

Helena Sovova

List of Publications by Year in descending order

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83
papers

3,691
citations

147801

31
h-index

133252

59
g-index

84
all docs

84
docs citations

84
times ranked

3019
citing authors

#	ARTICLE	IF	CITATIONS
1	Rate of the vegetable oil extraction with supercritical CO ₂ . Modelling of extraction curves. <i>Chemical Engineering Science</i> , 1994, 49, 409-414.	3.8	513
2	A biorefinery from <i>Nannochloropsis</i> sp. microalga – Extraction of oils and pigments. Production of biohydrogen from the leftover biomass. <i>Bioresource Technology</i> , 2013, 135, 128-136.	9.6	267
3	Mathematical model for supercritical fluid extraction of natural products and extraction curve evaluation. <i>Journal of Supercritical Fluids</i> , 2005, 33, 35-52.	3.2	265
4	Rate of the vegetable oil extraction with supercritical CO ₂ . Extraction of grape oil. <i>Chemical Engineering Science</i> , 1994, 49, 415-420.	3.8	203
5	Dibenzo[a,c]cyclooctadiene lignans of the genus <i>Schisandra</i> : importance, isolation and determination. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2004, 812, 357-371.	2.3	126
6	Breakage and coalescence of drops in a batch stirred vessel – comparison of model and experiments. <i>Chemical Engineering Science</i> , 1981, 36, 1567-1573.	3.8	122
7	Solubility of two vegetable oils in supercritical CO ₂ . <i>Journal of Supercritical Fluids</i> , 2001, 20, 15-28.	3.2	114
8	Steps of supercritical fluid extraction of natural products and their characteristic times. <i>Journal of Supercritical Fluids</i> , 2012, 66, 73-79.	3.2	102
9	Solubility of β -carotene in supercritical CO ₂ and the effect of entrainers. <i>Journal of Supercritical Fluids</i> , 2001, 21, 195-203.	3.2	88
10	Supercritical carbon dioxide extraction of caraway essential oil. <i>Chemical Engineering Science</i> , 1994, 49, 2499-2505.	3.8	87
11	Dibenzo[a,c]cyclooctadiene lignans of the genus <i>Schisandra</i> : importance, isolation and determination. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2004, 812, 357-371.	2.3	82
12	Supercritical fluid extraction from vegetable materials. <i>Reviews in Chemical Engineering</i> , 2011, 27, .	4.4	80
13	Supercritical CO ₂ extraction of <i>Salvia officinalis</i> L.. <i>Journal of Supercritical Fluids</i> , 2007, 40, 239-245.	3.2	68
14	β -Sitosterol: Supercritical Carbon Dioxide Extraction from Sea Buckthorn (<i>Hippophae rhamnoides</i> L.) Seeds. <i>International Journal of Molecular Sciences</i> , 2010, 11, 1842-1850.	4.1	65
15	Temperature-dependent kinetics of grape seed phenolic compounds extraction: Experiment and model. <i>Food Chemistry</i> , 2013, 136, 1136-1140.	8.2	64
16	Solubility of Ferulic Acid in Supercritical Carbon Dioxide with Ethanol as Cosolvent. <i>Journal of Chemical & Engineering Data</i> , 2001, 46, 1255-1257.	1.9	58
17	Mathematical model for hydrodistillation of essential oils. <i>Flavour and Fragrance Journal</i> , 2006, 21, 881-889.	2.6	56
18	Supercritical carbon dioxide extraction of black pepper. <i>Journal of Supercritical Fluids</i> , 1995, 8, 295-301.	3.2	54

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19	Modeling the supercritical fluid extraction of essential oils from plant materials. Journal of Chromatography A, 2012, 1250, 27-33.	3.7	52
20	Breakage and coalescence of drops in a batch stirred vessel – Comparison of continuous and discrete models. Chemical Engineering Science, 1981, 36, 163-171.	3.8	50
21	The insecticidal activity of <i>Tanacetum parthenium</i> (L.) Schultz Bip. extracts obtained by supercritical fluid extraction and hydrodistillation. Industrial Crops and Products, 2010, 31, 449-454.	5.2	50
22	Supercritical CO ₂ extraction of essential oil from yarrow. Journal of Supercritical Fluids, 2007, 40, 360-367.	3.2	49
23	Essential oils from seeds: solubility of limonene in supercritical CO ₂ and how it is affected by fatty oil. Journal of Supercritical Fluids, 2001, 20, 113-129.	3.2	48
24	Extraction of Volatile Oil from Aromatic Plants with Supercritical Carbon Dioxide: Experiments and Modeling. Molecules, 2012, 17, 10550-10573.	3.8	46
25	Mathematical modelling of supercritical CO ₂ extraction of volatile oils from aromatic plants. Chemical Engineering Science, 2010, 65, 3579-3590.	3.8	45
26	Solubility of squalane, dinonyl phthalate and glycerol in supercritical CO ₂ . Fluid Phase Equilibria, 1997, 137, 185-191.	2.5	40
27	Kinetic modeling of glycerolysis – hydrolysis of canola oil in supercritical carbon dioxide media using equilibrium data. Journal of Supercritical Fluids, 2006, 37, 417-424.	3.2	38
28	Supercritical fluid extraction of lignans and cinnamic acid from <i>Schisandra chinensis</i> . Journal of Supercritical Fluids, 2007, 42, 88-95.	3.2	38
29	Lipase-catalysed hydrolysis of blackcurrant oil in supercritical carbon dioxide. Chemical Engineering Science, 2003, 58, 2339-2350.	3.8	37
30	Near-critical extraction of β -sitosterol and scopoletin from stinging nettle roots. Journal of Supercritical Fluids, 2005, 35, 111-118.	3.2	34
31	Liquid chromatographic analysis of supercritical carbon dioxide extracts of <i>Schizandra chinensis</i> . Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2002, 770, 283-289.	2.3	33
32	Near-critical extraction of pigments and oleoresin from stinging nettle leaves. Journal of Supercritical Fluids, 2004, 30, 213-224.	3.2	33
33	Effect of organic co-blowing agents on the morphology of CO ₂ blown microcellular polystyrene foams. Journal of Supercritical Fluids, 2017, 130, 30-39.	3.2	32
34	Comparison of various types of stationary phases in non-aqueous reversed-phase high-performance liquid chromatography – mass spectrometry of glycerolipids in blackcurrant oil and its enzymatic hydrolysis mixture. Journal of Chromatography A, 2009, 1216, 8371-8378.	3.7	29
35	Supercritical fluid extraction of minor components of vegetable oils: β -Sitosterol. Journal of Food Engineering, 2010, 101, 201-209.	5.2	27
36	The Effects of Extracts Obtained by Supercritical Fluid Extraction and Traditional Extraction Techniques on Larvae of <i>Leptinotarsa decemlineata</i> SAY.. Journal of Essential Oil Research, 2009, 21, 367-373.	2.7	26

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37	Extraction of botanical pesticides from <i>Pelargonium graveolens</i> using supercritical carbon dioxide. <i>Industrial Crops and Products</i> , 2015, 67, 310-317.	5.2	26
38	Apparent Solubility of Natural Products Extracted with Near-Critical Carbon Dioxide. <i>American Journal of Analytical Chemistry</i> , 2012, 03, 958-965.	0.9	26
39	Effect of separation method on chemical composition and insecticidal activity of Lamiaceae isolates. <i>Industrial Crops and Products</i> , 2013, 47, 69-77.	5.2	25
40	A new method of measurement of diffusivities of gases in liquids. <i>Chemical Engineering Science</i> , 1976, 31, 1091-1097.	3.8	24
41	The solubility of two monoterpenes in supercritical carbon dioxide. <i>Fluid Phase Equilibria</i> , 1993, 85, 285-300.	2.5	24
42	The insecticidal activity of <i>Satureja hortensis</i> L. extracts obtained by supercritical fluid extraction and traditional extraction techniques. <i>Applied Entomology and Zoology</i> , 2008, 43, 377-382.	1.2	24
43	Broken-and-intact cell model for supercritical fluid extraction: Its origin and limits. <i>Journal of Supercritical Fluids</i> , 2017, 129, 3-8.	3.2	24
44	High-pressure equilibrium of menthol+CO ₂ . <i>Journal of Supercritical Fluids</i> , 2007, 41, 1-9.	3.2	22
45	Supercritical CO ₂ extraction of volatile thymoquinone from <i>Monarda didyma</i> and <i>M. fistulosa</i> herbs. <i>Journal of Supercritical Fluids</i> , 2015, 105, 29-34.	3.2	21
46	New developments in the modelling of carotenoids extraction from microalgae with supercritical CO ₂ . <i>Journal of Supercritical Fluids</i> , 2019, 148, 93-103.	3.2	21
47	Solubility of Menthol in Supercritical Carbon Dioxide. <i>Journal of Chemical & Engineering Data</i> , 1994, 39, 840-841.	1.9	20
48	Supercritical fluid extraction of cynaropicrin and 20 α -hydroxyecdysone from <i>Leuzea carthamoides</i> DC. <i>Journal of Separation Science</i> , 2008, 31, 1387-1392.	2.5	20
49	A novel model for multicomponent supercritical fluid extraction and its application to <i>Ruta graveolens</i> . <i>Journal of Supercritical Fluids</i> , 2017, 120, 102-112.	3.2	19
50	Kinetics and specificity of Lipozyme-catalysed oil hydrolysis in supercritical CO ₂ . <i>Chemical Engineering Research and Design</i> , 2008, 86, 673-681.	5.6	18
51	Impact of seed structure modification on the rate of supercritical CO ₂ extraction. <i>Journal of Supercritical Fluids</i> , 2008, 44, 211-218.	3.2	18
52	<i>Geotrichum candidum</i> 4013: Extracellular lipase versus cell-bound lipase from the single strain. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 61, 188-193.	1.8	17
53	Modeling of the Kinetics of Supercritical Fluid Extraction of Lipids from Microalgae with Emphasis on Extract Desorption. <i>Materials</i> , 2016, 9, 423.	2.9	17
54	A Model of dispersion hydrodynamics in a vibrating plate extractor. <i>Chemical Engineering Science</i> , 1983, 38, 1863-1872.	3.8	16

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55	High-performance liquid chromatography with nuclear magnetic resonance detection—A method for quantification of $\hat{1}\pm$ - and $\hat{1}^3$ -linolenic acids in their mixtures with free fatty acids. <i>Journal of Chromatography A</i> , 2007, 1139, 152-155.	3.7	16
56	New Approach to Modeling Supercritical CO ₂ Extraction of Cuticular Waxes: Interplay between Solubility and Kinetics. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 4861-4870.	3.7	14
57	Combining high-pressure methods for extraction of stilbenes from grape cane. <i>Journal of Supercritical Fluids</i> , 2018, 142, 38-44.	3.2	14
58	Calculations of compressed carbon dioxide viscosities. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 3162-3169.	3.7	13
59	Measurement of liquid hold-up of the dispersed phase by an ultrasonic method. <i>Collection of Czechoslovak Chemical Communications</i> , 1984, 49, 378-385.	1.0	11
60	HPLC in reversed phase mode: Tool for investigation of kinetics of blackcurrant seed oil lipolysis in supercritical carbon dioxide. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2006, 839, 80-84.	2.3	11
61	LC-NMR Technique in the Analysis of Phytosterols in Natural Extracts. <i>Journal of Analytical Methods in Chemistry</i> , 2013, 2013, 1-7.	1.6	11
62	Microcellular Polystyrene Foam Preparation Using High Pressure CO_2 : The Influence of Solvent Residua. <i>Macromolecular Symposia</i> , 2013, 333, 266-272.	0.7	11
63	Enrichment of <i>Nigella damascena</i> extract with volatile compounds using supercritical fluid extraction. <i>Journal of Supercritical Fluids</i> , 2014, 94, 160-164.	3.2	10
64	Kinetic Study for the Ethanolysis of Fish Oil Catalyzed by Lipozyme [®] 435 in Different Reaction Media. <i>Journal of Oleo Science</i> , 2015, 64, 431-441.	1.4	10
65	Fractionation of turmerones from turmeric SFE isolate using semi-preparative supercritical chromatography technique. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 77, 223-229.	5.8	9
66	Solubility of squalane and dinonyl phthalate in CO ₂ with entrainers. <i>Journal of Supercritical Fluids</i> , 1999, 14, 145-149.	3.2	8
67	Solute-Matrix and Solute-Solute Interactions During Supercritical Fluid Extraction of Sea Buckthorn Leaves. <i>Procedia Engineering</i> , 2012, 42, 1682-1691.	1.2	8
68	Titania aerogels with tailored nano and microstructure: comparison of lyophilization and supercritical drying. <i>Pure and Applied Chemistry</i> , 2017, 89, 501-509.	1.9	6
69	Vitrification conditions and porosity prediction of CO ₂ blown polystyrene foams. <i>Journal of Supercritical Fluids</i> , 2017, 127, 1-8.	3.2	6
70	Measurement of local velocities of drops in a liquid-liquid extraction vibrating plate column. <i>Chemical Engineering Science</i> , 1990, 45, 3563-3570.	3.8	4
71	Measurement and Correlation of $\hat{1}\pm$ -Bisabolol Solubility in Near-Critical Carbon Dioxide. <i>Journal of Chemical & Engineering Data</i> , 2013, 58, 1151-1155.	1.9	4
72	Countercurrent pulsed and reciprocating plate extractors. Prediction of Sauter mean drop diameter. <i>Collection of Czechoslovak Chemical Communications</i> , 1990, 55, 409-425.	1.0	4

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73	Transient behaviour of holdup in a reciprocating plate extraction column. Chemical Engineering Science, 1986, 41, 2579-2583.	3.8	3
74	Estimation of stereospecific fatty acid distribution in vegetable oils from liquid chromatography data. European Journal of Lipid Science and Technology, 2008, 110, 266-276.	1.5	3
75	Regioselective enzymatic hydrolysis of blackcurrant seed oil in supercritical CO ₂ . Journal of CO ₂ Utilization, 2021, 52, 101692.	6.8	3
76	Drop size distributions by power functions of breakage and coalescence. Collection of Czechoslovak Chemical Communications, 1982, 47, 2393-2402.	1.0	2
77	Hold-up and flooding in a vibrating plate extractor. Collection of Czechoslovak Chemical Communications, 1983, 48, 989-1000.	1.0	2
78	Modelling of lipase-catalysed oil hydrolysis in supercritical CO ₂ in a packed-bed reactor. Journal of Supercritical Fluids, 2022, , 105629.	3.2	2
79	Modeling of the Triacylglycerol Stereospecific Composition of Vegetable Oils: I. Comparison of Models for Triacylglycerol Assembly. European Journal of Lipid Science and Technology, 0, , 2000392.	1.5	1
80	Polydisperse model of the VPE extractor hydrodynamics. Collection of Czechoslovak Chemical Communications, 1986, 51, 801-808.	1.0	1
81	Holdup and holdup profiles in the reciprocating plate extractor VPE. Collection of Czechoslovak Chemical Communications, 1990, 55, 2648-2661.	1.0	1
82	Comments on "Ultrasonic technique for dispersed-phase holdup measurements". Industrial & Engineering Chemistry Research, 1988, 27, 1743-1743.	3.7	0
83	Optimum criterion of extractor design and operation. Collection of Czechoslovak Chemical Communications, 1990, 55, 2417-2427.	1.0	0