JosÃ© M Del Valle

List of Publications by Year
in descending order

65 papers	2,038 citations	257450 24 h-index	243625 44 g-index
66 all docs	66 docs citations	66 times ranked	1512 citing authors

#	Article	IF	Citations
1	An improved equation for predicting the solubility of vegetable oils in supercritical carbon dioxide. Industrial & Engineering Chemistry Research, 1988, 27, 1551-1553.	3.7	337
2	Astaxanthin extraction from Haematococcus pluvialis using CO2-expanded ethanol. Journal of Supercritical Fluids, 2014, 92, 75-83.	3.2	132
3	Supercritical CO2Extraction of Oilseeds: Review of Kinetic and Equilibrium Models. Critical Reviews in Food Science and Nutrition, 2006, 46, 131-160.	10.3	123
4	Supercritical carbon dioxide extraction of red pepper (Capsicum annuum L.) oleoresin. Journal of Food Engineering, 2004, 65, 55-66.	5.2	110
5	Extraction of natural compounds using supercritical CO2: Going from the laboratory to the industrial application. Journal of Supercritical Fluids, 2015, 96, 180-199.	3.2	102
6	Solubility of carotenoid pigments (lycopene and astaxanthin) in supercritical carbon dioxide. Fluid Phase Equilibria, 2006, 247, 90-95.	2.5	74
7	Supercritical CO2 processing of pretreated rosehip seeds: effect of process scale on oil extraction kinetics. Journal of Supercritical Fluids, 2004, 31, 159-174.	3.2	70
8	Matrix effects in supercritical CO2 extraction of essential oils from plant material. Journal of Food Engineering, 2009, 92, 438-447.	5.2	70
9	Particle size effects on supercritical CO2extraction of oil-containing seeds. JAOCS, Journal of the American Oil Chemists' Society, 2002, 79, 1261-1266.	1.9	60
10	Contributions to supercritical extraction of vegetable substrates in Latin America. Journal of Food Engineering, 2005, 67, 35-57.	5.2	60
11	Microstructural effects on internal mass transfer of lipids in prepressed and flaked vegetable substrates. Journal of Supercritical Fluids, 2006, 37, 178-190.	3.2	57
12	A refined equation for predicting the solubility of vegetable oils in high-pressure CO2. Journal of Supercritical Fluids, 2012, 67, 60-70.	3.2	52
13	Measurement and modeling of solubilities of capsaicin in high-pressure CO2. Journal of Supercritical Fluids, 2005, 34, 195-201.	3.2	38
14	Free solute content and solute-matrix interactions affect apparent solubility and apparent solute content in supercritical CO2 extractions. A hypothesis paper. Journal of Supercritical Fluids, 2012, 66, 157-175.	3.2	38
15	Supercritical carbon dioxide extraction of pelletized JalapeÃ±o peppers. Journal of the Science of Food and Agriculture, 2003, 83, 550-556.	3.5	36
16	Fractionation technologies for liquid mixtures using dense carbon dioxide. Journal of Supercritical Fluids, 2016, 107, 321-348.	3.2	35
17	Supercritical CO2 extraction of Chilean hop (Humulus lupulus) ecotypes. Journal of the Science of Food and Agriculture, 2003, 83, 1349-1356.	3.5	32
18	Recovery of antioxidants from boldo (Peumus boldus M.) by conventional and supercritical CO2 extraction. Food Research International, 2004, 37, 695-702.	6.2	31

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19	Supercritical CO2 extraction of allicin from garlic flakes: Screening and kinetic studies. Food Research International, 2012, 45, 216-224.	6.2	31
20	Solubility of Î²-carotene in ethanol- and triolein-modified CO2. Journal of Chemical Thermodynamics, 2011, 43, 1991-2001.	2.0	30
21	Effects of Substrate Densification and CO2Conditions on Supercritical Extraction of Mushroom Oleoresins. Journal of Food Science, 1989, 54, 135-141.	3.1	29
22	Natural Convection Retards Supercritical CO2Extraction of Essential Oils and Lipids from Vegetable Substrates. Industrial & Engineering Chemistry Research, 2005, 44, 2879-2886.	3.7	28
23	Supercritical CO2 oilseed extraction in multi-vessel plants. 2. Effect of number and geometry of extractors on production cost. Journal of Supercritical Fluids, 2014, 92, 324-334.	3.2	28
24	Simulation of a supercritical carbon dioxide extraction plant with three extraction vessels. Computers and Chemical Engineering, 2011, 35, 2687-2695.	3.8	24
25	Supercritical CO2 oilseed extraction in multi-vessel plants. 1. Minimization of operational cost. Journal of Supercritical Fluids, 2014, 92, 197-207.	3.2	23
26	Solubility of menadione and dichlone in supercritical carbon dioxide. Fluid Phase Equilibria, 2016, 423, 84-92.	2.5	22
27	Adsorbent-assisted supercritical CO2 extraction of carotenoids from Neochloris oleoabundans paste. Journal of Supercritical Fluids, 2016, 112, 7-13.	3.2	21
28	Effect of triolein addition on the solubility of capsanthin in supercritical carbon dioxide. Journal of Chemical Thermodynamics, 2012, 51, 190-194.	2.0	19
29	Equilibrium partition of rapeseed oil between supercritical CO2 and prepressed rapeseed. Journal of Supercritical Fluids, 2015, 102, 80-91.	3.2	19
30	Measuring and validation for isothermal solubility data of solid 2-(3,4-Dimethoxyphenyl)-5,6,7,8-tetramethoxychromen-4-one (nobiletin) in supercritical carbon dioxide. Journal of Chemical Thermodynamics, 2015, 91, 378-383.	2.0	19
31	Effect of high-pressure compaction on supercritical CO2 extraction of astaxanthin from Haematococcus pluvialis. Journal of Food Engineering, 2016, 189, 123-134.	5.2	17
32	Supercritical CO2 oilseed extraction in multi-vessel plants. 3. Effect of extraction pressure and plant size on production cost. Journal of Supercritical Fluids, 2017, 122, 109-118.	3.2	17
33	Volumetric procedure to assess infiltration kinetics and porosity of fruits by applying a vacuum pulse. Journal of Food Engineering, 1998, 38, 207-221.	5.2	16
34	Effect of boldo (Peumus boldus M.) pretreatment on kinetics of supercritical CO2 extraction of essential oil. Journal of Food Engineering, 2012, 109, 230-237.	5.2	15
35	Solubility of boldo leaf antioxidant components (Boldine) in high-pressure carbon dioxide. Fluid Phase Equilibria, 2005, 235, 196-200.	2.5	14
36	Microstructureâ€Extractability Relationships in the Extraction of Prepelletized JalapeÃ±o Peppers with Supercritical Carbon Dioxide. Journal of Food Science, 2005, 70, e379.	3.1	14

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37	Physicochemical characterisation of raw fish and stickwater from fish meal production. Journal of the Science of Food and Agriculture, 1991, 54, 429-441.	3.5	13
38	Modeling solubility in supercritical carbon dioxide using quantitative structureâ€“property relationships. Journal of Supercritical Fluids, 2014, 94, 113-122.	3.2	13
39	Countercurrent fractionation of aqueous apple aroma constituents using supercritical carbon dioxide. Journal of Supercritical Fluids, 2017, 120, 266-274.	3.2	12
40	Supercritical CO2 extraction of solids using aqueous ethanol as static modifier is a two-step mass transfer process. Journal of Supercritical Fluids, 2019, 143, 179-190.	3.2	12
41	Synthesis and solubility measurement in supercritical carbon dioxide of two solid derivatives of 2-methylnaphthalene-1,4-dione (menadione): 2-(Benzylamino)-3-methylnaphthalene-1,4-dione and 3-(phenethylamino)-2-methylnaphthalene-1,4-dione. Journal of Chemical Thermodynamics, 2016, 103, 325-332.	2.0	11
42	Supercritical CO2 extraction of pelletized oilseeds: Representation using a linear driving force model with a nonlinear sorption isotherm. Journal of Food Engineering, 2021, 288, 110241.	5.2	11
43	Extrusion affects supercritical CO2 extraction of red pepper (Capsicum annuum L.) oleoresin. Journal of Food Engineering, 2022, 316, 110829.	5.2	11
44	Isothermal solubility in supercritical carbon dioxide of solid derivatives of 2,3-dichloronaphthalene-1,4-dione (dichlone): 2-(Benzylamino)-3-chloronaphthalene-1,4-dione and 2-chloro-3-(phenethylamino)naphthalene-1,4-dione. Journal of Supercritical Fluids, 2017, 129, 75-82.	3.2	10
45	Use of molecular dynamics simulations to estimate the solubility of menadione in supercritical CO2 using Chrastil's model. Fluid Phase Equilibria, 2017, 433, 112-118.	2.5	9
46	Particle size distribution and stratification of pelletized oilseeds affects cumulative supercritical CO2 extraction plots. Journal of Supercritical Fluids, 2019, 146, 189-198.	3.2	9
47	Water relationships in Haematoccoccus pluvialis and their effect in high-pressure agglomeration for supercritical CO2 extraction. Journal of Food Engineering, 2015, 162, 18-24.	5.2	8
48	Time Fractionation of Minor Lipids from Coldâ€Pressed Rapeseed Cake Using Supercritical CO₂. JAOCS, Journal of the American Oil Chemists' Society, 2012, 89, 1135-1144.	1.9	7
49	High-pressure (vapour+liquid) equilibria for ternary systems composed by {(E)-2-hexenal or hexanal+carbon dioxide+water}: Partition coefficient measurement. Journal of Chemical Thermodynamics, 2015, 89, 79-88.	2.0	7
50	Bubble-point measurements for the system CO2+aqueous ethanol solutions of boldo leaf antioxidant components (boldine and catechin) at high pressures. Fluid Phase Equilibria, 2007, 259, 77-82.	2.5	6
51	Mass Transfer and Equilibrium Parameters on High-Pressure CO2 Extraction of Plant Essential Oils. Food Engineering Series, 2010, , 393-470.	0.7	6
52	Thermodynamic properties of CO2 during controlled decompression of supercritical extraction vessels. Journal of Supercritical Fluids, 2015, 98, 102-110.	3.2	6
53	Solubility of 1,3-Dimethyl-7<i>H</i>-purine-2,6-dione (Theophylline) in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2009, 54, 3034-3036.	1.9	5
54	Correlation for the variations with temperature of solute solubilities in high temperature water. Fluid Phase Equilibria, 2011, 301, 206-216.	2.5	5

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55	Mathematical simulation of heat and mass transfer during controlled depressurization of supercritical CO2 in extraction vessels. Journal of Supercritical Fluids, 2017, 122, 43-51.	3.2	5
56	Supercritical CO2 extraction of pinocembrin from Lippia origanoides distillation residues. 1. Multicomponent solubility and equilibrium partition. Journal of Supercritical Fluids, 2022, 180, 105426.	3.2	5
57	Effect of pelletization on supercritical CO2 extraction of rosemary antioxidants. Journal of Supercritical Fluids, 2019, 147, 162-171.	3.2	4
58	Supercritical CO2 extraction of pinocembrin from Lippia origanoides distillation residues. 2. Mathematical modeling of mass transfer kinetics as a function of substrate pretreatment. Journal of Supercritical Fluids, 2022, 180, 105458.	3.2	4
59	Heat transfer and venting rate during controlled decompression of supercritical extraction vessels. Journal of Supercritical Fluids, 2017, 120, 275-284.	3.2	3
60	Experimental solubility data of two solid derivatives of menadione in supercritical carbon dioxide: 2-((4-chlorobenzyl)amino)-3-methylnaphtalene-1,4-dione, and 2-((4-chlorophenethyl)amino)-3-methylnaphtalene-1,4-dione. Journal of Supercritical Fluids, 2020, 157, 104707.	3.2	3
61	Estimation of the solubility in supercritical CO2 of Î±- and Î´-tocopherol using Chrastilâ€™ model. Journal of Supercritical Fluids, 2020, 157, 104688.	3.2	3
62	Supercritical CO2 extraction of aqueous suspensions of disrupted Haematococcus pluvialis cysts. Journal of Supercritical Fluids, 2022, 181, 105392.	3.2	3
63	A Method for Fabricating Stainless Steel Pellets with Openâ€Cell Porosity by Alkaline Leaching of Silica Template. Advanced Engineering Materials, 2016, 18, 1616-1625.	3.5	2
64	Radial Variations in Axial Velocity Affect Supercritical CO2 Extraction of Lipids from Pre-pressed Oilseeds. Food Engineering Reviews, 2021, 13, 185-203.	5.9	2
65	Temperature gradients within the packed bed affect cumulative supercritical CO2 extraction plots for oilseeds. Journal of Supercritical Fluids, 2021, , 105389.	3.2	0