Sona Raeissi

List of Publications by Year
in descending order

119 papers	3,007 citations	159585 30 h-index	214800 47 g-index
121 all docs	121 docs citations	121 times ranked	2259 citing authors

#	Article	IF	Citations
1	Solubility of carbon dioxide in the ionic liquid 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide. Fluid Phase Equilibria, 2007, 260, 19-22.	2.5	166
2	Carbon Dioxide Solubility in the Homologous 1-Alkyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide Family. Journal of Chemical & Engineering Data, 2009, 54, 382-386.	1.9	129
3	A potential ionic liquid for CO_2-separating gas membranes: selection and gas solubility studies. Green Chemistry, 2009, 11, 185-192.	9.0	118
4	Estimation of Thermal Conductivity of Ionic Liquids Using a Perceptron Neural Network. Industrial & Engineering Chemistry Research, 2012, 51, 9886-9893.	3.7	85
5	A general viscosity model for deep eutectic solvents: The free volume theory coupled with association equations of state. Fluid Phase Equilibria, 2018, 470, 193-202.	2.5	83
6	High pressure phase behaviour of methane in 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide. Fluid Phase Equilibria, 2010, 294, 67-71.	2.5	79
7	Bubble-point pressures of the binary system carbon dioxide+linalool. Journal of Supercritical Fluids, 2001, 20, 221-228.	3.2	74
8	Using artificial neural network to predict the ternary electrical conductivity of ionic liquid systems. Fluid Phase Equilibria, 2012, 314, 128-133.	2.5	63
9	Experimental investigation on CO_2 absorption in Sulfinol-M based Fe_3O_4 and MWCNT nanofluids. International Journal of Refrigeration, 2017, 73, 1-10.	3.4	59
10	Densities and volumetric properties of (choline chloride+urea) deep eutectic solvent and methanol mixtures in the temperature range of 293.15–323.15 K. Journal of Chemical Thermodynamics, 2018, 124, 10-20.	2.0	59
11	Biodiesel Production from High Free Fatty Acid-Content Oils: Experimental Investigation of the Pretreatment Step. APCBEE Procedia, 2013, 5, 474-478.	0.5	53
12	A simple group contribution correlation for the prediction of ionic liquid heat capacities at different temperatures. Fluid Phase Equilibria, 2015, 403, 95-103.	2.5	53
13	Investigating the efficiency of MEOR processes using Enterobacter cloacae and Bacillus stearothermophilus SUCPM#14 (biosurfactant-producing strains) in carbonated reservoirs. Journal of Petroleum Science and Engineering, 2014, 113, 46-53.	4.2	52
14	Experimental determination of high-pressure phase equilibria of the ternary system carbon dioxide+limonene+linalool. Journal of Supercritical Fluids, 2005, 35, 10-17.	3.2	50
15	Ethane as an alternative solvent for supercritical extraction of orange peel oils. Journal of Supercritical Fluids, 2008, 45, 306-313.	3.2	49
16	Scott–van Konynenburg phase diagram of carbon dioxide+alkylimidazolium-based ionic liquids. Journal of Supercritical Fluids, 2010, 55, 825-832.	3.2	48
17	Kinetics of Upgrading of Anisole with Hydrogen Catalyzed by Platinum Supported on Alumina. Energy & Fuels, 2015, 29, 4990-4997.	5.1	44
18	A simple model for the viscosities of deep eutectic solvents. Fluid Phase Equilibria, 2020, 521, 112662.	2.5	44

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19	A simple correlation to predict high pressure solubility of carbon dioxide in 27 commonly used ionic liquids. Journal of Supercritical Fluids, 2013, 77, 158-166.	3.2	42
20	Simple and global correlation for the densities of deep eutectic solvents. Journal of Molecular Liquids, 2019, 296, 111830.	4.9	42
21	Purification of flue gas by ionic liquids: Carbon monoxide capture in [bmim][Tf$_2$N]. AICHE Journal, 2013, 59, 3886-3891.	3.6	41
22	Upgrading of Lignin-Derived Bio-oil Components Catalyzed by Pt/γ-Al$_2$O$_3$: Kinetics and Reaction Pathways Characterizing Conversion of Cyclohexanone with H$_2$. Energy & Fuels, 2015, 29, 191-199.	5.1	41
23	High-Pressure Phase Behavior of Ethane with 1-Hexyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide. Journal of Chemical & Engineering Data, 2008, 53, 1283-1285.	1.9	40
24	The friction theory for modeling the viscosities of deep eutectic solvents using the CPA and PC-SAFT equations of state. Journal of Molecular Liquids, 2018, 249, 554-561.	4.9	40
25	Understanding temperature dependency of hydrogen solubility in ionic liquids, including experimental data in [bmim][Tf$_2$N]. AICHE Journal, 2012, 58, 3553-3559.	3.6	39
26	Investigation of solutions of ethyl alcohol and the deep eutectic solvent of Reline for their volumetric properties. Fluid Phase Equilibria, 2018, 472, 39-47.	2.5	38
27	Hydrogen Solubilities in the IUPAC Ionic Liquid 1-Hexyl-3-methylimidazolium Bis(Trifluoromethylsulfonyl)Imide. Journal of Chemical & Engineering Data, 2011, 56, 1105-1107.	1.9	37
28	Modeling gas solubility in ionic liquids with the SAFT-γ group contribution method. Journal of Supercritical Fluids, 2012, 63, 81-91.	3.2	37
29	Upgrading Process of 4-Methylanisole as a Lignin-Derived Bio-Oil Catalyzed by Pt/γ-Al$_2$O$_3$: Kinetic Investigation and Reaction Network Development. Energy & Fuels, 2015, 29, 3335-3344.	5.1	36
30	Experimental study on the effects of an ionic liquid for CO2 capture using hollow fiber membrane contactors. International Journal of Greenhouse Gas Control, 2018, 69, 1-7.	4.6	33
31	Modeling the Phase Behavior of Carbon Dioxide Solubility in Deep Eutectic Solvents with the Cubic Plus Association Equation of State. Journal of Chemical & Engineering Data, 2018, 63, 897-906.	1.9	33
32	Estimation of viscosity of binary mixtures of ionic liquids and solvents using an artificial neural network based on the structure groups of the ionic liquid. Fluid Phase Equilibria, 2014, 364, 88-94.	2.5	32
33	Post-discharge DBD plasma treatment for degradation of organic dye in water: A comparison with different plasma operation methods. Journal of Environmental Chemical Engineering, 2019, 7, 103220.	6.7	32
34	Experimental investigation of ionic liquid pretreatment of sugarcane bagasse with 1,3-dimethylimidazolium dimethyl phosphate. Bioresource Technology, 2015, 185, 411-415.	9.6	31
35	Modeling of ionic liquid+polar solvent mixture molar volumes using a generalized volume translation on the Peng–Robinson equation of state. Fluid Phase Equilibria, 2015, 395, 51-57.	2.5	30
36	Estimation of viscosities of pure ionic liquids using an artificial neural network based on only structural characteristics. Journal of Molecular Liquids, 2017, 227, 309-317.	4.9	30

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37	A general model for the surface tensions of deep eutectic solvents. Journal of Molecular Liquids, 2020, 307, 112972.	4.9	30
38	Cobalt-molybdenum catalysts for the hydrodeoxygenation of cyclohexanone. Renewable Energy, 2020, 150, 443-455.	8.9	29
39	Estimation of the heat capacities of deep eutectic solvents. Journal of Molecular Liquids, 2020, 307, 112940.	4.9	29
40	Recovery of volatile fatty acids from water using medium-chain fatty acids and a cosolvent. Chemical Engineering Science, 2017, 165, 74-80.	3.8	28
41	Modeling vapor-liquid equilibria of mixtures of SO2 and deep eutectic solvents using the CPA-NRTL and CPA-UNIQUAC models. Journal of Molecular Liquids, 2018, 250, 259-268.	4.9	28
42	Upgrading of cyclohexanone to hydrocarbons by hydrodeoxygenation over nickel–molybdenum catalysts. International Journal of Hydrogen Energy, 2020, 45, 11062-11076.	7.1	28
43	An artificial neural network to calculate pure ionic liquid densities without the need for any experimental data. Journal of Supercritical Fluids, 2014, 95, 60-67.	3.2	26
44	Deep eutectic solvents for CO2 capture from natural gas by energy and exergy analyses. Journal of Environmental Chemical Engineering, 2019, 7, 103411.	6.7	25
45	Investigating the performance of novel green solvents in absorption refrigeration cycles: Energy and exergy analyses. International Journal of Refrigeration, 2020, 113, 174-186.	3.4	24
46	Group contribution and atomic contribution models for the prediction of various physical properties of deep eutectic solvents. Scientific Reports, 2021, 11, 6684.	3.3	24
47	On the phenomenon of double retrograde vaporization: multi-dew point behavior in the binary system ethane + limonene. Fluid Phase Equilibria, 2001, 191, 33-40.	2.5	23
48	Experimental Investigation of Liquid–Liquid Extraction of Toluene + Heptane or Toluene + Hexane Using Deep Eutectic Solvents. Journal of Chemical & Engineering Data, 2019, 64, 3811-3820.	1.9	23
49	Liquid–Liquid Equilibria in Biodiesel Production. JAOCS, Journal of the American Oil Chemists' Society, 2013, 90, 147-154.	1.9	22
50	Estimation of the Densities of Ionic Liquids Using a Group Contribution Method. Journal of Chemical & Engineering Data, 2016, 61, 4031-4038.	1.9	22
51	Enhancement in Triethylene Glycol (TEG) Purity via Hydrocarbon Solvent Injection to a TEG + Water System in a Batch Distillation Column. Energy & Fuels, 2011, 25, 5126-5137.	5.1	21
52	Correlating bubble points of ternary systems involving nine solvents and two ionic liquids using artificial neural network. Fluid Phase Equilibria, 2013, 352, 34-41.	2.5	21
53	Two simple correlations to predict viscosities of pure and aqueous solutions of ionic liquids. Journal of Molecular Liquids, 2015, 211, 948-956.	4.9	20
54	Simulation of double retrograde vaporization using the Peng–Robinson equation of state. Journal of Chemical Thermodynamics, 2003, 35, 573-581.	2.0	19

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55	High pressure phase behaviour of mixtures of hydrogen and the ionic liquid family [cnmim][Tf2N]. Journal of Supercritical Fluids, 2013, 73, 126-129.	3.2	19
56	The Biodiesel of Microalgae as a Solution for Diesel Demand in Iran. Energies, 2018, 11, 950.	3.1	19
57	A new Peng-Robinson modification to enhance dew point estimations of natural gases. Journal of Natural Gas Science and Engineering, 2016, 34, 1137-1147.	4.4	18
58	A novel correlative approach for ionic liquid thermal conductivities. Journal of Molecular Liquids, 2017, 236, 214-219.	4.9	18
59	Phase behavior of the binary system ethane+linalool. Journal of Supercritical Fluids, 2002, 24, 111-121.	3.2	17
60	Experimental investigation on the volumetric properties of mixtures of the deep eutectic solvent of Ethaline and methanol in the temperature range of 283.15 to 323.15â€ŻK. Journal of Chemical Thermodynamics, 2020, 147, 106124.	2.0	17
61	An IUPAC Task Group Study: The Solubility of Carbon Monoxide in [hmim][Tf$_2$N] at High Pressures. Journal of Chemical & Engineering Data, 2011, 56, 4797-4799.	1.9	16
62	Phase behaviour of the binary system ethane+limonene. Journal of Supercritical Fluids, 2002, 22, 93-102.	3.2	15
63	Liquidâ€"Liquid Phase Equilibria of Systems of Palm and Soya Biodiesels: Experimental and Modeling. Industrial & Engineering Chemistry Research, 2012, 51, 8302-8307.	3.7	15
64	A study of non-ideal mixtures of ethanol and the (1 choline chloride +2 ethylene glycol) deep eutectic solvent for their volumetric behaviour. Journal of Chemical Thermodynamics, 2020, 150, 106219.	2.0	15
65	Double retrograde vaporization in the binary system ethane+linalool. Journal of Supercritical Fluids, 2002, 23, 1-9.	3.2	14
66	Vaporâ€"liquid equilibria of isopropyl alcohol+propylene at high pressures: Experimental measurement and modeling with the CPA EoS. Journal of Supercritical Fluids, 2013, 84, 182-189.	3.2	14
67	Generalized Model to Estimate the Refractive Indices of Deep Eutectic Solvents. Journal of Chemical & Engineering Data, 2020, 65, 3965-3976.	1.9	14
68	Energy Conservation in Absorption Refrigeration Cycles Using DES as a New Generation of Green Absorbents. Entropy, 2020, 22, 409.	2.2	14
69	High pressure phase behavior of the system ethane+orange peel oil. Journal of Supercritical Fluids, 2004, 29, 59-67.	3.2	13
70	Application of double retrograde vaporization as an optimizing factor in supercritical fluid separations. Journal of Supercritical Fluids, 2005, 33, 115-120.	3.2	13
71	Liquidâ€"vapor and liquidâ€"liquidâ€"vapor equilibria in the ternary system ethane+limonene+linalool. Journal of Supercritical Fluids, 2005, 33, 201-208.	3.2	13
72	Evaluation of maximum gasoline production of Fischerâ€"Tropsch synthesis reactions in GTL technology: A discretized approach. Journal of Natural Gas Science and Engineering, 2012, 9, 209-219.	4.4	13

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73	Modeling gas solubilities in imidazolium based ionic liquids with the [Tf 2 N] anion using the GC-EoS. Fluid Phase Equilibria, 2016, 409, 408-416.	2.5	13
74	Investigation of propane addition to the feed stream of a commercial ethane thermal cracker as supplementary feedstock. Journal of the Taiwan Institute of Chemical Engineers, 2017, 81, 1-13.	5.3	13
75	Double retrograde vaporization in a multi-component system: ethane+orange peel oil. Journal of Supercritical Fluids, 2004, 29, 69-75.	3.2	12
76	A Theoretical and Experimental Study for Screening Inhibitors for Styrene Polymerization. Processes, 2019, 7, 677.	2.8	11
77	Experimental investigation of acid regeneration of spent bleaching clay de-oiled by the in-situ transesterification process at various operating conditions. Chemical Engineering Research and Design, 2019, 124, 121-127.	5.6	11
78	A novel atomic contribution model for the standard chemical exergies of organic compounds. Fluid Phase Equilibria, 2020, 507, 112397.	2.5	11
79	Experimental investigation and thermodynamic modeling of xenon clathrate hydrate stability conditions. Fluid Phase Equilibria, 2020, 512, 112528.	2.5	11
80	The utilization of synthesis gas for the deoxygenation of cyclohexanone over alumina-supported catalysts: Screening catalysts. Asia-Pacific Journal of Chemical Engineering, 2020, 15, e2425.	1.5	11
81	Experimental investigation of carbon dioxide solubility in the deep eutectic solvent (1 ChCl·3) Tj ETQq1 1 0.784314 rgBT /Overlock	4.9	11
82	Prediction of double retrograde vaporization: transitions in binary mixtures of near critical fluids with components of homologous series. Journal of Supercritical Fluids, 2004, 32, 63-71.	3.2	10
83	Experimental investigation and modeling of liquid–liquid equilibria in two systems of concern in biodiesel production. Fluid Phase Equilibria, 2013, 353, 31-37.	2.5	10
84	Conversion enhancement of heavy reformates into xylenes by optimal design of a novel radial flow packed bed reactor, applying a detailed kinetic model. Chemical Engineering Research and Design, 2015, 95, 317-336.	5.6	10
85	Prediction of the surface tension of binary liquid mixtures of associating compounds using the Cubic Plus Association (CPA) equation of state. Journal of Molecular Liquids, 2017, 231, 451-461.	4.9	10
86	Excess volumes of mixtures consisting of deep eutectic solvents by the Prigogine–Flory–Patterson theory. Journal of Molecular Liquids, 2018, 272, 731-737.	4.9	10
87	Viscosity Investigations on the Binary Systems of (1 ChCl:2 Ethylene Glycol) DES and Methanol or Ethanol. Molecules, 2021, 26, 5513.	3.8	10
88	Phase behaviour of the catalyst dicarbonyl(η5-cyclopentadienyl)-cobalt in carbon dioxide. Journal of Supercritical Fluids, 2004, 31, 1-8.	3.2	9
89	Derivative Properties from High-Precision Equations of State. Journal of Physical Chemistry B, 2014, 118, 14397-14409.	2.6	9
90	Volumetric investigation of aqueous mixtures of the {choline chloride+phenol (1:4)} deep eutectic solvent. Journal of Chemical Thermodynamics, 2021, 158, 106440.	2.0	9

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91	Considering multiple occupancy of cavities in clathrate hydrate phase equilibrium calculations. Journal of Chemical Thermodynamics, 2011, 43, 822-827.	2.0	8
92	Experimental Measurement and Thermodynamic Modeling of Methane Solubility in Triethylene Glycol within the Temperature Range of 343.16â€"444.95 K. Journal of Chemical & Engineering Data, 2020, 65, 3866-3874.	1.9	8
93	A Global Model for the Estimation of Speeds of Sound in Deep Eutectic Solvents. Molecules, 2020, 25, 1626.	3.8	8
94	High-pressure vaporâ€"liquid equilibria of methanol+propylene: Experimental and modeling with SAFT. Journal of Supercritical Fluids, 2012, 63, 25-30.	3.2	7
95	Support vector machine and CPA EoS for the prediction of high-pressure liquid densities of normal alkanols. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 2888-2898.	5.3	7
96	Investigation of volumetric fluid properties of (heptaneÂ+Âhexadecane) at reservoir conditions. Journal of Natural Gas Science and Engineering, 2015, 22, 377-394.	4.4	7
97	Estimation of viscosities of 1-alkyl-3-methylimidazolium ionic liquids over a range of temperatures using a simple correlation. Physics and Chemistry of Liquids, 2019, 57, 401-421.	1.2	7
98	Simple estimations of the speed of sound in ionic liquids, with and without any physical property data available. Fluid Phase Equilibria, 2020, 503, 112291.	2.5	7
99	Experimental measurements and thermodynamic modeling of high-pressure propane solubility in triethylene glycol. Journal of Supercritical Fluids, 2020, 163, 104881.	3.2	7
100	Thermodynamic Analysis of the Phenomenon of Double Retrograde Vaporization. Journal of Physical Chemistry B, 2004, 108, 13771-13776.	2.6	6
101	Enhancement in NGL production and improvement in water dew point temperature by optimization of slug catchersâ€™ pressures in water dew point adjustment unit. Journal of Natural Gas Science and Engineering, 2011, 3, 326-333.	4.4	6
102	A new configuration in the tail-end acetylene hydrogenation reactor to enhance catalyst lifetime and performance. Journal of the Taiwan Institute of Chemical Engineers, 2016, 65, 8-21.	5.3	6
103	Estimation of the critical properties of compounds using volumeâ€based thermodynamics. AICHE Journal, 2020, 66, e17004.	3.6	6
104	A comprehensive experimental and modeling study on CO2 solubilities in the deep eutectic solvent based on choline chloride and butane-1,2-diol. Fluid Phase Equilibria, 2022, 561, 113535.	2.5	6
105	Solubility of Carbon Dioxide in Secondary Butyl Alcohol at High Pressures: Experimental and Modeling with CPA. Journal of Solution Chemistry, 2015, 44, 1555-1567.	1.2	5
106	A global transform for the general formulation of liquid viscosities with significant linearizing benefits: a case study on ionic liquid mixtures. Physical Chemistry Chemical Physics, 2021, 23, 22551-22566.	2.8	5
107	Aqueous mixture viscosities of phenolic deep eutectic solvents. Fluid Phase Equilibria, 2022, 553, 113290.	2.5	4
108	Bubble-point pressures of binary and ternary mixtures of acetaldehyde with Versatic 10 and Veova 10. Fluid Phase Equilibria, 2014, 368, 1-4.	2.5	3

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109	High pressure phase behavior of methanol+ethylene: Experimental measurements and CPA modeling. Journal of Supercritical Fluids, 2014, 92, 47-54.	3.2	3
110	Vaporâ€"Liquid Equilibria of Binary and Ternary Mixtures of Acetaldehyde with Versatic 9 and Veova 9. Journal of Chemical & Engineering Data, 2016, 61, 2114-2119.	1.9	3
111	Experimental study and thermodynamic modeling of CCl4Â+ O2 and CCl4Â+ N2 hydrate equilibria. Fluid Phase Equilibria, 2020, 514, 112571.	2.5	3
112	Chapter 9. CO2 Solubility in Alkylimidazolium-Based Ionic Liquids. , 2007, , 131-149.		3
113	Vapor-liquid equilibria of binary mixtures of propylene oxide with either ethyl benzene, 2-methylpentane, or 2-methyl-1-pentene. Fluid Phase Equilibria, 2013, 352, 97-99.	2.5	2
114	PERCEPTRON ARTIFICIAL NEURAL NETWORK AND PREDICTION OF BUBBLE POINTS OF TERNARY MIXTURES CONTAINING IONIC LIQUIDS. Journal of Theoretical and Computational Chemistry, 2013, 12, 1350053.	1.8	2
115	Extension of SAFT-Î³ to model the phase behavior of CO2+ionic liquid systems. Fluid Phase Equilibria, 2021, 538, 113026.	2.5	2
116	Solubility of carbon monoxide in methyl methacrylate at high pressures. Journal of Supercritical Fluids, 2013, 73, 138-140.	3.2	1
117	Vaporâ€"Liquid Equilibria of the Binary System 1,5-Hexadiene + Allyl Chloride. Journal of Chemical & Engineering Data, 2014, 59, 52-55.	1.9	1
118	Bridging the Generation Gap in Scientific Writingâ€"New Flexibility in Reference Formats. Journal of Chemical & Engineering Data, 2018, 63, 1849-1850.	1.9	1
119	Determination of the Solute Content and Volumetric Properties of Binary Ionic Liquid Mixtures Using a Global Regularity of Molar Volume Expansion. Industrial & Engineering Chemistry Research, 2021, 60, 15274-15288.	3.7	0