Tohid NBorhani

List of Publications by Citations

39 papers	953 citations	17 h-index	30 g-index
41 ext. papers	1,243 ext. citations	7.2 avg, IF	4.92 L-index

#	Paper	IF	Citations
39	The multi-scale challenges of biomass fast pyrolysis and bio-oil upgrading: Review of the state of art and future research directions. *Progress in Energy and Combustion Science*, **2019**, 71, 1-80	33.6	184
38	CO2 capture with potassium carbonate solutions: A state-of-the-art review. *International Journal of Greenhouse Gas Control*, **2015**, 41, 142-162	4.2	121
37	Role of solvents in CO2 capture processes: The review of selection and design methods. *Renewable and Sustainable Energy Reviews*, **2019**, 114, 109299	16.2	97
36	QSPR prediction of the hydroxyl radical rate constant of water contaminants. *Water Research*, **2016** , 98, 344-53	12.5	65
35	Modeling study on CO 2 and H 2 S simultaneous removal using MDEA solution. *Journal of Industrial and Engineering Chemistry*, **2016**, 34, 344-355	6.3	49
34	Estimation of flash point and autoignition temperature of organic sulfur chemicals. *Energy Conversion and Management*, **2012**, 58, 185-196	10.6	46
33	Rate-based simulation and comparison of various promoters for CO2 capture in industrial DEA-promoted potassium carbonate absorption unit. *Journal of Industrial and Engineering Chemistry*, **2015**, 22, 306-316	6.3	38
32	Comparison of equilibrium and non-equilibrium models of a tray column for post-combustion CO 2 capture using DEA-promoted potassium carbonate solution. *Chemical Engineering Science*, **2015**, 122, 291-298	4.4	29
31	QSPR estimation of the auto-ignition temperature for pure hydrocarbons. *Chemical Engineering Research and Design*, **2016**, 103, 115-125	5.5	25
30	Solubility of CO 2 in aqueous solutions of glycerol and monoethanolamine. *Journal of Molecular Liquids*, **2018**, 249, 40-52	6	25
29	A generic hybrid model development for process analysis of industrial fixed-bed catalytic reactors. *Chemical Engineering Research and Design*, **2017**, 117, 149-167	5.5	22
28	Process modelling and analysis of intensified CO2 capture using monoethanolamine (MEA) in rotating packed bed absorber. *Journal of Cleaner Production*, **2018**, 204, 1124-1142	10.3	22
27	2D CFD-PBM simulation of hydrodynamic and particle growth in an industrial gas phase fluidized bed polymerization reactor. *Chemical Engineering Research and Design*, **2015**, 104, 53-67	5.5	21
26	Status and perspective of CO2 absorption process. *Energy*, **2020**, 205, 118057	7.9	20
25	Hybrid QSPR models for the prediction of the free energy of solvation of organic solute/solvent pairs. *Physical Chemistry Chemical Physics*, **2019**, 21, 13706-13720	3.6	19
24	A CFDPBM coupled model of hydrodynamics and mixing/segregation in an industrial gas-phase polymerization reactor. *Chemical Engineering Research and Design*, **2015**, 96, 103-120	5.5	19
23	Model-based analysis of the impact of the distributor on the hydrodynamic performance of industrial polydisperse gas phase fluidized bed polymerization reactors. *Powder Technology*, **2014**, 267, 398-411	5.2	17

22	Process modelling, validation and analysis of rotating packed bed stripper in the context of intensified CO2 capture with MEA. *Journal of Industrial and Engineering Chemistry*, **2019**, 75, 285-295	6.3	16
21	Evaluation of hydrodynamic behavior of the perforated gas distributor of industrial gas phase polymerization reactor using CFD-PBM coupled model. *Computers and Chemical Engineering*, **2015**, 82, 344-361	4	14
20	Molecular modeling of the ideal gas enthalpy of formation of hydrocarbons. *Fluid Phase Equilibria*, **2013**, 360, 423-434	2.5	14
19	Carbon Capture **2018**, 997-1016		13
18	Prediction of Pd/C Catalyst Deactivation Rate and Assessment of Optimal Operating Conditions of Industrial Hydropurification Process. *Industrial & Engineering Chemistry Research*, **2015**, 54, 7067-7082	3.9	11
17	A simple modelling approach for prediction of standard state real gas entropy of pure materials. *SAR and QSAR in Environmental Research*, **2014**, 25, 695-710	3.5	10
16	Harnessing the power of machine learning for carbon capture, utilisation, and storage (CCUS) – a state-of-the-art review. *Energy and Environmental Science*,	35.4	10
15	Simple yet accurate prediction of liquid molar volume via their molecular structure. *Fluid Phase Equilibria*, **2013**, 337, 183-190	2.5	9
14	Life cycle assessment of combustion-based electricity generation technologies integrated with carbon capture and storage: A review. *Environmental Research*, **2021**, 207, 112219	7.9	7
13	Prediction of heat capacity of amine solutions using artificial neural network and thermodynamic models for CO2 capture processes. *Heat and Mass Transfer*, **2018**, 54, 855-866	2.2	4
12	Thermodynamic models applied to CO2 absorption modelling. *Reviews in Chemical Engineering*, **2019**,	5	4
11	Techno-economic and environmental assessment of staged oxy-co-firing of biomass-derived syngas and natural gas. *Energy Conversion and Management*, **2021**, 243, 114410	10.6	4
10	Activity Coefficient Modelling of Aqueous Solutions of Alkyl Ammonium Salts using the Extended UNIQUAC Model. *Journal of Solution Chemistry*, **2016**, 45, 1434-1452	1.8	3
9	Integration of solid-oxide fuel cells and absorption refrigeration for efficient combined cooling, heat and power production. *Clean Energy*, **2020**, 4, 328-348	4.7	3
8	Enhancement of organic solar cell efficiency by altering the zinc oxide photoanode nanostructure morphology. *Journal of Nanostructure in Chemistry*,1	7.6	2
7	Experimental and Artificial Intelligence Modelling Study of Oil Palm Trunk Sap Fermentation. *Energies*, **2021**, 14, 2137	3.1	2
6	Mass transfer coefficients of carbon dioxide in aqueous blends of monoethanolamine and glycerol using wetted-wall column. *Journal of Environmental Chemical Engineering*, **2021**, 9, 106618	6.8	1
5	Mixture of piperazine and potassium carbonate to absorb CO2 in the packed column: Modelling study. *Fuel*, **2022**, 308, 122033	7.1	1

4	Modeling of carbon dioxide absorption by solution of piperazine and methyldiethanolamine in a rotating packed bed. *Chemical Engineering Science*, **2022**, 248, 117118	4.4	0
3	Energy storage **2020**, 311-332		
2	Environmental Aspects of the Combined Cooling, Heating, and Power (CCHP) Systems: A Review. *Processes*, **2022**, 10, 711	2.9	
1	Computer-Aided Molecular Design **2022**, 297-311		