jose valderrama

List of Publications by Year
in descending order

99 papers	3,868 citations	172457 29 h-index	128289 60 g-index
99 all docs	99 docs citations	99 times ranked	2110 citing authors

#	Article	IF	Citations
1	A Simple Computer Tool for Simultaneously Estimating Critical, Transport, Physicochemical, and Phase Change Properties of Ionic Liquids. Industrial & Engineering Chemistry Research, 2021, 60, 16143-16151.	3.7	7
2	Henry's law constant as a function of temperature and pressure to calculate the solubility of difluoromethane (R-32) in ionic liquids. International Journal of Refrigeration, 2020, 119, 401-409.	3.4	5
3	Correlation and prediction of ionic liquid viscosity using Valderrama-Patel-Teja cubic equation of state and the geometric similitude concept. Part I: Pure ionic liquids. Fluid Phase Equilibria, 2019, 497, 164-177.	2.5	28
4	Correlation of ionic liquid viscosity using Valderrama-Patel-Teja cubic equation of state and the geometric similitude concept. Part II: Binary mixtures of ionic liquids. Fluid Phase Equilibria, 2019, 497, 178-194.	2.5	16
5	Critical Properties of Metal-Containing Ionic Liquids. Industrial & Engineering Chemistry Research, 2019, 58, 7332-7340.	3.7	11
6	An overview of a thermodynamic consistency test of phase equilibrium data. Application of the versatile VPT equation of state to check data of mixtures containing a gas solute and an ionic liquid solvent. Journal of Chemical Thermodynamics, 2019, 131, 122-132.	2.0	10
7	Glass transition temperature of ionic liquids using molecular descriptors and artificial neural networks. Comptes Rendus Chimie, 2017, 20, 573-584.	0.5	16
8	Artificial neural network for the correlation and prediction of surface tension of refrigerants. Fluid Phase Equilibria, 2017, 451, 60-67.	2.5	41
9	Equation of state dependency of thermodynamic consistency methods. Application to solubility data of gases in ionic liquids. Fluid Phase Equilibria, 2017, 449, 76-82.	2.5	12
10	Correlation and Prediction of the Solubility of Air Gases in Saline Solutions for Mining Processes, Using Artificial Neural Networks. Clean - Soil, Air, Water, 2017, 45, 1500902.	1.1	2
11	Thermodynamic consistency of low pressure equilibrium data of water + congener mixtures using a versatile equation of state. Journal of the Taiwan Institute of Chemical Engineers, 2016, 68, 15-22.	5.3	3
12	A new generalized Henry-Setschenow equation for predicting the solubility of air gases (oxygen,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 1218-1227.	4.9	16
13	Physicochemical, transport and thermodynamic properties of saline solutions for process design using Padé approximants. Desalination and Water Treatment, 2016, 57, 8683-8695.	1.0	4
14	Melting properties of molten salts and ionic liquids. Chemical homology, correlation, and prediction. Comptes Rendus Chimie, 2016, 19, 654-664.	0.5	23
15	Solubility of hydrogen sulfide in ionic liquids for gas removal processes using artificial neural networks. Journal of Environmental Chemical Engineering, 2016, 4, 211-218.	6.7	35
16	Correlation and prediction of saline solution properties for their use in mineral processing using artificial neural networks. Journal of Water Reuse and Desalination, 2015, 5, 454-464.	2.3	10
17	Extension of a Group Contribution Method To Estimate the Critical Properties of Ionic Liquids of High Molecular Mass. Industrial & Engineering Chemistry Research, 2015, 54, 3480-3487.	3.7	53
18	The Kwak–Mansoori approach to the Peng–Robinson equation for determining the thermodynamic consistency of VLE in ethanol + congener mixtures. Comptes Rendus Chimie, 2015, 18, 867-874.	0.5	5

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19	Myths and Realities about Existing Methods for Calculating the Melting Temperatures of Ionic Liquids. Industrial & Engineering Chemistry Research, 2014, 53, 1004-1014.	3.7	34
20	Correlation of solubility data of ammonia in ionic liquids for gas separation processes using artificial neural networks. Comptes Rendus Chimie, 2014, 17, 1094-1101.	0.5	14
21	Testing solubility data of H2S and SO2 in ionic liquids for sulfur-removal processes. Fluid Phase Equilibria, 2014, 375, 152-160.	2.5	36
22	Thermodynamic Consistency Test for Binary Gas + Water Equilibrium Data at Low and High Pressures. Chinese Journal of Chemical Engineering, 2013, 21, 1172-1181.	3.5	11
23	Consistency test of solubility data of ammonia in ionic liquids using the modified Peng–Robinson equation of Kwak and Mansoori. Fluid Phase Equilibria, 2013, 348, 33-38.	2.5	26
24	Modeling and thermodynamic consistency of solubility data of refrigerants in ionic liquids. International Journal of Refrigeration, 2013, 36, 2242-2250.	3.4	30
25	Modeling the melting temperature depression of ionic liquids caused by supercritical carbon dioxide. Fluid Phase Equilibria, 2013, 341, 1-6.	2.5	3
26	Modeling associating hydrocarbon+alcohol mixtures using the Peng-Robinson equation of state and the Wong-Sandler mixing rules. Comptes Rendus Chimie, 2013, 16, 135-143.	0.5	11
27	Melting temperature depression caused by high pressure gases. Effect of the gas on organic substances and on ionic liquids. Journal of Supercritical Fluids, 2013, 82, 151-157.	3.2	4
28	Data selection and estimation of the normal melting temperature of ionic liquids using a method based on homologous cations. Comptes Rendus Chimie, 2012, 15, 693-699.	0.5	9
29	Advances on modeling and simulation of alcoholic distillation. Part 2: Process simulation. Food and Bioproducts Processing, 2012, 90, 832-840.	3.6	26
30	Advances on modeling and simulation of alcoholic distillation. Part 1: Thermodynamic modeling. Food and Bioproducts Processing, 2012, 90, 819-831.	3.6	27
31	Critical Properties and Normal Boiling Temperature of Ionic Liquids. Update and a New Consistency Test. Industrial & Engineering Chemistry Research, 2012, 51, 7838-7844.	3.7	159
32	An analytical expression for the vapor pressure of ionic liquids based on an equation of state. Fluid Phase Equilibria, 2012, 317, 77-83.	2.5	28
33	Gas–liquid equilibrium modeling of mixtures containing supercritical carbon dioxide and an ionic liquid. Journal of Supercritical Fluids, 2012, 64, 32-38.	3.2	18
34	Melting-Point Estimation of Ionic Liquids by a Group Contribution Method. International Journal of Thermophysics, 2012, 33, 34-46.	2.1	40
35	Aspectos éticos en las publicaciones de revistas científicas de corriente principal. Revista Chilena De Pediatria, 2012, 83, 417-419.	0.4	1
36	Heat Capacity of Ionic Liquids Using Artificial Neural Networks and the Concept of Mass Connectivity. International Journal of Thermophysics, 2011, 32, 942-956.	2.1	30

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37	Viscosity of ionic liquids using the concept of mass connectivity and artificial neural networks. Korean Journal of Chemical Engineering, 2011, 28, 1451-1457.	2.7	39
38	Prediction of the heat capacity of ionic liquids using the mass connectivity index and a group contribution method. Journal of Chemical Thermodynamics, 2011, 43, 1068-1073.	2.0	54
39	Predictive model for the heat capacity of ionic liquids using the mass connectivity index. Thermochimica Acta, 2011, 513, 83-87.	2.7	30
40	Data analysis, modeling and thermodynamic consistency of CO_2+β-carotene high pressure mixtures. Journal of Supercritical Fluids, 2010, 55, 609-615.	3.2	6
41	The legacy of Johannes Diderik van der Waals, a hundred years after his Nobel Prize for physics. Journal of Supercritical Fluids, 2010, 55, 415-420.	3.2	16
42	Thermodynamic consistency test of high pressure gas–liquid equilibrium data including both phases. Thermochimica Acta, 2010, 499, 85-90.	2.7	45
43	Phase equilibrium modeling in ethanol+congener mixtures using an artificial neural network. Fluid Phase Equilibria, 2010, 292, 29-35.	2.5	26
44	Mass connectivity index, a new molecular parameter for the estimation of ionic liquid properties. Fluid Phase Equilibria, 2010, 297, 107-112.	2.5	51
45	CORRELATION AND PREDICTION OF VLE OF WATER+CONGENER MIXTURES FOUND IN ALCOHOLIC BEVERAGES USING AN ARTIFICIAL NEURAL NETWORK. Chemical Engineering Communications, 2010, 198, 102-119.	2.6	8
46	Activity Coefficient Models to Describe Vapor-Liquid Equilibrium in Ternary Hydro-Alcoholic Solutions. Chinese Journal of Chemical Engineering, 2009, 17, 259-267.	3.5	12
47	Vapor-liquid equilibrium in low pressure water+congener mixtures. Korean Journal of Chemical Engineering, 2009, 26, 1373-1378.	2.7	9
48	A simple and generalized model for predicting the density of ionic liquids. Fluid Phase Equilibria, 2009, 275, 145-151.	2.5	89
49	Low pressure vapor–liquid equilibrium in ethanol+congener mixtures using the Wong–Sandler mixing rule. Thermochimica Acta, 2009, 490, 37-42.	2.7	10
50	Density of Ionic Liquids Using Group Contribution and Artificial Neural Networks. Industrial & Engineering Chemistry Research, 2009, 48, 3254-3259.	3.7	100
51	Critical Properties of Ionic Liquids. Revisited. Industrial & Engineering Chemistry Research, 2009, 48, 6890-6900.	3.7	307
52	Critical Properties, Normal Boiling Temperature, and Acentric Factor of Another 200 Ionic Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 1318-1330.	3.7	265
53	Thermodynamic Consistency Test of Vapor˜Liquid Equilibrium Data for Mixtures Containing Ionic Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 8416-8422.	3.7	62
54	Reply to "Comment on 'Critical Properties, Normal Boiling Temperature, and Acentric Factor of Fifty Ionic Liquids'" Industrial & Engineering Chemistry Research, 2007, 46, 6063-6064.	3.7	25

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55	Determining sublimation pressures from solubility data of solids in different solvents. Thermochimica Acta, 2007, 462, 25-31.	2.7	5
56	Critical Properties, Normal Boiling Temperatures, and Acentric Factors of Fifty Ionic Liquids. Industrial & Engineering Chemistry Research, 2007, 46, 1338-1344.	3.7	447
57	Thermodynamic consistency of high pressure ternary mixtures containing a compressed gas and solid solutes of different complexity. Fluid Phase Equilibria, 2006, 242, 93-102.	2.5	29
58	Thermodynamic consistency test for high pressure gasâ€"solid solubility data of binary mixtures using genetic algorithms. Journal of Supercritical Fluids, 2006, 39, 20-29.	3.2	48
59	Predictive models to describe VLE in ternary mixtures water+ethanol+congener for wine distillation. Thermochimica Acta, 2006, 450, 110-117.	2.7	23
60	Determining the Sublimation Pressure of Capsaicin Using High-Pressure Solubility Data of Capsaicin + CO_2Mixtures. Journal of Chemical & Engineering Data, 2006, 51, 1783-1787.	1.9	9
61	Measurement and modeling of solubilities of capsaicin in high-pressure CO_2. Journal of Supercritical Fluids, 2005, 34, 195-201.	3.2	38
62	Generalized binary interaction parameters in the Wongâ€"Sandler mixing rules for mixtures containing n-alkanols and carbon dioxide. Fluid Phase Equilibria, 2005, 234, 136-143.	2.5	28
63	Sublimation Pressure Calculated from High-Pressure Gasâ'Solid Equilibrium Data Using Genetic Algorithms. Industrial & Engineering Chemistry Research, 2005, 44, 4824-4833.	3.7	17
64	A molecular model for correlating vapor-liquid equilibrium of propane+hydrocarbon mixtures. Korean Journal of Chemical Engineering, 2004, 21, 1199-1204.	2.7	2
65	A versatile thermodynamic consistency test for incomplete phase equilibrium data of high-pressure gasâ€"liquid mixtures. Fluid Phase Equilibria, 2004, 226, 149-159.	2.5	64
66	Phase equilibrium in supercritical CO_2 mixtures using a modified Kwak-Mansoori mixing rule. AICHE Journal, 2004, 50, 480-488.	3.6	19
67	Temperature independent mixing rules to correlate the solubility of solids in supercritical carbon dioxide. Journal of Supercritical Fluids, 2004, 32, 37-46.	3.2	23
68	Phase equilibrium modeling in binary mixtures found in wine and must distillation. Journal of Food Engineering, 2004, 65, 577-583.	5.2	41
69	The State of the Cubic Equations of State. Industrial & Engineering Chemistry Research, 2003, 42, 1603-1618.	3.7	463
70	Modified Soave-Redlich-Kwong equations of state applied to mixtures containing supercritical carbon dioxide. Korean Journal of Chemical Engineering, 2003, 20, 709-715.	2.7	21
71	A cubic equation of state for water and its application to power cycle calculations. Applied Thermal Engineering, 2003, 23, 1417-1425.	6.0	4
72	Gasâ'Solid Equilibrium in Mixtures Containing Supercritical CO_2Using a Modified Regular Solution Model. Industrial & Engineering Chemistry Research, 2003, 42, 3857-3864.	3.7	11

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73	Extraction of Astaxantine and Phycocyanine from Microalgae with Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2003, 48, 827-830.	1.9	98
74	Mixing rules in cubic equations of state applied to refrigerant mixtures. Journal of Phase Equilibria and Diffusion, 2002, 23, 495-501.	0.3	2
75	Vapour—liquid equilibrium of H_2S—Hydrocarbon mixtures using a generalized cubic equation of state. Canadian Journal of Chemical Engineering, 1999, 77, 1239-1243.	1.7	7
76	A vapour pressure model for non-polar fluids based on a perturbative approach. Chemical Engineering Science, 1997, 52, 3213-3218.	3.8	3
77	Generalization of a polar-fluid Soave-Redlich-Kwong equation of state. Fluid Phase Equilibria, 1994, 93, 377-383.	2.5	2
78	Modification of the soave equation of state suggested by using computer simulation. Chemical Engineering Science, 1993, 48, 513-519.	3.8	12
79	A generalized Patel-Teja equation of state for polar and nonpolar fluids and their mixtures.. Journal of Chemical Engineering of Japan, 1990, 23, 87-91.	0.6	253
80	On the linear dependence of the pressure and the thermodynamic properties on the perturbation parameter using the WCA theory. Chemical Physics Letters, 1990, 166, 437-444.	2.6	11
81	Binary interaction parameters in cubic equations of state for hydrogen—hydrocarbon mixtures. Chemical Engineering Science, 1990, 45, 49-54.	3.8	21
82	Temperature-dependent interaction parameters in cubic equations of state for nitrogen-containing mixtures. Fluid Phase Equilibria, 1990, 59, 195-205.	2.5	10
83	Generalized rackett-type correlations to predict the density of saturated liquids and petroleum fractions. Fluid Phase Equilibria, 1989, 51, 87-100.	2.5	30
84	Generalized interaction parameters in cubic equations of state for CO2—n-alkane mixtures. Fluid Phase Equilibria, 1988, 40, 217-233.	2.5	25
85	APPLICATIONS OF PATEL-TEJA EQUATION OF STATE TO THE PREDICTION OF VOLUMETRIC PROPERTIES OF MIXTURES. Chemical Engineering Communications, 1987, 54, 161-172.	2.6	4
86	On the choice of a third (and fourth) generalizing parameter for equations of state. Chemical Engineering Science, 1987, 42, 2957-2961.	3.8	14
87	Application of a new cubic equation of state to hydrogen sulfide mixtures. Chemical Engineering Science, 1987, 42, 2935-2940.	3.8	11
88	EXPERIMENTAL STUDY ON MIXING: POWER CONSUMPTION AND DEGREE OF SUSPENSION. Chemical Engineering Communications, 1986, 44, 331-346.	2.6	3
89	The evaluation of Fourier-Bessel transforms in statistical mechanics. Chemical Physics Letters, 1986, 125, 412-418.	2.6	0
90	A cubic equation of state for polar and other complex mixtures. Fluid Phase Equilibria, 1986, 29, 431-438.	2.5	41

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91	Interaction parameter for hydrogen-containing mixtures in the Peng—Robinson equation of state. Fluid Phase Equilibria, 1986, 31, 209-219.	2.5	14
92	A simple and accurate model for the residence time distribution in liquid trickle flow through packed beds. The Chemical Engineering Journal, 1986, 33, 109-111.	0.3	3
93	Vapor-liquid equilibrium of hydrogen-containing mixtures. Fluid Phase Equilibria, 1983, 13, 195-202.	2.5	17
94	EXPERIMENTAL DETERMINATION OF PARAMETERS FOR A PARTIAL SEGREGATION MODEL. Chemical Engineering Communications, 1983, 23, 151-160.	2.6	0
95	A new approach to view partial segregation models in chemical reactors. Chemical Engineering Science, 1982, 37, 494-496.	3.8	5
96	The use of a non-spherical reference potential in statistical mechanical perturbation theory. Molecular Physics, 1981, 42, 1041-1057.	1.7	9
97	Padé approximants, the second virial coefficient and perturbation theory. Chemical Physics Letters, 1981, 84, 119-122.	2.6	4
98	A two-parameter model for partial segregation. Chemical Engineering Science, 1981, 36, 839-844.	3.8	8
99	Mixing effects on homogeneous p-order reactions. A two-parameter model for partial segregation. Chemical Engineering Science, 1979, 34, 1097-1103.	3.8	11