

Jos Palomar

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137
papers

4,711
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44
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62
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142
ext. papers

5,414
ext. citations

6
avg, IF

5.85
L-index

#	Paper	IF	Citations
137	Density and Molar Volume Predictions Using COSMO-RS for Ionic Liquids. An Approach to Solvent Design. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 6041-6048	3.9	199
136	A Comprehensive Comparison of the IEFPCM and SS(V)PE Continuum Solvation Methods with the COSMO Approach. <i>Journal of Chemical Theory and Computation</i> , 2015 , 11, 4220-5	6.4	155
135	Understanding the Physical Absorption of CO ₂ in Ionic Liquids Using the COSMO-RS Method. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 3452-3463	3.9	148
134	Adsorption of ionic liquids from aqueous effluents by activated carbon. <i>Carbon</i> , 2009 , 47, 1846-1856	10.4	125
133	Characterization of Supported Ionic Liquid Phase (SILP) materials prepared from different supports. <i>Adsorption</i> , 2011 , 17, 561-571	2.6	117
132	Task-specific ionic liquids for efficient ammonia absorption. <i>Separation and Purification Technology</i> , 2011 , 82, 43-52	8.3	114
131	Intramolecular Proton or Hydrogen-Atom Transfer in the Ground and Excited States of 2-Hydroxybenzoyl Compounds <i>Journal of Physical Chemistry A</i> , 1997 , 101, 7914-7921	2.8	106
130	CO ₂ /N ₂ Selectivity Prediction in Supported Ionic Liquid Membranes (SILMs) by COSMO-RS. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 5739-5748	3.9	82
129	Evaluation of ionic liquids as absorbents for ammonia absorption refrigeration cycles using COSMO-based process simulations. <i>Applied Energy</i> , 2014 , 123, 281-291	10.7	78
128	Removal of chlorinated organic volatile compounds by gas phase adsorption with activated carbon. <i>Chemical Engineering Journal</i> , 2012 , 211-212, 246-254	14.7	78
127	Ionic liquids for post-combustion CO ₂ capture by physical absorption: Thermodynamic, kinetic and process analysis. <i>International Journal of Greenhouse Gas Control</i> , 2017 , 61, 61-70	4.2	75
126	A quantum-chemical-based guide to analyze/quantify the cytotoxicity of ionic liquids. <i>Green Chemistry</i> , 2010 , 12, 123-134	10	75
125	Comparison of lignin and cellulose solubilities in ionic liquids by COSMO-RS analysis and experimental validation. <i>Industrial Crops and Products</i> , 2012 , 37, 155-163	5.9	74
124	Optimized ionic liquids for toluene absorption. <i>AIChE Journal</i> , 2013 , 59, 1648-1656	3.6	70
123	Developing criteria for the recovery of ionic liquids from aqueous phase by adsorption with activated carbon. <i>Separation and Purification Technology</i> , 2012 , 97, 11-19	8.3	69
122	Development of an a Priori Ionic Liquid Design Tool. 1. Integration of a Novel COSMO-RS Molecular Descriptor on Neural Networks. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 4523-4532	3.9	68
121	The Six-Membered Intramolecular Hydrogen Bond Position as a Switch for Inducing an Excited State Intramolecular Proton Transfer (ESIPT) in Esters of o-Hydroxynaphthoic Acids. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 10921-10934	2.8	68

120	Computational approach to nuclear magnetic resonance in 1-Alkyl-3-methylimidazolium ionic liquids. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 168-80	3.4	65
119	Effect of Cationic and Anionic Chain Lengths on Volumetric, Transport, and Surface Properties of 1-Alkyl-3-methylimidazolium Alkylsulfate Ionic Liquids at (298.15 and 313.15) K. <i>Journal of Chemical & Engineering Data</i> , 2009 , 54, 1297-1301	2.8	64
118	Screening ionic liquids as suitable ammonia absorbents on the basis of thermodynamic and kinetic analysis. <i>Separation and Purification Technology</i> , 2012 , 95, 188-195	8.3	63
117	Experimental Thermodynamic Properties of 1-Butyl-2-methylpyridinium Tetrafluoroborate [b2mpy][BF ₄] with Water and with Alkan-1-ol and Their Interpretation with the COSMO-RS Methodology. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 2678-2690	3.9	63
116	Vibrational study of intramolecular hydrogen bonding in o-hydroxybenzoyl compounds. <i>Chemical Physics</i> , 1999 , 246, 167-208	2.3	63
115	Absorption refrigeration cycles based on ionic liquids: Refrigerant/absorbent selection by thermodynamic and process analysis. <i>Applied Energy</i> , 2018 , 213, 179-194	10.7	61
114	Selection of ionic liquids for enhancing the gas solubility of volatile organic compounds. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 296-306	3.4	61
113	Interactions of ionic liquids and acetone: thermodynamic properties, quantum-chemical calculations, and NMR analysis. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 7388-98	3.4	61
112	Adsorption of volatile sulphur compounds onto modified activated carbons: effect of oxygen functional groups. <i>Journal of Hazardous Materials</i> , 2013 , 258-259, 77-83	12.8	59
111	Anion effects on kinetics and thermodynamics of CO ₂ absorption in ionic liquids. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 3398-406	3.4	58
110	COSMO-RS Studies: Structure-Property Relationships for CO ₂ Capture by Reversible Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 16066-16073	3.9	57
109	A COSMO-RS based guide to analyze/quantify the polarity of ionic liquids and their mixtures with organic cosolvents. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 1991-2000	3.6	57
108	Introducing process simulation in ionic liquids design/selection for separation processes based on operational and economic criteria through the example of their regeneration. <i>Separation and Purification Technology</i> , 2012 , 97, 195-204	8.3	56
107	Efficient biodegradation of common ionic liquids by <i>Sphingomonas paucimobilis</i> bacterium. <i>Green Chemistry</i> , 2011 , 13, 709	10	56
106	Excess enthalpy of monoethanolamine + ionic liquid mixtures: how good are COSMO-RS predictions?. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 11512-22	3.4	55
105	Aspen Plus supported conceptual design of the aromatic- <i>l</i> iphatic separation from low aromatic content naphtha using 4-methyl-N-butylpyridinium tetrafluoroborate ionic liquid. <i>Fuel Processing Technology</i> , 2016 , 146, 29-38	7.2	54
104	Development of an a Priori Ionic Liquid Design Tool. 2. Ionic Liquid Selection through the Prediction of COSMO-RS Molecular Descriptor by Inverse Neural Network. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 2257-2265	3.9	53
103	Screening of RTILs for propane/propylene separation using COSMO-RS methodology. <i>Chemical Engineering Journal</i> , 2013 , 220, 284-293	14.7	52

102	On Solvent Basicity: Analysis of the SB Scale. <i>Journal of Physical Chemistry A</i> , 1997 , 101, 5183-5189	2.8	52
101	Process analysis overview of ionic liquids on CO ₂ chemical capture. <i>Chemical Engineering Journal</i> , 2020 , 390, 124509	14.7	49
100	Enterprise Ionic Liquids Database (ILUAM) for Use in Aspen ONE Programs Suite with COSMO-Based Property Methods. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 980-989	3.9	49
99	Conceptual design of unit operations to separate aromatic hydrocarbons from naphtha using ionic liquids. COSMO-based process simulations with multi-component real mixture feed. <i>Chemical Engineering Research and Design</i> , 2015 , 94, 632-647	5.5	49
98	Ionic liquids as entrainers for the separation of aromatic- α liphatic hydrocarbon mixtures by extractive distillation. <i>Chemical Engineering Research and Design</i> , 2016 , 115, 382-393	5.5	49
97	Diffusion Coefficients of CO ₂ in Ionic Liquids Estimated by Gravimetry. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 13782-13789	3.9	47
96	COSMO-based/Aspen Plus process simulation of the aromatic extraction from pyrolysis gasoline using the [emim][DCA] ionic liquid mixture. <i>Separation and Purification Technology</i> , 2018 , 190, 211-227	8.3	45
95	Dicyanamide-based ionic liquids in the liquid-liquid extraction of aromatics from alkanes: Experimental evaluation and computational predictions. <i>Chemical Engineering Research and Design</i> , 2016 , 109, 561-572	5.5	44
94	Relation between differential solubility of cellulose and lignin in ionic liquids and activity coefficients. <i>RSC Advances</i> , 2013 , 3, 3453	3.7	44
93	Solvatochromism of fluorophores with an intramolecular hydrogen bond and their use as probes in biomolecular cavity sites. <i>International Journal of Quantum Chemistry</i> , 1999 , 72, 421-438	2.1	44
92	Encapsulated ionic liquids (ENILs): from continuous to discrete liquid phase. <i>Chemical Communications</i> , 2012 , 48, 10046-8	5.8	42
91	Encapsulated Ionic Liquids to Enable the Practical Application of Amino Acid-Based Ionic Liquids in CO ₂ Capture. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 14178-14187	8.3	42
90	Encapsulated Ionic Liquids for CO Capture: Using 1-Butyl-methylimidazolium Acetate for Quick and Reversible CO Chemical Absorption. <i>ChemPhysChem</i> , 2016 , 17, 3891-3899	3.2	39
89	Cation and anion effect on the biodegradability and toxicity of imidazolium- and choline-based ionic liquids. <i>Chemosphere</i> , 2020 , 240, 124947	8.4	39
88	Encapsulation of Ionic Liquids with an Aprotic Heterocyclic Anion (AHA-IL) for CO Capture: Preserving the Favorable Thermodynamics and Enhancing the Kinetics of Absorption. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 2616-2626	3.4	38
87	Ammonia capture from the gas phase by encapsulated ionic liquids (ENILs). <i>RSC Advances</i> , 2016 , 6, 61650-61660	5.7	38
86	Enhancing the adsorption of ionic liquids onto activated carbon by the addition of inorganic salts. <i>Chemical Engineering Journal</i> , 2014 , 252, 305-310	14.7	37
85	Modelling of carbon dioxide solubility in ionic liquids at sub and supercritical conditions by neural networks and mathematical regressions. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2008 , 93, 149-159	3.8	37

84	Solubility and Diffusivity of CO ₂ in [hxmim][NTf ₂], [omim][NTf ₂], and [dcmim][NTf ₂] at T = (298.15, 308.15, and 323.15) K and Pressures up to 20 bar. <i>Journal of Chemical & Engineering Data</i> , 2014 , 59, 212-217	2.8	36
83	Demonstrating the key role of kinetics over thermodynamics in the selection of ionic liquids for CO ₂ physical absorption. <i>Separation and Purification Technology</i> , 2019 , 213, 578-586	8.3	36
82	Ionic liquid mixtures--an analysis of their mutual miscibility. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 2442-50	3.4	35
81	Theoretical Analysis of Molecular Structure, Hydrogen Bond Strength, and Proton Transfer Energy in OH/O Aromatic Compounds. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 6453-6463	2.8	35
80	Using COSMO-RS to design choline chloride pharmaceutical eutectic solvents. <i>Fluid Phase Equilibria</i> , 2019 , 497, 71-78	2.5	33
79	From kinetics to equilibrium control in CO ₂ capture columns using Encapsulated Ionic Liquids (ENILs). <i>Chemical Engineering Journal</i> , 2018 , 348, 661-668	14.7	33
78	Density Functional Theory Analysis of Dichloromethane and Hydrogen Interaction with Pd Clusters: First Step to Simulate Catalytic Hydrodechlorination. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 14180-14192	2.8	32
77	Double- or single-well potential for GSIPT in 1-hydroxy-2-acetonaphthone?. <i>Chemical Physics Letters</i> , 1997 , 269, 151-155	2.5	32
76	Deactivation behavior of Pd/C and Pt/C catalysts in the gas-phase hydrodechlorination of chloromethanes: Structure-reactivity relationship. <i>Applied Catalysis B: Environmental</i> , 2015 , 162, 532-543	21.8	31
75	Thermodynamic behavior of the binaries 1-butylpyridinium tetrafluoroborate with water and alkanols: their interpretation using ¹ H NMR spectroscopy and quantum-chemistry calculations. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 8763-74	3.4	31
74	Phase behavior of ternary mixtures {aliphatic hydrocarbon+aromatic hydrocarbon+ionic liquid}: Experimental LLE data and their modeling by COSMO-RS. <i>Journal of Chemical Thermodynamics</i> , 2014 , 77, 222-229	2.9	29
73	Composition and structural effects on the adsorption of ionic liquids onto activated carbon. <i>Environmental Sciences: Processes and Impacts</i> , 2013 , 15, 1752-9	4.3	28
72	Non-ideal behavior of ionic liquid mixtures to enhance CO ₂ capture. <i>Fluid Phase Equilibria</i> , 2017 , 450, 175-183	2.5	28
71	On the Kinetics of Ionic Liquid Adsorption onto Activated Carbons from Aqueous Solution. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 2969-2976	3.9	28
70	Evaluation of ionic liquids as solvent for aromatic extraction: Experimental, correlation and COSMO-RS predictions. <i>Journal of Chemical Thermodynamics</i> , 2013 , 67, 5-12	2.9	27
69	Aspen Plus supported analysis of the post-combustion CO ₂ capture by chemical absorption using the [P2228][CNPyr] and [P66614][CNPyr]AHA Ionic Liquids. <i>International Journal of Greenhouse Gas Control</i> , 2018 , 78, 94-102	4.2	26
68	Assessment the ecotoxicity and inhibition of imidazolium ionic liquids by respiration inhibition assays. <i>Ecotoxicology and Environmental Safety</i> , 2018 , 162, 29-34	7	25
67	Statistical Refinement and Fitting of Experimental Viscosity-to-Temperature Data in Ionic Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 10475-10484	3.9	23

66	Assessment of ionic liquids as H ₂ S physical absorbents by thermodynamic and kinetic analysis based on process simulation. <i>Separation and Purification Technology</i> , 2020 , 233, 116050	8.3	23
65	Solubility of carbon dioxide in encapsulated ionic liquids. <i>Separation and Purification Technology</i> , 2018 , 196, 41-46	8.3	23
64	High Solubilities for Methane, Ethane, Ethylene, and Propane in Trimethyloctylphosphonium Bis(2,4,4-trimethylpentyl) Phosphinate ([P8111][TMPP]). <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 363-368	3.9	22
63	Mechanistic understanding of the behavior of diuron in the adsorption from water onto activated carbon. <i>Chemical Engineering Journal</i> , 2012 , 198-199, 346-354	14.7	21
62	Techno-economic feasibility of ionic liquids-based CO ₂ chemical capture processes. <i>Chemical Engineering Journal</i> , 2021 , 407, 127196	14.7	20
61	On the acidity and basicity of azoles: the Taft scheme for electrostatic proximity effects. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1998 , 175, 51-59		19
60	Deepening of the Role of Cation Substituents on the Extractive Ability of Pyridinium Ionic Liquids of N-Compounds from Fuels. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 2015-2025	8.3	18
59	Hollow Nitrogen- or Boron-Doped Carbon Submicrospheres with a Porous Shell: Preparation and Application as Supports for Hydrodechlorination Catalysts. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 7665-7674	3.9	18
58	Preparation of hollow submicrocapsules with a mesoporous carbon shell. <i>Carbon</i> , 2013 , 59, 430-438	10.4	18
57	CO ₂ conversion to cyclic carbonates catalyzed by ionic liquids with aprotic heterocyclic anions: DFT calculations and operando FTIR analysis. <i>Journal of CO₂ Utilization</i> , 2018 , 28, 66-72	7.6	18
56	CO ₂ Capture by Supported Ionic Liquid Phase: Highlighting the Role of the Particle Size. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 13089-13097	8.3	17
55	Prediction of non-ideal behavior of polarity/polarizability scales of solvent mixtures by integration of a novel COSMO-RS molecular descriptor and neural networks. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 5967-75	3.6	17
54	Description of Thermodynamic Behavior of the Systems Formed by Alkyl Ethanoates with 1-Chloroalkanes Using the COSMO-RS Methodology Contributing with New Experimental Information. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 3253-3264	3.9	17
53	Dearomatization of pyrolysis gasoline by extractive distillation with 1-ethyl-3-methylimidazolium tricyanomethanide. <i>Fuel Processing Technology</i> , 2019 , 195, 106156	7.2	16
52	Single-Crystal Magic-Angle Spinning 17O NMR and Theoretical Studies of the Antiferroelectric Phase Transition in Squaric Acid. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 3471-3475	2.8	16
51	Acetylene absorption by ionic liquids: A multiscale analysis based on molecular and process simulation. <i>Separation and Purification Technology</i> , 2018 , 204, 38-48	8.3	15
50	Experimental data, correlation and prediction of the extraction of benzene from cyclic hydrocarbons using [Epy][ESO ₄] ionic liquid. <i>Fluid Phase Equilibria</i> , 2014 , 361, 83-92	2.5	15
49	Siloxanes capture by ionic liquids: Solvent selection and process evaluation. <i>Chemical Engineering Journal</i> , 2020 , 401, 126078	14.7	14

48	Valorization of chloromethanes by hydrodechlorination with metallic catalysts. <i>Catalysis Today</i> , 2018 , 310, 75-85	5.3	14
47	Role of the Structure of Graphene Oxide Sheets on the CO ₂ Adsorption Properties of Nanocomposites Based on Graphene Oxide and Polyaniline or Fe ₃ O ₄ -Nanoparticles. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 ,	8.3	14
46	Fixed-bed adsorption of ionic liquids onto activated carbon from aqueous phase. <i>Journal of Environmental Chemical Engineering</i> , 2017 , 5, 5347-5351	6.8	13
45	Gas-phase protolysis between a neutral Brønsted acid and a neutral Brønsted base?. <i>Chemical Physics Letters</i> , 1998 , 293, 511-514	2.5	13
44	Photostability and photocatalytic degradation of ionic liquids in water under solar light. <i>RSC Advances</i> , 2019 , 9, 2026-2033	3.7	12
43	Dechlorination of Dichloromethane by Hydrotreatment with Bimetallic Pd-Pt/C Catalyst. <i>Catalysis Letters</i> , 2016 , 146, 2614-2621	2.8	12
42	Protonation study of some enamine systems. <i>Computational and Theoretical Chemistry</i> , 2001 , 541, 111-117		11
41	Process Evaluation of Fluorinated Ionic Liquids as F-Gas Absorbents. <i>Environmental Science & Technology</i> , 2020 , 54, 12784-12794	10.3	11
40	Novel Process to Reduce Benzene, Thiophene, and Pyrrole in Gasoline Based on [4bmpy][TCM] Ionic Liquid. <i>Energy & Fuels</i> , 2018 , 32, 5650-5658	4.1	10
39	Stripping Columns to Regenerate Ionic Liquids and Selectively Recover Hydrocarbons Avoiding Vacuum Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 20370-20380	3.9	10
38	COSMO-RS analysis on mixing properties obtained for the systems 1-butyl-X-methylpyridinium tetrafluoroborate [X = 2,3,4] and 1,1-dibromoalkanes [R = 1-6]. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 7751-9	3.6	10
37	Quantum Theoretical Evidence for Two Distinct Hydrogen-Bonding Networks and for an Ising Chain Model of the Antiferroelectric Transition in Squaric Acid. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 4799-4805	3.4	10
36	Thermodynamic and kinetic evaluation of ionic liquids + tetraglyme mixtures on CO ₂ capture. <i>Journal of CO₂ Utilization</i> , 2020 , 35, 185-193	7.6	10
35	Design of biogas upgrading processes based on ionic liquids. <i>Chemical Engineering Journal</i> , 2022 , 428, 132103	14.7	10
34	On the volatility of aromatic hydrocarbons in ionic liquids: Vapor-liquid equilibrium measurements and theoretical analysis. <i>Journal of Molecular Liquids</i> , 2018 , 250, 9-18	6	9
33	Molecular and Thermodynamic Properties of Zwitterions versus Ionic Liquids: A Comprehensive Computational Analysis to Develop Advanced Separation Processes. <i>ChemPhysChem</i> , 2018 , 19, 801-815	3.2	8
32	Selective Reduction of Nitrite to Nitrogen with Carbon-Supported Pd@AOT Nanoparticles. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 11745-11754	3.9	8
31	Bisquaric Acid: Unusual Solid State NMR, Electronic Structure, and a Predicted Order-Disorder Transition. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 8926-8930	2.8	8

30	Metal-surfactant interaction as a tool to control the catalytic selectivity of Pd catalysts. <i>Applied Catalysis A: General</i> , 2017 , 529, 32-39	5.1	7
29	Methanol-Promoted Oxidation of Nitrogen Oxide (NO) by Encapsulated Ionic Liquids. <i>Environmental Science & Technology</i> , 2019 , 53, 11969-11978	10.3	7
28	Extraction of guaiacol from hydrocarbons as an alternative for the upgraded bio-oil purification: Experimental and computational thermodynamic study. <i>Fuel</i> , 2020 , 280, 118405	7.1	7
27	Encapsulated Amino-Acid-Based Ionic Liquids for CO ₂ Capture. <i>European Journal of Inorganic Chemistry</i> , 2020 , 2020, 3158-3166	2.3	7
26	Understanding the CO ₂ valorization to propylene carbonate catalyzed by 1-butyl-3-methylimidazolium amino acid ionic liquids. <i>Journal of Molecular Liquids</i> , 2021 , 324, 114782	6	7
25	Multiscale evaluation of CO ₂ -derived cyclic carbonates to separate hydrocarbons: Drafting new competitive processes. <i>Fuel Processing Technology</i> , 2021 , 212, 106639	7.2	6
24	Prediction of CO ₂ chemical absorption isotherms for ionic liquid design by DFT/COSMO-RS calculations. <i>Chemical Engineering Journal Advances</i> , 2020 , 4, 100038	3.6	5
23	Process Analysis of Ionic Liquid-Based Blends as H ₂ S Absorbents: Search for Thermodynamic/Kinetic Synergies. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 2080-2088	8.3	5
22	Molecular and Thermodynamic Properties of Zwitterions versus Ionic Liquids: A Comprehensive Computational Analysis to Develop Advanced Separation Processes. <i>ChemPhysChem</i> , 2018 , 19, 794-794	3.2	4
21	Extractive Distillation with Ionic Liquids To Separate Benzene, Toluene, and Xylene from Pyrolysis Gasoline: Process Design and Techno-Economic Comparison with the Morphylene Process. <i>Industrial & Engineering Chemistry Research</i> ,	3.9	4
20	Development of a method to model the mixing energy of solutions using COSMO molecular descriptors linked with a semi-empirical model using a combined ANN-QSPR methodology. <i>Chemical Engineering Science</i> , 2020 , 224, 115764	4.4	4
19	Close-cycle process to produce CO ₂ -derived propylene carbonate based on amino acid catalyst and water. <i>Journal of CO₂ Utilization</i> , 2021 , 52, 101656	7.6	4
18	Extending the ability of cyclic carbonates for extracting BTEX to challenging low aromatic content naphtha: the designer solvent role at process scale. <i>Computers and Chemical Engineering</i> , 2021 , 154, 107468	4.68	4
17	Very High Resolution ¹⁷ O NMR Evidence for Displacive Behavior in Hydrogen-Bonded Solids: Squaric Acid. <i>Ferroelectrics</i> , 2004 , 302, 23-27	0.6	3
16	A Density Functional Study of the Complex Nature of the Hydrogen-Bond Network and Mechanism of the Antiferroelectric Transition in Squaric Acid. <i>Ferroelectrics</i> , 2002 , 272, 173-179	0.6	3
15	Design and synthesis of alverine-based ionic liquids to improve drug water solubility. <i>New Journal of Chemistry</i> , 2020 , 44, 20428-20433	3.6	3
14	Aspen plus supported design of pre-combustion CO ₂ capture processes based on ionic liquids. <i>Separation and Purification Technology</i> , 2022 , 290, 120841	8.3	3
13	Electrochemical Co-Deposition of Gold and Carbon Nanocapsules from a Colloidal Suspension. <i>Journal of the Electrochemical Society</i> , 2019 , 166, D181-D188	3.9	2

12	Ionic Liquids: Bacterial Degradation in Wastewater Treatment Plants 2016 , 1-12		2
11	Thermodynamic study of (alkyl esters + alkyl dihalides) VII. HmE and VmE for 20 binary mixtures $\{x\text{C}_u\text{H}_{2u}\text{CO}_2\text{C}_3\text{H}_7 + (1-x)\text{C}_v\text{ClCH}_2(\text{CH}_2)_v\text{CH}_2\text{Cl}\}$, where $u = 1$ to 4, $v = 1$ and $v = 2$ to 6. An analysis of behavior using the COSMO-RS methodology. <i>Journal of Chemical Thermodynamics</i> , 2009 , 41, 367-382	2.9	2
10	Fatty alcohol/water reaction-separation platform to produce propylene carbonate from captured CO ₂ using a hydrophobic ionic liquid. <i>Separation and Purification Technology</i> , 2021 , 275, 119143	8.3	2
9	Improvement of CO ₂ capture processes by tailoring the reaction enthalpy of Aprotic N-Heterocyclic anion-based ionic liquids. <i>Chemical Engineering Journal Advances</i> , 2022 , 10, 100291	3.6	2
8	Tribological properties of gold matrix composite coatings with carbon nanocapsules containing ionic liquid lubricants. <i>Materials Letters</i> , 2020 , 279, 128501	3.3	1
7	Modelling and simulation of hollow fiber membrane vacuum regeneration for CO ₂ desorption processes using ionic liquids. <i>Separation and Purification Technology</i> , 2021 , 277, 119465	8.3	1
6	Universal and low energy-demanding platform to produce propylene carbonate from CO ₂ using hydrophilic ionic liquids. <i>Separation and Purification Technology</i> , 2022 , 121273	8.3	1
5	Fine-tune simultaneous dearomatization, desulfurization and denitrogenation of liquid fuels with CO ₂ -derived cyclic carbonates. <i>Fuel</i> , 2022 , 321, 124005	7.1	0
4	Assessment of bio-ionic liquids as promising solvents in industrial separation processes: Computational screening using COSMO-RS method. <i>Fluid Phase Equilibria</i> , 2022 , 560, 113495	2.5	0
3	Integrated carbon capture and utilization based on bifunctional ionic liquids to save energy and emissions. <i>Chemical Engineering Journal</i> , 2022 , 446, 137166	14.7	0
2	Description of the behavior of dichloroalkanes-containing solutions with three $[\text{bXmpy}][\text{BF}_4]$ isomers, using the experimental information of thermodynamic properties, ¹ H NMR spectral and the COSMO-RS-methodology. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 3527-34	3.4	
1	Design of hydrodechlorination catalysts on the basis of chloromethanes-metallic active sites interactions. <i>Chemical Engineering Journal</i> , 2022 , 136893	14.7	