

# M Carmen Martin

## List of Publications by Year in descending order

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89  
papers

2,077  
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361413

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276875

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89  
all docs

89  
docs citations

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times ranked

1610  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | A technical, economical and market review of organic Rankine cycles for the conversion of low-grade heat for power generation. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 4175-4189.  | 16.4 | 435       |
| 2  | World geothermal power production status: Energy, environmental and economic study of high enthalpy technologies. <i>Energy</i> , 2012, 42, 10-18.   | 8.8  | 142       |
| 3  | Automated densimetric system: Measurements and uncertainties for compressed fluids. <i>Journal of Chemical Thermodynamics</i> , 2009, 41, 632-638.   | 2.0  | 115       |
| 4  | Low temperature heat source for power generation: Exhaustive analysis of a carbon dioxide transcritical power cycle. <i>Energy</i> , 2011, 36, 5497-5507.  | 8.8  | 67        |
| 5  | Vapor-liquid equilibria of binary mixtures containing methyl tert-butyl ether (MTBE) and/or substitution hydrocarbons at 298.15 K and 313.15 K. <i>Fluid Phase Equilibria</i> , 1995, 110, 219-230.  | 2.5  | 58        |
| 6  | The Boltzmann project. <i>Metrologia</i> , 2018, 55, R1-R20.   | 1.2  | 49        |
| 7  | Measurement and prediction of high-pressure viscosities of biodiesel fuels. <i>Fuel</i> , 2014, 122, 223-228.  | 6.4  | 44        |
| 8  | Excess thermodynamic functions for ternary systems containing fuel oxygenates and substitution hydrocarbons. <i>Fluid Phase Equilibria</i> , 1998, 152, 265-276.   | 2.5  | 40        |
| 9  | Characterization and modelling of a gasoline containing 1,1-dimethylethyl methyl ether (MTBE), diisopropyl ether (DIPE) or 1,1-dimethylpropyl methyl ether (TAME) as fuel oxygenate based on new isothermal binary vapour-liquid data. <i>Fluid Phase Equilibria</i> , 2004, 220, 105-112. | 2.5  | 40        |
| 10 | Low-grade coal and biomass co-combustion on fluidized bed: exergy analysis. <i>Energy</i> , 2006, 31, 330-344.   | 8.8  | 37        |
| 11 | Thermodynamic characterization of the mixture (1-butanol+iso-octane): Densities, viscosities, and isobaric heat capacities at high pressures. <i>Journal of Chemical Thermodynamics</i> , 2012, 44, 75-83.   | 2.0  | 37        |
| 12 | Phase equilibrium properties of binary and ternary systems containing tert-amylmethyl ether (TAME) as oxygenate additive and gasoline substitution hydrocarbons at 313.15 K. <i>Fluid Phase Equilibria</i> , 1999, 156, 73-87.   | 2.5  | 36        |
| 13 | Viscosity and density measurements of aqueous amines at high pressures: MDEA-water and MEA-water mixtures for CO <sub>2</sub> capture. <i>Journal of Chemical Thermodynamics</i> , 2016, 98, 231-241.  | 2.0  | 35        |
| 14 | Measurement of the (pressure, density, temperature) relation of two (methane+nitrogen) gas mixtures at temperatures between 240 and 400K and pressures up to 20MPa using an accurate single-sinker densimeter. <i>Journal of Chemical Thermodynamics</i> , 2006, 38, 916-922.              | 2.0  | 34        |
| 15 | Thermodynamic characterization of deep eutectic solvents at high pressures. <i>Fluid Phase Equilibria</i> , 2019, 500, 112249.   | 2.5  | 34        |
| 16 | High-pressure isobaric heat capacities using a new flow calorimeter. <i>Journal of Supercritical Fluids</i> , 2008, 46, 258-264.   | 3.2  | 32        |
| 17 | Comparative study of working fluids for a Rankine cycle operating at low temperature. <i>Fuel Processing Technology</i> , 2012, 103, 71-77.  | 7.2  | 32        |
| 18 | Contributing to accurate high pressure viscosity measurements: Vibrating wire viscometer and falling body viscometer techniques. <i>Journal of Chemical Thermodynamics</i> , 2016, 96, 104-116.  | 2.0  | 28        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Speeds of sound in $\{(1-x)\text{CH}_4+x\text{N}_2\}$ with $x=(0.10001, 0.19999, \text{ and } 0.5422)$ at temperatures between 170K and 400K and pressures up to 30MPa. <i>Journal of Chemical Thermodynamics</i> , 2006, 38, 929-937.                                       | 2.0 | 26        |
| 20 | Isothermal v.l.e. and excess molar Gibbs energy of binary and ternary mixtures containing diisopropyl ether, n-heptane and isopropanol at $T= 313.15$ K. <i>Journal of Chemical Thermodynamics</i> , 2002, 34, 13-28.  | 2.0 | 23        |
| 21 | Vapor-Liquid Equilibrium Data at 298.15 K for Binary Systems Containing Methyl Acetate or Methanol with 2-Methoxyethanol or 2-Ethoxyethanol. <i>Journal of Chemical &amp; Engineering Data</i> , 1994, 39, 535-537.  | 1.9 | 21        |
| 22 | Heat capacities and densities of the binary mixtures containing ethanol, cyclohexane or 1-hexene at high pressures. <i>Journal of Chemical Thermodynamics</i> , 2013, 57, 550-557.   | 2.0 | 21        |
| 23 | Vapor-Liquid Equilibria of Binary Mixtures Containing 1-Butanol and Hydrocarbons at 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2012, 57, 114-119.   | 1.9 | 20        |
| 24 | Volumetric behaviour of (carbon dioxide + hydrocarbon) mixtures at high pressures. <i>Journal of Supercritical Fluids</i> , 2016, 110, 103-109.  | 3.2 | 20        |
| 25 | Density and viscosity measurements of aqueous amines at high pressures: DEA-water, DMAE-water and TEA-water mixtures. <i>Journal of Chemical Thermodynamics</i> , 2017, 112, 227-239.  | 2.0 | 20        |
| 26 | Experimental investigation of the vapor-liquid equilibrium at 313.15 K of the ternary system tert-amylmethyl ether (TAME)+n-heptane+methanol. <i>Fluid Phase Equilibria</i> , 1999, 165, 197-208.  | 2.5 | 19        |
| 27 | Vapour-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2001, 182, 241-255.  | 2.5 | 19        |
| 28 | New $(p, \rho, T)$ data for carbon dioxide - Nitrogen mixtures from (250 to 400)K at pressures up to 20MPa. <i>Journal of Chemical Thermodynamics</i> , 2011, 43, 1950-1953.   | 2.0 | 19        |
| 29 | Density, Viscosity, and Isobaric Heat Capacity of the Mixture (1-Butanol + 1-Hexene). <i>Journal of Chemical &amp; Engineering Data</i> , 2013, 58, 2717-2723.   | 1.9 | 19        |
| 30 | Thermodynamics of Octane-Enhancing Additives in Gasolines: Vapor-Liquid Equilibrium of Binary and Ternary Mixtures Containing Di-isopropyl Ether or Heptane and 1-Hexene + Cyclohexane at 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2001, 46, 1574-1579. | 1.9 | 18        |
| 31 | Thermodynamic characterization of second generation biofuels: Vapour-liquid equilibria and excess enthalpies of the binary mixtures 1-pentanol and cyclohexane or toluene. <i>Fluid Phase Equilibria</i> , 2012, 317, 127-131.   | 2.5 | 18        |
| 32 | Updated determination of the molar gas constant $R$ by acoustic measurements in argon at UVa-CEM. <i>Metrologia</i> , 2017, 54, 663-673.   | 1.2 | 18        |
| 33 | Vapor-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2004, 217, 157-164.   | 2.5 | 17        |
| 34 | Vapor-liquid equilibrium data at 25°C for six binary systems containing methyl acetate or methanol, with dichloromethane, chloroform, or 1,2-trans-dichloroethylene. <i>Journal of Solution Chemistry</i> , 1991, 20, 87-95.   | 1.2 | 16        |
| 35 | Vapor-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2001, 182, 229-239.   | 2.5 | 16        |
| 36 | Excess enthalpies of (heptane + ethyl 1,1-dimethylethyl ether + ethanol) at the temperatures 298.15 K and 313.15 K and atmospheric pressure. <i>Journal of Chemical Thermodynamics</i> , 1995, 27, 1017-1023.  | 2.0 | 15        |

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|----|--|-----|-----------|
| 37 | Vapor-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2003, 212, 81-95.   | 2.5 | 15        |
| 38 | An Apparatus Based on a Spherical Resonator for Measuring the Speed of Sound in Gases and for Determining the Boltzmann Constant. <i>International Journal of Thermophysics</i> , 2010, 31, 1294-1309.   | 2.1 | 15        |
| 39 | Densities, viscosities, and isobaric heat capacities of the system (1-butanol+cyclohexane) at high pressures. <i>Journal of Chemical Thermodynamics</i> , 2014, 74, 153-160.   | 2.0 | 15        |
| 40 | Integration of biogas in the natural gas grid: Thermodynamic characterization of a biogas-like mixture. <i>Journal of Chemical Thermodynamics</i> , 2015, 84, 60-66.   | 2.0 | 15        |
| 41 | Thermodynamics of biofuels: Excess enthalpies for binary mixtures involving ethyl 1,1-dimethylethyl ether and hydrocarbons at different temperatures using a new flow calorimeter. <i>Journal of Chemical Thermodynamics</i> , 2009, 41, 759-763.                              | 2.0 | 14        |
| 42 | Vapor-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2001, 191, 71-82.   | 2.5 | 13        |
| 43 | Thermodynamics of Fuels with a Biosynthetic Component: Vapor-Liquid Equilibrium Data for Binary and Ternary Mixtures Containing Ethyl 1,1-Dimethylethyl Ether, n-Heptane, and Toluene at T= 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2006, 51, 2091-2095. | 1.9 | 13        |
| 44 | Thermodynamic properties of biofuels: Heat capacities of binary mixtures containing ethanol and hydrocarbons up to 20 MPa and the pure compounds using a new flow calorimeter. <i>Journal of Chemical Thermodynamics</i> , 2011, 43, 1893-1896.                                | 2.0 | 13        |
| 45 | Vapor-liquid equilibria and excess enthalpies of the binary mixtures 1-pentanol with 2,2,4-trimethylpentane or n-heptane. <i>Fluid Phase Equilibria</i> , 2013, 338, 95-99.  | 2.5 | 13        |
| 46 | Thermodynamics of Octane-Enhancing Additives in Gasolines: Vapor-Liquid Equilibrium of Ternary Mixtures Containing Di-isopropyl Ether or Cyclohexane and 1-Hexene + Benzene at 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2002, 47, 316-321.                | 1.9 | 12        |
| 47 | Vapor-Liquid Equilibrium of Binary and Ternary Mixtures Containing Isopropyl Ether, 2-Butanol, and Benzene at T= 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2006, 51, 148-152.  | 1.9 | 12        |
| 48 | Progress towards an acoustic determination of the Boltzmann constant at CEM-UVa. <i>Metrologia</i> , 2015, 52, S257-S262.  | 1.2 | 12        |
| 49 | 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        |
| 50 | Salt Effect on the Vapor-Liquid Equilibrium of Methyl Acetate + Methanol at 298.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 1994, 39, 538-540.   | 1.9 | 11        |
| 51 | Vapor-Liquid Equilibria of Binary Mixtures Containing 2-Butanol and Hydrocarbons at 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2012, 57, 982-987.   | 1.9 | 11        |
| 52 | An experimental setup for isobaric heat capacities for viscous fluids at high pressure: Squalane, bis(2-ethylhexyl) sebacate and bis(2-ethylhexyl) phthalate. <i>Journal of Chemical Thermodynamics</i> , 2012, 49, 75-80.   | 2.0 | 11        |
| 53 | Speeds of sound in (0.95 N <sub>2</sub> +0.05 CO and 0.9 N <sub>2</sub> +0.1 CO) gas mixtures at T=(273 and 325)K and pressure up to 10MPa. <i>Journal of Chemical Thermodynamics</i> , 2014, 79, 224-229.   | 2.0 | 11        |
| 54 | Experimental analysis of performance, greenhouse gas emissions and economic parameters for two cooling systems in a public administration building. <i>Energy and Buildings</i> , 2015, 108, 145-155.  | 6.7 | 11        |

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|----|--|-----|-----------|
| 55 | Speeds of sound for a biogas mixture CH <sub>4</sub> + N <sub>2</sub> + CO <sub>2</sub> + CO from p = (1–12) MPa at T = (273, 300 and 325) K measured with a spherical resonator. <i>Journal of Chemical Thermodynamics</i> , 2016, 102, 348-356.  | 2.0 | 11        |
| 56 | Isobaric heat capacity at high pressure, density, and viscosity of (diphenyl ether + biphenyl) mixtures. <i>Journal of Chemical Thermodynamics</i> , 2016, 93, 86-94.  | 2.0 | 11        |
| 57 | Thermophysical properties of 1,2,4-trimethylbenzene in admixtures with 1-butanol or 2-butanol at high pressures. <i>Journal of Chemical Thermodynamics</i> , 2017, 111, 41-51.   | 2.0 | 11        |
| 58 | Vapor-liquid equilibrium data, at 298.15 K, for six binary systems containing methyl acetate or methanol, with acetonitrile, nitromethane or nitroethane. <i>Fluid Phase Equilibria</i> , 1992, 74, 243-252.                                       | 2.5 | 10        |
| 59 | Phase equilibrium properties of binary and ternary systems containing di-isopropyl ether+1-butanol+benzene at 313.15K. <i>Journal of Chemical Thermodynamics</i> , 2006, 38, 547-553.  | 2.0 | 10        |
| 60 | Thermodynamics of fuels with a bio-synthetic component (IV): (Vapor+liquid) equilibrium data for the ternary mixture (ethyl 1,1-dimethylethyl ether+1-hexene+toluene) at T=313.15K. <i>Journal of Chemical Thermodynamics</i> , 2009, 41, 189-192. | 2.0 | 10        |
| 61 | Density and viscosity of aqueous solutions of Methyldiethanolamine (MDEA)+Diethanolamine (DEA) at high pressures. <i>Journal of Chemical Thermodynamics</i> , 2020, 148, 106141.   | 2.0 | 10        |
| 62 | Vapor-liquid equilibrium of octane-enhancing additives in gasolines. <i>Fluid Phase Equilibria</i> , 2002, 193, 289-301.   | 2.5 | 8         |
| 63 | Phase equilibria properties of binary and ternary systems containing di-isopropyl ether+isobutanol+benzene at 313.15K. <i>Fluid Phase Equilibria</i> , 2006, 239, 178-182.   | 2.5 | 8         |
| 64 | Thermodynamic characterization of bio-fuels: Excess functions for binary mixtures containing ETBE and hydrocarbons. <i>Energy</i> , 2010, 35, 759-763.   | 8.8 | 8         |
| 65 | Speed of sound for three binary (CH <sub>4</sub> +H <sub>2</sub> ) mixtures from p=(0.5 up to 20) MPa at T=(273.16 to 375) K. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4765-4783.   | 7.1 | 8         |
| 66 | Thermodynamic Properties of Binary and Ternary Mixtures Containing Di-isopropyl Ether, 2-Propanol, and Benzene at T = 313.15 K. <i>Journal of Chemical &amp; Engineering Data</i> , 2010, 55, 2741-2745.   | 1.9 | 7         |
| 67 | Thermodynamic behaviour of second generation biofuels: Vapour-liquid equilibria and excess enthalpies of the binary mixtures 2-pentanol and n-heptane or 2,2,4-trimethylpentane. <i>Fluid Phase Equilibria</i> , 2014, 384, 89-94.                 | 2.5 | 7         |
| 68 | Thermodynamics properties, VLE and H E , of the systems 2-pentanol and cyclohexane or methylbenzene for contributing to the knowledge of new biofuels. <i>Fluid Phase Equilibria</i> , 2016, 409, 92-97.   | 2.5 | 7         |
| 69 | Vapour-liquid equilibria of binary and ternary mixtures containing 1-butanol, 2,2,4-trimethylpentane and 1-hexene at T=313.15K. <i>Journal of Chemical Thermodynamics</i> , 2013, 63, 164-168.   | 2.0 | 6         |
| 70 | Heat capacities and acoustic virial coefficients for a synthetic coal mine methane mixture by speed of sound measurements at T = (273.16 and 250.00) K. <i>Journal of Chemical Thermodynamics</i> , 2016, 97, 137-141.                             | 2.0 | 6         |
| 71 | Characterizing second generation biofuels: Excess enthalpies and vapour-liquid equilibria of the binary mixtures containing 1-pentanol or 2-pentanol and n-hexane. <i>Fluid Phase Equilibria</i> , 2016, 425, 177-182.                             | 2.5 | 5         |
| 72 | 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. <i>Fluid Phase Equilibria</i> , 2018, 460, 85-94.                             | 2.5 | 5         |

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|----|--|-----|-----------|
| 73 | Speeds of sound for (CH <sub>4</sub> +He) mixtures from p=(0.5 to 20) MPa at T=(273.16 to 375) K. Journal of Chemical Thermodynamics, 2019, 139, 105869.   | 2.0 | 5         |
| 74 | A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination. Journal of Chemical Thermodynamics, 2019, 135, 124-132.  | 2.0 | 5         |
| 75 | Thermodynamic characterization of the (CO <sub>2</sub> + O <sub>2</sub> ) binary system for the development of models for CCS processes: Accurate experimental (p, T) data and virial coefficients. Journal of Supercritical Fluids, 2021, 169, 105074.              | 3.2 | 5         |
| 76 | Viscosities and densities of different alcohols (1-propanol, 2-propanol, 1-pentanol and 2-pentanol) at high pressures. Journal of Molecular Liquids, 2021, 344, 117744.  | 4.9 | 5         |
| 77 | Excess enthalpies of binary and ternary mixtures containing tert-amyl methyl ether (TAME), tert-amyl alcohol (TAOH) and hexane at 298.15 and 313.15 K. Fluid Phase Equilibria, 2004, 217, 145-155.   | 2.5 | 4         |
| 78 | Phase equilibrium properties of the ternary mixture dibutyl ether+toluene+heptane at 313.15K. Fluid Phase Equilibria, 2012, 317, 84-88.  | 2.5 | 4         |
| 79 | Vapour-liquid equilibria of the ternary mixture (1-pentanol+2,2,4-trimethylpentane+heptane) and the binary mixture (2,2,4-trimethylpentane+heptane) at T=313.15K for the characterization of second generation biofuels. Fluid Phase Equilibria, 2015, 405, 101-106. | 2.5 | 4         |
| 80 | Viscosities of binary mixtures containing 2-butanol+hydrocarbons (2,2,4-trimethylpentane or Toluene). Journal of Chemical Thermodynamics, 2018, 125, 180-185.  | 2.0 | 4         |
| 81 | Density and viscosity measurements of (piperazine+water) and (piperazine+2-dimethylaminoethanol+water) at high pressures. Journal of Chemical Thermodynamics, 2020, 141, 105960.   | 2.0 | 4         |
| 82 | Speed of sound data and acoustic virial coefficients of two binary (N <sub>2</sub> +H <sub>2</sub> ) mixtures at temperatures between (260 and 350) K and at pressures between (0.5 and 20) MPa. Journal of Chemical Thermodynamics, 2022, 171, 106791.              | 2.0 | 4         |
| 83 | Measurements and predictions of densities and viscosities in CO <sub>2</sub> +hydrocarbon mixtures at high pressures and temperatures: CO <sub>2</sub> +n-pentane and CO <sub>2</sub> +n-hexane blends. Journal of Molecular Liquids, 2022, 360, 119518.             | 4.9 | 4         |
| 84 | Phase equilibrium properties of binary and ternary mixtures containing 2-butanol, 2,2,4-trimethylpentane and 1-hexene at 313.15K. Fluid Phase Equilibria, 2014, 369, 33-38.  | 2.5 | 3         |
| 85 | 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         |
| 86 | Characterization of an Ecuadorian crude using a vibrating-tube densimeter and a vibrating-wire viscometer. Petroleum Science and Technology, 2018, 36, 2077-2083.  | 1.5 | 3         |
| 87 | Speed of sound and phase equilibria for (CO <sub>2</sub> +C <sub>3</sub> H <sub>8</sub> ) mixtures. Journal of Chemical Thermodynamics, 2021, 158, 106464.   | 2.0 | 2         |
| 88 | Speed of sound data, derived perfect-gas heat capacities, and acoustic virial coefficients of a calibration standard natural gas mixture and a low-calorific H <sub>2</sub> -enriched mixture. Journal of Chemical Thermodynamics, 2021, 158, 106434.                | 2.0 | 1         |
| 89 | Vapor-liquid equilibria of the binary systems (cyclohexanone + 2-heptanone) and (cyclohexanone + Toluene). Journal of Chemical Thermodynamics, 2018, 125, 180-185.   | 4.9 | 0         |