Pedro J Carvalho

List of Publications by Year in Descending Order

102 papers	5,884 citations	38 h-index	76 g-index
105 ext. papers	6,354 ext. citations	4 avg, IF	5.7 L-index

#	Paper	IF	Citations
102	The excess volumes of protic ionic liquids and its significance to their thermodynamic modelling. *Fluid Phase Equilibria*, **2022**, 552, 113277	2.5	1
101	Encapsulated Protic Ionic Liquids as Sustainable Materials for CO2 Separation. *Industrial & Engineering Chemistry Research*, **2022**, 61, 4046-4057	3.9	
100	Characterization of cholinium-carboxylate-based aqueous biphasic systems. *Fluid Phase Equilibria*, **2022**, 558, 113458	2.5	1
99	Effect of dicationic ionic liquids on cloud points of tergitol surfactant and the formation of aqueous micellar two-phase systems. *Journal of Materials Science*, **2021**, 56, 12171-12182	4.3	
98	Infinite Dilution Activity Coefficients in the Smectic and Isotropic Phases of Tetrafluoroborate-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2021**, 66, 2587-2596	2.8	3
97	Solubility of H2S in ammonium-based ionic liquids. *Journal of Chemical Thermodynamics*, **2021**, 154, 106336	2.9	4
96	The impact of oligomeric anions on the speciation of protic ionic liquids. *Fluid Phase Equilibria*, **2021**, 531, 112919	2.5	4
95	Study of the partition of sodium diclofenac and norfloxacin in aqueous two-phase systems based on copolymers and dextran. *Fluid Phase Equilibria*, **2021**, 530, 112868	2.5	4
94	Pilot scale reverse osmosis refinery wastewater treatment – techno-economical and sustainability assessment. *Environmental Science: Water Research and Technology*, **2021**, 7, 549-561	4.2	2
93	Development of a robust soft-SAFT model for protic ionic liquids using new high-pressure density data. *Fluid Phase Equilibria*, **2021**, 539, 113036	2.5	7
92	Predicting the concentration of hazardous phenolic compounds in refinery wastewater-a multivariate data analysis approach. *Environmental Science and Pollution Research*, **2021**, 1	5.1	
91	Densities, heat capacities, viscosities, 1H- and 13C-NMR spectra, and solvatochromic parameters of binary mixtures of 1,3-dimethyl-1,3-diazinan-2-one (DMPU) and water. *Journal of Chemical Thermodynamics*, **2021**, 161, 106550	2.9	1
90	Non-Ideality in Thymol + Menthol Type V Deep Eutectic Solvents. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 2203-2211	8.3	15
89	Integrative platform for the selective recovery of intracellular carotenoids and lipids from Rhodotorula glutinis CCT-2186 yeast using mixtures of bio-based solvents. *Green Chemistry*, **2020**, 22, 8478-8494	10	10
88	High pressure density of tricyanomethanide-based ionic liquids: Experimental and PC-SAFT modelling. *Fluid Phase Equilibria*, **2020**, 520, 112652	2.5	4
87	Reverse osmosis performance on stripped phenolic sour water treatment - A study on the effect of oil and grease and osmotic pressure. *Journal of Environmental Management*, **2020**, 261, 110229	7.9	9
86	Isobaric vapor-liquid equilibrium of water + glymes binary mixtures: Experimental measurements and molecular thermodynamic modelling. *Fluid Phase Equilibria*, **2020**, 513, 112547	2.5	4

85	Selection and characterization of non-ideal ionic liquids mixtures to be used in CO2 capture. *Fluid Phase Equilibria*, **2020**, 518, 112621	2.5	13
84	Use of cork granules as an effective sustainable material to clean-up spills of crude oil and derivatives. *Environmental Science and Pollution Research*, **2020**, 27, 366-378	5.1	1
83	Encapsulated Amino-Acid-Based Ionic Liquids for CO2 Capture. *European Journal of Inorganic Chemistry*, **2020**, 2020, 3158-3166	2.3	7
82	Hollow Fibers with Encapsulated Green Amino Acid-Based Ionic Liquids for Dehydration. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 17763-17771	8.3	9
81	Polymeric foams from recycled thermoplastic poly(ethylene terephthalate). *Journal of Cellular Plastics*, **2020**, 0021955X2094856	1.5	0
80	A corrosion evaluation of mild carbon steel in reclaimed refinery stripped sour water. *Journal of Environmental Management*, **2020**, 272, 111080	7.9	1
79	. *Industrial & Engineering Chemistry Research*, **2020**, 59, 15058-15068	3.9	4
78	Separation of benzene from methylcycloalkanes by extractive distillation with cyano-based ionic liquids: Experimental and CPA EoS modelling. *Separation and Purification Technology*, **2020**, 234, 116128	8.3	13
77	Toward Modeling the Aromatic/Aliphatic Separation by Extractive Distillation with Tricyanomethanide-Based Ionic Liquids Using CPA EoS. *Industrial & Engineering Chemistry Research*, **2019**, 58, 19681-19692	3.9	7
76	Sunyaev□el□dovich profile fitting with joint AMI-Planck analysis. *Monthly Notices of the Royal Astronomical Society*, **2019**, 486, 2116-2128	4.3	3
75	A methodology to parameterize SAFT-type equations of state for solid precursors of deep eutectic solvents: the example of cholinium chloride. *Physical Chemistry Chemical Physics*, **2019**, 21, 15046-15061	3.6	17
74	Impact of water on the [C4C1im][Ac] ability for the CO2/CH4 separation. *Journal of CO2 Utilization*, **2019**, 31, 115-123	7.6	6
73	Thermodynamic characterization of deep eutectic solvents at high pressures. *Fluid Phase Equilibria*, **2019**, 500, 112249	2.5	21
72	Surface crystallization of ionic liquid crystals. *Physical Chemistry Chemical Physics*, **2019**, 21, 17792-17800	3.6	6
71	Liquid□liquid Equilibrium and Extraction Performance of Aqueous Biphasic Systems Composed of Water, Cholinium Carboxylate Ionic Liquids and K2CO3. *Journal of Chemical & Engineering Data*, **2019**, 64, 4946-4955	2.8	5
70	High-Pressure Density of Bis(1-alkyl-3-methylimidazolium) Tetraisothiocyanatocobaltate Ionic Liquids: Experimental and PC-SAFT with Volume-Shift Modeling. *Journal of Chemical & Engineering Data*, **2019**, 64, 4827-4833	2.8	1
69	Influence of temperature and pressure on the density and speed of sound of N-ethyl-2-hydroxyethylammonium propionate ionic liquid. *Journal of Chemical Thermodynamics*, **2019**, 131, 303-313	2.9	6
68	Binary Mixtures of Ionic Liquids in Aqueous Solution: Towards an Understanding of their Salting-In/Salting-Out Phenomena. *Journal of Solution Chemistry*, **2019**, 48, 983-991	1.8	5

67	Physical modelling of galaxy clusters detected by thePlancksatellite. *Monthly Notices of the Royal Astronomical Society*, **2019**, 483, 3529-3544	4.3	3
66	Green solvents for CO2 capture. *Current Opinion in Green and Sustainable Chemistry*, **2019**, 18, 25-30	7.9	29
65	Measurement and Modeling of Isobaric Vapor□liquid Equilibrium of Water + Glycols. *Journal of Chemical & Engineering Data*, **2018**, 63, 2394-2401	2.8	8
64	Odd-even effect on the formation of aqueous biphasic systems formed by 1-alkyl-3-methylimidazolium chloride ionic liquids and salts. *Journal of Chemical Physics*, **2018**, 148,	3.9	14
63	Influence of temperature and pressure on the density and speed of sound of 2-hydroxyethylammonium propionate ionic liquid. *Journal of Chemical Thermodynamics*, **2018**, 122, 183-193	2.9	9
62	High-pressure solubility of CO2 in glymes. *Fuel*, **2018**, 219, 120-125	7.1	12
61	Vapor Liquid Equilibria of Binary Mixtures of 1-Butyl-3-methylimidazolium Triflate (CmimTfO) and Molecular Solvents: n-Alkyl Alcohols and Water. *Journal of Physical Chemistry B*, **2018**, 122, 6017-6032	3.4	13
60	Solubility of carbon dioxide in encapsulated ionic liquids. *Separation and Purification Technology*, **2018**, 196, 41-46	8.3	23
59	Toluene/n-Heptane Separation by Extractive Distillation with Tricyanomethanide-Based Ionic Liquids: Experimental and CPA EoS Modeling. *Industrial & Engineering Chemistry Research*, **2018** , 57, 14242-14253	3.9	24
58	New measurements and modeling of high pressure thermodynamic properties of glycols. *Fluid Phase Equilibria*, **2017**, 436, 113-123	2.5	29
57	Evaluation of the solvent structural effect upon the vapor □quid equilibrium of [C4C1im][Cl]□+ alcohols. *Fluid Phase Equilibria*, **2017**, 440, 36-44	2.5	4
56	New Experimental Data and Modeling of Glymes: Toward the Development of a Predictive Model for Polyethers. *Industrial & Engineering Chemistry Research*, **2017**, 56, 7830-7844	3.9	16
55	Selecting Critical Properties of Terpenes and Terpenoids through Group-Contribution Methods and Equations of State. *Industrial & Engineering Chemistry Research*, **2017**, 56, 9895-9905	3.9	5
54	Influence of Nanosegregation on the Surface Tension of Fluorinated Ionic Liquids. *Langmuir*, **2016**, 32, 6130-9	4	33
53	Densities, Viscosities and Derived Thermophysical Properties of Water-Saturated Imidazolium-Based Ionic Liquids. *Fluid Phase Equilibria*, **2016**, 407, 188-196	2.5	54
52	High pressure solubility of CH4, N2O and N2 in 1-butyl-3-methylimidazolium dicyanamide: Solubilities, selectivities and soft-SAFT modeling. *Journal of Supercritical Fluids*, **2016**, 110, 56-64	4.2	29
51	Volumetric and acoustical properties of aqueous mixtures of N-methyl-2-hydroxyethylammonium butyrate and N-methyl-2-hydroxyethylammonium pentanoate at T = (298.15 to 333.15) K. *Journal of Chemical Thermodynamics*, **2016**, 97, 191-205	2.9	14
50	Fluorination effects on the thermodynamic, thermophysical and surface properties of ionic liquids. *Journal of Chemical Thermodynamics*, **2016**, 97, 354-361	2.9	35

49	Surface Tensions of Ionic Liquids: Non-Regular Trend Along the Number of Cyano Groups. *Fluid Phase Equilibria*, **2016**, 409, 458-465	2.5	22
48	Dispelling some myths about the CO2 solubility in ionic liquids. *Physical Chemistry Chemical Physics*, **2016**, 18, 14757-71	3.6	68
47	Vapor-Liquid Equilibria of Imidazolium Ionic Liquids with Cyano Containing Anions with Water and Ethanol. *Journal of Physical Chemistry B*, **2015**, 119, 10287-303	3.4	41
46	Volumetric and acoustical properties of aqueous mixtures of N-methyl-2-hydroxyethylammonium propionate at T=(298.15 to 333.15)K. *Journal of Chemical Thermodynamics*, **2015**, 88, 44-60	2.9	17
45	Thermophysical properties of phosphonium-based ionic liquids. *Fluid Phase Equilibria*, **2015**, 400, 103-113	2.5	50
44	Thermophysical properties of two ammonium-based protic ionic liquids. *Journal of Solution Chemistry*, **2015**, 44, 703-717	1.8	19
43	Thermophysical Properties of Glycols and Glymes. *Journal of Chemical & Engineering Data*, **2015**, 60, 3721-3737	2.8	45
42	Carbon dioxide solubility in aqueous solutions of NaCl: Measurements and modeling with electrolyte equations of state. *Fluid Phase Equilibria*, **2015**, 388, 100-106	2.5	38
41	High pressure density and solubility for the CO2+1-ethyl-3-methylimidazolium ethylsulfate system. *Journal of Supercritical Fluids*, **2014**, 88, 46-55	4.2	20
40	Vapor–liquid Equilibria of Water + Alkylimidazolium-Based Ionic Liquids: Measurements and Perturbed-Chain Statistical Associating Fluid Theory Modeling. *Industrial & Engineering Chemistry Research*, **2014**, 53, 3737-3748	3.9	69
39	Understanding the impact of the central atom on the ionic liquid behavior: phosphonium vs ammonium cations. *Journal of Chemical Physics*, **2014**, 140, 064505	3.9	109
38	Thermophysical properties of sulfonium- and ammonium-based ionic liquids. *Fluid Phase Equilibria*, **2014**, 381, 36-45	2.5	80
37	Thermophysical characterization of N-methyl-2-hydroxyethylammonium carboxilate ionic liquids. *Journal of Chemical Thermodynamics*, **2014**, 68, 221-234	2.9	34
36	The effect of the cation aromaticity upon the thermophysical properties of piperidinium- and pyridinium-based ionic liquids. *Fluid Phase Equilibria*, **2014**, 375, 80-88	2.5	51
35	A new microebulliometer for the measurement of the vapor–liquid equilibrium of ionic liquid systems. *Fluid Phase Equilibria*, **2013**, 354, 156-165	2.5	39
34	Experimental measurements and modeling of CO2 solubility in sunflower, castor and rapeseed oils. *Journal of Supercritical Fluids*, **2013**, 82, 191-199	4.2	4
33	High pressure separation of greenhouse gases from air with 1-ethyl-3-methylimidazolium methyl-phosphonate. *International Journal of Greenhouse Gas Control*, **2013**, 19, 299-309	4.2	38
32	Predictive methods for the estimation of thermophysical properties of ionic liquids. *RSC Advances*, **2012**, 2, 7322	3.7	114

31	PowellSnakes II: a fast Bayesian approach to discrete object detection in multi-frequency astronomical data sets. *Monthly Notices of the Royal Astronomical Society*, **2012**, 427, 1384-1400	4.3	28
30	Compact Source Detection in Multichannel Microwave Surveys: From SZ Clusters to Polarized Sources. *Advances in Astronomy*, **2012**, 2012, 1-14	0.9	7
29	Thermophysical Characterization of Ionic Liquids Able To Dissolve Biomass. *Journal of Chemical & Engineering Data*, **2011**, 56, 4813-4822	2.8	254
28	The polarity effect upon the methane solubility in ionic liquids: a contribution for the design of ionic liquids for enhanced CO2/CH4 and H2S/CH4 selectivities. *Energy and Environmental Science*, **2011**, 4, 4614	35.4	82
27	Chameleonic behavior of ionic liquids and its impact on the estimation of solubility parameters. *Journal of Physical Chemistry B*, **2011**, 115, 12879-88	3.4	38
26	Viscosity of (C2C14) 1-alkyl-3-methylimidazolium bis(trifluoromethylsulfonyl)amide ionic liquids in an extended temperature range. *Fluid Phase Equilibria*, **2011**, 301, 22-32	2.5	191
25	High Pressure Phase Behavior of Carbon Dioxide in Carbon Disulfide and Carbon Tetrachloride. *Journal of Chemical & Engineering Data*, **2011**, 56, 2786-2792	2.8	9
24	Measurements and Correlation of High-Pressure Densities of Phosphonium Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2011**, 56, 2205-2217	2.8	37
23	Thermophysical properties of pure and water-saturated tetradecyltrihexylphosphonium-based ionic liquids. *Journal of Chemical Thermodynamics*, **2011**, 43, 948-957	2.9	140
22	High pressure CO2 solubility in N-methyl-2-hydroxyethylammonium protic ionic liquids. *Journal of Supercritical Fluids*, **2011**, 56, 224-230	4.2	93
21	Effect of Water on the Viscosities and Densities of 1-Butyl-3-methylimidazolium Dicyanamide and 1-Butyl-3-methylimidazolium Tricyanomethane at Atmospheric Pressure *Journal of Chemical & Engineering Data*, **2010**, 55, 645-652	2.8	200
20	Non-ideality of Solutions of NH3, SO2, and H2S in Ionic Liquids and the Prediction of Their Solubilities Using the Flory–Huggins Model. *Energy & Fuels*, **2010**, 24, 6662-6666	4.1	33
19	Structural and Positional Isomerism Influence in the Physical Properties of Pyridinium NTf2-Based Ionic Liquids: Pure and Water-Saturated Mixtures *Journal of Chemical & Engineering Data*, **2010**, 55, 4514-4520	2.8	104
18	Surface Tensions of Bis(trifluoromethylsulfonyl)imide Anion-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2010**, 55, 3807-3812	2.8	78
17	On the Nonideality of CO2 Solutions in Ionic Liquids and Other Low Volatile Solvents. *Journal of Physical Chemistry Letters*, **2010**, 1, 774-780	6.4	90
16	Solubility of water in fluorocarbons: Experimental and COSMO-RS prediction results. *Journal of Chemical Thermodynamics*, **2010**, 42, 213-219	2.9	34
15	High carbon dioxide solubilities in trihexyltetradecylphosphonium-based ionic liquids. *Journal of Supercritical Fluids*, **2010**, 52, 258-265	4.2	138
14	High pressure phase behavior of carbon dioxide in 1-alkyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide ionic liquids. *Journal of Supercritical Fluids*, **2009**, 48, 99-107	4.2	121

13	High pressure phase behavior of carbon dioxide in 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide and 1-butyl-3-methylimidazolium dicyanamide ionic liquids. *Journal of Supercritical Fluids*, **2009**, 50, 105-111	4.2	149
12	Specific solvation interactions of CO2 on acetate and trifluoroacetate imidazolium based ionic liquids at high pressures. *Journal of Physical Chemistry B*, **2009**, 113, 6803-12	3.4	186
11	Ion specific effects on the mutual solubilities of water and hydrophobic ionic liquids. *Journal of Physical Chemistry B*, **2009**, 113, 202-11	3.4	168
10	Mutual solubilities of water and the [C(n)mim][Tf(2)N] hydrophobic ionic liquids. *Journal of Physical Chemistry B*, **2008**, 112, 1604-10	3.4	289
9	Densities and Derived Thermodynamic Properties of Imidazolium-, Pyridinium-, Pyrrolidinium-, and Piperidinium-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2008**, 53, 805-811	2.8	216
8	Measurements and Correlation of High-Pressure Densities of Imidazolium-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2008**, 53, 1914-1921	2.8	123
7	Solubility of Water in Tetradecyltrihexylphosphonium-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2008**, 53, 2378-2382	2.8	101
6	Surface Tensions for the 1-Alkyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide Ionic Liquids. *Journal of Chemical & Engineering Data*, **2008**, 53, 1346-1350	2.8	186
5	Surface tensions of imidazolium based ionic liquids: anion, cation, temperature and water effect. *Journal of Colloid and Interface Science*, **2007**, 314, 621-30	9.3	369
4	Mutual solubilities of water and hydrophobic ionic liquids. *Journal of Physical Chemistry B*, **2007**, 111, 13082-9	3.4	347
3	PTT Measurements of Imidazolium-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2007**, 52, 1881-1888	2.8	257
2	High-Pressure Densities and Derived Thermodynamic Properties of Imidazolium-Based Ionic Liquids. *Journal of Chemical & Engineering Data*, **2007**, 52, 80-88	2.8	357
1	Surface Tension of Liquid Fluorocompounds. *Journal of Chemical & Engineering Data*, **2006**, 51, 1820-1824	2.8	52