MarÃ-a Dolores Bermejo

List of Publications by Year
in descending order

69 papers	2,356 citations	172457 29 h-index	214800 47 g-index
69 all docs	69 docs citations	69 times ranked	1764 citing authors

#	Article	IF	Citations
1	Supercritical water oxidation: A technical review. AIChE Journal, 2006, 52, 3933-3951.	3.6	349
2	Kinetic analysis of cellulose depolymerization reactions in near critical water. Journal of Supercritical Fluids, 2013, 75, 48-57.	3.2	91
3	Thermodynamic analysis of absorption refrigeration cycles using ionic liquid+supercritical CO2 pairs. Journal of Supercritical Fluids, 2010, 55, 852-859.	3.2	80
4	A process for generating power from the oxidation of coal in supercritical water. Fuel, 2004, 83, 195-204.	6.4	76
5	High glucose selectivity in pressurized water hydrolysis of cellulose using ultra-fast reactors. Bioresource Technology, 2013, 135, 697-703.	9.6	74
6	Governing Chemistry of Cellulose Hydrolysis in Supercritical Water. ChemSusChem, 2015, 8, 1026-1033.	6.8	72
7	Simultaneous and selective recovery of cellulose and hemicellulose fractions from wheat bran by supercritical water hydrolysis. Green Chemistry, 2015, 17, 610-618.	9.0	72
8	Analysis of the scale up of a transpiring wall reactor with a hydrothermal flame as a heat source for the supercritical water oxidation. Journal of Supercritical Fluids, 2011, 56, 21-32.	3.2	68
9	Supercritical water oxidation with hydrothermal flame as internal heat source: Efficient and clean energy production from waste. Journal of Supercritical Fluids, 2015, 96, 103-113.	3.2	65
10	Destruction of an industrial wastewater by supercritical water oxidation in a transpiring wall reactor. Journal of Hazardous Materials, 2006, 137, 965-971.	12.4	64
11	Experimental study of the supercritical water oxidation of recalcitrant compounds under hydrothermal flames using tubular reactors. Water Research, 2011, 45, 2485-2495.	11.3	63
12	Pressure and temperature effect on cellulose hydrolysis in pressurized water. Chemical Engineering Journal, 2015, 276, 145-154.	12.7	61
13	Effect of the Transpiring Wall on the Behavior of a Supercritical Water Oxidation Reactor:Â Modeling and Experimental Results. Industrial & Engineering Chemistry Research, 2006, 45, 3438-3446.	3.7	60
14	Reaction engineering for process intensification of supercritical water biomass refining. Journal of Supercritical Fluids, 2015, 96, 21-35.	3.2	60
15	Experimental study of the operational parameters of a transpiring wall reactor for supercritical water oxidation. Journal of Supercritical Fluids, 2006, 39, 70-79.	3.2	58
16	The influence of Na2SO4 on the CO2 solubility in water at high pressure. Fluid Phase Equilibria, 2005, 238, 220-228.	2.5	57
17	Liquidâ˘’Vapor Equilibrium of the Systems Butylmethylimidazolium Nitrateâ˘’CO₂ and Hydroxypropylmethylimidazolium Nitrateâ˘’CO₂ at High Pressure: Influence of Water on the Phase Behavior. Journal of Physical Chemistry B, 2008, 112, 13532-13541.	2.6	55
18	Solubility of gases in 1-alkyl-3methylimidazolium alkyl sulfate ionic liquids: Experimental determination and modeling. Journal of Chemical Thermodynamics, 2013, 58, 237-244.	2.0	50

#	Article	IF	Citations
19	Equation of state modeling of the phase equilibria of ionic liquid mixtures at low and high pressure. Physical Chemistry Chemical Physics, 2008, 10, 6160.	2.8	44
20	Computational fluid dynamics simulation of a transpiring wall reactor for supercritical water oxidation. Chemical Engineering Journal, 2010, 158, 431-440.	12.7	40
21	Experimental study of hydrothermal flames initiation using different static mixer configurations. Journal of Supercritical Fluids, 2009, 50, 240-249.	3.2	38
22	Supercritical water oxidation for energy production by hydrothermal flame as internal heat source. Experimental results and energetic study. Energy, 2015, 90, 1584-1594.	8.8	38
23	Modeling of a Transpiring Wall Reactor for the Supercritical Water Oxidation Using Simple Flow Patterns:Â Comparison to Experimental Results. Industrial & Engineering Chemistry Research, 2005, 44, 3835-3845.	3.7	37
24	Co-oxidation of ammonia and isopropanol in supercritical water in a tubular reactor. Chemical Engineering Research and Design, 2014, 92, 2568-2574.	5.6	35
25	Application of a group contribution equation of state for the thermodynamic modeling of the binary systems CO2â€"1-butyl-3-methyl imidazolium nitrate and CO2â€"1-hydroxy-1-propyl-3-methyl imidazolium nitrate. Journal of Supercritical Fluids, 2009, 50, 112-117.	3.2	33
26	Transformation of glucose into added value compounds in a hydrothermal reaction media. Journal of Supercritical Fluids, 2015, 98, 204-210.	3.2	33
27	Energetic approach of biomass hydrolysis in supercritical water. Bioresource Technology, 2015, 179, 136-143.	9.6	33
28	Experimental study of hydrothermal flames formation using a tubular injector in a refrigerated reaction chamber. Influence of the operational and geometrical parameters. Journal of Supercritical Fluids, 2011, 59, 140-148.	3.2	32
29	Influence of the enzyme concentration on the phase behaviour for developing a homogeneous enzymatic reaction in ionic liquidâ€"CO2 media. Green Chemistry, 2008, 10, 1049.	9.0	31
30	Experimental Performance and Modeling of a New Cooled-Wall Reactor for the Supercritical Water Oxidation. Industrial & Engineering Chemistry Research, 2009, 48, 6262-6272.	3.7	31
31	Teaching advanced equations of state in applied thermodynamics courses using open source programs. Education for Chemical Engineers, 2011, 6, e114-e121.	4.8	28
32	Ionic Liquid as Reaction Media for the Production of Cellulose-Derived Polymers from Cellulosic Biomass. ChemEngineering, 2017, 1, 10.	2.4	28
33	Activity Coefficients at Infinite Dilution in Methylimidazolium Nitrate Ionic Liquids. Journal of Chemical & Engineering Data, 2011, 56, 517-520.	1.9	26
34	Application of a group contribution equation of state for the thermodynamic modeling of binary systems (gas + ionic liquids) with bis[(trifluoromethyl)sulfonyl]imide anion. Journal of Chemical Thermodynamics, 2010, 42, 524-529.	2.0	24
35	Preparation of cellulose aerogels from ionic liquid solutions for supercritical impregnation of phytol. Journal of Supercritical Fluids, 2017, 130, 17-22.	3.2	24
36	Kinetic model for isopropanol oxidation in supercritical water in hydrothermal flame regime and analysis. Journal of Supercritical Fluids, 2013, 76, 41-47.	3.2	22

#	Article	IF	Citations
37	Influence of water concentration in the viscosities and densities of cellulose dissolving ionic liquids. Correlation of viscosity data. Journal of Chemical Thermodynamics, 2015, 91, 8-16.	2.0	22
38	Energy recovery from effluents of supercritical water oxidation reactors. Journal of Supercritical Fluids, 2015, 104, 1-9.	3.2	20
39	Selective transformation of fructose and high fructose content biomass into lactic acid in supercritical water. Catalysis Today, 2015, 255, 80-86.	4.4	19
40	Application of the Anderkoâ€“Pitzer EoS to the calculation of thermodynamical properties of systems involved in the supercritical water oxidation process. Journal of Supercritical Fluids, 2007, 42, 27-35.	3.2	18
41	Experimental determination of viscosities and densities of mixtures carbon dioxide+1-allyl-3-methylimidazolium chloride. Viscosity correlation. Journal of Supercritical Fluids, 2016, 111, 91-96.	3.2	18
42	Melting point depression effect with CO 2 in high melting temperature cellulose dissolving ionic liquids. Modeling with group contribution equation of state. Journal of Supercritical Fluids, 2016, 107, 590-604.	3.2	18
43	2Hydrothermal CO2 conversion using zinc as reductant: Batch reaction, modeling and parametric analysisof the process. Journal of Supercritical Fluids, 2018, 140, 320-328.	3.2	17
44	Application of a Group Contribution Equation of State for the Thermodynamic Modeling of Gas + Ionic Liquid Mixtures. Industrial & Engineering Chemistry Research, 2010, 49, 4966-4973.	3.7	16
45	Numerical study of the influence of geometrical and operational parameters in the behavior of a hydrothermal flame in vessel reactors. Chemical Engineering Science, 2014, 112, 47-55.	3.8	16
46	Kinetics of hydrogen release from dissolutions of ammonia borane inÂdifferent ionic liquids. Energy, 2015, 91, 742-750.	8.8	14
47	Determination of Density and Viscosity of Binary Mixtures of Water and Dimethyl Sulfoxide with 1-Ethyl-3-methylimidazolium Diethylphosphate [EtMeIm]⁺[Et₂PO₄]^{âˆ’} at Atmospheric Pressure. Journal of Chemical & Engineering Data, 2018, 63, 1053-1064.	1.9	13
48	Determination of density, viscosity and vapor pressures of mixtures of dimethyl sulfoxideâ€¯+â€¯1-allyl-3-methylimidazolium chloride at atmospheric pressure. Journal of Chemical Thermodynamics, 2018, 123, 185-194.	2.0	12
49	Experimental and theoretical study of the influence of pressure on SCWO. AIChE Journal, 2006, 52, 3958-3966.	3.6	10
50	Recent Developments of Supercritical Water Oxidation: A Patents Review. Recent Patents on Chemical Engineering, 2011, 4, 219-230.	0.5	10
51	Hydrothermal CO2 Reduction by Glucose as Reducing Agent and Metals and Metal Oxides as Catalysts. Molecules, 2022, 27, 1652.	3.8	8
52	Patents Review on Lignocellulosic Biomass Processing Using Ionic Liquids. Recent Patents on Engineering, 2012, 6, 159-181.	0.4	7
53	Catalytic hydrothermal conversion of CO2 captured by ammonia into formate using aluminum-sourced hydrogen at mild reaction conditions. Journal of Industrial and Engineering Chemistry, 2021, 97, 539-548.	5.8	7
54	A Bio-Based Alginate Aerogel as an Ionic Liquid Support for the Efficient Synthesis of Cyclic Carbonates from CO2 and Epoxides. Catalysts, 2021, 11, 872.	3.5	7

#	Article	IF	Citations
55	Applications of supercritical technologies to CO2 reduction: Catalyst development and process intensification. Journal of Supercritical Fluids, 2018, 134, 141-149.	3.2	6
56	Solubility of <scp>CO₂</scp> in three celluloseâ€dissolving ionic liquids. AIChE Journal, 2020, 66, e16228.	3.6	6
57	Characterizing second generation biofuels: Excess enthalpies and vapour-liquid equilibria of the binary mixtures containing 1-pentanol or 2-pentanol and n-hexane. Fluid Phase Equilibria, 2016, 425, 177-182.	2.5	5
58	Vapor-liquid equilibria and excess enthalpies of the binary systems 1-pentanol or 2-pentanol and 1-hexene or 1,2,4-trimethylbenzene for the development of biofuels. Fluid Phase Equilibria, 2018, 460, 85-94.	2.5	5
59	Analysis of the Energy Flow in a Municipal Wastewater Treatment Plant Based on a Supercritical Water Oxidation Reactor Coupled to a Gas Turbine. Processes, 2021, 9, 1237.	2.8	5
60	Bubble points of the systems isopropanolâ€“water, isopropanolâ€“waterâ€“sodium acetate and isopropanolâ€“waterâ€“sodium oleate at high pressure. Fluid Phase Equilibria, 2006, 244, 78-85.	2.5	4
61	Density and viscosity measurements of (piperazineâ€¯+â€¯water) and (piperazineâ€¯+â€¯2-dimethylaminoethanolâ€¯+â€¯water) at high pressures. Journal of Chemical Thermodynamics, 2020, 141, 105960.	2.0	4
62	Energy and Economic Analysis of the Hydrothermal Reduction of CO₂ into Formate. Industrial & Engineering Chemistry Research, 2021, 60, 14038-14050.	3.7	4
63	Determination of density and excess molar volume of dimethyl sulfoxide + 1-allyl-3-methylimidazolium chloride mixtures at high pressure. Journal of Supercritical Fluids, 2017, 130, 76-83.	3.2	3
64	Effect of scCO2 on the kinetics of acetylation of cellulose using 1-allyl-3-methylimidazolium chloride as solvent. Experimental study and modeling. Journal of Supercritical Fluids, 2018, 141, 97-103.	3.2	3
65	GC-EoS extension to alkylphosphate imidazolium ionic liquids. Fluid Phase Equilibria, 2019, 479, 25-32.	2.5	3
66	Density and Melting Points for the Binary Mixtures Dimethyl Sulfoxide (DMSO) + 1-Ethyl-3-methylimidazolium Acetate and DMSO + Choline Acetate. Journal of Chemical & Engineering Data, 2019, 64, 2923-2928.	1.9	2
67	Supercritical Water Oxidation (SCWO) of Solid, Liquid and Gaseous Fuels for Energy Generation. Biofuels and Biorefineries, 2014, , 401-426.	0.5	1
68	Recent Developments of Supercritical Water Oxidation: A Patents Review. Recent Patents on Chemical Engineering, 2011, 4, 219-230.	0.5	1
69	Reactors for Supercritical Water Oxidation Processes. Biofuels and Biorefineries, 2014, , 179-205.	0.5	0