Paitoon Tontiwachwuthikul

List of Publications by Citations

276 papers	9,720 citations	54 h-index	85 g-index
290 ext. papers	11,041 ext. citations	4.3 avg, IF	6.37 L-index

#	Paper	IF	Citations
276	Pilot Plant Studies of the CO2 Capture Performance of Aqueous MEA and Mixed MEA/MDEA Solvents at the University of Regina CO2 Capture Technology Development Plant and the Boundary Dam CO2 Capture Demonstration Plant. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2414-2420	3.9	418
275	Recent progress and new developments in post-combustion carbon-capture technology with amine based solvents. *International Journal of Greenhouse Gas Control*, **2015**, 40, 26-54	4.2	291
274	Kinetics of the reactive absorption of carbon dioxide in high CO2-loaded, concentrated aqueous monoethanolamine solutions. *Chemical Engineering Science*, **2003**, 58, 5195-5210	4.4	277
273	Photocatalytic Process for CO2Emission Reduction from Industrial Flue Gas Streams. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2558-2568	3.9	276
272	Corrosion Behavior of Carbon Steel in the CO2 Absorption Process Using Aqueous Amine Solutions. *Industrial & Engineering Chemistry Research*, **1999**, 38, 3917-3924	3.9	247
271	Using polypropylene and polytetrafluoroethylene membranes in a membrane contactor for CO2 absorption. *Journal of Membrane Science*, **2006**, 277, 99-107	9.6	177
270	CO2 absorption by NaOH, monoethanolamine and 2-amino-2-methyl-1-propanol solutions in a packed column. *Chemical Engineering Science*, **1992**, 47, 381-390	4.4	155
269	Comparing the Absorption Performance of Packed Columns and Membrane Contactors. *Industrial & Engineering Chemistry Research*, **2005**, 44, 5726-5732	3.9	147
268	Comparing membrane resistance and absorption performance of three different membranes in a gas absorption membrane contactor. *Separation and Purification Technology*, **2009**, 65, 290-297	8.3	144
267	Interfacial Tensions of the Crude Oil + Reservoir Brine + CO2 Systems at Pressures up to 31 MPa and Temperatures of 27 °C and 58 °C. *Journal of Chemical & Engineering Data*, **2005**, 50, 1242-1249	2.8	139
266	The genetic algorithm based back propagation neural network for MMP prediction in CO2-EOR process. *Fuel*, **2014**, 126, 202-212	7.1	131
265	Artificial intelligence for monitoring and supervisory control of process systems. *Engineering Applications of Artificial Intelligence*, **2007**, 20, 115-131	7.2	131
264	Solubility of carbon dioxide in 2-amino-2-methyl-1-propanol solutions. *Journal of Chemical & Engineering Data*, **1991**, 36, 130-133	2.8	123
263	Reaction Kinetics of CO2in Aqueous Ethylenediamine, Ethyl Ethanolamine, and Diethyl Monoethanolamine Solutions in the Temperature Range of 298−313 K, Using the Stopped-Flow Technique. *Industrial & Engineering Chemistry Research*, **2007**, 46, 4426-4434	3.9	120
262	Catalytic and non catalytic solvent regeneration during absorption-based CO2 capture with single and blended reactive amine solvents. *International Journal of Greenhouse Gas Control*, **2014**, 26, 39-50	4.2	116
261	Kinetics of the Absorption of CO2 into Mixed Aqueous Loaded Solutions of Monoethanolamine and Methyldiethanolamine. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2608-2616	3.9	115
260	Analysis of Monoethanolamine and Its Oxidative Degradation Products during CO2 Absorption from Flue Gases: A Comparative Study of GC-MS, HPLC-RID, and CE-DAD Analytical Techniques and Possible Optimum Combinations. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2437-2451	3.9	115

259	Review on current advances, future challenges and consideration issues for post-combustion CO2 capture using amine-based absorbents. *Chinese Journal of Chemical Engineering*, **2016**, 24, 278-288	3.2	113
258	Integration of post-combustion capture and storage into a pulverized coal-fired power plant. *International Journal of Greenhouse Gas Control*, **2010**, 4, 499-510	4.2	105
257	Behavior of the Mass-Transfer Coefficient of Structured Packings in CO2 Absorbers with Chemical Reactions. *Industrial & Engineering Chemistry Research*, **1999**, 38, 2044-2050	3.9	105
256	Wettability Determination of the Reservoir BrineReservoir Rock System with Dissolution of CO2 at High Pressures and Elevated Temperatures. *Energy & Fuels*, **2008**, 22, 504-509	4.1	101
255	Mass Transfer Coefficients and Correlation for CO2 Absorption into 2-Amino-2-methyl-1-propanol (AMP) Using Structured Packing. *Industrial & Engineering Chemistry Research*, **1998**, 37, 569-575	3.9	100
254	Kinetics of sulfur dioxide- and oxygen-induced degradation of aqueous monoethanolamine solution during CO2 absorption from power plant flue gas streams. *International Journal of Greenhouse Gas Control*, **2009**, 3, 133-142	4.2	96
253	Comprehensive mass transfer and reaction kinetics studies of CO2 absorption into aqueous solutions of blended MDEAMEA. *Chemical Engineering Journal*, **2012**, 209, 501-512	14.7	94
252	Mathematical modelling of mass-transfer and hydrodynamics in CO2 absorbers packed with structured packings. *Chemical Engineering Science*, **2003**, 58, 4037-4053	4.4	94
251	A study of structureactivity relationships of commercial tertiary amines for post-combustion CO2 capture. *Applied Energy*, **2016**, 184, 219-229	10.7	93
250	Effect of internal coagulant on effectiveness of polyvinylidene fluoride membrane for carbon dioxide separation and absorption. *Journal of Membrane Science*, **2008**, 311, 153-158	9.6	88
249	CO2 stripping from monoethanolamine using a membrane contactor. *Journal of Membrane Science*, **2011**, 376, 110-118	9.6	86
248	Practical experience in post-combustion CO2 capture using reactive solvents in large pilot and demonstration plants. *International Journal of Greenhouse Gas Control*, **2015**, 40, 6-25	4.2	85
247	Solubilities of Carbon Dioxide in Polyethylene Glycol Ethers. *Canadian Journal of Chemical Engineering*, **2008**, 83, 358-361	2.3	85
246	Mass Transfer Performance of CO2 Absorption into Aqueous Solutions of 4-Diethylamino-2-butanol, Monoethanolamine, and N-Methyldiethanolamine. *Industrial & Engineering Chemistry Research*, **2012**, 51, 6470-6479	3.9	81
245	Enhanced light oil recovery from tight formations through CO 2 huff puff processes. *Fuel*, **2015**, 154, 35-44	7.1	80
244	NMR Studies of Amine Species in MEACO2H2O System: Modification of the Model of VaporLiquid Equilibrium (VLE). *Industrial & Engineering Chemistry Research*, **2009**, 48, 2717-2720	3.9	80
243	Carbon dioxide (CO2) capture: Absorption-desorption capabilities of 2-amino-2-methyl-1-propanol (AMP), piperazine (PZ) and monoethanolamine (MEA) tri-solvent blends. *Journal of Natural Gas Science and Engineering*, **2016**, 33, 742-750	4.6	78
242	Experimental study on the solvent regeneration of a CO2-loaded MEA solution using single and hybrid solid acid catalysts. *AICHE Journal*, **2016**, 62, 753-765	3.6	78

241	Synthesis, solubilities, and cyclic capacities of amino alcohols for CO2 capture from flue gas streams. *Energy Procedia*, **2009**, 1, 1327-1334	2.3	77
240	Reaction Kinetics of CO2 in Aqueous 1-Amino-2-Propanol, 3-Amino-1-Propanol, and Dimethylmonoethanolamine Solutions in the Temperature Range of 298−313 K Using the Stopped-Flow Technique. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2213-2220	3.9	74
239	Volumetric Properties and Viscosities for Aqueous N-Methyl-2-pyrrolidone Solutions from 25 °C to 70 °C. *Journal of Chemical & Engineering Data*, **2004**, 49, 231-234	2.8	73
238	Correlations for Equilibrium Solubility of Carbon Dioxide in Aqueous 4-(Diethylamino)-2-butanol Solutions. *Industrial & Engineering Chemistry Research*, **2011**, 50, 14008-14015	3.9	66
237	Interfacial Interactions between Reservoir Brine and CO2 at High Pressures and Elevated Temperatures. *Energy & Fuels*, **2005**, 19, 216-223	4.1	66
236	Experimental study on mass transfer and prediction using artificial neural network for CO2 absorption into aqueous DETA. *Chemical Engineering Science*, **2013**, 100, 195-202	4.4	65
235	Solubility, absorption heat and mass transfer studies of CO2 absorption into aqueous solution of 1-dimethylamino-2-propanol. *Fuel*, **2015**, 144, 121-129	7.1	64
234	Reducing energy consumption of CO2 desorption in CO2-loaded aqueous amine solution using Al2O3/HZSM-5 bifunctional catalysts. *Applied Energy*, **2018**, 229, 562-576	10.7	64
233	Investigation of Mass-Transfer Performance for CO2 Absorption into Diethylenetriamine (DETA) in a Randomly Packed Column. *Industrial & Engineering Chemistry Research*, **2012**, 51, 12058-12064	3.9	63
232	Synthesis of new amines for enhanced carbon dioxide (CO2) capture performance: The effect of chemical structure on equilibrium solubility, cyclic capacity, kinetics of absorption and regeneration, and heats of absorption and regeneration. *Separation and Purification Technology*, **2016**, 167, 97-107	8.3	63
231	Screening tests of aqueous alkanolamine solutions based on primary, secondary, and tertiary structure for blended aqueous amine solution selection in post combustion CO2 capture. *Chemical Engineering Science*, **2017**, 170, 574-582	4.4	61
230	Heat duty, heat of absorption, sensible heat and heat of vaporization of 2-Amino-2-Methyl-1-Propanol (AMP), Piperazine (PZ) and Monoethanolamine (MEA) tri-Solvent blend for carbon dioxide (CO2) capture. *Chemical Engineering Science*, **2017**, 170, 26-35	4.4	61
229	A mathematical model for gas absorption membrane contactors that studies the effect of partially wetted membranes. *Journal of Membrane Science*, **2010**, 347, 228-239	9.6	61
228	Analysis of CO 2 solubility and absorption heat into 1-dimethylamino-2-propanol solution. *Chemical Engineering Science*, **2017**, 170, 3-15	4.4	60
227	13C NMR Spectroscopy of a Novel Amine Species in the DEAB−CO2−H2O system: VLE Model. *Industrial & Engineering Chemistry Research*, **2012**, 51, 8608-8615	3.9	58
226	Volumetric Properties and Viscosities for Aqueous AMP Solutions from 25 °C to 70 °C. *Journal of Chemical & Engineering Data*, **2003**, 48, 551-556	2.8	57
225	Kinetics of CO2 absorption into a novel 1-diethylamino-2-propanol solvent using stopped-flow technique. *AICHE Journal*, **2014**, 60, 3502-3510	3.6	56
224	Experimental studies of regeneration heat duty for CO2 desorption from diethylenetriamine (DETA) solution in a stripper column packed with Dixon ring random packing. *Fuel*, **2014**, 136, 261-267	7.1	56

223	Experimental and Theoretical Determination of Equilibrium Interfacial Tension for the Solvent(s)□CO2□Heavy Oil Systems. *Energy & Fuels*, **2012**, 26, 1776-1786	4.1	55
222	Experimental analyses of mass transfer and heat transfer of post-combustion CO2 absorption using hybrid solvent MEA□MeOH in an absorber. *Chemical Engineering Journal*, **2015**, 260, 11-19	14.7	54
221	Carbon dioxide (CO2) capture performance of aqueous tri-solvent blends containing 2-amino-2-methyl-1-propanol (AMP) and methyldiethanolamine (MDEA) promoted by diethylenetriamine (DETA). *International Journal of Greenhouse Gas Control*, **2016**, 53, 292-304	4.2	54
220	Wettability Determination of the Crude Oil□Reservoir Brine□Reservoir Rock System with Dissolution of CO 2 at High Pressures and Elevated Temperatures. *Energy & Fuels*, **2008**, 22, 2362-2371	4.1	54
219	Investigation of Low-Toxic Organic Corrosion Inhibitors for CO2 Separation Process Using Aqueous MEA Solvent. *Industrial & Engineering Chemistry Research*, **2001**, 40, 4771-4777	3.9	54
218	Part 5b: Solvent chemistry: reaction kinetics of CO2 absorption into reactive amine solutions. *Carbon Management*, **2012**, 3, 201-220	3.3	51
217	Rigorous Model for Predicting the Behavior of CO2 Absorption into AMP in Packed-Bed Absorption Columns. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2553-2557	3.9	49
216	An improved fast screening method for single and blended amine-based solvents for post-combustion CO2 capture. *Separation and Purification Technology*, **2016**, 169, 279-288	8.3	49
215	Evaluation of the heat duty of catalyst-aided amine-based post combustion CO2 capture. *Chemical Engineering Science*, **2017**, 170, 48-57	4.4	48
214	Comparative Mass Transfer Performance Studies of CO2 Absorption into Aqueous Solutions of DEAB and MEA. *Industrial & Engineering Chemistry Research*, **2010**, 49, 2857-2863	3.9	48
213	Kinetics of the Oxidative Degradation of Aqueous Monoethanolamine in a Flue Gas Treating Unit. *Industrial & Engineering Chemistry Research*, **2001**, 40, 3445-3450	3.9	47
212	Reducing Energy Penalty of CO Capture Using Fe Promoted SO/ZrO/MCM-41 Catalyst. *Environmental Science & Technology*, **2019**, 53, 6094-6102	10.3	46
211	Mechanism of formation of heat stable salts (HSSs) and their roles in further degradation of monoethanolamine during CO2 capture from flue gas streams. *Energy Procedia*, **2011**, 4, 591-598	2.3	46
210	Advancement and new perspectives of using formulated reactive amine blends for post-combustion carbon dioxide (CO2) capture technologies. *Petroleum*, **2017**, 3, 10-36	4.1	45
209	Investigation of CO2 Regeneration in Single and Blended Amine Solvents with and without Catalyst. *Industrial & Engineering Chemistry Research*, **2017**, 56, 7656-7664	3.9	45
208	Investigation of the effects of operating parameters on the local mass transfer coefficient and membrane wetting in a membrane gas absorption process. *Journal of Membrane Science*, **2015**, 490, 236-246	9.6	44
207	Parametric studies of carbon dioxide absorption into highly concentrated monoethanolamine solutions. *Canadian Journal of Chemical Engineering*, **2001**, 79, 137-142	2.3	44
206	Comparative studies of heat duty and total equivalent work of a new heat pump distillation with split flow process, conventional split flow process, and conventional baseline process for CO2 capture using monoethanolamine. *International Journal of Greenhouse Gas Control*, **2014**, 24, 87-97	4.2	43

205	Studies of Corrosion and Corrosion Control in a CO2-Amino-2-methyl-1-propanol (AMP) Environment. *Industrial & Engineering Chemistry Research*, **1997**, 36, 264-269	3.9	43
204	Simulation of pilot plant and industrial CO2-MEA absorbers. *Separation and Purification Technology*, **1993**, 7, 47-52		43
203	Analysis of reaction kinetics of CO2 absorption into a novel reactive 4-diethylamino-2-butanol solvent. *Chemical Engineering Science*, **2012**, 81, 251-259	4.4	42
202	Part 1: Design, modeling and simulation of post-combustion CO2 capture systems using reactive solvents. *Carbon Management*, **2011**, 2, 265-288	3.3	42
201	Study of cyclic CO2 injection for low-pressure light oil recovery under reservoir conditions. *Fuel*, **2016**, 174, 296-306	7.1	42
200	Part 5c: Solvent chemistry: solubility of CO2 in reactive solvents for post-combustion CO2. *Carbon Management*, **2012**, 3, 467-484	3.3	41
199	Corrosion Behavior of Carbon Steel in the Monoethanolamine-H2O-CO2-O2-SO2 System: Products, Reaction Pathways, and Kinetics. *Industrial & Engineering Chemistry Research*, **2009**, 48, 10169-10179	3.9	41
198	Densities and Viscosities for Binary Mixtures ofN-Methyldiethanolamine + Triethylene Glycol Monomethyl Ether from 25 °C to 70 °C andN-Methyldiethanolamine + Ethanol Mixtures at 40 °C. *Journal of Chemical & Engineering Data*, **2000**, 45, 247-253	2.8	41
197	Mechanistic model for prediction of structured packing mass transfer performance in CO2 absorption with chemical reactions. *Chemical Engineering Science*, **2000**, 55, 3651-3663	4.4	39
196	A comparative kinetics study of CO2 absorption into aqueous DEEA/MEA and DMEA/MEA blended solutions. *AICHE Journal*, **2018**, 64, 1350-1358	3.6	39
195	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K. *Journal of Chemical & Engineering Data*, **2007**, 52, 560-565	2.8	38
194	Analysis of CO2 equilibrium solubility of seven tertiary amine solvents using thermodynamic and ANN models. *Fuel*, **2019**, 249, 61-72	7.1	36
193	Enhancement factor and kinetics of CO2 capture by MEA-methanol hybrid solvents. *Energy Procedia* , **2009**, 1, 95-102	2.3	36
192	Zeolite catalyst-aided tri-solvent blend amine regeneration: An alternative pathway to reduce the energy consumption in amine-based CO2 capture process. *Applied Energy*, **2019**, 240, 827-841	10.7	35
191	Volumetric Properties and Viscosities for Aqueous Diisopropanolamine Solutions from 25 °C to 70 °C. *Journal of Chemical & Engineering Data*, **2003**, 48, 1062-1067	2.8	35
190	Analysis of solubility, absorption heat and kinetics of CO 2 absorption into 1-(2-hydroxyethyl)pyrrolidine solvent. *Chemical Engineering Science*, **2017**, 162, 120-130	4.4	34
189	Effects of flue gas composition on carbon steel (1020) corrosion in MEA-based CO2 capture process. *International Journal of Greenhouse Gas Control*, **2013**, 19, 340-349	4.2	34
188	Studies on corrosion and corrosion inhibitors for amine based solvents for CO2 absorption from power plant flue gases containing CO2, O2 and SO2. *Energy Procedia*, **2011**, 4, 1761-1768	2.3	34

187	High pressure physical solubility of carbon dioxide (CO2) in mixed polyethylene glycol dimethyl ethers (Genosorb 1753). *Canadian Journal of Chemical Engineering*, **2012**, 90, 576-583	2.3	33
186	Solubility Study of Methane and Ethane in Promising Physical Solvents for Natural Gas Sweetening Operations. *Journal of Chemical & Engineering Data*, **2006**, 51, 64-67	2.8	33
185	Kinetics and mechanism study of homogeneous reaction of CO2 and blends of diethanolamine and monoethanolamine using the stopped-flow technique. *Chemical Engineering Journal*, **2017**, 316, 592-600	14.7	32
184	Dynamic Interfacial Tension Method for Measuring Gas Diffusion Coefficient and Interface Mass Transfer Coefficient in a Liquid. *Industrial & Engineering Chemistry Research*, **2006**, 45, 4999-5008	3.9	32
183	Artificial neural network models for the prediction of CO2 solubility in aqueous amine solutions. *International Journal of Greenhouse Gas Control*, **2015**, 39, 174-184	4.2	31
182	An integrated expert system/operations research approach for the optimization of natural gas pipeline operations. *Engineering Applications of Artificial Intelligence*, **2000**, 13, 465-475	7.2	31
181	A toolset for construction of hybrid intelligent forecasting systems: application for water demand prediction. *Advanced Engineering Informatics*, **1999**, 13, 21-42		31
180	The analysis of solubility, absorption kinetics of CO2 absorption into aqueous 1-diethylamino-2-propanol solution. *AICHE Journal*, **2017**, 63, 2694-2704	3.6	30
179	CO2 absorption kinetics of 4-diethylamine-2-butanol solvent using stopped-flow technique. *Separation and Purification Technology*, **2014**, 136, 81-87	8.3	30
178	Rheological properties study of foam fracturing fluid using CO2 and surfactant. *Chemical Engineering Science*, **2017**, 170, 720-730	4.4	29
177	Analysis of Mass Transfer Performance of Monoethanolamine-Based CO2 Absorption in a Packed Column Using Artificial Neural Networks. *Industrial & Engineering Chemistry Research*, **2014**, 53, 4413-4423	3.9	29
176	Physicochemical properties of {1-methyl piperazine (1) + water (2)} system at T= (298.15 to 343.15) K and atmospheric pressure. *Journal of Chemical Thermodynamics*, **2011**, 43, 1897-1905	2.9	29
175	Techno-economic analysis of CO2 capture from a 1.2 million MTPA cement plant using AMP-PZ-MEA blend. *International Journal of Greenhouse Gas Control*, **2018**, 78, 400-412	4.2	29
174	SO42−/ZrO2 supported on γ-Al2O3 as a catalyst for CO2 desorption from CO2-loaded monoethanolamine solutions. *AICHE Journal*, **2018**, 64, 3988-4001	3.6	28
173	Modelling the Performance of a CO2Absorber Containing Structured Packing. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2594-2600	3.9	28
172	Densities and Viscosities of Triethylene Glycol Monomethyl Ether +Water Solutions in the Temperature Interval 25 °C−80 °C. *Journal of Chemical & Engineering Data*, **1999**, 44, 101-107	2.8	28
171	Density, Viscosity, and N2O Solubility of Aqueous 2-(Methylamino)ethanol Solution. *Journal of Chemical & Engineering Data*, **2017**, 62, 129-140	2.8	27
170	1D NMR Analysis of a Quaternary MEA−DEAB−CO2−H2O Amine System: Liquid Phase Speciation and Vapor−Liquid Equilibria at CO2 Absorption and Solvent Regeneration Conditions. *Industrial & Engineering Chemistry Research*, **2014**, 53, 8577-8591	3.9	27

169	Kinetics of the reaction of carbon dioxide (CO2) with cyclic amines using the stopped-flow technique. *Energy Procedia*, **2011**, 4, 140-147	2.3	27
168	Estimation of Relative Permeability by Assisted History Matching Using the Ensemble Kalman Filter Method. *Journal of Canadian Petroleum Technology*, **2012**, 51, 205-214		27
167	Influence of Process Parameters on Corrosion Behavior in a Sterically Hindered Amine□CO2 System. *Industrial & Engineering Chemistry Research*, **1999**, 38, 310-315	3.9	27
166	Life-Cycle Analysis of CO2EOR on EOR and Geological Storage through Economic Optimization and Sensitivity Analysis Using the Weyburn Unit as a Case Study□*Industrial & Engineering Chemistry Research*, **2006**, 45, 2483-2488	3.9	26
165	Catalytic performance and mechanism of SO42⁄ZrO2/SBA-15 catalyst for CO2 desorption in CO2-loaded monoethanolamine solution. *Applied Energy*, **2020**, 259, 114179	10.7	26
164	Mass transfer of CO2 absorption in hybrid MEA-methanol solvents in packed column. *Energy Procedia*, **2013**, 37, 883-889	2.3	25
163	Comprehensive mass transfer and reaction kinetics studies of a novel reactive 4-diethylamino-2-butanol solvent for capturing CO2. *Chemical Engineering Science*, **2013**, 100, 183-194	4.4	25
162	Part 3: Corrosion and prevention in post-combustion CO2 capture systems. *Carbon Management*, **2011**, 2, 659-675	3.3	25
161	Corrosion Behavior of Carbon Steel in the Monoethanolamine□H2O□CO2□25□SO2 System. *Industrial & Engineering Chemistry Research*, **2009**, 48, 8913-8919	3.9	25
160	Experimental study of the kinetics of the homogenous reaction of CO2 into a novel aqueous 3-diethylamino-1,2-propanediol solution using the stopped-flow technique. *Chemical Engineering Journal*, **2015**, 270, 485-495	14.7	24
159	Investigation mechanism of DEA as an activator on aqueous MEA solution for postcombustion CO2 capture. *AICHE Journal*, **2018**, 64, 2515-2525	3.6	24
158	Ensemble-Based Relative Permeability Estimation Using B-Spline Model. *Transport in Porous Media*, **2010**, 85, 703-721	3.1	24
157	Amine-based CO2 capture aided by acid-basic bifunctional catalyst: Advancement of amine regeneration using metal modified MCM-41. *Chemical Engineering Journal*, **2020**, 383, 123077	14.7	24
156	Mass transfer studies on catalyst-aided CO2 desorption from CO2-loaded amine solution in a post-combustion CO2 capture plant. *Chemical Engineering Science*, **2017**, 170, 508-517	4.4	23
155	Novel models for correlation of Solubility constant and diffusivity of N2O in aqueous 1-dimethylamino-2-propanol. *Chemical Engineering Science*, **2019**, 203, 86-103	4.4	23
154	Analysis and predictive correlation of mass transfer coefficient . *International Journal of Greenhouse Gas Control*, **2013**, 19, 3-12	4.2	23
153	From neural network to neuro-fuzzy modeling: Applications to the carbon dioxide capture process. *Energy Procedia*, **2011**, 4, 2066-2073	2.3	23
152	Densities, Viscosities, and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-Acetylmorpholine + Water) from 298.15 K to 343.15 K. *Journal of Chemical & Engineering Data*, **2005**, 50, 1038-1042	2.8	23

151	Volumetric Properties and Viscosities for Aqueous Diglycolamine Solutions from 25 °C to 70 °C. *Journal of Chemical & Engineering Data*, **2001**, 46, 56-62	2.8	23
150	A new model for correlation and prediction of equilibrium CO2 solubility in N-methyl-4-piperidinol solvent. *AICHE Journal*, **2017**, 63, 3395-3403	3.6	22
149	Reaction Kinetics of Carbon Dioxide (CO2) with Diethylenetriamine and 1-Amino-2-propanol in Nonaqueous Solvents Using Stopped-Flow Technique. *Industrial & Engineering Chemistry Research*, **2016**, 55, 7307-7317	3.9	22
148	Catalytic-CO2-Desorption Studies of DEA and DEA–MEA Blended Solutions with the Aid of Lewis and Brønsted Acids. *Industrial & Engineering Chemistry Research*, **2018**, 57, 11505-11516	3.9	22
147	Solubility and Diffusivity of N2O in Aqueous 4-(Diethylamino)-2-butanol Solutions for Use in Postcombustion CO2 Capture. *Industrial & Engineering Chemistry Research*, **2012**, 51, 925-930	3.9	22
146	Novel Design for the Nozzle of a Laminar Jet Absorber. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2568-2574	3.9	22
145	CO2 capture efficiency and heat duty of solid acid catalyst-aided CO2 desorption using blends of primary-tertiary amines. *International Journal of Greenhouse Gas Control*, **2018**, 69, 52-59	4.2	21
144	Experiments and modeling of vapor-liquid equilibrium data in DEEA-CO2-H2O system. *International Journal of Greenhouse Gas Control*, **2016**, 53, 160-168	4.2	21
143	Determination of Vapor–Liquid Equilibrium (VLE) Plots of 1-Dimethylamino-2-propanol Solutions Using the pH Method. *Industrial & Engineering Chemistry Research*, **2015**, 54, 4709-4716	3.9	20
142	A life cycle assessment study of a hypothetical Canadian oxy-fuel combustion carbon dioxide capture process. *International Journal of Greenhouse Gas Control*, **2014**, 28, 257-274	4.2	20
141	Comparison of Overall Gas-Phase Mass Transfer Coefficient for CO2 Absorption between Tertiary Amines in a Randomly Packed Column. *Chemical Engineering and Technology*, **2015**, 38, 1435-1443	2	20
140	Part 5a: Solvent chemistry: NMR analysis and studies for amine–CO2–H2O systems with vapor–liquid equilibrium modeling for CO2 capture processes. *Carbon Management*, **2012**, 3, 185-200	3.3	20
139	Densities, Viscosities, and Derived Functions of Binary Mixtures: (Tetraethylene Glycol Dimethyl Ether + Water) from 298.15 K to 343.15 K. *Journal of Chemical & Engineering Data*, **2004**, 49, 1778-1781	2.8	20
138	A comparative study of novel activated AMP using 1,5-diamino-2-methylpentane vs MEA solution for CO2 capture from gas-fired power plant. *Fuel*, **2018**, 234, 1089-1098	7.1	19
137	Simulation of CO2-Oil Minimum Miscibility Pressure (MMP) for CO2 Enhanced Oil Recovery (EOR) using Neural Networks. *Energy Procedia*, **2013**, 37, 6877-6884	2.3	19
136	Modeling of the carbon dioxide capture process system using machine intelligence approaches. *Engineering Applications of Artificial Intelligence*, **2011**, 24, 673-685	7.2	18
135	Physical and transport properties of aqueous amino alcohol solutions for CO2 capture from flue gas streams. *Chemical Engineering Research and Design*, **2008**, 86, 291-295	5.5	18
134	Kinetics and new Brønsted correlations study of CO2 absorption into primary and secondary alkanolamine with and without steric-hindrance. *Separation and Purification Technology*, **2020**, 233, 115998	8.3	18

133	Part 6: Solvent recycling and reclaiming issues. *Carbon Management*, **2012**, 3, 485-509	3.3	17
132	Studies of the coordination effect of DEA-MEA blended amines (within 1 + 4 to 2 + 3 M) under heterogeneous catalysis by means of absorption and desorption parameters. *Separation and Purification Technology*, **2020**, 236, 116179	8.3	17
131	Modified Heterogeneous Catalyst-Aided Regeneration of CO2 Capture Amines: A Promising Perspective for a Drastic Reduction in Energy Consumption. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 9526-9536	8.3	16
130	A Comparative of Life Cycle Assessment of Post-combustion, Pre-combustion and Oxy-fuel CO2 Capture. *Energy Procedia*, **2014**, 63, 7452-7458	2.3	16
129	1D absorption kinetics modeling of CO2DEABH2O system. *International Journal of Greenhouse Gas Control*, **2013**, 12, 390-398	4.2	16
128	Part 2: Solvent management: solvent stability and amine degradation in CO2 capture processes. *Carbon Management*, **2011**, 2, 551-566	3.3	16
127	Investigation of degradation inhibitors on CO2 capture process. *Energy Procedia*, **2011**, 4, 583-590	2.3	16
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