

Neil R Foster

List of Publications by Year in descending order

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129
papers

5,577
citations

76326

40
h-index

88630

70
g-index

135
all docs

135
docs citations

135
times ranked

4158
citing authors

#	ARTICLE	IF	CITATIONS
1	Catalysts, Kinetics and Reactor Design in Phthalic Anhydride Synthesis. <i>Catalysis Reviews - Science and Engineering</i> , 1979, 19, 211-292.	12.9	248
2	VETIVER GRASS, <i>VETIVERIA ZIZANIOIDES</i> : A CHOICE PLANT FOR PHYTOREMEDIATION OF HEAVY METALS AND ORGANIC WASTES. <i>International Journal of Phytoremediation</i> , 2009, 11, 664-691.	3.1	223
3	Solubility of naproxen in supercritical carbon dioxide with and without cosolvents. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 1471-1481.	3.7	210
4	Conventional and Dense Gas Techniques for the Production of Liposomes: A Review. <i>AAPS PharmSciTech</i> , 2008, 9, 798-809.	3.3	209
5	Significance of the crossover pressure in solid-supercritical fluid phase equilibria. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 1955-1964.	3.7	174
6	Solubilities of solid mixtures in supercritical carbon dioxide: a review. <i>Journal of Supercritical Fluids</i> , 2000, 17, 111-134.	3.2	173
7	Direct catalytic oxidation of methane to methanol – a review. <i>Applied Catalysis</i> , 1985, 19, 1-11.	0.8	167
8	Mathematical representation of solute solubility in supercritical carbon dioxide using empirical expressions. <i>Journal of Supercritical Fluids</i> , 2002, 24, 19-35.	3.2	166
9	Solubility of Anti-Inflammatory Drugs in Supercritical Carbon Dioxide. <i>Journal of Chemical & Engineering Data</i> , 1996, 41, 1083-1086.	1.9	148
10	Solubility of o-hydroxybenzoic acid in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 575-580.	3.7	116
11	Processing Pharmaceutical Compounds Using Dense Gas Technology. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 6476-6493.	3.7	115
12	Inactivation of bacteria and spores by pulse electric field and high pressure CO ₂ at low temperature. <i>Biotechnology and Bioengineering</i> , 2003, 82, 118-125.	3.3	108
13	Processing of Iron Oxide Nanoparticles by Supercritical Fluids. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 599-614.	3.7	108
14	Comparison of Chemical Composition, Antioxidant and Antimicrobial Activity of Lavender (<i>Lavandula</i>) Bioprocess Technology, 2013, 6, 3481-3489.	4.7	96
15	Influence of chemical modifiers on the solubility of o- and m-hydroxybenzoic acid in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 1488-1497.	3.7	95
16	Current issues relating to anti-solvent micronisation techniques and their extension to industrial scales. <i>Journal of Supercritical Fluids</i> , 2001, 21, 159-177.	3.2	94
17	A Critical Review of the Arsenic Uptake Mechanisms and Phytoremediation Potential of <i>Pteris vittata</i> . <i>International Journal of Phytoremediation</i> , 2014, 16, 429-453.	3.1	94
18	Response surface method applied to supercritical carbon dioxide extraction of <i>Vetiveria zizanioides</i> essential oil. <i>Chemical Engineering Journal</i> , 2009, 155, 617-626.	12.7	84

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19	Generation of micro-particles of proteins for aerosol delivery using high pressure modified carbon dioxide. <i>Pharmaceutical Research</i> , 2000, 17, 1360-1366.	3.5	82
20	Micronization of cyclosporine using dense gas techniques. <i>Journal of Supercritical Fluids</i> , 2006, 37, 272-278.	3.2	77
21	Diffusion of fatty acid esters in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1992, 31, 390-399.	3.7	76
22	Supercritical Adsorption and Desorption Behavior of DDT on Activated Carbon Using Carbon Dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1995, 34, 275-282.	3.7	74
23	Solubility of organometallic complexes in supercritical carbon dioxide: A review. <i>Journal of Organometallic Chemistry</i> , 2013, 724, 102-116.	1.8	74
24	Solubility of cholesterol in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 2476-2482.	3.7	72
25	Polar and nonpolar cosolvent effects on the solubility of cholesterol in supercritical fluids. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 2849-2853.	3.7	72
26	Viscosity measurements on gas expanded liquid systems—Methanol and carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2007, 41, 148-157.	3.2	72
27	Diffusion coefficients of long-chain esters in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 1329-1335.	3.7	66
28	Antioxidant activity, yield and chemical composition of lavender essential oil extracted by supercritical CO ₂ . <i>Journal of Supercritical Fluids</i> , 2012, 70, 27-34.	3.2	66
29	Diffusion of phenylacetic acid and vanillin in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1992, 31, 927-934.	3.7	64
30	Influence of Matrix Composition on the Solubility of Hydroxybenzoic Acid Isomers in Supercritical Carbon Dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 4686-4699.	3.7	63
31	Viscosity measurements on saturated gas-expanded liquid systems—Ethanol and carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2008, 43, 460-468.	3.2	59
32	Solubility of DDT and 2,4-D in Supercritical Carbon Dioxide and Supercritical Carbon Dioxide Saturated with Water. <i>Industrial & Engineering Chemistry Research</i> , 1994, 33, 2757-2763.	3.7	56
33	The influence of operating conditions on the dense gas precipitation of model proteins. <i>Journal of Chemical Technology and Biotechnology</i> , 2000, 75, 29-41.	3.2	56
34	The Depressurization of an Expanded Solution into Aqueous Media for the Bulk Production of Liposomes. <i>Langmuir</i> , 2009, 25, 326-337.	3.5	55
35	Micronization of Copper Indomethacin Using Gas Antisolvent Processes. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 1993-2004.	3.7	49
36	Application of a dense gas technique for sterilizing soft biomaterials. <i>Biotechnology and Bioengineering</i> , 2011, 108, 1716-1725.	3.3	46

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37	Viscosity correlations for binary supercritical fluids. <i>Industrial & Engineering Chemistry Research</i> , 1994, 33, 681-688.	3.7	45
38	Solubility of cholesterol in supercritical ethane and binary gas mixtures containing ethane. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 2841-2848.	3.7	44
39	Solubilities of Mixed Hydroxybenzoic Acid Isomers in Supercritical Carbon Dioxide. <i>Journal of Chemical & Engineering Data</i> , 1998, 43, 726-731.	1.9	44
40	Chemical-physical interpretation of cosolvent effects in supercritical fluids. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 1482-1487.	3.7	42
41	Dense gas processing of polymeric controlled release formulations. <i>International Journal of Pharmaceutics</i> , 2007, 328, 1-11.	5.2	42
42	Solubility and Micronization of Griseofulvin in Subcritical Water. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 3403-3410.	3.7	40
43	Subgram-Scale Synthesis of Biomass Waste-Derived Fluorescent Carbon Dots in Subcritical Water for Bioimaging, Sensing, and Solid-State Patterning. <i>ACS Omega</i> , 2018, 3, 13211-13218.	3.5	40
44	Extraction of vetiver essential oil by ethanol-modified supercritical carbon dioxide. <i>Chemical Engineering Journal</i> , 2010, 165, 26-34.	12.7	39
45	Solubility of phenylacetic acid and vanillin in supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 1990, 3, 8-14.	3.2	38
46	Solubility of fatty acid esters in supercritical carbon dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1992, 31, 400-404.	3.7	38
47	Direct partial oxidation of methane to methanol in supercritical water. <i>Journal of Supercritical Fluids</i> , 1996, 9, 99-105.	3.2	38
48	Lipids-based drug carrier systems by dense gas technology: A review. <i>Chemical Engineering Journal</i> , 2012, 188, 1-14.	12.7	38
49	Phase Behavior of Supercritical Fluid-Entrainment Systems. <i>ACS Symposium Series</i> , 1992, , 34-45.	0.5	35
50	Solvent effects on the controlled dense gas precipitation of model proteins. <i>Journal of Chemical Technology and Biotechnology</i> , 2000, 75, 42-53.	3.2	35
51	Inhalable curcumin formulations by supercritical technology. <i>Powder Technology</i> , 2015, 284, 289-298.	4.2	35
52	Application of dense gas techniques for the production of fine particles. <i>AAPS PharmSci</i> , 2003, 5, 32-38.	1.3	34
53	Extraction and separation of lanthanides using dense gas CO ₂ modified with tributyl phosphate and di(2-ethyl hexyl)phosphoric acid. <i>Journal of Supercritical Fluids</i> , 1996, 9, 263-272.	3.2	33
54	Increasing the Dissolution Rate of Itraconazole Processed by Gas Antisolvent Techniques using Polyethylene Glycol as a Carrier. <i>Pharmaceutical Research</i> , 2008, 25, 1274-1289.	3.5	33

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55	Assessment of Bio-oil Extraction from <i>Tetraselmis chui</i> Microalgae Comparing Supercritical CO ₂ , Solvent Extraction, and Thermal Processing. <i>Energy & Fuels</i> , 2012, 26, 248-255.	5.1	32
56	Polymorphism of curcumin from dense gas antisolvent precipitation. <i>Powder Technology</i> , 2017, 305, 748-756.	4.2	32
57	Viscosity measurements on saturated gas expanded liquid systems—Acetone and carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2008, 47, 233-239.	3.2	31
58	Fractionation of soybean proteins with pressurized carbon dioxide as a volatile electrolyte. <i>Biotechnology and Bioengineering</i> , 2001, 73, 1-11.	3.3	30
59	Impregnation of Ibuprofen into Polycaprolactone using supercritical carbon dioxide. <i>Journal of Physics: Conference Series</i> , 2010, 215, 012087.	0.4	29
60	Solubility and Solubility Modeling of Polycyclic Aromatic Hydrocarbons in Subcritical Water. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 5806-5814.	3.7	29
61	Economic Incentive for Applying Vetiver Grass to Remediate Lead, Copper and Zinc Contaminated Soils. <i>International Journal of Phytoremediation</i> , 2010, 13, 47-60.	3.1	28
62	Solubility of Chlorinated Pesticides in Supercritical Carbon Dioxide. <i>Journal of Chemical & Engineering Data</i> , 1995, 40, 593-597.	1.9	26
63	Steric Effects and Preferential Interactions in Supercritical Carbon Dioxide. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 4190-4197.	3.7	26
64	The solubility and solubility modelling of budesonide in pure and modified subcritical water solutions. <i>Journal of Supercritical Fluids</i> , 2010, 55, 37-42.	3.2	25
65	Inhalable curcumin formulations: Micronization and bioassay. <i>Chemical Engineering Journal</i> , 2015, 279, 799-808.	12.7	25
66	Supercritical fluid fractionation of a nonionic surfactant. <i>Industrial & Engineering Chemistry Research</i> , 1992, 31, 1105-1110.	3.7	24
67	Generation of Fine Powders of Recombinant Human Deoxyribonuclease Using the Aerosol Solvent Extraction System. <i>Pharmaceutical Research</i> , 2003, 20, 2028-2035.	3.5	24
68	Solubility, Solubility Modeling, and Precipitation of Naproxen from Subcritical Water Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 9385-9393.	3.7	24
69	Improving the dissolution properties of curcumin using dense gas antisolvent technology. <i>International Journal of Pharmaceutics</i> , 2017, 521, 239-248.	5.2	24
70	Design, synthesis, and biological evaluation of novel arylcarboxamide derivatives as anti-tubercular agents. <i>RSC Advances</i> , 2020, 10, 7523-7540.	3.6	24
71	Dense CO ₂ expanded methanol solvent system for synthesis of naproxen via enantioselective hydrogenation. <i>Journal of Supercritical Fluids</i> , 2005, 36, 127-136.	3.2	23
72	Loading of 5-fluorouracil onto Halloysite nanotubes for targeted drug delivery using a subcritical gas antisolvent process (GAS). <i>Journal of Supercritical Fluids</i> , 2020, 159, 104756.	3.2	23

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73	Synthesis of transparent dispersion of monodispersed silver nanoparticles with excellent conductive performance using high-gravity technology. <i>Chemical Engineering Journal</i> , 2016, 296, 182-190.	12.7	22
74	Particle formation of budesonide from alcohol-modified subcritical water solutions. <i>International Journal of Pharmaceutics</i> , 2011, 405, 169-180.	5.2	21
75	Critical Properties for Binary Mixtures of Ethane Containing Low Concentrations of n-Alkane. <i>Journal of Chemical & Engineering Data</i> , 2000, 45, 131-135.	1.9	20
76	Tetralin decomposition in short contact time coal liquefaction. <i>Fuel</i> , 1985, 64, 457-460.	6.4	19
77	A green route to beclomethasone dipropionate nanoparticles via solvent anti-solvent precipitation by using subcritical water as the solvent. <i>Powder Technology</i> , 2017, 308, 200-205.	4.2	19
78	Carbon Dioxide Induced Soybean Protein Precipitation: Protein Fractionation, Particle Aggregation, and Continuous Operation. <i>Biotechnology Progress</i> , 2001, 17, 513-521.	2.6	18
79	The development of a dense gas solvent exchange process for the impregnation of pharmaceuticals into porous chitosan. <i>International Journal of Pharmaceutics</i> , 2010, 391, 187-196.	5.2	18
80	Vapor-Liquid Equilibrium for the Carbon Dioxide + Hydrogen + Methanol Ternary System. <i>Journal of Chemical & Engineering Data</i> , 2004, 49, 430-434.	1.9	17
81	Dense Gas Processing of Micron-Sized Drug Formulations Incorporating Hydroxypropylated and Methylated Beta-Cyclodextrin. <i>Pharmaceutical Research</i> , 2006, 23, 429-437.	3.5	17
82	Synthesis of Monodisperse Iron Oxide Nanoparticles without Surfactants. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-5.	2.7	17
83	Subcritical water processing for nanopharmaceuticals. <i>Chemical Engineering and Processing: Process Intensification</i> , 2019, 140, 36-42.	3.6	17
84	Dense CO ₂ technology: Overview of recent applications for drug processing/formulation/delivery. <i>Chemical Engineering and Processing: Process Intensification</i> , 2019, 140, 64-77.	3.6	17
85	Mass transfer and solubility of oxygen and methane in silicone fluids. <i>Industrial & Engineering Chemistry Research</i> , 1990, 29, 691-696.	3.7	16
86	Critical locus and partial molar volume studies of the benzaldehyde-carbon dioxide binary system. <i>Industrial & Engineering Chemistry Research</i> , 1989, 28, 1903-1907.	3.7	15
87	Solubility and Solubility Modeling of Polycyclic Aromatic Hydrocarbons in Subcritical Ethanol and Water Mixtures. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 10238-10248.	3.7	15
88	Green preparation of uniform prednisolone nanoparticles using subcritical water. <i>Chemical Engineering Journal</i> , 2015, 263, 20-26.	12.7	15
89	Kinase Targets for Mycolic Acid Biosynthesis in <i>Mycobacterium tuberculosis</i> . <i>Current Molecular Pharmacology</i> , 2019, 12, 27-49.	1.5	15
90	Initial solvation of coal with tetralin under liquefaction conditions. <i>Fuel</i> , 1985, 64, 454-456.	6.4	14

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91	Molecular weight fractionation of poly(methyl methacrylate) using Gas Anti-Solvent techniques. <i>Polymer</i> , 2003, 44, 3477-3481.	3.8	14
92	Increasing Copper Indomethacin Solubility by Coprecipitation with Poly(vinylpyrrolidone) Using the Aerosol Solvent Extraction System. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 1103-1112.	3.7	14
93	Ultrafine clarithromycin nanoparticles via anti-solvent precipitation in subcritical water: Effect of operating parameters. <i>Powder Technology</i> , 2017, 305, 125-131.	4.2	14
94	Isothermal studies of the liquefaction of Liddell coal. <i>Industrial & Engineering Chemistry Product Research and Development</i> , 1983, 22, 478-482.	0.5	13
95	Formation of pyrolytic carbon in a continuous reactor for coal hydrogenation. <i>Fuel</i> , 1984, 63, 169-173.	6.4	13
96	Innovations in Supercritical Fluid Science and Technology. ACS Symposium Series, 1995, , 1-31.	0.5	13
97	Particle processing by dense gas antisolvent precipitation: ARISE scale-up. <i>Chemical Engineering Journal</i> , 2017, 308, 535-543.	12.7	13
98	Removal of Pollutants from Solid Matrices Using Supercritical Fluids. <i>Separation Science and Technology</i> , 1995, 30, 1901-1915.	2.5	12
99	Recent Applications of Supercritical Fluid Technology to Pharmaceutical Powder Systems. <i>KONA Powder and Particle Journal</i> , 2001, 19, 57-70.	1.7	10
100	Effect of Calcium on Growth Performance and Essential Oil of Vetiver Grass (<i>Chrysopogon</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 13, 154-165.	3.1	10
101	Solubility of Bicalutamide, Megestrol Acetate, Prednisolone, Beclomethasone Dipropionate, and Clarithromycin in Subcritical Water at Different Temperatures from 383.15 to 443.15 K. <i>Journal of Chemical & Engineering Data</i> , 2017, 62, 1139-1145.	1.9	10
102	Scale $\hat{\alpha}$ Up and economic evaluation of the atomized rapid injection solvent extraction process. <i>Journal of Supercritical Fluids</i> , 2017, 127, 208-216.	3.2	10
103	Nanonization of ciprofloxacin using subcritical water-ethanol mixture as the solvent: Solubility and precipitation parameters. <i>Powder Technology</i> , 2017, 321, 197-203.	4.2	10
104	Partial molar volumes of DHA and EPA esters in supercritical fluids. <i>Industrial & Engineering Chemistry Research</i> , 1991, 30, 569-574.	3.7	9
105	Formation of Nanocarrier Systems by Dense Gas Processing. <i>Langmuir</i> , 2014, 30, 11046-11054.	3.5	9
106	Mass transfer of oxygen and methane in silicone fluids and perfluoroalkyl polyether. <i>Industrial & Engineering Chemistry Research</i> , 1990, 29, 1962-1968.	3.7	8
107	Preparation of Silybin/Poly(vinylpyrrolidone) Nanodrugs by Using the Aerosol Solvent Extraction System for Improving Drug Solubility. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 10519-10524.	3.7	8
108	Process intensification: Nano-carrier formation by a continuous dense gas process. <i>Chemical Engineering Journal</i> , 2015, 266, 320-328.	12.7	7

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109	Simulation of chemical rate processes in short contact time coal liquefaction. <i>Fuel</i> , 1984, 63, 716-717.	6.4	6
110	Short contact time dissolution of Liddell coal. <i>Fuel</i> , 1984, 63, 66-70.	6.4	6
111	Novel Sr ²⁺ /Zn ²⁺ /Co hexagonal ferrite nano-rods by wood-template chemical solution synthesis. <i>Materials Letters</i> , 2011, 65, 2213-2215.	2.6	6
112	Efficient treatment of actual pharmaceutical wastewater by wet oxidation process in subcritical water apparatus. <i>Canadian Journal of Chemical Engineering</i> , 2017, 95, 2056-2062.	1.7	6
113	Precipitation of Drug Particles Using a Gas Antisolvent Process on a High-Pressure Microfluidic Platform. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 11905-11913.	3.7	6
114	Neutron attenuation: a novel approach to residence time studies in coal hydrogenation reactors. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1983, 22, 502-503.	0.7	5
115	A Green Method for Processing Polymers using Dense Gas Technology. <i>Materials</i> , 2010, 3, 3188-3203.	2.9	5
116	Application of neutron techniques to studies of reactor fluid dynamics. <i>The Chemical Engineering Journal</i> , 1987, 34, 35-46.	0.3	4
117	Predictive and Experimental Methods for the Choice of Cosolvent in the Supercritical Fluid Extraction of Pesticides. <i>ACS Symposium Series</i> , 1995, , 126-139.	0.5	4
118	Development of a Novel Precipitation Technique for the Production of Highly Respirable Powders: The Atomized Rapid Injection for Solvent Extraction Process. <i>ACS Symposium Series</i> , 2009, , 309-347.	0.5	4
119	Microscopic investigation of carbonaceous material forming blockages in coal hydrogenation reactors. <i>Fuel Processing Technology</i> , 1984, 8, 267-281.	7.2	3
120	Donor interactions of 1-methylindan in coal liquefaction. <i>Fuel</i> , 1985, 64, 761-766.	6.4	3
121	Kinetic Study of the Hydrogenation of 2-(6-Methoxy-2-naphthyl)propenoic Acid to (S)-Naproxen with Ruthenium BINAP Catalyst in Methanol. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 1281-1290.	3.7	3
122	Preparation of polystyrene/poly[2-(6-methoxy-2-naphthyl)ethylhexyloxy]phenylenevinylene] fluorescent microspheres by miniemulsion polymerization. <i>Polymer International</i> , 2013, 62, 665-669.	3.1	3
123	MULTIRESPONSE MODELING OF THE OXIDATION OF NAPHTHALENE OVER A VANADIA CATALYST. <i>Chemical Engineering Communications</i> , 1982, 14, 289-305.	2.6	2
124	Short contact time dissolution of vitrinite and inertinite concentrates. <i>Fuel</i> , 1985, 64, 916-920.	6.4	2
125	Encapsulation of Superparamagnetic Iron Oxide Nanoparticles by the Supercritical Antisolvent Process. <i>Australian Journal of Chemistry</i> , 2012, 65, 40.	0.9	2
126	Development of a novel continuous dense gas process for the production of residual solvent-free self-assembled nano-carriers. <i>Chemical Engineering and Processing: Process Intensification</i> , 2019, 143, 107589.	3.6	2

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127	Processing of polyphenolic composites with supercritical fluid anti-solvent technology. AIP Conference Proceedings, 2017, , .	0.4	1
128	Solvent effects on the controlled dense gas precipitation of model proteins. Journal of Chemical Technology and Biotechnology, 2000, 75, 42-53.	3.2	1
129	The Application of Supercritical CO ₂ Based Technology for Curcumin Particle Processing. Materials Science Forum, 2016, 864, 81-85.	0.3	0