dioxide into aqueous solution of 2-amino-2-methy-1-propanol and 1, 8-diamino-p-menthane. 2012 , 29, 946-951		
481	Separation of CO2 by single and mixed aqueous amine solvents in membrane contactors: fluid flow and mass transfer modeling. 2012 , 28, 189-198		77
480	Characterization and kinetics of carbon dioxide absorption into aqueous tetramethylammonium glycinate solution. <i>Chemical Engineering Journal</i> , 2012 , 181-182, 85-92	14.7	58
479	Carbon dioxide absorption into unpromoted and borate-catalyzed potassium carbonate solutions. <i>Chemical Engineering Journal</i> , 2012 , 181-182, 694-701	14.7	54
478	Tracer diffusion coefficients of polar systems. Chemical Engineering Science, 2012, 73, 151-168	4.4	15
477	Solubility of CO2 in aqueous potassium l-prolinate solutions bsorber conditions. <i>Chemical Engineering Science</i> , 2012 , 72, 35-44	4.4	60
476	CO2 capture into aqueous solutions of 3-methylaminopropylamine activated dimethyl-monoethanolamine. <i>Chemical Engineering Science</i> , 2012 , 75, 28-37	4.4	41
475	Study on mass transfer and kinetics of CO2 absorption into aqueous ammonia and piperazine blended solutions. <i>Chemical Engineering Science</i> , 2012 , 75, 298-308	4.4	38
474	Quantitative analysis of the liquid phase by FT-IR spectroscopy in the system CO2/diethanolamine (DEA)/H2O. <i>Fluid Phase Equilibria</i> , 2012 , 325, 90-99	2.5	32

473	Process Characteristics of CO2 Absorption by Aqueous Monoethanolamine in a Microchannel Reactor. <i>Chinese Journal of Chemical Engineering</i> , 2012 , 20, 111-119	3.2	61
472	Simultaneous removal of CO2 and H2S from pressurized CO2H2SIIH4 gas mixture using hollow fiber membrane contactors. <i>Separation and Purification Technology</i> , 2012 , 86, 88-97	8.3	58
471	Evaluating the intensification potential of membrane contactors for gas absorption in a chemical solvent: A generic one-dimensional methodology and its application to CO2 absorption in monoethanolamine. 2012 , 389, 1-16		22
470	Liquid membrane-based CO2 reduction in a breathing apparatus. 2012 , 389, 424-434		7
469	Simultaneous absorption of CO2 and H2S from biogas by capillary membrane contactor. 2012 , 392-393, 38-47		58
468	Density, viscosity, and N2O solubility of aqueous amino acid salt and amine amino acid salt solutions. <i>Journal of Chemical Thermodynamics</i> , 2012 , 45, 90-99	2.9	25
467	Enhanced Carbon Dioxide Separation by Amine-Promoted Potassium Carbonate Solution in a Hollow Fiber Membrane Contactor. <i>Energy & Energy & 2013</i> , 27, 5423-5432	4.1	23
466	Mathematical modeling and simulation of CO2 stripping from monoethanolamine solution using nano porous membrane contactors. 2013 , 13, 1-8		66
465	Wettability study in CO2 capture from flue gas using nano porous membrane contactors. 2013 , 16, 233	-240	17
464	Process analysis on CO2 absorption by monoethanolamine solutions in microchannel reactors. <i>Chemical Engineering Journal</i> , 2013 , 225, 120-127	14.7	39
463	Effect of Absorbent Type and Concentration on CO2 Capture from a Gas Stream into a Liquid Phase. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 13128-13136	3.9	13
462	Activated DEEA solutions for CO2 capture study of equilibrium and kinetic characteristics. <i>Chemical Engineering Science</i> , 2013 , 100, 234-241	4.4	40
461	Amine based CO2 capture plant: Dynamic modeling and simulations. 2013 , 14, 282-290		29
460	Effect of membrane structure on gas absorption performance and long-term stability of membrane contactors. <i>Separation and Purification Technology</i> , 2013 , 108, 65-73	8.3	38
459	Aqueous Potassium Bicarbonate/Carbonate Ionic Equilibria at Elevated Pressures and Temperatures. <i>Industrial & Description of the Engineering Chemistry Research</i> , 2013 , 52, 13241-13251	3.9	9
458	Rate based modeling for CO2 absorption using monoethanolamine solution in a hollow fiber membrane contactor. 2013 , 429, 396-408		25
457	Modeling strategies of membrane contactors for post-combustion carbon capture: A critical comparative study. <i>Chemical Engineering Science</i> , 2013 , 87, 393-407	4.4	46
456	Analytical solutions for membrane wetting calculations based on log-normal and normal distribution functions for CO2 absorption by a hollow fiber membrane contactor. 2013 , 429, 459-472		22

455	Effect of the incorporation of speciation data in the modeling of CO2DEAH2O system. <i>Fluid Phase Equilibria</i> , 2013 , 353, 22-30	2.5	10
454	CFD simulation of CO2 capture from gas mixtures in nanoporous membranes by solution of 2-amino-2-methyl-1-propanol and piperazine. 2013 , 15, 142-149		56
453	Kinetics of Carbon Dioxide Absorption into Mixed Aqueous Solutions of MEA + [Bmim]BF4 Using a Double Stirred Cell. <i>Energy & amp; Fuels</i> , 2013 , 27, 6002-6009	4.1	51
452	Modeling of CO2 Stripping in a Hollow Fiber Membrane Contactor for CO2 Capture. <i>Energy & Energy & Ene</i>	4.1	33
451	Absorption of Carbon Dioxide in Aqueous Morpholine Solutions. <i>Industrial & Dioxide in Aqueous Morpholine Solutions</i> . <i>Industrial & Dioxide in</i>	3.9	13
450	Experimental and Modeling Study of Trace CO2 Removal in a Hollow-Fiber Membrane Contactor, Using CO2-Loaded Monoethanolamine. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1805	92180	7ð ³
449	Helical liquid flow on a vertical cylinder and its application to gas absorption. 2013 , 59, 3109-3118		4
448	Liquid Phase Mass Transfer Coefficient of Carbon Dioxide Absorption by Water Droplet. 2013 , 37, 1728	-1735	9
447	Heat of absorption of CO2 in aqueous solutions of N-methyldiethanolamine and piperazine. 2013 , 17, 89-98		53
446	Optimization of Blended Amines for CO2 Absorption in a Hollow-Fiber Membrane Contactor. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 12170-12182	3.9	25
445	Comparison of solvent performance for CO2 capture from coal-derived flue gas: A pilot scale study. 2013 , 91, 963-969		17
444	Modeling of Rayleigh convection in gas[Iquid interfacial mass transfer using lattice Boltzmann method. 2013 , 91, 437-447		16
443	An analytical study of laminar concurrent flow membrane absorption through a hollow fiber gasIlquid membrane contactor. 2013 , 428, 232-240		1
442	CO2 absorption in aqueous solutions of N-(2-hydroxyethyl)piperazine: Experimental characterization using interferometry and modeling. <i>Chemical Engineering Science</i> , 2013 , 100, 249-258	4.4	15
441	Free-volume model for the diffusion coefficients of solutes at infinite dilution in supercritical CO2 and liquid H2O. 2013 , 74, 89-104		15
440	Development of a Dynamic Model of a Post Combustion CO2 Capture Process. 2013 , 37, 1760-1769		5
439	Prediction of N2O Solubility in Alkanolamine Solutions from the Excess Volume Property. 2013 , 37, 174	4-175	05
438	CO2 absorption into highly concentrated DEA solution flowing over a vertical plate with rectangular windows. 2013 , 19, 13-18		14

437	Catalytic behavior of carbonic anhydrase enzyme immobilized onto nonporous silica nanoparticles for enhancing CO2 absorption into a carbonate solution. 2013 , 13, 17-25		60	
436	Universal model for accurate calculation of tracer diffusion coefficients in gas, liquid and supercritical systems. 2013 , 1290, 1-26		16	
435	Simple and accurate correlations for diffusion coefficients of solutes in liquids and supercritical fluids over wide ranges of temperature and density. 2013 , 76, 94-114		39	
434	Analysis of CO2 Separation with Aqueous Potassium Carbonate Solution in a Hollow Fiber Membrane Contactor. <i>Energy & Documents</i> 2013, 27, 2185-2193	4.1	27	
433	Comparison of rate-based and equilibrium-stage models of a packed column for post-combustion CO2 capture using 2-amino-2-methyl-1-propanol (AMP) solution. 2013 , 15, 186-199		54	
432	Experimental study on mass transfer and prediction using artificial neural network for CO2 absorption into aqueous DETA. <i>Chemical Engineering Science</i> , 2013 , 100, 195-202	4.4	65	
431	Kinetics of absorption of carbon dioxide in aqueous amine and carbonate solutions with carbonic anhydrase. 2013 , 12, 259-268		71	
430	Modeling of CO2 absorption in a membrane contactor considering solvent evaporation. <i>Separation and Purification Technology</i> , 2013 , 110, 1-10	8.3	30	
429	Analysis of ammonia separation from purge gases in microporous hollow fiber membrane contactors. 2013 , 260, 576-84		13	
428	Reaction kinetics of CO2 absorption in to phosphonium based anion-functionalized ionic liquids. 2013 , 15, 7796-811		80	
427	Dynamic modelling of the absorber of a post-combustion CO2 capture plant: Modelling and simulations. 2013 , 53, 178-189		32	
426	Simple solution routes for targeted carbonate phases and intricate carbonate and silicate morphologies. 2013 , 33, 289-97		7	
425	Solubility of N2O in and Density and Viscosity of Aqueous Solutions of 1,4-Butanediamine, 2-(Diethylamino)-ethanol, and Their Mixtures from (298.15 to 333.15) K. <i>Journal of Chemical & Engineering Data</i> , 2013 , 58, 1633-1640	2.8	19	
424	Enhanced stability and chemical resistance of a new nanoscale biocatalyst for accelerating CO2 absorption into a carbonate solution. 2013 , 47, 13882-8		48	
423	Absorption of CO2 into aqueous solutions of MEA and AMP in a wetted wall column with film promoter. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013 , 73, 1-6	3.7	14	
422	Modeling of CO2 Absorption Kinetics in Aqueous 2-Methylpiperazine. <i>Industrial & Description Chemistry Research</i> , 2013 , 52, 4239-4248	3.9	21	
421	CO2 absorption by piperazine promoted aqueous ammonia solution: absorption kinetics and ammonia loss. 2013 , 3, 231-245		26	
420	Kinetics Study on CO2Absorption with Aqueous Solutions of 1,4-Butanediamine, 2-(Diethylamino)-ethanol, and Their Mixtures. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 9790-9802	3.9	36	

419	Kinetics of Absorption of Carbon Dioxide in Aqueous Solution of Ethylaminoethanol Modified with N-methyl-2-pyrolidone. 2013 , 48, 2324-2337	27
418	Graph Machine Based-QSAR Approach for Modeling Thermodynamic Properties of Amines: Application to CO2Capture in Postcombustion. 2013 , 68, 469-486	10
417	Gas Permeability and Selectivity of Synthesized Diethanol Amine-Polysulfone/Polyvinylacetate Blend Membranes. 2014 , 8, 600-605	1
416	Activity Based Kinetics and Mass Transfer of CO2 Absorption Into MEA Using Penetration Theory. 2014 , 63, 1196-1205	6
415	Absorption of carbon dioxide into sterically hindered amines: Kinetics analysis and the influence of promoters. 2014 , 92, 2218-2227	12
414	Kinetics of carbon dioxide removal by ethylenediamine and diethylenetriamine in aqueous solutions. 2014 , 92, 2021-2028	21
413	GasIlquid mass-transfer properties in CO2 absorption system with ionic liquids. 2014 , 60, 2929-2939	41
412	A kinetic study of CO2 capture with potassium carbonate solutions promoted with various amino acids: Glycine, sarcosine and proline. 2014 , 20, 212-222	92
411	Theoretical investigation on CO2 absorption into DEAB solution using hollow fiber membrane contactors. <i>Journal of Natural Gas Science and Engineering</i> , 2014 , 18, 23-30	17
410	Mathematical modeling of carbon dioxide removal using amine-promoted hot potassium carbonate in a hollow fiber membrane contactor. <i>Journal of Natural Gas Science and Engineering</i> , 2014 , 18, 274-285 ^{4.6}	21
409	Henry II constant of carbon dioxide-aqueous deep eutectic solvent (choline chloride/ethylene glycol, choline chloride/glycerol, choline chloride/malonic acid) systems. <i>Journal of Chemical</i> 2.9 <i>Thermodynamics</i> , 2014 , 68, 216-220	83
408	Validation of the CO2/N2O Analogy Using Molecular Simulation. <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the CO2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the Co2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the Co2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the Co2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the Co2/N2O Analogy Using Molecular Simulation</i> . <i>Industrial & Description of the Co2/N2O Analogy Using Molecular Simulation of the Co2/N2O Analogy Using Molecular</i>	22
407	Absorption of CO2 by AHPDP aqueous blend in PTFE hollow fiber membrane contactors. Separation and Purification Technology, 2014, 138, 84-91	27
406	Optimal Design and Operating Conditions of an Integrated Plant Using a Natural Gas Combined Cycle and Postcombustion CO2 Capture. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 170269170)42
405	Mass transfer performance of CO2 absorption by alkanolamine aqueous solution for biogas purification. <i>Separation and Purification Technology</i> , 2014 , 133, 476-483	9
404	Desorption Kinetics of CO2 from Water and Aqueous Amine Solutions. 2014 , 51, 197-206	13
403	Atomistic molecular dynamics simulations of COIdiffusivity in HID for a wide range of temperatures and pressures. 2014 , 118, 5532-41	63
402	Analysis of Mass Transfer Performance of Monoethanolamine-Based CO2 Absorption in a Packed Column Using Artificial Neural Networks. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 4413-442	3 ²⁹

401	Dynamic Modeling of Biogas Upgrading in Hollow Fiber Membrane Contactors. <i>Energy & amp; Fuels</i> , 2014 , 28, 5745-5755	4.1	40	
400	Reactive Absorption of Carbon Dioxide in l-Prolinate Salt Solutions. <i>Industrial & Discrete Amp; Engineering Chemistry Research</i> , 2014 , 53, 11460-11467	3.9	30	
399	Investigation of CO2 absorption in methyldiethanolamine and 2-(1-piperazinyl)-ethylamine using hollow fiber membrane contactors: Part C. Effect of operating variables. <i>Journal of Natural Gas Science and Engineering</i> , 2014 , 20, 58-66	4.6	23	
398	Modeling and Experimental Study of CO2 Removal by Alkanolamines in a Packed Bed. 2014 , 49, 317-328	8	2	
397	Kinetics of CO2 absorption by aqueous 3-(methylamino)propylamine solutions: Experimental results and modeling. 2014 , 60, 3792-3803		21	
396	Preparation and characterization of PVDF-montmorillonite mixed matrix hollow fiber membrane for gasIlquid contacting process. 2014 , 92, 2449-2460		55	
395	Modeling of CO2 post-combustion capture using membrane contactors, comparison between one-and two-dimensional approaches. 2014 , 455, 64-74		34	
394	CFD investigation of CO2 capture by methyldiethanolamine and 2-(1-piperazinyl)-ethylamine in membranes: Part B. Effect of membrane properties. <i>Journal of Natural Gas Science and Engineering</i> , 2014 , 19, 311-316	4.6	51	
393	Performance analysis of ammonia solution for CO 2 capture using microporous membrane contactors. 2014 , 31, 16-24		14	
392	Isotopomer analysis of production, consumption and soil-to-atmosphere emission processes of N2O at the beginning of paddy field irrigation. 2014 , 70, 66-78		29	
391	CO2 absorption kinetics in a CO2-free and partially loaded aqueous ammonia solution. <i>Chemical Engineering Journal</i> , 2014 , 250, 83-90	14.7	9	
390	Kinetics of CO2 absorption into uncatalyzed potassium carbonateBicarbonate solutions: Effects of CO2 loading and ionic strength in the solutions. <i>Chemical Engineering Science</i> , 2014 , 116, 657-667	4.4	17	
389	Fluid flow and mass transfer characteristics of enhanced CO2 capture in a minichannel reactor. 2014 , 119, 43-56		57	
388	N2O production in the eastern South Atlantic: Analysis of N2O stable isotopic and concentration data. 2014 , 28, 1262-1278		30	
387	Technology Innovation & Advancements for Shell Cansolv CO2 capture solvents. 2014 , 63, 801-807		23	
386	Thermodynamic and Kinetic Modeling of Piperazine/2-Methylpiperazine. 2014 , 63, 1243-1255		1	
385	High pressure measurements and molecular modeling of the water content of acid gas containing mixtures. 2015 , 61, 3038-3052		17	
384	Wetted-wall column study on CO2 absorption kinetics enhancement by additive of nanoparticles. 2015 , 5, 682-694		24	

383	Mass Transfer Evolution in a Reactive Spray during Carbon Dioxide Capture. <i>Chemical Engineering and Technology</i> , 2015 , 38, 1154-1164	2	15
382	Self-healing of early age cracks in cement-based materials by mineralization of carbonic anhydrase microorganism. 2015 , 6, 1225		51
381	Kinetic performance of CO2 absorption into a potassium carbonate solution promoted with the enzyme carbonic anhydrase: Comparison with a monoethanolamine solution. <i>Chemical Engineering Journal</i> , 2015 , 279, 335-343	14.7	50
380	Investigation of the effects of operating parameters on the local mass transfer coefficient and membrane wetting in a membrane gas absorption process. 2015 , 490, 236-246		44
379	Sensitivity Study of Thermo-physical Properties of Gas Phase on Absorber Design for CO2 Capture using Monoethanolamine. 2015 , 75, 2305-2310		1
378	Experimental study on CO2 absorption by aqueous ammonia solution at elevated pressure to enhance CO2 absorption and suppress ammonia vaporization. 2015 , 5, 210-221		15
377	Kinetics of CO2 absorption by aqueous N,N-diethylethanolamine solutions: Literature review, experimental results and modelling. <i>Chemical Engineering Science</i> , 2015 , 127, 1-12	4.4	26
376	The N 2 O analogy in the CO 2 capture context: Literature review and thermodynamic modelling considerations. <i>Chemical Engineering Science</i> , 2015 , 126, 455-470	4.4	23
375	Hydrodynamics and mass transfer performance of a microreactor for enhanced gas separation processes. <i>Chemical Engineering Journal</i> , 2015 , 266, 258-270	14.7	54
374	CO2 removal by single and mixed amines in a hollow-fiber membrane moduleIhvestigation of contactor performance. 2015 , 61, 955-971		40
373	Effect of pKa on the kinetics of carbon dioxide absorption in aqueous alkanolamine solutions containing carbonic anhydrase at 298K. <i>Chemical Engineering Journal</i> , 2015 , 259, 682-691	14.7	30
372	Reactive absorption of CO 2 into enzyme accelerated solvents: From laboratory to pilot scale. 2015 , 156, 676-685		42
371	Rigorous modeling of CO2 absorption and chemisorption: The influence of bubble coalescence and breakage. <i>Chemical Engineering Science</i> , 2015 , 137, 188-204	4.4	26
370	CO 2 chemical absorption into aqueous solutions of piperazine: modeling of kinetics and mass transfer rate. <i>Journal of Natural Gas Science and Engineering</i> , 2015 , 26, 1059-1067	4.6	25
369	A review of CO2 capture by absorption in ionic liquid-based solvents. 2015 , 31,		89
368	Bioreduction of nitrate in a hydrogen-based membrane biofilm reactor using CO2 for pH control and as carbon source. <i>Chemical Engineering Journal</i> , 2015 , 276, 59-64	14.7	26
367	Effective interfacial area and liquid-side mass transfer coefficients in a rotating bed equipped with baffles. <i>Separation and Purification Technology</i> , 2015 , 144, 139-145	8.3	26
366	Effect of SO2 on the amine-based CO2 capture solvent and improvement using ion exchange resins. 2015 , 37, 38-45		16

365	VLE of CO2 in aqueous sodium glycinate solution lew data and modeling using KentElisenberg model. 2015 , 36, 153-160		39	
364	ND accumulation from denitrification under different temperatures. 2015 , 99, 9215-26		17	
363	Modeling and simulation of CO2 removal in a polyvinylidene fluoride hollow fiber membrane contactor with computational fluid dynamics. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015 , 98, 41-51	3.7	19	
362	Mass transfer and kinetics of CO2 absorption into aqueous monoethanolamine/1-hydroxyethy-3-methyl imidazolium glycinate solution. <i>Chemical Engineering Journal</i> , 2015 , 280, 695-702	14.7	27	
361	Prediction of carbon dioxide loading capacity in amino acid salt solutions as new absorbents using artificial neural network and DeshmukhMather models. <i>Journal of Natural Gas Science and Engineering</i> , 2015 , 27, 676-685	4.6	20	
360	Modeling and simulation of packed-bed absorbers for post-combustion capture of carbon dioxide by reactive absorption in aqueous monoethanolamine solutions. 2015 , 42, 258-287		17	
359	CO2 Removal in Packed-Bed Columns and Hollow-Fiber Membrane Reactors. Investigation of Reactor Performance. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 12455-12465	3.9	10	
358	(mathrm{{CO}}_{2}) Capture from Gas Mixtures by Alkanol Amine Solutions in Porous Membranes. 2015 , 106, 323-338		10	
357	A novel methodology for the modeling of CO2 absorption in monoethanolamine (MEA) using discrimination of rival kinetics. 2015 , 25, 78-88		4	
356	Local measurement of mass transfer in a reactive spray for CO2 capture. 2015 , 93, 419-426		11	
355	Evaluation of the protic ionic liquid, N,N-dimethyl-aminoethylammonium formate for CO2 capture. 2015 , 32, 129-134		19	
354	Kinetics of the absorption of carbon dioxide into aqueous hydroxides of lithium, sodium and potassium and blends of hydroxides and carbonates. <i>Chemical Engineering Science</i> , 2015 , 123, 487-499	4.4	20	
353	Thermokinetic properties and performance evaluation of benzylamine-based solvents for CO2 capture. <i>Chemical Engineering Journal</i> , 2015 , 264, 230-240	14.7	39	
352	Flat sheet membrane contactor (FSMC) for CO2 separation using aqueous amine solutions. <i>Chemical Engineering Science</i> , 2015 , 123, 255-264	4.4	23	
351	Physical properties of PZ solution used as a solvent for CO2 removal. 2015 , 93, 720-726		24	
350	Simplification of detailed rate-based model of post-combustion CO2 capture for full chain CCS integration studies. <i>Fuel</i> , 2015 , 142, 87-93	7.1	7	
349	Mass transfer and kinetics of carbon dioxide absorption into loaded aqueous monoethanolamine solutions. <i>Chemical Engineering Science</i> , 2015 , 123, 57-69	4.4	64	
348	Density and N 2 O solubility of aqueous hydroxide and carbonate solutions in the temperature range from 25 to 80 LC. <i>Chemical Engineering Science</i> , 2015 , 122, 307-320	4.4	17	

347	Mathematical modeling of CO2 separation from gaseous-mixture using a Hollow-Fiber Membrane Module: Physical mechanism and influence of partial-wetting. 2015 , 474, 64-82		33
346	Modeling of CO2 Separation from Flue Gas by Methyldiethanolamine and 2-(1-Piperazinyl)-Ethylamine in Membrane Contactors: Effect of Gas and Liquid Parameters. 2015 , 141, 04014034		9
345	Mathematical Modelling and Simulation of Carbon Dioxide Absorption from N2 Using Hollow Fiber Membrane Contactor. 2016 , 60, 266-272		5
344	Liquid absorbent selection criteria and screening procedures. 2016 , 69-100		1
343	Enzyme-enhanced CO2 absorption. 2016 , 225-258		
342	CO2 solubility in aqueous solutions of potassium prolinate and (potassium prolinate + 2-amino-2-methyl-1-propanol) as new absorbents. <i>Journal of Natural Gas Science and Engineering</i> , 2016 , 34, 356-365	4.6	17
341	Solubility and diffusivity of CO2 in n-butanol + N235 system and absorption mechanism of CO2 in a coupled reaction-extraction process. 2016 , 10, 480-489		6
340	Physical Absorption of Green House Gases in Amines: The Influence of Functionality, Structure, and Cross-Interactions. 2016 , 120, 13136-13143		6
339	Activity based kinetics of CO2DHBystems with Li+, Na+ and K+ counter ions. <i>Chemical Engineering Science</i> , 2016 , 151, 1-6	4.4	3
338	Mass transfer performance of CO2 absorption into aqueous DEEA in packed columns. 2016 , 51, 11-17		37
337	Kinetics of Carbon Dioxide Removal by n-Propyl- and n-Butylmonoethanolamine in Aqueous Solutions. <i>Energy & Dioxide Removal By November 2016</i> , 30, 5077-5082	4.1	4
336	Influence of temperature on the kinetics of enzyme catalysed absorption of carbon dioxide in aqueous MDEA solutions. 2016 , 49, 64-72		11
335	Chemical absorption of CO2 into an aqueous piperazine (PZ) solution: development and validation of a rigorous dynamic rate-based model. 2016 , 6, 40017-40032		29
334	Pilot plant test of the advanced flash stripper for CO capture. 2016 , 192, 37-58		29
333	Numerical simulation for mass transfer characteristics of CO2 capture in a rotating packed bed. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016 , 109, 68-79	3.7	8
332	Euler-Euler simulation of mass-transfer in bubbly flows. Chemical Engineering Science, 2016, 155, 459-46	68 1.4	27
331	Correlating the physical solubility of CO2 in several amines to the concentrations of amine groups. Journal of Natural Gas Science and Engineering, 2016, 34, 841-848	4.6	2
330	Reaction Mechanism and Kinetics Study of CO2 Absorption into [C2OHmim][Lys]. <i>Energy & amp; Fuels</i> , 2016 , 30, 8535-8544	4.1	11

329	Impacts of thermo-physical properties of gas and liquid phases on design of absorber for CO 2 capture using monoethanolamine. 2016 , 52, 190-200		10	
328	Thermodynamic and mass transfer modeling of carbon dioxide absorption into aqueous 2-piperidineethanol. <i>Chemical Engineering Science</i> , 2016 , 153, 295-307	4.4	15	
327	Carbon dioxide loading capacity in aqueous solution of Potassium salt of Proline blended with Piperazine as new absorbents. 2016 , 639, 66-75		8	
326	Physicochemical Properties of Aqueous Potassium Salts of Basic Amino Acids as Absorbents for CO2 Capture. <i>Journal of Chemical & Engineering Data</i> , 2016 , 61, 2391-2398	2.8	22	
325	Modeling and experimental study on the solubility and mass transfer of CO2 into aqueous DEA solution using a stirrer bubble column. 2016 , 6, 108075-108092		22	
324	Combined Effect of Temperature and pKaon the Kinetics of Absorption of Carbon Dioxide in Aqueous Alkanolamine and Carbonate Solutions with Carbonic Anhydrase. <i>Industrial & amp; Engineering Chemistry Research</i> , 2016 , 55, 10044-10054	3.9	7	
323	Zeolite ZSM5-Filled PVDF Hollow Fiber Mixed Matrix Membranes for Efficient Carbon Dioxide Removal via Membrane Contactor. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 12632-126	643	21	
322	Measuring Nitrous Oxide Mass Transfer into Non-Aqueous CO2BOL CO2 Capture Solvents. <i>Industrial & Discourse Communication of the Mass Transfer into Non-Aqueous CO2BOL CO2 Capture Solvents.</i>	3.9	9	
321	Carbon dioxide absorption in aqueous solution of potassium glycinate + 2-amino-2-methyl-1-propanol as new absorbents. 2016 , 6, 62612-62623		7	
320	Experimental and theoretical study of carbon dioxide solubility in aqueous solution of potassium glycinate blended with piperazine as new absorbents. 2016 , 16, 64-77		27	
319	Molecular Dynamics Simulations of Carbon Dioxide, Methane, and Their Mixture in Montmorillonite Clay Hydrates. 2016 , 120, 12517-12529		63	
318	Simulation of convective-diffusional processes in hollow fiber membrane contactors. <i>Separation and Purification Technology</i> , 2016 , 167, 63-69	8.3	15	
317	Measurement and Correlation of the Physicochemical Properties of Novel Aqueous Bis(3-aminopropyl)amine and Its Blend with N-Methyldiethanolamine for CO2 Capture. <i>Journal of Chemical & Data</i> , 2016, 61, 2226-2235	2.8	10	
316	Performance and reaction kinetics of CO2 absorption into AMP solution with [Hmim][Gly] activator. 2016 , 44, 115-123		17	
315	Improved CO2 Absorption in a GasIliquid Countercurrent Column Using a Ceramic Foam Contactor. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 1387-1400	3.9	11	
314	Process intensification characteristics of a microreactor absorber for enhanced CO2 capture. 2016 , 162, 416-427		27	
313	CFD Modelling of a Hollow Fibre Membrane for CO2 Removal by Aqueous Amine Solutions of MEA, DEA and MDEA. 2016 , 14, 53-61		7	
312	Kinetics analysis and regeneration performance of 1-butyl-3-methylimidazolium glycinate solutions for CO 2 capture. <i>Chemical Engineering Journal</i> , 2016 , 295, 64-72	14.7	24	

311	Reaction kinetics of carbon dioxide absorption into aqueous potassium salt of histidine. <i>Chemical Engineering Science</i> , 2016 , 146, 76-87	4.4	19
310	Performance evaluation of composite and microporous gasIlquid membrane contactors for CO 2 removal from a gas mixture. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016 , 102, 20	2- 2 09	11
309	Kinetics of CO2 Absorption into Aqueous Basic Amino Acid Salt: Potassium Salt of Lysine Solution. 2016 , 50, 2054-63		71
308	CFD study of CO2 separation in an HFMC: Under non-wetted and partially-wetted conditions. 2016 , 49, 81-93		15
307	On the Acceleration of CO2 Reaction with N-Ethyldiethanolamine in Aqueous Solutions by the Addition of Promoters. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 38-44	3.9	9
306	Mass transfer of ammonia escape and CO2 absorption in CO2 capture using ammonia solution in bubbling reactor. 2016 , 162, 354-362		24
305	Absorption of carbon dioxide in O/W emulsion absorbent: Kinetics of absorption in N -methylcyclohexylamine and 2,6-dimethylpiperidine emulsion. 2016 , 44, 1-10		1
304	CO2 absorption into N-methyldiethanolamine aqueous-organic solvents. <i>Chemical Engineering Journal</i> , 2016 , 283, 1069-1080	14.7	28
303	New 3-dimensional CFD modeling of CO2 and H2S simultaneous stripping from water within PVDF hollow fiber membrane contactor. 2016 , 52, 1295-1304		8
302	Self-diffusion coefficients of the binary (H 2 O + CO 2) mixture at high temperatures and pressures. Journal of Chemical Thermodynamics, 2016 , 93, 424-429	2.9	30
301	Power requirements of biogas upgrading by water scrubbing and biomethane compression: Comparative analysis of various plant configurations. 2017 , 141, 2-19		63
300	Density, Viscosity, and N2O Solubility of Aqueous 2-(Methylamino)ethanol Solution. <i>Journal of Chemical & Data</i> , 2017 , 62, 129-140	2.8	27
299	Reaction kinetics of carbon dioxide absorption in aqueous solutions of piperazine, N-(2-aminoethyl) ethanolamine and their blends. <i>Chemical Engineering Journal</i> , 2017 , 314, 123-131	14.7	20
298	Performance evaluation of biogas upgrading by pressurized water scrubbing via modelling and simulation. <i>Chemical Engineering Science</i> , 2017 , 170, 639-652	4.4	30
297	Design and construction of an equipment for the determination of solubility of gases in liquids. 2017 , 63, 3105-3109		4
296	New Amine Blends for Improved CO2 Separation: A Study on Reaction Kinetics and Vaporliquid Equilibrium. 2017 , 204, 557-562		6
295	Analysis of CO 2 solubility and absorption heat into 1-dimethylamino-2-propanol solution. <i>Chemical Engineering Science</i> , 2017 , 170, 3-15	4.4	60
294	Microwave swing regeneration of aqueous monoethanolamine for post-combustion CO 2 capture. 2017 , 192, 126-133		43

293	Molecular Simulation Study of Montmorillonite in Contact with Variably Wet Supercritical Carbon Dioxide. 2017 , 121, 6199-6208		33	
292	Thermophysical Properties and Phase Behavior of Fluids for Application in Carbon Capture and Storage Processes. 2017 , 8, 381-402		11	
291	Post-combustion CO2 capture using [Emim][Ac] ionic liquid, piperazine activated N-methyldiethanolamine and promoted K2CO3 in a bench scale. 2017 , 62, 46-60		7	
290	Investigation of Mass Transfer and Hydrodynamics in a Model Bubble Column. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1434-1444	2	19	
289	Hierarchical calibration and validation for modeling bench-scale solvent-based carbon capture. Part 1: Non-reactive physical mass transfer across the wetted wall column. 2017 , 7, 706-720		6	
288	Application of a Wire-Mesh Sensor for the study of Chemical Species Conversion in Bubble Column. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1425-1433	2	17	
287	Experimental study of carbon dioxide absorption into aqueous ammonia with a hollow fiber membrane contactor. 2017 , 540, 297-306		25	
286	Gas absorption enhancement in hollow fiber membrane contactors using nanofluids: Modeling and simulation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017 , 119, 7-15	3.7	36	
285	Experimental investigation and modeling of viscosity effect on carbon dioxide absorption using sodium hydroxide. 2017 , 5, 2597-2604		5	
284	CO2 abatement in oscillating packed-bed scrubbers: Hydrodynamics and reaction performances for marine applications. 2017 , 63, 1064-1076		13	
283	Modeling of CO2 equilibrium solubility in a novel 1-Diethylamino-2-Propanol Solvent. 2017 , 63, 4465-44	175	13	
282	Kinetic Reaction Characteristics of Quasi-Aqueous and Nonaqueous Sorbents for CO2Absorption Using MEA/H2O/Ethylene Glycol. <i>Energy & Description</i> 2017, 31, 8383-8391	4.1	9	
281	Experimental investigation of CO2 removal using Piperazine solution in a stirrer bubble column. 2017 , 63, 226-240		17	
280	Fundamental Understanding of CO2 Capture and Regeneration in Aqueous Amines from First-Principles Studies: Recent Progress and Remaining Challenges. <i>Industrial & Discourse Engineering Chemistry Research</i> , 2017 , 56, 6887-6899	3.9	41	
279	Mass transfer performance studies of aqueous blended DEEA-MEA solution using orthogonal array design in a packed column. <i>Separation and Purification Technology</i> , 2017 , 183, 117-126	8.3	21	
278	High frequency ultrasonic-assisted chemical absorption of CO2 using monoethanolamine (MEA). <i>Separation and Purification Technology</i> , 2017 , 183, 136-144	8.3	27	
277	Characterization and modelling of aerosol droplet in absorption columns. 2017 , 58, 114-126		11	
276	Monoethanolamine-based deep eutectic solvents, their synthesis and characterization. <i>Fluid Phase Equilibria</i> , 2017 , 448, 30-40	2.5	59	

275	Carbonation of gypsum from wet flue gas desulfurization process: experiments and modeling. <i>Environmental Science and Pollution Research</i> , 2017 , 24, 8602-8608	5.1	16
274	Reactive absorption of CO 2 in NaOH: Detailed study of enhancement factor models. <i>Chemical Engineering Science</i> , 2017 , 166, 193-209	4.4	37
273	Molecular simulation study of the CO2-N2O analogy. Fluid Phase Equilibria, 2017, 442, 44-52	2.5	4
272	Kinetics of CO 2 absorption in aqueous hexamethylenediamine. 2017 , 56, 116-125		11
271	Thermodynamic and Mass-Transfer Modeling of Carbon Dioxide Absorption into Aqueous 2-Amino-2-Methyl-1-Propanol. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 319-330	3.9	15
270	Simulation of a reacting gas[Iquid bubbly flow with CFD and PBM: Validation with experiments. 2017 , 44, 43-60		22
269	Simulation and experimental validation of reactive bubble column reactors. <i>Chemical Engineering Science</i> , 2017 , 170, 306-319	4.4	28
268	Phase change behavior and kinetics of CO2 absorption into DMBA/DEEA solution in a wetted-wall column. <i>Chemical Engineering Journal</i> , 2017 , 314, 681-687	14.7	38
267	Mechanism and Kinetics Study of CO2 Absorption into Blends of N-Methyldiethanolamine and 1-Hydroxyethyl-3-methylimidazolium Glycine Aqueous Solution. <i>Energy & Description</i> , 2017, 31, 12425-12	2433	15
266	Feasible ionic liquid-amine hybrid solvents for carbon dioxide capture. 2017 , 66, 120-128		15
265	Granular carbon dioxide sorbent preparation for cyclic operations. 2017, 42, 27826-27831		
264	Determination of Kinetics of CO2 Absorption in Unloaded and Loaded DEEA+MAPA Blend. 2017 , 114, 1772-1784		9
263	The determination of the Henry Coefficient of reactive gases An example of CO2 in aqueous solutions of monoethanolamine (MEA). <i>Chemical Engineering Science</i> , 2017 , 173, 474-482	4.4	2
262	Rate of Absorption for CO2 Absorption Systems Using a Wetted Wall Column. 2017 , 114, 2009-2023		17
261	Effects of Viscosity on CO2 Absorption in Aqueous Piperazine/2-methylpiperazine. 2017, 114, 2103-212	20	11
260	Study of the Post-combustion CO2 Capture Applied to Conventional and Partial Oxy-fuel Cement Plants. 2017 , 114, 6181-6196		14
259	Rate-based modeling and sensitivity analysis of a packed column for post-combustion CO 2 capture into a novel reactive 1-dimethylamino-2-propanol (1DMA2P) solution. 2017 , 65, 137-148		8
258	CO2 Capture Using Fluorinated Hydrophobic Solvents. <i>Industrial & Discourse Industrial Chemistry Research</i> , 2017 , 56, 11958-11966	3.9	21

257	Enzymatic CO 2 capture in countercurrent packed-bed column reactors with high performance random packings. 2017 , 63, 462-474		12	
256	Simultaneous Separation of H2S and CO2 from Biogas by Gas[liquid Membrane Contactor Using Single and Mixed Absorbents. <i>Energy & Energy & Single and Mixed Absorbents</i> . <i>Energy & Energy & Single and Mixed Absorbents</i> . <i>Energy & Energy & Single and Mixed Absorbents</i> .	4.1	27	
255	Study of CO2 Absorption into Phase Change Solvents MAPA and DEEA. <i>Journal of Chemical & Engineering Data</i> , 2017 , 62, 2261-2271	2.8	2	
254	Rate-Based Modeling of CO2 Absorption into Piperazine-Activated Aqueous N-Methyldiethanolamine Solution: Kinetic and Mass Transfer Analysis. <i>International Journal of</i> <i>Chemical Kinetics</i> , 2017 , 49, 690-708	1.4	8	
253	Effects of SO 2 on CO 2 capture using chilled ammonia solvent. 2017 , 63, 442-448		1	
252	High performance of carbon dioxide adsorption of mesoporous mordenite synthesized in the presence of N,N-dimethylaniline. 2017 , 43, 7443-7456		5	
251	Mathematical modeling of CO2 absorption into reactive DEAB solution in packed columns using surface-renewal penetration theory. 2017 , 80, 301-313		7	
250	Kinetic study and process model development of CO2 absorption using hollow fiber membrane contactor with promoted hot potassium carbonate. 2017 , 5, 4415-4430		8	
249	Enzyme-mediated CO 2 capture in oscillating structured packed-bed columns - Hydrodynamics and process performance for offshore applications. 2017 , 144, 157-174		14	
248	Study of the effect of condensation and evaporation of water on heat and mass transfer in CO2 absorption column. <i>Chemical Engineering Science</i> , 2017 , 172, 353-369	4.4	1	
247	CO 2 absorption into loaded aqueous MEA solutions: Impact of different model parameter correlations and thermodynamic models on the absorption rate model predictions. <i>Chemical Engineering Journal</i> , 2017 , 327, 868-880	14.7	10	
246	Transport properties of CO2 and CH4 in hollow fiber membrane contactor for the recovery of biogas from anaerobic membrane bioreactor effluent. 2017 , 541, 62-72		33	
245	Solubility of Nitrous Oxide in Aqueous Methyldiethanolamine Solutions. <i>Journal of Chemical & Engineering Data</i> , 2017 , 62, 2761-2769	2.8	3	
244	Enhancing the energetic efficiency of MDEA/PZ-based CO2 capture technology for a 650 MW power plant: Process improvement. 2017 , 185, 362-375		96	
243	Mathematical modeling of CO2 absorption into novel reactive DEAB solution in hollow fiber membrane contactors; kinetic and mass transfer investigation. 2017 , 524, 186-196		27	
242	Effect of ammonia on the kinetics of sulfur dioxide absorption into aqueous 2-amino-2-methyl-1-propanol solutions. 2017 , 81, 175-181		2	
241	Experimental Study on Effect of CO2Alkaline Water Two-Phase Gas Displacement and Coal Wetting. <i>Energy & Energy & Energy</i>	4.1	9	
240	Kinetics of CO2 Absorption in Aqueous Hexamethylenediamine Blended N-Methyldiethanolamine. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 14902-14913	3.9	9	

239	Mass transfer characteristics of the liquid film flow in a rotating packed bed for CO 2 capture: A micro-scale CFD analysis. 2017 , 142, 3407-3414		10
238	Kinetics, Thermodynamics, and Mechanism of a Novel Biphasic Solvent for CO Capture from Flue Gas. 2018 , 52, 3660-3668		97
237	Kinetic Study of CO2Absorption in Aqueous Benzylamine Solvent Using a Stirred Cell Reaction Calorimeter. <i>Energy & Calorimeter</i> , 2018, 32, 3668-3680	4.1	10
236	Experimental Study on Simultaneous Absorption and Desorption of CO2, SO2, and NOxUsing AqueousN-Methyldiethanolamine and Dimethyl Sulfoxide Solutions. <i>Energy & Description</i> 2018, 32, 3647	- 3 : 6 59	20
235	Effects of operating parameters of packed columns on the K G a v for CO 2 absorption by amine solutions using optimization imulation framework. <i>Separation and Purification Technology</i> , 2018 , 202, 86-102	8.3	3
234	The effect of membrane pores wettability on CO2 removal from CO2/CH4 gaseous mixture using NaOH, MEA and TEA liquid absorbents in hollow fiber membrane contactor. <i>Chinese Journal of Chemical Engineering</i> , 2018 , 26, 1845-1861	3.2	37
233	Modeling for design and operation of high-pressure membrane contactors in natural gas sweetening. 2018 , 132, 1005-1019		15
232	Modeling and simulation of CO2 separation from CO2/CH4 gaseous mixture using potassium glycinate, potassium argininate and sodium hydroxide liquid absorbents in the hollow fiber membrane contactor. 2018 , 6, 1500-1511		38
231	Nitrification and coupled nitrification-denitrification at shallow depths are responsible for early season N2O emissions under alternate wetting and drying management in an Italian rice paddy system. 2018 , 120, 58-69		24
230	Mass transfer in ammonia-based CO2 absorption in bubbling reactor under static magnetic field. <i>Chemical Engineering Journal</i> , 2018 , 338, 450-456	14.7	16
229	Experimental investigation of CO2 removal from N2 by metal oxide nanofluids in a hollow fiber membrane contactor. 2018 , 69, 60-71		25
228	Mixed matrix membranes of polyurethane with nickel oxide nanoparticles for CO2 gas separation. 2018 , 549, 588-601		54
227	Reactive absorption of CO2 in NaOH: An Euler-Euler simulation study. <i>Chemical Engineering Science</i> , 2018 , 181, 199-214	4.4	19
226	Modeling and validation of a pilot-scale aqueous mineral carbonation reactor for carbon capture using computational fluid dynamics. <i>Chemical Engineering Science</i> , 2018 , 177, 301-312	4.4	9
225	Experimental Investigation of the Effect of Nano Heavy Metal Oxide Particles in Piperazine Solution on CO2 Absorption Using a Stirrer Bubble Column. <i>Energy & Damp; Fuels</i> , 2018 , 32, 2037-2052	4.1	21
224	Process assessment and sensitivity analysis of CO2 capture by aqueous methyldiethanolamine + piperazine blended solutions using membrane contactor: Model development of kinetics and mass transfer rate. Separation and Purification Technology, 2018, 204, 185-	8.3 1 9 5	10
223	Impacts of CaO Solid Particles in Carbon Dioxide Absorption Process from Ship Emission with NaOH Solution. 2018 , 23, 320-326		1
222	Device-scale CFD modeling of gas-liquid multiphase flow and amine absorption for CO2 capture. 2018 , 8, 603-620		4

221	A PBM-CFD Model with Optimized PBM-Customized Drag Equations for Chemisorption of CO2 in a Bubble Column. 2018 , 16,		2
220	CO2 absorption into a phase change absorbent: Water-lean potassium prolinate/ethanol solution. <i>Chinese Journal of Chemical Engineering</i> , 2018 , 26, 2318-2326	3.2	19
219	CO2 absorption rate in semi-aqueous monoethanolamine. <i>Chemical Engineering Science</i> , 2018 , 182, 56-6	564.4	44
218	Prediction of species concentration distribution using a rigorous turbulent mass diffusivity model for bubble column reactor simulation part I: Application to chemisorption process of CO2 into NaOH solution. <i>Chemical Engineering Science</i> , 2018 , 184, 161-171	4.4	9
217	Effect of water wash on mist and aerosol formation in absorption column. <i>Chemical Engineering Journal</i> , 2018 , 333, 636-648	14.7	10
216	Passivity of embedded reinforcement in carbonated low-calcium fly ash-based geopolymer concrete. 2018 , 85, 32-43		32
215	Optimization of the design, operating conditions, and coupling configuration of combined cycle power plants and CO2 capture processes by minimizing the mitigation cost. <i>Chemical Engineering Journal</i> , 2018 , 331, 870-894	14.7	20
214	Experimental and Numerical Investigation of CO2 Absorption Using Nanofluids in Hollow-Fiber Membrane Contactor. <i>Chemical Engineering and Technology</i> , 2018 , 41, 367-378	2	20
213	Hierarchical calibration and validation framework of bench-scale computational fluid dynamics simulations for solvent-based carbon capture. Part 2: Chemical absorption across a wetted wall column. 2018 , 8, 150-160		7
212	Novel dense skin hollow fiber membrane contactor based process for CO2 removal from raw biogas using water as absorbent. <i>Separation and Purification Technology</i> , 2018 , 193, 112-126	8.3	20
211	Experimental and Theoretical Studies on Mass Transfer Performance for CO2 Absorption into Aqueous N,N-Dimethylethanolamine Solution in the Polytetrafluoroethylene Hollow-Fiber Membrane Contactor. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 16862-16874	3.9	6
210	Carbon Dioxide Absorption Modeling for Off-Gas Treatment in the Nuclear Fuel Cycle. 2018 , 2018, 1-11		4
209	CFD Simulation and Visualization of Reactive Bubble Columns. <i>Journal of Chemical Engineering of Japan</i> , 2018 , 51, 356-365	0.8	6
208	Influence of substitution of water by organic solvents in amine solutions on absorption of CO2. 2018 , 78, 286-305		26
207	CO2 and H2S absorption by MEA solution in packed-bed columns under inclined and heaving motion conditions - Hydrodynamics and reactions performance for marine applications. 2018 , 79, 1-13		11
206	Reactive absorption of CO2 into Piperazine aqueous solution in a stirrer bubble column: Modeling and experimental. 2018 , 79, 91-116		15
205	Process modelling and analysis of intensified CO2 capture using monoethanolamine (MEA) in rotating packed bed absorber. 2018 , 204, 1124-1142		22
204	Enhancement in specific absorption rate by solvent microencapsulation. 2018 , 64, 4066-4079		8

203	Modeling and simulation of CO2 capture using semipermeable elastic microcapsules. 2018 , 74, 191-20	5	12
202	Thermal regeneration of amines in vertical, inclined and oscillating CO2 packed-bed strippers for offshore floating applications. 2018 , 74, 229-250		8
201	Kinetics of reactive absorption of CO2 using aqueous blend of potassium carbonate, ethylaminoethanol, and N-methyl-2-Pyrollidone (APCEN solvent). 2018 , 89, 191-197		3
200	Measurements and correlations of solubility of N 2 O in and density, viscosity of partially CO 2 loaded water-lean amino acid salts. <i>Journal of Chemical Thermodynamics</i> , 2018 , 126, 82-90	2.9	12
199	Partially Upgraded Biogas: Potential for Decentralized Utilization in Agricultural Machinery. <i>Chemical Engineering and Technology</i> , 2018 , 41, 2111-2119	2	1
198	Development of a Rigorous Modeling Framework for Solvent-Based CO2 Capture. 1. Hydraulic and Mass Transfer Models and Their Uncertainty Quantification. <i>Industrial & Description of the State of the Mass Transfer Models</i> 37, 10448-10463	3.9	11
197	Characterization and kinetics of CO2 absorption in potassium carbonate solution promoted by 2-methylpiperazine. 2018 , 6, 3262-3272		12
196	The Effect of Hydration on the Structure and Transport Properties of Confined Carbon Dioxide and Methane in Calcite Nanopores. 2018 , 6,		12
195	Modeling of CO2 capture from gas stream emissions of petrochemical industries by membrane contactor. 2018 , 36, 1446-1454		1
194	Mass transfer enhancement factor for chemical absorption of carbon dioxide into sodium metaborate solution. 2018 , 35, 1800-1806		O
193	Modelling of CO2 absorption via hollow fiber membrane contactors: Comparison of pore gas diffusivity models. <i>Chemical Engineering Science</i> , 2018 , 190, 110-121	4.4	9
192	Density, Viscosity, and N2O Solubility of Aqueous Solutions of MEA, BmimBF4, and Their Mixtures from 293.15 to 333.15 K. <i>Journal of Chemical & Engineering Data</i> , 2018 , 63, 2708-2717	2.8	2
191	Loss of Methanol and Monoethylene Glycol in VLE and LLE: Prediction of Hydrate Inhibitor Partition. <i>Journal of Chemical & Data</i> , 2019, 64, 3889-3903	2.8	2
190	Kinetics of CO2 absorption into aqueous solutions of 3-dimethylamino-1-propanol and 1-(2-hydroxyethyl)pyrrolidine in the blend with 3-(methylamino)propylamine. 2019 , 3, 100032		
189	Modeling and Simulation of the Absorption of CO2 and NO2 from a Gas Mixture in a Membrane Contactor. 2019 , 7, 441		7
188	An experimental and modeling study of physical N2O solubility in 2-(ethylamino)ethanol. <i>Journal of Chemical Thermodynamics</i> , 2019 , 138, 34-42	2.9	4
187	Characterization and Correlations of CO2 Absorption Performance into Aqueous Amine Blended Solution of Monoethanolamine (MEA) and N,N-Dimethylethanolamine (DMEA) in a Packed Column. <i>Energy & Description of Management Energy & Description of Management (DMEA) and Packed Column.</i>	4.1	11
186	Kinetic effect and absorption performance of piperazine activator into aqueous solutions of 2-amino-2-methyl-1-propanol through post-combustion CO2 capture. 2019 , 36, 1090-1101		11

185	Kinetic study of CO2labsorption in aqueous solutions of 2-((2-aminoethyl)amino)-ethanol using a stirred cell reaction calorimeter. <i>International Journal of Chemical Kinetics</i> , 2019 , 51, 943-957	1.4	1
184	COISTRIPPING FROM DIETHANOLAMINE USING MEMBRANE CONTACTORS: MODEL VALIDATION AND MEMBRANE WETTABILITY. 2019 , 81,		1
183	Kinetics of CO2 Absorption in Novel Tertiary N-Methyl-4-Piperidinol Solvent. 2019 , 90, 102796		6
182	Carbon dioxide diffusion: A molecular dynamics study for Microalgae Biofixation Technology. 2019 , 268, 012062		1
181	Thermally induced characterization and modeling of physicochemical, acoustic, rheological, and thermodynamic properties of novel blends of (HEF + AEP) and (HEF + AMP) for CO/HS absorption. <i>Environmental Science and Pollution Research</i> , 2019 , 26, 32209-32223	5.1	4
180	Mass-transfer studies of solid-base catalyst-aided CO2 absorption and solid-acid catalyst-aided CO2 desorption for CO2 capture in a pilot plant using aqueous solutions of MEA and blends of MEA-MDEA and BEA-AMP. 2019 , 3, 263-277		4
179	An experiment and model of ceramic (alumina) hollow fiber membrane contactors for chemical absorption of CO2 in aqueous monoethanolamine (MEA) solutions. 2019 , 36, 1669-1679		6
178	Experimental Study of a Hydrophobic Solvent for Natural Gas Sweetening Based on the Solubility and Selectivity for Light Hydrocarbons (CH4, C2H6) and Acid Gases (CO2 and H2S) at 298B53 K. <i>Journal of Chemical & Data</i> , 2019, 64, 545-556	2.8	7
177	Membrane gas-solvent contactors undergoing oscillating solvent flow for enhanced carbon dioxide capture. <i>Separation and Purification Technology</i> , 2019 , 227, 115653	8.3	8
176	A detailed screening on the mass transfer modeling of the CO2 absorption utilizing silica nanofluid in a wetted wall column. 2019 , 127, 125-132		17
175	A comprehensive kinetic and thermodynamic study of CO2 absorption in blends of monoethanolamine and potassium lysinate: Experimental and modeling. <i>Chemical Engineering Science</i> , 2019 , 206, 187-202	4.4	10
174	Effect of liquid viscosity on the performance of a non-porous membrane contactor for CO2 capture. <i>Separation and Purification Technology</i> , 2019 , 222, 188-201	8.3	13
173	Bayesian Inference of Aqueous Mineral Carbonation Kinetics for Carbon Capture and Utilization. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 8246-8259	3.9	8
172	The effect of heat treatment on hollow fiber membrane contactor for CO2 stripping. <i>Separation and Purification Technology</i> , 2019 , 223, 186-195	8.3	5
171	Characterization of the superior CO2-capturing absorbent blend AMP/PZ/EGMEE/Water. 2019 , 84, 29-	35	4
170	Detailed performance model of carbon dioxide absorption utilizing titanium dioxide nanoparticles in a wetted wall column. 2019 , 38, 13211		3
169	Novel models for correlation of Solubility constant and diffusivity of N2O in aqueous 1-dimethylamino-2-propanol. <i>Chemical Engineering Science</i> , 2019 , 203, 86-103	4.4	23
168	Analysis of CO2 equilibrium solubility of seven tertiary amine solvents using thermodynamic and ANN models. <i>Fuel</i> , 2019 , 249, 61-72	7.1	36

167	Absorption characteristics and kinetics of CO2 capture into N-methyldiethanolamine aqueous solution catalyzed by the immobilized carbonic anhydrase. 2019 , 37, 331-340		5
166	The Effects of Mass Transfer on the Determination of GasIliquid Reaction Kinetics in a Stirred Cell Reactor: In the Case of CO2 Absorption by Aqueous Alkanolamine Solution. <i>Energy & amp; Fuels</i> , 2019 , 33, 11524-11535	4.1	1
165	Chemical Absorption of CO Enhanced by Nanoparticles Using a Membrane Contactor: Modeling and Simulation. <i>Membranes</i> , 2019 , 9,	3.8	6
164	Theoretical Study of CO2 Absorption into Novel Reactive 1DMA2P Solvent in Split-flow Absorber-stripper Unit: Mass Transfer Performance and Kinetic Analysis. 2019 , 17,		2
163	CO2 absorption enhancement by water-based nanofluids of CNT and SiO2 using hollow-fiber membrane contactor. <i>Separation and Purification Technology</i> , 2019 , 210, 920-926	8.3	83
162	Solubility of CO2 in aqueous 2-amino-1, 3-propanediol (Serinol) at elevated pressures. <i>Journal of Molecular Liquids</i> , 2019 , 277, 207-216	6	2
161	Investigation on kinetics of carbon dioxide absorption in aqueous solutions of monoethanolamine + 1, 3-diaminopropane. 2019 , 54, 2800-2808		7
160	Estimation of CO2 Diffusivity in Brine by Use of the Genetic Algorithm and Mixed Kernels-Based Support Vector Machine Model. 2019 , 141,		11
159	CO2 capture using highly viscous amine blends in non-porous membrane contactors. <i>Chemical Engineering Journal</i> , 2019 , 359, 1581-1591	14.7	25
158	H2S and CO2 capture from gaseous fuels using nanoparticle membrane. 2019 , 168, 847-857		15
157	Kinetics of CO2 absorption by aqueous mixtures of N,N?-diethylethanolamine and polyamines. <i>International Journal of Chemical Kinetics</i> , 2019 , 51, 131-137	1.4	4
156	Effect of heat-stable salts on absorption/desorption performance of aqueous monoethanolamine (MEA) solution during carbon dioxide capture process. <i>Separation and Purification Technology</i> , 2019 , 212, 822-833	8.3	13
155	Comprehensive solubility of N2O and mass transfer studies on an effective reactive N,N-dimethylethanolamine (DMEA) solvent for post-combustion CO2 capture. <i>Chemical Engineering Journal</i> , 2019 , 355, 369-379	14.7	42
154	Solvent Property of Amine Based Solvents. 2019 , 7-22		
153	Nafion/PEG hybrid membrane for CO2 separation: Effect of PEG on membrane micro-structure and performance. <i>Separation and Purification Technology</i> , 2019 , 214, 67-77	8.3	35
152	Equilibrium solubility and kinetics of CO2 absorption in hexamethylenediamine activated aqueous sodium glycinate solvent. <i>Chemical Engineering Journal</i> , 2020 , 386, 121462	14.7	9
151	Solubility of carbon dioxide in binary mixtures of dimethyl sulfoxide and ethylene glycol: LFER analysis. <i>Journal of Chemical Thermodynamics</i> , 2020 , 141, 105968	2.9	3

(2020-2020)

149	Solubility of N2O, equilibrium solubility, mass transfer study and modeling of CO2 absorption into aqueous monoethanolamine (MEA)/1-dimethylamino-2-propanol (1DMA2P) solution for post-combustion CO2 capture. <i>Separation and Purification Technology</i> , 2020 , 232, 115957	8.3	6
148	Mass transfer performance and correlations for CO2 absorption into aqueous blended PG/MEA in PTFE membrane contactor. 2020 , 95, 27-39		3
147	Theoretical modeling of the mass transfer performance of CO2 absorption into DEAB solution in hollow fiber membrane contactor. 2020 , 593, 117439		18
146	Aqueous mixtures of AMP, HMDA-N,N?-dimethyl and TEG for CO2 separation: a study on equilibrium and reaction kinetics. 2020 , 207, 1440-1450		3
145	Characterization and enhancement of the gas separation properties of mixed matrix membranes: Polyimide with nickel oxide nanoparticles. 2020 , 153, 789-805		11
144	CFD investigation of CO2 absorption/desorption by a fluidized bed of micro-encapsulated solvents. 2020 , 6, 100050		1
143	Enhancement of gas-liquid mass transfer in microchannels by rectangular baffles. <i>Separation and Purification Technology</i> , 2020 , 236, 116306	8.3	5
142	A molecular dynamics study on the CO2 permeability of microalgae lipid membrane. 2020 , 32, 291-297		1
141	Mathematical modeling of CO2 membrane absorption system using ionic liquid solutions. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020 , 147, 107743	3.7	8
140	Measurement and correlation for CO2 mass diffusivity in various metal oxide nanofluids. 2020 , 8, 10359	98	5
139	Deep CO2 removal using high pressure membrane contactors with low liquid-to-gas ratio. 2020 , 153, 528-536		9
138	Experimental and modeling study of CO2 absorption by L-Proline promoted potassium carbonate using hollow fiber membrane contactor. 2020 , 93, 102877		11
137	Solvent dependency of carbon dioxide Henry's constant in aqueous solutions of choline chloride-ethylene glycol based deep eutectic solvent. <i>Journal of Molecular Liquids</i> , 2020 , 319, 114173	6	16
136	Mass transfer intensification of CO2 absorption in monoethanolamine using high frequency ultrasonic technology in continuous system. 2020 , 102, 103157		4
135	CO2 capture by modified hollow fiber membrane contactor: Numerical study on membrane structure and membrane wettability. 2020 , 209, 106530		16
134	Simultaneous removal of CO2 and H2S from coalbed methane in a membrane contactor. 2020 , 273, 123	3107	13
133	Estimating CO2-Brine diffusivity using hybrid models of ANFIS and evolutionary algorithms. 2020 , 14, 818-834		6
132	Theoretical investigations on the effect of absorbent type on carbon dioxide capture in hollow-fiber membrane contactors. 2020 , 15, e0236367		12

131	Computational fluid dynamics simulation of NO2 molecular sequestration from a gaseous stream using NaOH liquid absorbent through porous membrane contactors. <i>Journal of Molecular Liquids</i> , 2020 , 313, 113584	6	21
130	Experimental investigation on CO absorption and physicochemical characteristics of different carbon-loaded aqueous solvents. <i>Environmental Science and Pollution Research</i> , 2021 , 28, 63532-63543	5.1	1
129	Molecular investigation into the effect of carbon nanotubes interaction with CO in molecular separation using microporous polymeric membranes. <i>Scientific Reports</i> , 2020 , 10, 13285	4.9	9
128	Surface Thermodynamics, Viscosity, Activation Energy of N-Methyldiethanolamine Aqueous Solutions Promoted by Tetramethylammonium Arginate. 2020 , 22,		1
127	Mass Transfer Correlation and Optimization of Carbon Dioxide Capture in a Microchannel Contactor: A Case of CO2-Rich Gas. 2020 , 13, 5465		4
126	Novel biphasic amino-functionalized ionic liquid solvent for CO capture: kinetics and regeneration heat duty. <i>Environmental Science and Pollution Research</i> , 2020 , 27, 26965-26973	5.1	2
125	Modeling and validation of carbon dioxide absorption in aqueous solution of piperazine + methyldiethanolamine by PC-SAFT and E-NRTL models in a packed bed pilot plant: Study of kinetics and thermodynamics. 2020 , 141, 95-109		4
124	Comparison of aqueous and non-aqueous alkanolamines solutions for carbon dioxide desorption in a microreactor. 2020 , 201, 117618		16
123	Measurements and modeling of vapor liquid equilibrium of CO2 in amine activated imidazolium ionic liquid solvents. <i>Fluid Phase Equilibria</i> , 2020 , 521, 112643	2.5	7
122	Mapping Diluents for Water-Lean Solvents: A Parametric Study. <i>Industrial & Discrete Managering Chemistry Research</i> , 2020 , 59, 11656-11680	3.9	9
121	Enhanced enzyme-based CO2 capture in countercurrent packed-bed column reactors. <i>Separation and Purification Technology</i> , 2020 , 248, 116908	8.3	7
120	Solubility and Heat of Absorption of CO2 into Diisopropylamine and N,N-Diethylethanolamine Mixed with Organic Solvents. <i>Energy & Discourse Solvents</i> 2020, 34, 8552-8561	4.1	4
119	Electrochemical reduction of nitrous oxide in 1-butyl-3-methylimidazolium tetrafluoroborate ionic liquid electrolyte. 2020 , 113, 106688		
118	An effective hybrid solvent of MEA/DEEA for CO2 absorption and its mass transfer performance in microreactor. <i>Separation and Purification Technology</i> , 2020 , 242, 116795	8.3	16
117	Prediction of CO2 diffusivity in brine using white-box machine learning. 2020 , 190, 107037		13
116	Density, Viscosity and Free Energy of Activation for Viscous Flow of Monoethanol Amine (1) + H2O (2) + CO2 (3) Mixtures. 2020 , 5, 13		1
115	N2O Solubility in and Density and Viscosity of Novel Biphasic Solvents for CO2 and Their Phase Separation Accelerators from 293.15 to 333.15 K. <i>Journal of Chemical & Data</i> , 2020, 65, 598-608	2.8	1
114	Mass transfer modeling and simulation of a transient homogeneous bubbly flow in a bubble column. <i>Chemical Engineering Science</i> , 2020 , 218, 115531	4.4	4

113	CO2 absorption intensification using novel DEAB amine-based nanoūids of CNT and SiO2 in membrane contactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020 , 149, 107848	3.7	18
112	Dynamic Coupling of Mass Transfer and Chemical Reaction for Taylor Flow along a Serpentine Microchannel. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 9279-9292	3.9	4
111	CO2 absorption rate in biphasic solvent of aminoethylethanolamine and diethylethanolamine. <i>Chemical Engineering Journal</i> , 2021 , 404, 126503	14.7	12
110	CFD simulation of CO2 removal from hydrogen rich stream in a microchannel. 2021 , 46, 19749-19757		7
109	Rigorous non-isothermal modeling approach for mass and energy transport during CO2 absorption into aqueous solution of amino acid ionic liquids in hollow fiber membrane contactors. <i>Separation and Purification Technology</i> , 2021 , 254, 117644	8.3	19
108	CFD modeling of reactive absorption of CO2 in aqueous NaOH in a rectangular bubble column: Comparison of mass transfer and enhancement factor model. <i>Chemical Engineering Science</i> , 2021 , 230, 116218	4.4	5
107	Hydrodynamics and gas-liquid mass transfer in a cross-flow T-junction microchannel: Comparison of two operation modes. <i>Separation and Purification Technology</i> , 2021 , 255, 117697	8.3	5
106	Continuous Neutralization of NaOH Solution with CO2 in an Internal-Loop Airlift Reactor . <i>Chemical Engineering and Technology</i> , 2021 , 44, 38-47	2	O
105	CO2 absorption into aqueous solutions of N-methyl-1,3-propane-diamine and its blends with N,N-diethylethanolamineNew kinetic data. 2021 , 45, 4098-4111		0
104	Plant-wide assessment of high-pressure membrane contactors in natural gas sweetening IPart I: Model development. <i>Separation and Purification Technology</i> , 2021 , 258, 117898	8.3	2
103	Reactive LES-Euler/Lagrange modelling of bubble columns considering effects of bubble dynamics. <i>Chemical Engineering Journal</i> , 2021 , 407, 127222	14.7	5
102	Kinetics study of CO2 absorption in potassium carbonate solution promoted by diethylenetriamine. 2021 , 6, 83-90		3
101	Effect of Monoethanolamine Concentration on CO2 Removal using Continuous High Frequency Ultrasonic Reactor. 2021 , 287, 01001		
100	Experimental Studies on the Hydrodynamics, Mass Transfer and Reaction in Bubble Swarms with Ultrafast X-ray Tomography and Local Probes. 2021 , 115-136		
99	Modelling the Influence of Bubble Dynamics on Motion, Mass Transfer and Chemical Reaction in LES-Euler/Lagrange Computations. 2021 , 379-411		1
98	Experimental Study on the Viscosity of 1-(2-HE)PP Aqueous Solutions. 2021 , 676, 012089		
97	Density, Viscosity, pH, Heat of Absorption, and CO2 Loading Capacity of Methyldiethanolamine and Potassium Lysinate Blend Solutions. <i>Journal of Chemical & Engineering Data</i> , 2021 , 66, 1611-1629	2.8	3
96	Regeneration of CO2 absorbent with membrane contactor via pressure swing. 2021 , 167, 107-115		1

95	Physical properties and reaction kinetics of CO2 absorption into unloaded and CO2 loaded viscous monoethanolamine (MEA) solution. <i>Journal of Molecular Liquids</i> , 2021 , 329, 115569	6	5
94	Experimental data and modeling for density and viscosity of carbon dioxide (CO2)-loaded and -unloaded aqueous blend of 2-(ethylamino)ethanol (EAE) and aminoethylethanolamine (AEEA) for post-combustion CO2 capture. <i>Journal of Molecular Liquids</i> , 2021 , 330, 115678	6	1
93	Physicochemical and thermodynamic properties of aqueous blends of 3-aminopropyl triethoxysilane and amines at 298.15B33.15 K. <i>Journal of Molecular Liquids</i> , 2021 , 332, 115440	6	1
92	Solubility data for Nitrous Oxide (N2O) and Carbon dioxide (CO2) in Piperazine (PZ) and a new eNRTL model. <i>Fluid Phase Equilibria</i> , 2021 , 538, 112992	2.5	1
91	Advanced analysis of bubble columns: Comparison of Euler/Lagrange simulations and experiments under CO2 chemisorption conditions. 2021 , 170, 389-405		2
90	Bayesian Optimization of Semicontinuous Carbonation Process Operation Recipe. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 9871-9884	3.9	
89	Dynamic modelling and simulation of a post-combustion CO2 capture process for coal-fired power plants. 1		0
88	Numerical modeling of reactive bubbly flows based on Euler-Lagrange approach. <i>Chemical Engineering Science</i> , 2021 , 239, 116640	4.4	1
87	NiO and MgO/activated carbon as an efficient CO2 adsorbent: characterization, modeling, and optimization. 1		3
86	CO2 removal using 1DMA2P solvent via membrane technology: Rate based modeling and sensitivity analysis. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021 , 166, 108464	3.7	1
85	Geometry effect on membrane absorption for CO2 capture. Part I: A hybrid modeling approach. e17471		0
84	Management of carbon dioxide released from spent nuclear fuel through voloxidation. 2021 , 330, 695		O
83	Enhancement of CO2 desorption from MEA-based nanofluids in membrane contactor: Simulation study. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021 , 168, 108582	3.7	3
82	Dynamic modelling based on surface renewal theory, model validation and process analysis of rotating packed bed absorber for carbon capture. 2021 , 301, 117462		3
81	Effects of chemical absorption on mass transfer from single carbon dioxide bubbles in aqueous sodium hydroxide solution in a vertical pipe. <i>Chemical Engineering Science</i> , 2021 , 245, 116852	4.4	2
80	Modeling of carbon dioxide absorption by solution of piperazine and methyldiethanolamine in a rotating packed bed. <i>Chemical Engineering Science</i> , 2022 , 248, 117118	4.4	O
79	Experimental and numerical mass transfer study of carbon dioxide absorption using Al2O3/water nanofluid in wetted wall column. 2022 , 238, 121670		6
78	Mass transfer modeling in nanofluids: theoretical basics and model development. 2022 , 247-271		

(2021-2012)

77	Dynamic Validation of Model for Post-Combustion Chemical Absorption CO2 Capture Plant. <i>Computer Aided Chemical Engineering</i> , 2012 , 807-811	0.6	5
76	CO2 Capture Using an Aqueous Formulated Solvent Containing Ethylaminoethanol, N-Methyl-2-Pyrolidone, and Hydroxyl Radical Scavengers: Study of Solvent Degradation and Absorption Kinetics. 2015 , 11-19		3
75	Absorption kinetics of CO2 in novel formulated 2-amino-2-methyl-1-propanol and N-methyl-4-piperidinol solvent. <i>Energy Reports</i> , 2020 , 6, 143-150	4.6	2
74	Density of PG+AMP+H2O and Solubility of N2O in PG+AMP+H2O. <i>Journal of Chemical Engineering of Japan</i> , 2013 , 46, 93-99	0.8	1
73	Kinetics of Absorption of Carbon Dioxide into Aqueous Solutions of 2-Amino-2-methyl-l-propanol + Diethanolamine. <i>Journal of Chemical Engineering of Japan</i> , 2004 , 37, 267-278	0.8	12
72	Reactive Absorption of CO2 into Aqueous Mixtures of Methyldiethanolamine and Diethanolamine. <i>International Journal of Chemical Engineering and Applications (IJCEA)</i> , 2014 , 5, 291-297	0.2	8
71	A Method for Estimating Mass Transfer Coefficients in a Packed Column Using Reactive Absorption Data. <i>Collection of Czechoslovak Chemical Communications</i> , 2005 , 70, 383-402		
70	Diffusion of nitrous oxide (1); water (2); 2-dimethylamino-ethanol (3). <i>Landolt-Būnstein - Group IV Physical Chemistry</i> , 2007 , 2227-2227		
69	Diffusion of nitrous oxide (1); water (2). Landolt-Banstein - Group IV Physical Chemistry, 2007, 2078-208	2	
68	Diffusion of carbon dioxide (1); water (2). Landolt-Banstein - Group IV Physical Chemistry, 2007, 1924-19	934	
67	Diffusion of nitrous oxide (1); water (2); bis-(2-hydroxy-propyl)-amine (3). <i>Landolt-Banstein - Group IV Physical Chemistry</i> , 2007 , 2236-2237		
66	Diffusion of nitrous oxide (1); water (2); bis-(2-hydroxy-ethyl)-methyl-amine (3). <i>Landolt-B</i> Instein - <i>Group IV Physical Chemistry</i> , 2007 , 2231-2235		
65			
	Group IV Physical Chemistry, 2007 , 2231-2235		O
65	Group IV Physical Chemistry, 2007 , 2231-2235 References. 2007 , 1577-1701	1.2	O 2
65 64	Group IV Physical Chemistry, 2007, 2231-2235 References. 2007, 1577-1701 Carbonation Mechanisms and Modelling. 2017, 127-158 Kinetic Study of Carbon Dioxide Reaction with Binding Organic Liquids. Tikrit Journal of Engineering	2.6	
65 64 63	References. 2007, 1577-1701 Carbonation Mechanisms and Modelling. 2017, 127-158 Kinetic Study of Carbon Dioxide Reaction with Binding Organic Liquids. <i>Tikrit Journal of Engineering Science</i> , 2019, 26, 26-32 Density, Viscosity, and Excess Properties of MDEA + H2O, DMEA + H2O, and DEEA + H2O Mixtures.		2

59	Density, Viscosity, and Physical CO2 Diffusivity of Novel Formulated Solvent N-Methyl-4-Piperidinol and 2-Amino-2-Methyl-1-Propanol for Carbon Capture. <i>International Journal of Environmental Science and Development</i> , 2020 , 11, 483-487	0.4	3
58	Yap lld olgulu kolonda s ₩l ve gaz fazlktile transfer katsay la rlve ara yiley alanli		О
57	Chemical Absorption. 2021 , 1-77		
56	Density, viscosity, physical CO2 diffusivity, and CO2 absorption capacity of novel blended N-methyl-4-piperidinol and piperazine solvent. <i>Energy Reports</i> , 2021 , 7, 844-853	4.6	1
55	Solubility of CO2 in nonaqueous system of 2-(butylamino)ethanol with 2-butoxyethanol: Experimental data and model representation. <i>Chinese Journal of Chemical Engineering</i> , 2021 , 41, 441-44	₿·²	O
54	Application of computational fluid dynamics technique in membrane contactor systems. 2022 , 289-310		1
53	A review on the selection criteria for slow and medium kinetic solvents used in CO2 absorption for natural gas purification. <i>Journal of Natural Gas Science and Engineering</i> , 2022 , 98, 104390	4.6	2
52	Kinetics of Carbon Dioxide Removal Using N-Acetylglucosamine. <i>ACS Omega</i> , 2020 , 5, 27043-27049	3.9	O
51	Dual-Layer Superhydrophobic Ceramic and PVDF Membrane Structure for an Enhanced Carbon Capture. SSRN Electronic Journal,	1	
50	Soil moisture determines nitrous oxide emission and uptake <i>Science of the Total Environment</i> , 2022 , 822, 153566	10.2	O
49	Estimation of diffusivity and intermolecular interaction strength of secondary and tertiary amine for CO2 absorption process by molecular dynamic simulation. <i>Molecular Simulation</i> , 1-11	2	1
48	Spatio-temporal 1D gasIlquid model for biological methanation in lab scale and industrial bubble column. <i>Chemical Engineering Science</i> , 2022 , 251, 117478	4.4	O
47	Eco-Friendly Deep Eutectic Solvents Blended with Diethanolamine Solution for Postcombustion CO2 Capture. <i>Energy & Energy & Energ</i>	4.1	4
46	Pathways of soil NO uptake, consumption, and its driving factors: a review <i>Environmental Science and Pollution Research</i> , 2022 , 1	5.1	2
45	Thermodynamics and kinetics of novel amino functionalized ionic liquid organic solvent for CO2 capture. <i>Separation and Purification Technology</i> , 2022 , 286, 120457	8.3	О
44	Modeling electrochemical CO2 reduction at silver gas diffusion electrodes using a TFFA approach. <i>Chemical Engineering Journal</i> , 2022 , 435, 134920	14.7	O
43	Mass transfer and capture of carbon dioxide using amino acids sodium aqueous solution in microchannel. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022 , 173, 108831	3.7	О
42	Investigation of viscosity, activation energy and CO2 diffusion coefficient for N-methyl-1,3-propane-diamine, N-(2-aminoethyl)ethanolamine and 1,4-butanediamine activated 2-diethylaminoethanol aqueous solutions. <i>Journal of Chemical Thermodynamics</i> , 2022 , 168, 106740	2.9	O

41	Permeability and Stability of Hydrophobic Tubular Ceramic Membrane Contactor for CO Desorption from MEA Solution <i>Membranes</i> , 2021 , 12,	3.8	О
40	Kinetics study of CO 2 absorption into methyldiethanolamine, potassium lysinate, and their blends in aqueous solution. <i>International Journal of Chemical Kinetics</i> ,	1.4	
39	Carbon dioxide Removal via Absorption using Artificial Seawater in a Microchannel for the Case of CO2-Rich Gas. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022 , 108928	3.7	О
38	Kinetic modeling of direct aqueous mineral carbonation using carbide slag in a stirred tank reactor. <i>Fuel</i> , 2022 , 315, 122837	7.1	O
37	Elucidating the important thermo physical characterization properties of amine activated hybrid novel solvents for designing post-combustion CO2 capture unit. <i>Journal of Molecular Liquids</i> , 2022 , 355, 118919	6	2
36	Characterization of nitrous oxide and nitrite accumulation during iron (Fe(0))- and ferrous iron (Fe(II))-driven autotrophic denitrification: mechanisms, environmental impact factors and molecular microbial characterization. <i>Chemical Engineering Journal</i> , 2022 , 438, 135627	14.7	2
35	Transport Theory in Membrane Contactor: Operational Principle. 2022, 45-98		
34	Molecular Simulations for Improved Process Modeling of an Acid Gas Removal Unit. <i>Fluid Phase Equilibria</i> , 2022 , 113478	2.5	O
33	Euler-Euler modeling of reactive bubbly flow in a bubble column. Physics of Fluids,	4.4	2
32	CO2/N2 separation by glycerol aqueous solution in a hollow fiber membrane contactor module: CFD simulation and experimental validation. <i>Fuel</i> , 2022 , 323, 124370	7.1	O
31	Chemical Absorption. 2022 , 1405-1481		
30	Nitrate respiration occurs throughout the depth of mucoid and non-mucoid Pseudomonas aeruginosa submerged agar colony biofilms including the oxic zone. <i>Scientific Reports</i> , 2022 , 12,	4.9	
29	Experimental Investigation of Mass Transfer Intensification for CO2 Capture by Environment-Friendly Water Based Nanofluid Solvents in a Rotating Packed Bed. <i>Sustainability</i> , 2022 , 14, 6559	3.6	1
28	Capillary Microreactor for Initial Screening of Three Amine-Based Solvents for CO2 Absorption, Desorption, and Foaming. <i>Frontiers in Chemical Engineering</i> , 2022 , 4,	1	
27	Measurement and Correlations of Physicochemical Properties of the Novel Solvent Tris(2-aminoethyl) amine and Its Blend with N-Methyldiethanolamine and 2-Amino 2-Methyl-1-Propanol. <i>Journal of Chemical & Data</i> ,	2.8	
26	A Rigorous Membrane Gas-Solvent Contactor Model for Flowsheet Simulation of the Carbon Capture Process. <i>Industrial & Engineering Chemistry Research</i> ,	3.9	O
25	Modeling of a Continuous Carbonation Reactor for CaCO3 Precipitation. <i>Frontiers in Chemical Engineering</i> , 4,	1	
24	Experimental Measurement and Modeling Prediction of Mass Transfer in a Hollow Fiber Membrane Contactor Using Tertiary Amine Solutions for CO2 Absorption. <i>Industrial & Engineering Chemistry Research</i> , 2022 , 61, 9632-9643	3.9	

23	Experimental study and modified modeling on effect of SO2 on CO2 absorption using amine solution. <i>Chemical Engineering Journal</i> , 2022 , 448, 137751	14.7	O
22	Carbon Dioxide Absorption in Packed Column in Non-Newtonian Fluid. <i>Tikrit Journal of Engineering Science</i> , 2022 , 17, 13-21	1.2	
21	Modeling of carbon dioxide separation by aqueous ammonia solution in hollow fiber membrane contactor. <i>Chemical Engineering and Technology</i> ,	2	O
20	In-depth analysis of reactive bubbly flow using two-way coupled spatio-temporal 1D model. 2022 , 261, 117963		
19	Development of an innovative process for post-combustion CO2 capture to produce high-value NaHCO3 nanomaterials. 2022 , 120, 103761		O
18	CO2 absorption in aqueous NH3 solutions: Novel dynamic modeling of experimental outcomes. 2023 , 451, 138999		O
17	Transport properties of mixtures of acid gases with aqueous monoethanolamine solutions: A molecular dynamics study. 2023 , 564, 113587		0
16	Modelling the effect of CO2 loading of aqueous potassium glycinate on CO2 absorption in a membrane contactor. 4,		O
15	Modeling of CO2 absorption into 4-diethylamino-2-butanol solution in a membrane contactor under wetting or non-wetting conditions. 2022 , 100069		O
14	Modeling Tracer Diffusion Coefficients of Any Type of Solutes in Polar and Non-Polar Dense Solvents. 2022 , 15, 6416		1
13	Investigating the Kinetics of CO2 Absorption in Aqueous Sodium Serinate/Piperazine Solutions: An Experimental and Mathematical Modeling. 2022 , 108845		O
12	CO2 absorption using benzylamine as absorbent and promoter in a hollow fiber membrane contactor: A numerical study. 2022 , 66, 102287		O
11	CO2 absorption performance of ChCl-MEA deep eutectic solvent in microchannel. 2022 , 10, 108792		1
10	Solubility of N2O and CO2 in 2-Butoxyethanol, 2-(Butylamino)ethanol, and Their Binary Blends. 2022 , 67, 3672-3680		O
9	Study of molecular interactions of monoethanolamine with some higher alcohols at 298.15[K. 2022 ,		O
8	Study on robust absorption performance of hydrophilic membrane contactor for direct air capture. 2022 , 122978		O
7	Glucosamine for CO2 Capture: Absorption Kinetics, Promoted Absorption Rate, and Comparison with Other Amino Sugars.		0
6	Experimental study of mass transfer for gas-liquid flow in rectangular microchannel. 2023,		О

CITATION REPORT

5	Improved CO2 Separation Using Aqueous Solutions of 2-Amino-2-hydroxymethyl-1,3-propanediol Promoted with Piperazine.	O
4	A new reactive absorption model using extents of reaction and activities. I. Application to Alkaline-salts-CO2 systems. 2023 , 270, 118522	О
3	Investigation of density, viscosity and derived thermodynamic properties of CO2-free and CO2-loaded poly(ethylene imine) aqueous systems at different temperatures and 0.1 IMPa. 2023 , 377, 121523	O
2	Kinetic analysis on CO2 sequestration from flue gas through direct aqueous mineral carbonation of circulating fluidized bed combustion fly ash. 2023 , 342, 127851	О
1	On the CO 2 absorption kinetics, loading capacity, and catalytic desorption of aqueous solutions of N -methyl- D -glucamine.	O