jose valderrama

List of Publications by Year
in descending order

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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	The State of the Cubic Equations of State. Industrial & Engineering Chemistry Research, 2003, 42, 1603-1618.	3.7	463
2	Critical Properties, Normal Boiling Temperatures, and Acentric Factors of Fifty Ionic Liquids. Industrial & Engineering Chemistry Research, 2007, 46, 1338-1344.	3.7	447
3	Critical Properties of Ionic Liquids. Revisited. Industrial & Engineering Chemistry Research, 2009, 48, 6890-6900.	3.7	307
4	Critical Properties, Normal Boiling Temperature, and Acentric Factor of Another 200 Ionic Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 1318-1330.	3.7	265
5	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
6	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
7	Density of Ionic Liquids Using Group Contribution and Artificial Neural Networks. Industrial & Engineering Chemistry Research, 2009, 48, 3254-3259.	3.7	100
8	Extraction of Astaxantine and Phycocyanine from Microalgae with Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2003, 48, 827-830.	1.9	98
9	A simple and generalized model for predicting the density of ionic liquids. Fluid Phase Equilibria, 2009, 275, 145-151.	2.5	89
10	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
11	Thermodynamic Consistency Test of Vaporâˆ’Liquid Equilibrium Data for Mixtures Containing Ionic Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 8416-8422.	3.7	62
12	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
13	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
14	Mass connectivity index, a new molecular parameter for the estimation of ionic liquid properties. Fluid Phase Equilibria, 2010, 297, 107-112.	2.5	51
15	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
16	Thermodynamic consistency test of high pressure gasâ€“liquid equilibrium data including both phases. Thermochimica Acta, 2010, 499, 85-90.	2.7	45
17	A cubic equation of state for polar and other complex mixtures. Fluid Phase Equilibria, 1986, 29, 431-438.	2.5	41
18	Phase equilibrium modeling in binary mixtures found in wine and must distillation. Journal of Food Engineering, 2004, 65, 577-583.	5.2	41

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19	Artificial neural network for the correlation and prediction of surface tension of refrigerants. Fluid Phase Equilibria, 2017, 451, 60-67.	2.5	41
20	Melting-Point Estimation of Ionic Liquids by a Group Contribution Method. International Journal of Thermophysics, 2012, 33, 34-46.	2.1	40
21	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
22	Measurement and modeling of solubilities of capsaicin in high-pressure CO2. Journal of Supercritical Fluids, 2005, 34, 195-201.	3.2	38
23	Testing solubility data of H2S and SO2 in ionic liquids for sulfur-removal processes. Fluid Phase Equilibria, 2014, 375, 152-160.	2.5	36
24	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
25	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
26	Generalized rackett-type correlations to predict the density of saturated liquids and petroleum fractions. Fluid Phase Equilibria, 1989, 51, 87-100.	2.5	30
27	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
28	Predictive model for the heat capacity of ionic liquids using the mass connectivity index. Thermochimica Acta, 2011, 513, 83-87.	2.7	30
29	Modeling and thermodynamic consistency of solubility data of refrigerants in ionic liquids. International Journal of Refrigeration, 2013, 36, 2242-2250.	3.4	30
30	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
31	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
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	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
34	Advances on modeling and simulation of alcoholic distillation. Part 1: Thermodynamic modeling. Food and Bioproducts Processing, 2012, 90, 819-831.	3.6	27
35	Phase equilibrium modeling in ethanol+congener mixtures using an artificial neural network. Fluid Phase Equilibria, 2010, 292, 29-35.	2.5	26
36	Advances on modeling and simulation of alcoholic distillation. Part 2: Process simulation. Food and Bioproducts Processing, 2012, 90, 832-840.	3.6	26

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37	Consistency test of solubility data of ammonia in ionic liquids using the modified Pengâ€“Robinson equation of Kwak and Mansoori. Fluid Phase Equilibria, 2013, 348, 33-38.	2.5	26
38	Generalized interaction parameters in cubic equations of state for CO2â€”n-alkane mixtures. Fluid Phase Equilibria, 1988, 40, 217-233.	2.5	25
39	Reply to â€œComment on â€˜Critical Properties, Normal Boiling Temperature, and Acentric Factor of Fifty Ionic Liquids'â€• Industrial & Engineering Chemistry Research, 2007, 46, 6063-6064.	3.7	25
40	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
41	Predictive models to describe VLE in ternary mixtures water+ethanol+congener for wine distillation. Thermochimica Acta, 2006, 450, 110-117.	2.7	23
42	Melting properties of molten salts and ionic liquids. Chemical homology, correlation, and prediction. Comptes Rendus Chimie, 2016, 19, 654-664.	0.5	23
43	Binary interaction parameters in cubic equations of state for hydrogenâ€”hydrocarbon mixtures. Chemical Engineering Science, 1990, 45, 49-54.	3.8	21
44	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
45	Phase equilibrium in supercritical CO2 mixtures using a modified Kwak-Mansoori mixing rule. AICHE Journal, 2004, 50, 480-488.	3.6	19
46	Gasâ€“liquid equilibrium modeling of mixtures containing supercritical carbon dioxide and an ionic liquid. Journal of Supercritical Fluids, 2012, 64, 32-38.	3.2	18
47	Vapor-liquid equilibrium of hydrogen-containing mixtures. Fluid Phase Equilibria, 1983, 13, 195-202.	2.5	17
48	Sublimation Pressure Calculated from High-Pressure Gasâ˜'Solid Equilibrium Data Using Genetic Algorithms. Industrial & Engineering Chemistry Research, 2005, 44, 4824-4833.	3.7	17
49	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
50	A new generalized Henry-Setschenow equation for predicting the solubility of air gases (oxygen,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2 1218-1227.	4.9	16
51	Glass transition temperature of ionic liquids using molecular descriptors and artificial neural networks. Comptes Rendus Chimie, 2017, 20, 573-584.	0.5	16
52	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
53	Interaction parameter for hydrogen-containing mixtures in the Pengâ€”Robinson equation of state. Fluid Phase Equilibria, 1986, 31, 209-219.	2.5	14
54	On the choice of a third (and fourth) generalizing parameter for equations of state. Chemical Engineering Science, 1987, 42, 2957-2961.	3.8	14

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55	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
56	Modification of the soave equation of state suggested by using computer simulation. Chemical Engineering Science, 1993, 48, 513-519.	3.8	12
57	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
58	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
59	Mixing effects on homogeneous p-order reactions. A two-parameter model for partial segregation. Chemical Engineering Science, 1979, 34, 1097-1103.	3.8	11
60	Application of a new cubic equation of state to hydrogen sulfide mixtures. Chemical Engineering Science, 1987, 42, 2935-2940.	3.8	11
61	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
62	Gasâ˘Solid Equilibrium in Mixtures Containing Supercritical CO2Using a Modified Regular Solution Model. Industrial & Engineering Chemistry Research, 2003, 42, 3857-3864.	3.7	11
63	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
64	Modeling associating hydrocarbonâ€…+â€…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
65	Critical Properties of Metal-Containing Ionic Liquids. Industrial & Engineering Chemistry Research, 2019, 58, 7332-7340.	3.7	11
66	Temperature-dependent interaction parameters in cubic equations of state for nitrogen-containing mixtures. Fluid Phase Equilibria, 1990, 59, 195-205.	2.5	10
67	Low pressure vaporâ€“liquid equilibrium in ethanol+congener mixtures using the Wongâ€“Sandler mixing rule. Thermochimica Acta, 2009, 490, 37-42.	2.7	10
68	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
69	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
70	The use of a non-spherical reference potential in statistical mechanical perturbation theory. Molecular Physics, 1981, 42, 1041-1057.	1.7	9
71	Determining the Sublimation Pressure of Capsaicin Using High-Pressure Solubility Data of Capsaicin + CO2Mixtures. Journal of Chemical & Engineering Data, 2006, 51, 1783-1787.	1.9	9
72	Vapor-liquid equilibrium in low pressure water+congener mixtures. Korean Journal of Chemical Engineering, 2009, 26, 1373-1378.	2.7	9

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73	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
74	A two-parameter model for partial segregation. Chemical Engineering Science, 1981, 36, 839-844.	3.8	8
75	CORRELATION AND PREDICTION OF VLE OF WATERÂ+ÂCONGENER MIXTURES FOUND IN ALCOHOLIC BEVERAGES USING AN ARTIFICIAL NEURAL NETWORK. Chemical Engineering Communications, 2010, 198, 102-119.	2.6	8
76	Vapourâ€"liquid equilibrium of H₂Sâ€Hydrocarbon mixtures using a generalized cubic equation of state. Canadian Journal of Chemical Engineering, 1999, 77, 1239-1243.	1.7	7
77	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
78	Data analysis, modeling and thermodynamic consistency of CO2+Î²-carotene high pressure mixtures. Journal of Supercritical Fluids, 2010, 55, 609-615.	3.2	6
79	A new approach to view partial segregation models in chemical reactors. Chemical Engineering Science, 1982, 37, 494-496.	3.8	5
80	Determining sublimation pressures from solubility data of solids in different solvents. Thermochimica Acta, 2007, 462, 25-31.	2.7	5
81	The Kwakâ€"Mansoori approach to the Pengâ€"Robinson equation for determining the thermodynamic consistency of VLE in ethanol + congener mixtures. Comptes Rendus Chimie, 2015, 18, 867-874.	0.5	5
82	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
83	PadÃ© approximants, the second virial coefficient and perturbation theory. Chemical Physics Letters, 1981, 84, 119-122.	2.6	4
84	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
85	A cubic equation of state for water and its application to power cycle calculations. Applied Thermal Engineering, 2003, 23, 1417-1425.	6.0	4
86	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
87	Physicochemical, transport and thermodynamic properties of saline solutions for process design using PadÃ© approximants. Desalination and Water Treatment, 2016, 57, 8683-8695.	1.0	4
88	EXPERIMENTAL STUDY ON MIXING: POWER CONSUMPTION AND DEGREE OF SUSPENSION. Chemical Engineering Communications, 1986, 44, 331-346.	2.6	3
89	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
90	A vapour pressure model for non-polar fluids based on a perturbative approach. Chemical Engineering Science, 1997, 52, 3213-3218.	3.8	3

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91	Modeling the melting temperature depression of ionic liquids caused by supercritical carbon dioxide. Fluid Phase Equilibria, 2013, 341, 1-6.	2.5	3
92	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
93	Generalization of a polar-fluid Soave-Redlich-Kwong equation of state. Fluid Phase Equilibria, 1994, 93, 377-383.	2.5	2
94	Mixing rules in cubic equations of state applied to refrigerant mixtures. Journal of Phase Equilibria and Diffusion, 2002, 23, 495-501.	0.3	2
95	A molecular model for correlating vapor-liquid equilibrium of propane+hydrocarbon mixtures. Korean Journal of Chemical Engineering, 2004, 21, 1199-1204.	2.7	2
96	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
97	Aspectos Ã©ticos en las publicaciones de revistas cientÃficas de corriente principal. Revista Chilena De Pediatria, 2012, 83, 417-419.	0.4	1
98	EXPERIMENTAL DETERMINATION OF PARAMETERS FOR A PARTIAL SEGREGATION MODEL. Chemical Engineering Communications, 1983, 23, 151-160.	2.6	0
99	The evaluation of Fourier-Bessel transforms in statistical mechanics. Chemical Physics Letters, 1986, 125, 412-418.	2.6	0