Antonin Chapoy

List of Publications by Year
in descending order

107	4,416	94269	114278
papers	citations	37 h-index	63 g-index

111	111	111	2464
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the Phase Behaviour of the CO2 + N2O4 system at low temperatures. Chemical Engineering Science, 2022, , 117726.	1.9	1
2	Measurements and Modeling of High-Pressure O₂ and CO₂ Solubility in Brine (H₂O + NaCl) between 303 and 373 K and Pressures up to 36 MPa. Journal of Chemical & Engineering Data, 2021, 66, 609-620.	1.0	12
3	Development of a new method for measurement of the water dew/frost point of gas. Fluid Phase Equilibria, 2021, 530, 112873.	1.4	7
4	Phase Equilibria of Waxy Live Oil Systems Containing CO₂: Experimental Measurements and Thermodynamic Modeling. Energy & Fuels, 2021, 35, 3731-3741.	2.5	4
5	Phase Behavior in Natural Gas + Glycol Systems, Part 1: Tri(ethylene glycol) (TEG) and Its Aqueous Solutions. Journal of Chemical & Engineering Data, 2021, 66, 4075-4093.	1.0	7
6	Subsurface Carbon Dioxide Sequestration and Storage in Methane Hydrate Reservoirs Combined with Clean Methane Energy Recovery. Energy & Fuels, 2021, 35, 1567-1579.	2.5	34
7	Thermophysical Properties of Typical CCUS Fluids: Experimental and Modeling Investigation of Density. Journal of Chemical & Engineering Data, 2021, 66, 116-129.	1.0	8
8	Vapour-Liquid Equilibrium Study for the Carbon Dioxide and Hydrogen Sulphide in Deionized Water and NaCl Aqueous Solution at Temperature from 373.15 to 423.15 K. , 2021, , .		1
9	Multiscale investigation of CO2 hydrate self-sealing potential for carbon geo-sequestration. Chemical Engineering Journal, 2020, 381, 122646.	6.6	41
10	Elemental mercury partitioning in high pressure fluids part 2: Model validations and measurements in multicomponent systems. Fluid Phase Equilibria, 2020, 523, 112773.	1.4	2
11	On the water content in CO2 + CH4 and CO2-rich mixtures: Experimental and modelling evaluation at temperatures from 233.15 to 288.15ÂK and pressures up to 15ÂMPa. Journal of Natural Gas Science and Engineering, 2020, 84, 103654.	2.1	3
12	Elemental mercury partitioning in high pressure fluids part 1: Literature review and measurements in single components. Fluid Phase Equilibria, 2020, 520, 112660.	1.4	5
13	Vapour-liquid equilibrium data for the carbon dioxide (CO2)Â+Âcarbon monoxide (CO) system. Journal of Chemical Thermodynamics, 2020, 150, 106180.	1.0	5
14	Study on CO₂ Hydrate Formation Kinetics in Saline Water in the Presence of Low Concentrations of CH₄. ACS Omega, 2019, 4, 18210-18218.	1.6	20
15	Determination of distribution factors for heavy n-alkanes (nC12-nC98) in high temperature gas chromatography. Journal of Chromatography A, 2019, 1591, 138-146.	1.8	2
16	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 3. Coupled Pyrolysis-GC Modeling. Energy & Fuels, 2019, 33, 2045-2056.	2.5	1
17	Giant Barocaloric Effect at the Spin Crossover Transition of a Molecular Crystal. Advanced Materials, 2019, 31, e1807334.	11.1	75
18	Experimental Study to Estimate CO2 Solubility in a High Pressure High Temperature HPHT Reservoir Carbonate Aquifer. , 2019, , .		1

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19	Phase Equilibrium of Three Binary Mixtures Containing NO and Components Present in Ambient Air. Journal of Chemical & Engineering Data, 2018, 63, 1021-1026.	1.0	3
20	Density, Speed of Sound, and Other Derived Properties of Ethanol at Pressures up to 65 MPa. Journal of Chemical & Engineering Data, 2018, 63, 2486-2499.	1.0	4
21	CO 2 solubility in formation water under sequestration conditions. Fluid Phase Equilibria, 2018, 463, 80-90.	1.4	25
22	Gas hydrate equilibria in the presence of monoethylene glycol, sodium chloride and sodium bromide at pressures up to 150â€¯MPa. Journal of Chemical Thermodynamics, 2018, 118, 193-197.	1.0	9
23	Investigation into the effect of subcooling on the kinetics of hydrate formation. Journal of Chemical Thermodynamics, 2018, 117, 91-96.	1.0	25
24	Viscosity of CO2-rich mixtures from 243â€¯K to 423â€¯K at pressures up to 155â€¯MPa: New experimental viscosity data and modelling. Journal of Chemical Thermodynamics, 2018, 118, 100-114.	1.0	15
25	New Two-Dimensional Particle-Scale Model To Simulate Asphaltene Deposition in Wellbores and Pipelines. Energy & Fuels, 2018, 32, 2661-2672.	2.5	39
26	Characterization of Reservoir Fluids: A Predictive Model for Interfacial and Bulk Phase Equilibrium Properties. , 2018, , .		0
27	Comparative study of vapour-liquid equilibrium and density modelling of mixtures related to carbon capture and storage with the SRK, PR, PC-SAFT and SAFT-VR Mie equations of state for industrial uses. Fluid Phase Equilibria, 2017, 440, 19-35.	1.4	44
28	Interfacial tension of CO2+ brine systems: Experiments and predictive modelling. Advances in Water Resources, 2017, 103, 64-75.	1.7	48
29	Density, speed of sound and derived thermodynamic properties of a synthetic natural gas. Journal of Natural Gas Science and Engineering, 2017, 40, 249-266.	2.1	40
30	Measured densities and derived thermodynamic properties of CO 2 -rich mixtures in gas, liquid and supercritical phases from 273 K to 423 K and pressures up to 126 MPa. Journal of Chemical Thermodynamics, 2017, 111, 157-172.	1.0	28
31	pH of CO 2 saturated water and CO 2 saturated brines: Experimental measurements and modelling. International Journal of Greenhouse Gas Control, 2017, 66, 190-203.	2.3	58
32	New experimental density data and derived thermophysical properties of carbon dioxide â€“ Sulphur dioxide binary mixture (CO2 - SO2) in gas, liquid and supercritical phases from 273ÂK to 353ÂK and at pressures up to 42ÂMPa. Fluid Phase Equilibria, 2017, 454, 64-77.	1.4	15
33	Transport of CO2: Presentation of New Thermophysical Property Measurements and Phase Diagrams. Energy Procedia, 2017, 114, 6844-6859.	1.8	12
34	Phase Behavior of CO₂ in Monoethylene Glycol between 263.15â€“343.15 K and 0.2â€“40.3 MPa: An Experimental and Modeling Approach. Journal of Chemical & Engineering Data, 2017, 62, 4154-4159.	1.0	4
35	Densities and derived thermophysical properties of the 0.9505ÂCO2+ 0.0495ÂH2S mixture from 273ÂK to 353ÂK and pressures up to 41ÂMPa. Fluid Phase Equilibria, 2016, 423, 156-171.	1.4	26
36	Experimental and modelling study of the densities of the hydrogen sulphideÂ+ methane mixtures at 253, 273 and 293ÂK and pressures up to 30ÂMPa. Fluid Phase Equilibria, 2016, 427, 371-383.	1.4	12

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37	Mutual effects of paraffin waxes and clathrate hydrates: A multiphase integrated thermodynamic model and experimental measurements. Fluid Phase Equilibria, 2016, 427, 438-459.	1.4	32
38	Solubility Measurement and Modeling of Methane in Methanol and Ethanol Aqueous Solutions. Journal of Chemical & Engineering Data, 2016, 61, 3200-3207.	1.0	14
39	A New Thermodynamic Model for Paraffin Precipitation in Highly Asymmetric Systems at High Pressure Conditions. Industrial & Engineering Chemistry Research, 2016, 55, 10208-10217.	1.8	10
40	Development of a multiphase flash in presence of hydrates: Experimental measurements and validation with the CPA equation of state. Fluid Phase Equilibria, 2016, 414, 117-132.	1.4	35
41	Measurement and modelling of high pressure density and interfacial tension of (gas + n -alkane) binary mixtures. Journal of Chemical Thermodynamics, 2016, 97, 55-69.	1.0	80
42	Carbon dioxide solubility in Triethylene Glycol and aqueous solutions. Fluid Phase Equilibria, 2016, 419, 39-49.	1.4	24
43	Experimental Measurement and Modeling of the Solubility of Methane in Methanol and Ethanol. Journal of Chemical & Engineering Data, 2016, 61, 666-673.	1.0	21
44	Measurement and modelling of interfacial tension in methane/water and methane/brine systems at reservoir conditions. Fluid Phase Equilibria, 2016, 409, 301-311.	1.4	76
45	Study of the impact of high temperatures and pressures on the equilibrium densities and interfacial tension of the carbon dioxide/water system. Journal of Chemical Thermodynamics, 2016, 93, 404-415.	1.0	69
46	Water Content of CO₂ -rich Mixtures: Measurements and Modeling using the Cubic-Plus-Association Equation of State. Journal of Natural Gas Engineering, 2016, 1, 85-97.	0.3	16
47	Modeling of Transport Properties Using the SAFT-VR Mie Equation of State. , 2015, , .		2
48	Prediction of methanol content in natural gas with the GC-PR-CPA model. Journal of Natural Gas Science and Engineering, 2015, 27, 745-750.	2.1	4
49	Experimental Study: The Impact of Dissolved Water on the Viscosity of Reservoir Fluids at HPHT Conditions. Journal of Chemical & Engineering Data, 2015, 60, 674-682.	1.0	5
50	Hydrate and Phase Behavior Modeling in CO₂-Rich Pipelines. Journal of Chemical & Engineering Data, 2015, 60, 447-453.	1.0	49
51	Hydrocarbons â€“ water phase equilibria using the CPA equation of state with a group contribution method. Canadian Journal of Chemical Engineering, 2015, 93, 432-442.	0.9	35
52	Experimental water content measurements of carbon dioxide in equilibrium with hydrates at (223.15 to) Tj ETQq0 0 0 rgBT /Overlock 10	1.0	26
53	An Evaluation of Risk of Hydrate Formation at the Top of a Pipeline. Oil and Gas Facilities, 2014, 3, 67-72.	0.4	25
54	Vapourâ€“liquid equilibrium data for the hydrogen sulphide (H2S)+carbon dioxide (CO2) system at temperatures from 258 to 313K. Fluid Phase Equilibria, 2013, 356, 223-228.	1.4	37

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55	Viscosity of binary and multicomponent hydrocarbon fluids at high pressure and high temperature conditions: Measurements and predictions. Journal of Petroleum Science and Engineering, 2013, 112, 153-160.	2.1	26
56	Clathrate hydrate equilibria in light olefins and mixed methaneâ€“olefins systems. Fluid Phase Equilibria, 2013, 337, 150-155.	1.4	10
57	Effect of impurities on thermophysical properties and phase behaviour of a CO2-rich system in CCS. International Journal of Greenhouse Gas Control, 2013, 19, 92-100.	2.3	77
58	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 2. Migration and Separation Gas Chromatography Modeling. Energy & Fuels, 2013, 27, 2336-2350.	2.5	6
59	Hydrates in High MEG Concentration Systems. , 2012, , 366-373.		8
60	An Evaluation of Risk of Hydrate Formation at the Top of a Pipeline. , 2012, , .		8
61	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 1: Low-Conversion Thermal Cracking Modeling. Energy & Fuels, 2012, 26, 2600-2610.	2.5	8
62	Do We Have New Solutions to the Old Problem of Gas Hydrates?. Energy & Fuels, 2012, 26, 4053-4058.	2.5	35
63	On the phase behaviour of the (carbon dioxide + water) systems at low temperatures: Experimental and modelling. Journal of Chemical Thermodynamics, 2012, 47, 6-12.	1.0	63
64	Clathrate hydrate equilibria in mixed monoethylene glycol and electrolyte aqueous solutions. Journal of Chemical Thermodynamics, 2012, 48, 7-12.	1.0	24
65	Phase Inversion in Waterâ€“Oil Emulsions with and without Gas Hydrates. Energy & Fuels, 2011, 25, 5736-5745.	2.5	15
66	Measurement and Modeling of CO₂ Frost Points in the CO₂â€“Methane Systems. Journal of Chemical & Engineering Data, 2011, 56, 2971-2975.	1.0	48
67	Measurement and Modeling of Water Content in Low Temperature Hydrateâ€“Methane and Hydrateâ€“Natural Gas Systems. Journal of Chemical & Engineering Data, 2011, 56, 2932-2935.	1.0	15
68	Controlling Hydrate Slurry Transportability by Optimizing Anti-Agglomerant Usage in High Water Cut Systems. , 2011, , .		5
69	Development of Experimental Techniques, Equipment and Thermodynamic Modelling for Investigating Systems with High CO2 Concentrations. , 2011, , .		0
70	Effect of Common Impurities on the Phase Behavior of Carbon-Dioxide-Rich Systems: Minimizing the Risk of Hydrate Formation and Two-Phase Flow. SPE Journal, 2011, 16, 921-930.	1.7	52
71	A Novel Technique for Monitoring Hydrate Safety Margin. , 2011, , .		5
72	Bimodal model for predicting the emulsion-hydrate mixture viscosity in high water cut systems. Fuel, 2011, 90, 3343-3351.	3.4	31

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73	Separation and capture of carbon dioxide from CO2/H2 syngas mixture using semi-clathrate hydrates. Chemical Engineering Research and Design, 2011, 89, 1747-1751.	2.7	105
74	Gas hydrates in low water content gases: Experimental measurements and modelling using the CPA equation of state. Fluid Phase Equilibria, 2010, 296, 9-14.	1.4	34
75	CO₂ Hydrates Could Provide Secondary Safety Factor in Subsurface Sequestration of CO₂. Environmental Science & Technology, 2010, 44, 1509-1514.	4.6	122
76	Experimental Clathrate Dissociations for the Hydrogen + Water and Hydrogen + Tetrabutylammonium Bromide + Water Systems. Journal of Chemical & Engineering Data, 2010, 55, 5323-5327.	1.0	28
77	Experimental determination and prediction of methane hydrate stability in alcohols and electrolyte solutions. Fluid Phase Equilibria, 2009, 275, 127-131.	1.4	79
78	Phase equilibria for petroleum reservoir fluids containing water and aqueous methanol solutions: Experimental measurements and modelling using the CPA equation of state. Fluid Phase Equilibria, 2009, 278, 109-116.	1.4	83
79	Experimental and thermodynamic modelling of systems containing water and ethylene glycol: Application to flow assurance and gas processing. Fluid Phase Equilibria, 2009, 276, 24-30.	1.4	142
80	Binary Ethanolâ^'Methane Clathrate Hydrate Formation in the System CH₄-C₂H₅OH-H₂O: Phase Equilibria and Compositional Analyses. Journal of Physical Chemistry C, 2009, 113, 12602-12607.	1.5	60
81	Modelling Phase Equilibria of Complicated Systems Containing Petroleum Reservoir Fluids. , 2009, , .		2
82	Effect of Common Impurities on the Phase Behaviour of Carbon Dioxide Rich Systems: Minimizing the Risk of Hydrate Formation and Two-Phase Flow. , 2009, , .		9
83	Development of a Henryâ€™s constant correlation and solubility measurements of n-pentane, i-pentane, cyclopentane, n-hexane, and toluene in water. Journal of Chemical Thermodynamics, 2008, 40, 1030-1037.	1.0	28
84	Methane/natural gas storage and delivered capacity for activated carbons in dry and wet conditions. Fuel, 2008, 87, 7-13.	3.4	58
85	Freezing Point Depression of Electrolyte Solutions: Experimental Measurements and Modeling Using the Cubic-Plus-Association Equation of State. Industrial & Engineering Chemistry Research, 2008, 47, 3983-3989.	1.8	54
86	HYDRAFLOW: A Multiphase Cold Flow Technology for Offshore Flow Assurance Challenges. , 2008, , .		10
87	Can n-Propanol Form Hydrate?. Industrial & Engineering Chemistry Research, 2008, 47, 1689-1694.	1.8	52
88	Developing a Hydrate-Monitoring System. SPE Projects, Facilities and Construction, 2008, 4, 1-6.	0.2	13
89	Low-Pressure Molecular Hydrogen Storage in Semi-clathrate Hydrates of Quaternary Ammonium Compounds. Journal of the American Chemical Society, 2007, 129, 746-747.	6.6	198
90	Equilibrium Data of Hydrogen, Methane, Nitrogen, Carbon Dioxide, and Natural Gas in Semi-Clathrate Hydrates of Tetrabutyl Ammonium Bromide. Journal of Chemical & Engineering Data, 2007, 52, 2153-2158.	1.0	276

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91	Phase Relations and Binary Clathrate Hydrate Formation in the System H2â^'THFâ^'H2O. Langmuir, 2007, 23, 3440-3444.	1.6	139
92	Gas Solubility:â€‰ A Key to Estimating the Water Content of Natural Gases. Industrial & Engineering Chemistry Research, 2006, 45, 4825-4829.	1.8	27
93	Experimental Measurement and Phase Behavior Modeling of Hydrogen Sulfideâ^'Water Binary System. Industrial & Engineering Chemistry Research, 2005, 44, 7567-7574.	1.8	86
94	Estimation of Water Content for Methane + Water and Methane + Ethane +n-Butane + Water Systems Using a New Sampling Device. Journal of Chemical & Engineering Data, 2005, 50, 1157-1161.	1.0	54
95	Water Content Measurement and Modeling in the Nitrogen + Water System. Journal of Chemical & Engineering Data, 2005, 50, 541-545.	1.0	31
96	Development of a New Alpha Function for the Pengâ€“Robinson Equation of State: Comparative Study of Alpha Function Models for Pure Gases (Natural Gas Components) and Water-Gas Systems. International Journal of Thermophysics, 2004, 25, 133.	1.0	76
97	Solubility measurement and modeling for the system propaneâ€“water from 277.62 to 368.16K. Fluid Phase Equilibria, 2004, 226, 213-220.	1.4	104
98	Vapourâ€“liquid equilibria in the carbon dioxideâ€“water system, measurement and modelling from 278.2 to 318.2K. Fluid Phase Equilibria, 2004, 226, 333-344.	1.4	299
99	Vaporâ€“liquid equilibrium data for the carbon dioxide (CO2) + difluoromethane (R32) system at temperatures from 283.12 to 343.25 K and pressures up to 7.46 MPa. Fluid Phase Equilibria, 2004, 218, 95-101.	1.4	39
100	Gas solubility measurement and modeling for methaneâ€“water and methaneâ€“ethaneâ€“n-butaneâ€“water systems at low temperature conditions. Fluid Phase Equilibria, 2004, 220, 113-121.	1.4	176
101	Measurements and Thermodynamic Modeling of Vaporâ^'Liquid Equilibria in Ethaneâ^'Water Systems from 274.26 to 343.08 K. Industrial & Engineering Chemistry Research, 2004, 43, 5418-5424.	1.8	57
102	Gas Solubility Measurement and Modeling for the Nitrogen + Water System from 274.18 K to 363.02 K. Journal of Chemical & Engineering Data, 2004, 49, 1110-1115.	1.0	66
103	A Semiempirical Approach for Estimating the Water Content of Natural Gases. Industrial & Engineering Chemistry Research, 2004, 43, 7137-7147.	1.8	33
104	Experimental Measurement and Thermodynamic Modeling of Water Content in Methane and Ethane Systems. Industrial & Engineering Chemistry Research, 2004, 43, 7148-7162.	1.8	82
105	Solubility measurement and modeling of water in the gas phase of the methane/water binary system at temperatures from 283.08 to 318.12K and pressures up to 34.5MPa. Fluid Phase Equilibria, 2003, 214, 101-117.	1.4	77
106	Measurement of the Water Solubility in the Gas Phase of the Ethane + Water Binary System near Hydrate Forming Conditions. Journal of Chemical & Engineering Data, 2003, 48, 957-966.	1.0	31
107	Reactive Transport and Its Implications on Heavy Oil HTGC Analysis. A Coupled Thermo-Hydro-Chemical (THC) Multiphysics Modelling Approach. , 0, , .		0