Cristian Moya

List of Publications by Year
in descending order

35 papers	1,384 citations	331259 21 h-index	377514 34 g-index
38 all docs	38 docs citations	38 times ranked	1448 citing authors

#	Article	IF	Citations
1	A Comprehensive Comparison of the IEFPCM and SS(V)PE Continuum Solvation Methods with the COSMO Approach. Journal of Chemical Theory and Computation, 2015, 11, 4220-4225.	2.3	274
2	Absorption refrigeration cycles based on ionic liquids: Refrigerant/absorbent selection by thermodynamic and process analysis. Applied Energy, 2018, 213, 179-194.	5.1	88
3	Process analysis overview of ionic liquids on CO2 chemical capture. Chemical Engineering Journal, 2020, 390, 124509.	6.6	88
4	Enterprise Ionic Liquids Database (ILUAM) for Use in Aspen ONE Programs Suite with COSMO-Based Property Methods. Industrial & Engineering Chemistry Research, 2018, 57, 980-989.	1.8	71
5	Diffusion Coefficients of CO₂ in Ionic Liquids Estimated by Gravimetry. Industrial & Engineering Chemistry Research, 2014, 53, 13782-13789.	1.8	64
6	Demonstrating the key role of kinetics over thermodynamics in the selection of ionic liquids for CO2 physical absorption. Separation and Purification Technology, 2019, 213, 578-586.	3.9	59
7	Encapsulated Ionic Liquids to Enable the Practical Application of Amino Acid-Based Ionic Liquids in CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2018, 6, 14178-14187.	3.2	56
8	Encapsulated Ionic Liquids for CO₂ Capture: Using 1â€Butylâ€methylimidazolium Acetate for Quick and Reversible CO₂ Chemical Absorption.. ChemPhysChem, 2016, 17, 3891-3899.	1.0	51
9	Techno-economic feasibility of ionic liquids-based CO2 chemical capture processes. Chemical Engineering Journal, 2021, 407, 127196.	6.6	51
10	Encapsulation of Ionic Liquids with an Aprotic Heterocyclic Anion (AHA-IL) for CO₂ Capture: Preserving the Favorable Thermodynamics and Enhancing the Kinetics of Absorption. Journal of Physical Chemistry B, 2018, 122, 2616-2626.	1.2	50
11	From kinetics to equilibrium control in CO2 capture columns using Encapsulated Ionic Liquids (ENILs). Chemical Engineering Journal, 2018, 348, 661-668.	6.6	46
12	Ammonia capture from the gas phase by encapsulated ionic liquids (ENILs). RSC Advances, 2016, 6, 61650-61660.	1.7	45
13	Aspen Plus supported analysis of the post-combustion CO2 capture by chemical absorption using the [P2228][CNPyr] and [P66614][CNPyr]AHA Ionic Liquids. International Journal of Greenhouse Gas Control, 2018, 78, 94-102.	2.3	38
14	CO2/H2 separation through poly(ionic liquid)â€"ionic liquid membranes: The effect of multicomponent gas mixtures, temperature and gas feed pressure. Separation and Purification Technology, 2021, 259, 118113.	3.9	38
15	Non-ideal behavior of ionic liquid mixtures to enhance CO2 capture. Fluid Phase Equilibria, 2017, 450, 175-183.	1.4	36
16	Design of biogas upgrading processes based on ionic liquids. Chemical Engineering Journal, 2022, 428, 132103.	6.6	34
17	CO2 conversion to cyclic carbonates catalyzed by ionic liquids with aprotic heterocyclic anions: DFT calculations and operando FTIR analysis. Journal of CO2 Utilization, 2018, 28, 66-72.	3.3	30
18	Fixed-bed adsorption of ionic liquids onto activated carbon from aqueous phase. Journal of Environmental Chemical Engineering, 2017, 5, 5347-5351.	3.3	26

#	Article	IF	Citations
19	Siloxanes capture by ionic liquids: Solvent selection and process evaluation. Chemical Engineering Journal, 2020, 401, 126078.	6.6	25
20	CO₂ Capture by Supported Ionic Liquid Phase: Highlighting the Role of the Particle Size. ACS Sustainable Chemistry and Engineering, 2019, 7, 13089-13097.	3.2	24
21	Acetylene absorption by ionic liquids: A multiscale analysis based on molecular and process simulation. Separation and Purification Technology, 2018, 204, 38-48.	3.9	22
22	Multiscale evaluation of CO2-derived cyclic carbonates to separate hydrocarbons: Drafting new competitive processes. Fuel Processing Technology, 2021, 212, 106639.	3.7	20
23	Encapsulated Aminoâ€Acidâ€Based Ionic Liquids for CO₂ Capture. European Journal of Inorganic Chemistry, 2020, 2020, 3158-3166.	1.0	19
24	Extractive Distillation with Ionic Liquids To Separate Benzene, Toluene, and Xylene from Pyrolysis Gasoline: Process Design and Techno-Economic Comparison with the Morphylane Process. Industrial & Engineering Chemistry Research, 2022, 61, 2511-2523.	1.8	17
25	Novel Process to Reduce Benzene, Thiophene, and Pyrrole in Gasoline Based on [4bmpy][TCM] Ionic Liquid. Energy & Fuels, 2018, 32, 5650-5658.	2.5	15
26	Understanding the CO2 valorization to propylene carbonate catalyzed by 1-butyl-3-methylimidazolium amino acid ionic liquids. Journal of Molecular Liquids, 2021, 324, 114782.	2.3	15
27	Universal and low energy-demanding platform to produce propylene carbonate from CO2 using hydrophilic ionic liquids. Separation and Purification Technology, 2022, 295, 121273.	3.9	14
28	Fatty alcohol/water reaction-separation platform to produce propylene carbonate from captured CO2 using a hydrophobic ionic liquid. Separation and Purification Technology, 2021, 275, 119143.	3.9	13
29	Close-cycle process to produce CO2-derived propylene carbonate based on amino acid catalyst and water. Journal of CO2 Utilization, 2021, 52, 101656.	3.3	12
30	Prediction of CO2 chemical absorption isotherms for ionic liquid design by DFT/COSMO-RS calculations. Chemical Engineering Journal Advances, 2020, 4, 100038.	2.4	11
31	Fine-tune simultaneous dearomatization, desulfurization and denitrogenation of liquid fuels with CO2-derived cyclic carbonates. Fuel, 2022, 321, 124005.	3.4	11
32	Extending the ability of cyclic carbonates for extracting BTEX to challenging low aromatic content naphtha: the designer solvent role at process scale. Computers and Chemical Engineering, 2021, 154, 107468.	2.0	10
33	Modelling and simulation of hollow fiber membrane vacuum regeneration for CO2 desorption processes using ionic liquids. Separation and Purification Technology, 2021, 277, 119465.	3.9	9
34	Biocarbonates Derived from CO₂ and Terpenes: Molecular Design for Aqueous Mixture Treatment Driven by COSMO-RS. ACS Sustainable Chemistry and Engineering, 2022, 10, 9635-9643.	3.2	2
35	Process analysis overview of ionic liquids on CO2 chemical capture. , 0, , .		0