

Aravind V Rayer

List of Publications by Year in descending order

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papers

1,071
citations

393982

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all docs

33
docs citations

33
times ranked

981
citing authors

#	ARTICLE	IF	CITATIONS
1	Lab-scaled performance evaluation of novel water-lean solvents for post combustion CO ₂ capture. International Journal of Greenhouse Gas Control, 2021, 111, 103469.	2.3	2
2	A single-component water-lean post-combustion CO ₂ capture solvent with exceptionally low operational heat and total costs of capture – comprehensive experimental and theoretical evaluation. Energy and Environmental Science, 2020, 13, 4106-4113.	15.6	47
3	Electrochemical carbon dioxide reduction to isopropanol using novel carbonized copper metal organic framework derived electrodes. Journal of CO ₂ Utilization, 2020, 39, 101159.	3.3	30
4	Experimental Study of a Hydrophobic Solvent for Natural Gas Sweetening Based on the Solubility and Selectivity for Light Hydrocarbons (CH ₄ , C ₂ H ₆) and Acid Gases (CO ₂ and H ₂ S) at 298–353 K. Journal of Chemical & Engineering Data, 2019, 64, 545-556.	1.0	9
5	Task-Specific Ionic Liquids Functionalized by Cobalt(II) Salen for Room Temperature Biomimetic Dioxxygen Binding. Industrial & Engineering Chemistry Research, 2019, 58, 334-341.	1.8	11
6	Absorption rates of carbon dioxide in amines in hydrophilic and hydrophobic solvents. Chemical Engineering Journal, 2018, 348, 514-525.	6.6	24
7	CO ₂ Capture Using Fluorinated Hydrophobic Solvents. Industrial & Engineering Chemistry Research, 2017, 56, 11958-11966.	1.8	24
8	Molar excess enthalpy (H _m E) for systems of aqueous piperazine derivatives. Journal of Chemical Thermodynamics, 2015, 90, 242-250.	1.0	5
9	Effect of moisture on the heat capacity and the regeneration heat required for CO ₂ capture process using PEI impregnated mesoporous precipitated silica. , 2015, 5, 91-101.		39
10	Heat of Absorption and Specific Heat of Carbon Dioxide in Aqueous Solutions of Monoethanolamine,3-piperidinemethanol and Their Blends. Energy Procedia, 2014, 63, 2070-2081.	1.8	7
11	Impregnation of Amines Onto Porous Precipitated Silica for CO ₂ capture. Energy Procedia, 2014, 63, 2122-2128.	1.8	24
12	The Kinetic Effect of Adding Piperazine Activator to Aqueous Tertiary and Sterically-hindered Amines Using Stopped-flow Technique. Energy Procedia, 2014, 63, 1256-1267.	1.8	16
13	Challenges in Predicting $\hat{\gamma}^{rnG}$ in Solution: The Mechanism of Ether-Catalyzed Hydroboration of Alkenes. Journal of Physical Chemistry A, 2014, 118, 11768-11779.	1.1	10
14	Potential for the Simultaneous Capture and Utilization of CO ₂ Using Desalination Reject Brine: Amine Solvent Selection and Evaluation. Energy Procedia, 2014, 63, 7947-7953.	1.8	15
15	Demonstration of a Concentrated Potassium Carbonate Process for CO ₂ Capture. Energy & Fuels, 2014, 28, 299-306.	2.5	58
16	Reaction Kinetics of Carbon Dioxide (CO ₂) Absorption in Sodium Salts of Taurine and Proline Using a Stopped-Flow Technique. International Journal of Chemical Kinetics, 2014, 46, 730-745.	1.0	28
17	Dissociation Constants (pK_a) of Tertiary and Cyclic Amines: Structural and Temperature Dependences. Journal of Chemical & Engineering Data, 2014, 59, 3805-3813.	1.0	113
18	High-Pressure Solubility of Carbon Dioxide (CO ₂) in Aqueous 1-Methyl Piperazine Solution. Journal of Chemical & Engineering Data, 2014, 59, 3610-3623.	1.0	16

#	ARTICLE	IF	CITATIONS
19	Heats of Absorption of CO ₂ in Aqueous Solutions of Tertiary Amines: N-Methyldiethanolamine, 3-Dimethylamino-1-propanol, and 1-Dimethylamino-2-propanol. Industrial & Engineering Chemistry Research, 2014, 53, 4953-4965.	1.8	41
20	Reaction kinetics of (2-(2-aminoethyl) amino) ethanol in aqueous and non-aqueous solutions using the stopped-flow technique. Canadian Journal of Chemical Engineering, 2013, 91, 490-498.	0.9	29
21	Results from a Pilot Plant Using Un-promoted Potassium Carbonate for Carbon Capture. Energy Procedia, 2013, 37, 448-454.	1.8	7
22	Molar Heat Capacity (C_p) of Aqueous Cyclic Amine Solutions from (298.15 to 343.15) K. <i>Journal of Chemical Engineering</i> , 2013, 91, 490-498.	1.0	7
23	Part 5b: Solvent chemistry: reaction kinetics of CO ₂ absorption into reactive amine solutions. Carbon Management, 2012, 3, 201-220.	1.2	60
24	Volumetric properties, viscosities, refractive indices and surface tensions for (dimethylpropanolamine (DMPA) + water) mixtures from 298.15 K to 343.15 K. Thermochemica Acta, 2012, 543, 218-225.	1.2	35
25	High-Pressure Solubility of Methane (CH ₄) and Ethane (C ₂ H ₆) in Mixed Polyethylene Glycol Dimethyl Ethers (Genosorb 1753) and Its Selectivity in Natural Gas Sweetening Operations. Journal of Chemical & Engineering Data, 2012, 57, 764-775.	1.0	18
26	Part 5c: Solvent chemistry: solubility of CO ₂ in reactive solvents for post-combustion CO ₂ . Carbon Management, 2012, 3, 467-484.	1.2	47
27	High pressure physical solubility of carbon dioxide (CO ₂) in mixed polyethylene glycol dimethyl ethers (Genosorb 1753). Canadian Journal of Chemical Engineering, 2012, 90, 576-583.	0.9	40
28	Molar heat capacities of solvents used in CO ₂ capture: A group additivity and molecular connectivity analysis. Canadian Journal of Chemical Engineering, 2012, 90, 367-376.	0.9	18
29	Kinetics of carbon dioxide (CO ₂) with ethylenediamine, 3-amino-1-propanol in methanol and ethanol, and with 1-dimethylamino-2-propanol and 3-dimethylamino-1-propanol in water using stopped-flow technique. Chemical Engineering Journal, 2012, 179, 262-271.	6.6	109
30	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.	1.0	35
31	Kinetics of the reaction of carbon dioxide (CO ₂) with cyclic amines using the stopped-flow technique. Energy Procedia, 2011, 4, 140-147.	1.8	32
32	High pressure solubility of carbon dioxide (CO ₂) in aqueous piperazine solutions. Fluid Phase Equilibria, 2010, 292, 20-28.	1.4	81
33	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 1-Amino-2-Propanol (Monoisopropanolamine (MIPA)) Solutions from (298.15 to 343.15) K. Journal of Chemical & Engineering Data, 2010, 55, 5562-5568.	1.0	34