

# Angel Martin

## List of Publications by Year in descending order

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106  
papers

3,727  
citations

126907

33  
h-index

149698

56  
g-index

109  
all docs

109  
docs citations

109  
times ranked

3943  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoencapsulation of food ingredients using carbohydrate based delivery systems. Trends in Food Science and Technology, 2014, 39, 18-39.	15.1	385
2	Encapsulation and co-precipitation processes with supercritical fluids: Fundamentals and applications. Journal of Supercritical Fluids, 2009, 47, 546-555.	3.2	333
3	Formulation of lavandin essential oil with biopolymers by PGSS for application as biocide in ecological agriculture. Journal of Supercritical Fluids, 2010, 54, 369-377.	3.2	103
4	Carotenoid processing with supercritical fluids. Journal of Food Engineering, 2009, 93, 255-265.	5.2	101
5	Formulation of $\beta$ -carotene by precipitation from pressurized ethyl acetate-on-water emulsions for application as natural colorant. Food Hydrocolloids, 2012, 26, 17-27.	10.7	95
6	Extraction of phytochemicals from the medicinal plant Clinacanthus nutans Lindau by microwave-assisted extraction and supercritical carbon dioxide extraction. Industrial Crops and Products, 2015, 74, 83-94.	5.2	89
7	Encapsulation and Co-Precipitation Processes with Supercritical Fluids: Applications with Essential Oils~!2009-08-12~!2009-12-08~!2010-03-25~!. Open Chemical Engineering Journal, 2010, 4, 31-41.	0.5	86
8	Precipitation of lutein and co-precipitation of lutein and poly-lactic acid with the supercritical anti-solvent process. Chemical Engineering and Processing: Process Intensification, 2008, 47, 1594-1602.	3.6	84
9	Formulation of a natural biocide based on lavandin essential oil by emulsification using modified starches. Chemical Engineering and Processing: Process Intensification, 2009, 48, 1121-1128.	3.6	83
10	Thermodynamic analysis of absorption refrigeration cycles using ionic liquid+supercritical CO2 pairs. Journal of Supercritical Fluids, 2010, 55, 852-859.	3.2	80
11	Supercritical impregnation of lavandin ( <i>Lavandula hybrida</i> ) essential oil in modified starch. Journal of Supercritical Fluids, 2011, 58, 313-319.	3.2	71
12	Supercritical antisolvent precipitation from an emulsion: $\beta$ -Carotene nanoparticle formation. Journal of Supercritical Fluids, 2009, 51, 238-247.	3.2	69
13	Antimicrobial activity of lavandin essential oil formulations against three pathogenic food-borne bacteria. Industrial Crops and Products, 2013, 42, 243-250.	5.2	65
14	Supercritical anti-solvent precipitation of carotenoid fraction from pink shrimp residue: Effect of operational conditions on encapsulation efficiency. Journal of Supercritical Fluids, 2012, 66, 342-349.	3.2	63
15	Production of stabilized sub-micrometric particles of carotenoids using supercritical fluid extraction of emulsions. Journal of Supercritical Fluids, 2012, 61, 167-174.	3.2	59
16	Enhanced Delivery of Quercetin by Encapsulation in Poloxamers by Supercritical Antisolvent Process. Industrial & Engineering Chemistry Research, 2014, 53, 4318-4327.	3.7	59
17	Microwave-assisted extraction of polyphenols from Clinacanthus nutans Lindau medicinal plant: Energy perspective and kinetics modeling. Chemical Engineering and Processing: Process Intensification, 2015, 97, 66-74.	3.6	52
18	Solubility of gases in 1-alkyl-3-methylimidazolium alkyl sulfate ionic liquids: Experimental determination and modeling. Journal of Chemical Thermodynamics, 2013, 58, 237-244.	2.0	50

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19	Impregnation of medicinal plant phytochemical compounds into silica and alginate aerogels. <i>Journal of Supercritical Fluids</i> , 2016, 116, 251-263.	3.2	49
20	Formulation of $\beta$ -carotene with soybean lecithin by PGSS (Particles from Gas Saturated) Tj ETQq0 0 0 rgBT /Overlock,10 Tf 50,702 Td (S	3.2	46
21	Hydrogen Storage in sH Clathrate Hydrates: Thermodynamic Model. <i>Journal of Physical Chemistry B</i> , 2009, 113, 7558-7563.	2.6	45
22	Production of Polymorphs of Ibuprofen Sodium by Supercritical Antisolvent (SAS) Precipitation. <i>Crystal Growth and Design</i> , 2009, 9, 2504-2511.	3.0	45
23	New Thermodynamic Model of Equilibrium States of Gas Hydrates Considering Lattice Distortion. <i>Journal of Physical Chemistry C</i> , 2009, 113, 422-430.	3.1	45
24	Hint: An educational software for heat exchanger network design with the pinch method. <i>Education for Chemical Engineers</i> , 2008, 3, e6-e14.	4.8	43
25	Formulation of $\beta$ -carotene with poly-( $\mu$ -caprolactones) by PGSS process. <i>Powder Technology</i> , 2012, 217, 77-83.	4.2	43
26	Development of water-soluble $\beta$ -carotene formulations by high-temperature, high-pressure emulsification and antisolvent precipitation. <i>Food Hydrocolloids</i> , 2014, 37, 14-24.	10.7	42
27	Harvesting Renewable Energy for Carbon Dioxide Catalysis. <i>Energy Technology</i> , 2017, 5, 796-811.	3.8	42
28	Encapsulation of curcumin using supercritical antisolvent (SAS) technology to improve its stability and solubility in water. <i>Food Chemistry</i> , 2018, 258, 156-163.	8.2	42
29	Precipitation Processes with Supercritical Fluids: Patents Review. <i>Recent Patents on Engineering</i> , 2008, 2, 9-20.	0.4	41
30	Computational fluid dynamics simulation of a transpiring wall reactor for supercritical water oxidation. <i>Chemical Engineering Journal</i> , 2010, 158, 431-440.	12.7	40
31	Micronization of polyethylene glycol by PGSS (Particles from Gas Saturated Solutions)-drying of aqueous solutions. <i>Chemical Engineering and Processing: Process Intensification</i> , 2010, 49, 1259-1266.	3.6	40
32	PGSS-drying: Mechanisms and modeling. <i>Journal of Supercritical Fluids</i> , 2010, 55, 271-281.	3.2	37
33	Production of water soluble quercetin formulations by pressurized ethyl acetate-in-water emulsion technique using natural origin surfactants. <i>Food Hydrocolloids</i> , 2015, 51, 295-304.	10.7	35
34	View cell investigation of silica aerogels during supercritical drying: Analysis of size variation and mass transfer mechanisms. <i>Journal of Supercritical Fluids</i> , 2014, 92, 24-30.	3.2	34
35	Thermodynamic Modeling of Promoted Structure II Clathrate Hydrates of Hydrogen. <i>Journal of Physical Chemistry B</i> , 2009, 113, 7548-7557.	2.6	33
36	Gradual hydrophobic surface functionalization of dry silica aerogels by reaction with silane precursors dissolved in supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2013, 84, 74-79.	3.2	33

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37	Determination of Phase Equilibrium (Solid~Liquid~Gas) in Poly-( $\mu$ -caprolactone)~Carbon Dioxide Systems. <i>Journal of Chemical &amp; Engineering Data</i> , 2010, 55, 2781-2785.	1.9	32
38	Experimental Performance and Modeling of a New Cooled-Wall Reactor for the Supercritical Water Oxidation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 6262-6272.	3.7	31
39	A Simplified van der Waals-Platteeuw Model of Clathrate Hydrates with Multiple Occupancy of Cavities. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9602-9607.	2.6	31
40	Unexpected Behavior of Helium as Guest Gas in sII Binary Hydrates. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1014-1017.	4.6	30
41	Production of stabilized quercetin aqueous suspensions by supercritical fluid extraction of emulsions. <i>Journal of Supercritical Fluids</i> , 2015, 100, 34-45.	3.2	30
42	Experimental and Computational Investigation of the sII Binary He~THF Hydrate. <i>Journal of Physical Chemistry B</i> , 2011, 115, 1411-1415.	2.6	29
43	Mathematical modeling for simultaneous extraction and fractionation process of coffee beans with supercritical CO <sub>2</sub> and water. <i>Journal of Supercritical Fluids</i> , 2012, 66, 111-119.	3.2	29
44	Production of water-soluble $\beta$ -carotene micellar formulations by novel emulsion techniques. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 74, 90-96.	3.6	29
45	Phase equilibria of carbon dioxide+poly ethylene glycol+water mixtures at high pressure: Measurements and modelling. <i>Fluid Phase Equilibria</i> , 2009, 286, 162-169.	2.5	28
46	Teaching advanced equations of state in applied thermodynamics courses using open source programs. <i>Education for Chemical Engineers</i> , 2011, 6, e114-e121.	4.8	28
47	Production of encapsulated quercetin particles using supercritical fluid technologies. <i>Powder Technology</i> , 2017, 317, 142-153.	4.2	28
48	Ionic Liquid as Reaction Media for the Production of Cellulose-Derived Polymers from Cellulosic Biomass. <i>ChemEngineering</i> , 2017, 1, 10.	2.4	28
49	Encapsulation of Lavandin Essential Oil in Poly( $\mu$ -caprolactones) by PGSS Process. <i>Chemical Engineering and Technology</i> , 2013, 36, 1187-1192.	1.5	26
50	Microwave-assisted process intensification techniques. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2018, 11, 70-75.	5.9	26
51	Co-Precipitation of $\beta$ -Carotene and Polyethylene Glycol with Compressed CO <sub>2</sub> as an Antisolvent: Effect of Temperature and Concentration. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 3900-3906.	3.7	24
52	Application of a group contribution equation of state for the thermodynamic modeling of binary systems (gas + ionic liquids) with bis[(trifluoromethyl)sulfonyl]imide anion. <i>Journal of Chemical Thermodynamics</i> , 2010, 42, 524-529.	2.0	24
53	Preparation of cellulose aerogels from ionic liquid solutions for supercritical impregnation of phytol. <i>Journal of Supercritical Fluids</i> , 2017, 130, 17-22.	3.2	24
54	Production of silica aerogel microparticles loaded with ammonia borane by batch and semicontinuous supercritical drying techniques. <i>Journal of Supercritical Fluids</i> , 2014, 92, 299-310.	3.2	22

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55	Influence of water concentration in the viscosities and densities of cellulose dissolving ionic liquids. Correlation of viscosity data. <i>Journal of Chemical Thermodynamics</i> , 2015, 91, 8-16.	2.0	22
56	Enhancement of hydrogen release kinetics from ethane 1,2 diamineborane (EDAB) by micronization using Supercritical Antisolvent (SAS) precipitation. <i>Chemical Engineering Journal</i> , 2016, 306, 164-173.	12.7	22
57	Improvement of the kinetics of hydrogen release from ammonia borane confined in silica aerogel. <i>Microporous and Mesoporous Materials</i> , 2017, 237, 189-200.	4.4	22
58	Innovative methods to enhance the properties of solid hydrogen storage materials based on hydrides through nanoconfinement: A review. <i>Journal of Supercritical Fluids</i> , 2018, 141, 198-217.	3.2	22
59	A Micellar Formulation of Quercetin Prevents Cisplatin Nephrotoxicity. <i>International Journal of Molecular Sciences</i> , 2021, 22, 729.	4.1	20
60	Crystallization of Caffeine by Supercritical Antisolvent (SAS) Process: Analysis of Process Parameters and Control of Polymorphism. <i>Crystal Growth and Design</i> , 2012, 12, 1943-1951.	3.0	19
61	Operando Raman-mass spectrometry investigation of hydrogen release by thermolysis of ammonia borane confined in mesoporous materials. <i>Microporous and Mesoporous Materials</i> , 2016, 226, 454-465.	4.4	19
62	Quercetin loaded particles production by means of supercritical fluid extraction of emulsions: Process scale-up study and thermo-economic evaluation. <i>Food and Bioproducts Processing</i> , 2017, 103, 27-38.	3.6	19
63	Effect of the spraying conditions and nozzle design on the shape and size distribution of particles obtained with supercritical fluid drying. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2008, 70, 389-401.	4.3	18
64	Experimental determination of viscosities and densities of mixtures carbon dioxide+1-allyl-3-methylimidazolium chloride. Viscosity correlation. <i>Journal of Supercritical Fluids</i> , 2016, 111, 91-96.	3.2	18
65	Melting point depression effect with CO <sub>2</sub> in high melting temperature cellulose dissolving ionic liquids. Modeling with group contribution equation of state. <i>Journal of Supercritical Fluids</i> , 2016, 107, 590-604.	3.2	18
66	Behavior of an organic solvent drop during the supercritical extraction of emulsions. <i>AIChE Journal</i> , 2010, 56, 1184-1195.	3.6	16
67	Application of a Group Contribution Equation of State for the Thermodynamic Modeling of Gas + Ionic Liquid Mixtures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 4966-4973.	3.7	16
68	Direct Synthesis of Linalyl Acetate from Linalool in Supercritical Carbon Dioxide: A Thermodynamic Study. <i>Chemical Engineering and Technology</i> , 2007, 30, 726-731.	1.5	15
69	Modeling the phase behavior of ternary systems ionic liquid + organic + CO <sub>2</sub> with a Group Contribution Equation of State. <i>AIChE Journal</i> , 2009, 55, 1265-1273.	3.6	15
70	Solubility of Diisopropoxititanium Bis(acetylacetonate) in Supercritical Carbon Dioxide. <i>Journal of Chemical &amp; Engineering Data</i> , 2008, 53, 204-206.	1.9	14
71	Kinetics of hydrogen release from dissolutions of ammonia borane in different ionic liquids. <i>Energy</i> , 2015, 91, 742-750.	8.8	14
72	Release of hydrogen from nanoconfined hydrides by application of microwaves. <i>Journal of Power Sources</i> , 2017, 353, 131-137.	7.8	13

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73	Effect of the modifier on the particle formation and crystallisation behaviour during precipitation from aqueous solutions. <i>Journal of Supercritical Fluids</i> , 2008, 44, 409-421.	3.2	12
74	Solubility of $\beta$ -carotene in poly-( $\epsilon$ -caprolactone) particles produced in colloidal state by Supercritical Fluid Extraction of Emulsions (SFEE). <i>Journal of Supercritical Fluids</i> , 2013, 84, 105-112.	3.2	12
75	Lycopene solubility in mixtures of carbon dioxide and ethyl acetate. <i>Journal of Supercritical Fluids</i> , 2013, 75, 6-10.	3.2	12
76	Micronization of Magnesium Acetate by the Supercritical Antisolvent Process as a Precursor for the Production of Magnesium Oxide and Magnesium Hydride. <i>Crystal Growth and Design</i> , 2014, 14, 4768-4776.	3.0	12
77	Viscosities of binary mixtures containing 1-butanol + 2,2,4-trimethylpentane or + 1,2,4-trimethylbenzene at high pressures for the thermophysical characterization of biofuels. <i>Journal of Chemical Thermodynamics</i> , 2016, 102, 140-146.	2.0	12
78	Impregnation of a $\beta$ -residue extracts in silica-aerogel. <i>Journal of Supercritical Fluids</i> , 2019, 146, 120-127.	3.2	12
79	Solubility of Polycaprolactone in Supercritical Carbon Dioxide with Ethanol as Cosolvent. <i>Journal of Chemical &amp; Engineering Data</i> , 2009, 54, 962-965.	1.9	11
80	Novel windows for "solar commodities": a device for CO <sub>2</sub> reduction using plasmonic catalyst activation. <i>Faraday Discussions</i> , 2015, 183, 249-259.	3.2	11
81	Tuned Pd/SiO <sub>2</sub> aerogel catalyst prepared by different synthesis techniques. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 65, 515-521.	5.3	11
82	Measurement and modelling of mass transport properties during the supercritical fluid extraction of emulsions. <i>Journal of Supercritical Fluids</i> , 2017, 129, 36-47.	3.2	10
83	Recent Developments of Supercritical Water Oxidation: A Patents Review. <i>Recent Patents on Chemical Engineering</i> , 2011, 4, 219-230.	0.5	10
84	Precipitation of Mandelic Acid with a Supercritical Antisolvent Process: Experimental and Theoretical Analysis, Optimization, and Scaleup. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 1552-1562.	3.7	9
85	Hydrothermal CO <sub>2</sub> Reduction by Glucose as Reducing Agent and Metals and Metal Oxides as Catalysts. <i>Molecules</i> , 2022, 27, 1652.	3.8	8
86	Design and Cost Evaluation of a Separation Process for a Multicomponent Mixture Using Dense CO <sub>2</sub> . <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 5779-5788.	3.7	7
87	Reversible hydrogen sorption in the composite made of magnesium borohydride and silica aerogel. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 15245-15253.	7.1	7
88	Formulation of a $\beta$ -( <i>E. oleracea</i> Mart.) Pulp and seeds extracts by co-precipitation in Supercritical Antisolvent (SAS) technology. <i>Journal of Supercritical Fluids</i> , 2021, 169, 105090.	3.2	7
89	A Bio-Based Alginate Aerogel as an Ionic Liquid Support for the Efficient Synthesis of Cyclic Carbonates from CO <sub>2</sub> and Epoxides. <i>Catalysts</i> , 2021, 11, 872.	3.5	7
90	Protective Effect of Quercetin 3-O-Glucuronide against Cisplatin Cytotoxicity in Renal Tubular Cells. <i>Molecules</i> , 2022, 27, 1319.	3.8	7

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91	Production of water-soluble quercetin formulations by antisolvent precipitation and supercritical drying. <i>Journal of Supercritical Fluids</i> , 2015, 104, 281-290.	3.2	6
92	Adsorption of nickelocene and ruthenocene on mesoporous silica MCM-48 and activated carbon supports in supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2016, 117, 138-146.	3.2	6
93	Applications of supercritical technologies to CO <sub>2</sub> reduction: Catalyst development and process intensification. <i>Journal of Supercritical Fluids</i> , 2018, 134, 141-149.	3.2	6
94	Solubility of Bisphenol A in Supercritical Carbon Dioxide. <i>Journal of Chemical &amp; Engineering Data</i> , 2011, 56, 3910-3913.	1.9	5
95	Analysis of the Energy Flow in a Municipal Wastewater Treatment Plant Based on a Supercritical Water Oxidation Reactor Coupled to a Gas Turbine. <i>Processes</i> , 2021, 9, 1237.	2.8	5
96	Stability and cell distortion of sl clathrate hydrates of methane and carbon dioxide: A 2D lattice-gas model study. <i>Fluid Phase Equilibria</i> , 2015, 402, 30-37.	2.5	4
97	Measurement and modelization of VLE of binary mixtures of propyl acetate, butyl acetate or isobutyl acetate with methanol at pressure of 0.6MPa. <i>Chinese Journal of Chemical Engineering</i> , 2016, 24, 630-637.	3.5	4
98	Carbon Dioxide Hydrogenation by Means of Plasmonic Resonance Activation in Silica Aerogel Media. <i>Materials</i> , 2018, 11, 2134.	2.9	4
99	Lattice-gas Monte Carlo study of sl clathrate hydrates of ethylene: Stability analysis and cell distortion. <i>Fluid Phase Equilibria</i> , 2020, 521, 112739.	2.5	4
100	Energy and Economic Analysis of the Hydrothermal Reduction of CO <sub>2</sub> into Formate. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 14038-14050.	3.7	4
101	Measurement and Modeling of High Pressure Vapor-Liquid Equilibrium for Methyl Acetate or Ethyl Acetate with 2-Butanol. Isobaric Data at 1.5 MPa. <i>Journal of Chemical &amp; Engineering Data</i> , 2016, 61, 1136-1145.	1.9	3
102	Determination of density and excess molar volume of dimethyl sulfoxide + 1-allyl-3-methylimidazolium chloride mixtures at high pressure. <i>Journal of Supercritical Fluids</i> , 2017, 130, 76-83.	3.2	3
103	Effect of scCO <sub>2</sub> on the kinetics of acetylation of cellulose using 1-allyl-3-methylimidazolium chloride as solvent. Experimental study and modeling. <i>Journal of Supercritical Fluids</i> , 2018, 141, 97-103.	3.2	3
104	Supercritical drying of thermoresponsive gels based on N-isopropylacrylamide. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 110, 120-129.	5.3	3
105	CO <sub>2</sub> -CH <sub>4</sub> Exchange Process in Structure I Clathrate Hydrates: Calculations of the Thermodynamic Functions Using a Flexible 2D Lattice-Gas Model and Monte Carlo Simulations. <i>Journal of Physical Chemistry B</i> , 2022, 126, 878-889.	2.6	3
106	Reactors for Supercritical Water Oxidation Processes. <i>Biofuels and Biorefineries</i> , 2014, , 179-205.	0.5	0