

Carbon dioxide

Other names:	Anhydride carbonique CARBONIC ANHYDRIDE CO2 Carbon oxide (CO2) Carbonic acid anhydride Carbonic acid, gas Carbonica Cardice Dricold Drikold Dry ice Khladon 744 Kohlendioxyd Kohlensaure R 744 UN 1013 UN 1845 UN 2187
Inchi:	InChI=1S/CO2/c2-1-3
InchiKey:	CURLTUGMZLYLDI-UHFFFAOYSA-N
Formula:	CO2
SMILES:	O=C=O
Mol. weight [g/mol]:	44.01
CAS:	124-38-9

Physical Properties

Property code	Value	Unit	Source
af	0.2390		KDB
affp	540.50	kJ/mol	NIST Webbook
basg	515.80	kJ/mol	NIST Webbook
dm	0.00	debye	KDB
ea	-0.60	eV	NIST Webbook
ea	-1.60 ± 0.10	eV	NIST Webbook
gf	-394.60	kJ/mol	KDB
gyrad	0.9920		KDB
hf	-393.80	kJ/mol	KDB
hf	-393.51 ± 0.13	kJ/mol	NIST Webbook

hfus	11.09	kJ/mol	Joback Method
hvap	29.78	kJ/mol	Joback Method
ie	13.77 ± 0.00	eV	NIST Webbook
ie	13.78	eV	NIST Webbook
ie	13.78	eV	NIST Webbook
ie	13.79	eV	NIST Webbook
ie	13.78 ± 0.00	eV	NIST Webbook
ie	13.78 ± 0.00	eV	NIST Webbook
ie	13.78	eV	NIST Webbook
ie	13.78 ± 0.00	eV	NIST Webbook
ie	13.77	eV	NIST Webbook
ie	13.89 ± 0.03	eV	NIST Webbook
ie	13.79 ± 0.05	eV	NIST Webbook
ie	13.77	eV	NIST Webbook
ie	13.78 ± 0.00	eV	NIST Webbook
ie	13.00 ± 1.00	eV	NIST Webbook
ie	13.79	eV	NIST Webbook
ie	13.78 ± 0.00	eV	NIST Webbook
ie	13.77 ± 0.00	eV	NIST Webbook
ie	13.90 ± 0.20	eV	NIST Webbook
ie	13.78 ± 0.01	eV	NIST Webbook
ie	13.78	eV	NIST Webbook
ie	13.77 ± 0.00	eV	NIST Webbook
ie	13.80 ± 0.01	eV	NIST Webbook
ie	13.79 ± 0.01	eV	NIST Webbook
ie	13.78 ± 0.01	eV	NIST Webbook
ie	13.77	eV	NIST Webbook
ie	13.75 ± 0.05	eV	NIST Webbook
ie	13.83 ± 0.05	eV	NIST Webbook
ie	13.77 ± 0.03	eV	NIST Webbook
log10ws	0.79		Crippen Method
logp	-0.584		Crippen Method
mcvol	28.090	ml/mol	McGowan Method
pc	7382.50 ± 0.50	kPa	NIST Webbook
pc	7340.00 ± 50.00	kPa	NIST Webbook
pc	7380.00	kPa	Critical Temperatures and Pressures of Several Binary and Ternary Mixtures Concerning the Alkylation of 2-Methylpropane with 1-Butene in the Presence of Methane or Carbon Dioxide

pc	7380.00	kPa	Critical Properties of the Reacting Mixture in the Selective Oxidation of Cyclohexane by Oxygen in the Presence of Carbon Dioxide
pc	7420.00	kPa	Critical Properties of the Reacting Mixture in the Esterification of Acetic Acid with Ethanol
pc	7420.00	kPa	Critical Properties of Binary and Ternary Mixtures of Hexane + Methanol, Hexane + Carbon Dioxide, Methanol + Carbon Dioxide and Hexane + Carbon Dioxide + Methanol
pc	7375.00	kPa	KDB
pc	7360.00	kPa	Phase Behaviors, Density, and Isothermal Compressibility of Styrene + CO ₂ , Ethylbenzene + CO ₂ , and Ethylbenzene + Styrene + CO ₂ Systems
pc	7380.00 ± 15.00	kPa	NIST Webbook
pt	518.50	kPa	KDB
pt	518.50 ± 0.50	kPa	NIST Webbook
rhoc	466.50 ± 2.20	kg/m ³	NIST Webbook
rhoc	468.26 ± 1.50	kg/m ³	NIST Webbook
rhoc	466.06 ± 0.31	kg/m ³	NIST Webbook
rhoc	475.30 ± 8.80	kg/m ³	NIST Webbook
rinpol	152.00		NIST Webbook
rinpol	153.00		NIST Webbook
rinpol	154.00		NIST Webbook
rinpol	152.00		NIST Webbook
sgb	213.78 ± 0.01	J/mol×K	NIST Webbook
tb	194.70	K	KDB
tc	304.30	K	Validation of a New Apparatus Using the Dynamic Method for Determining the Critical Properties of Binary Gas/Gas Mixtures
tc	304.23	K	NIST Webbook
tc	304.35 ± 0.40	K	NIST Webbook
tc	304.10 ± 0.10	K	NIST Webbook
tc	304.18 ± 0.04	K	NIST Webbook
tc	304.30	K	Development of a Predictive Equation of State for CO ₂ + Ethyl Ester Mixtures Based on Critical Points Measurements

tc	304.14	K	KDB
tc	304.20 ± 0.02	K	NIST Webbook
tf	216.58	K	KDB
tt	216.58 ± 0.03	K	NIST Webbook
tt	216.58	K	KDB
tt	216.60	K	Solid-liquid equilibria measurements of the carbondioxide + 2,3,3,3-tetrafluoroprop-1-ene and carbondioxide + trans-1,3,3,3-tetrafluoropropene mixtures
tt	216.58 ± 0.01	K	NIST Webbook
tt	216.52	K	Solid Liquid Equilibria for the CO2 + R23 and N2O + R23 Systems
vc	0.094	m3/kmol	KDB
vc	0.092 ± 0.001	m3/kmol	NIST Webbook
zc	0.2741450		KDB
zra	0.27		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	41.25	J/mol×K	309.97	Joback Method
cpg	32.51	J/mol×K	203.15	Joback Method
cpg	34.58	J/mol×K	224.51	Joback Method
cpg	36.48	J/mol×K	245.88	Joback Method
cpg	38.22	J/mol×K	267.24	Joback Method
cpg	39.81	J/mol×K	288.60	Joback Method
cpg	42.55	J/mol×K	331.33	Joback Method
dvisc	0.0000452	Pa×s	1100.00	Viscosity of H2-CO2 Mixtures at (500, 800, and 1100) K
dvisc	0.0000236	Pa×s	500.00	Viscosity of H2-CO2 Mixtures at (500, 800, and 1100) K
dvisc	0.0000356	Pa×s	800.00	Viscosity of H2-CO2 Mixtures at (500, 800, and 1100) K
hsubt	25.20	kJ/mol	175.00	NIST Webbook
hsubt	26.10	kJ/mol	207.00	NIST Webbook
hsubt	27.20 ± 0.40	kJ/mol	86.00	NIST Webbook
hsubt	25.90	kJ/mol	188.50	NIST Webbook

hsubt	26.30	kJ/mol	167.00	NIST Webbook
hvapt	16.50	kJ/mol	285.00	NIST Webbook
hvapt	15.33	kJ/mol	216.60	KDB
hvapt	28.84	kJ/mol	82.30	Measurements of enthalpy of sublimation of Ne, N2, O2, Ar, CO2, Kr, Xe, and H2O using a double paddle oscillator
hvapt	16.70	kJ/mol	288.50	NIST Webbook
hvapt	16.40	kJ/mol	244.50	NIST Webbook
pvap	6436.90	kPa	298.17	Vapor-liquid equilibrium data for the carbon dioxide and nitrogen (CO2+N2) system at the temperatures 223, 270, 298 and 303 K and pressures up to 18 MPa
pvap	1964.80	kPa	253.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K
pvap	2641.80	kPa	263.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K
pvap	3478.50	kPa	273.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K
pvap	4497.80	kPa	283.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K

pvap	5723.70	kPa	293.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K
pvap	7206.20	kPa	303.15	Vapor liquid equilibria for the carbon dioxide + propane system over a temperature range from 253.15 to 323.15K
pvap	682.90	kPa	223.14	Vapor-liquid equilibrium data for the carbon dioxide and nitrogen (CO ₂ +N ₂) system at the temperatures 223, 270, 298 and 303 K and pressures up to 18 MPa
pvap	6323.00	kPa	298.10	Experimental Measurements and Thermodynamic Modeling of the Dissociation Conditions of Clathrate Hydrates for (Refrigerant + NaCl + Water) Systems
pvap	7210.50	kPa	303.16	Vapor-liquid equilibrium data for the carbon dioxide and nitrogen (CO ₂ +N ₂) system at the temperatures 223, 270, 298 and 303 K and pressures up to 18 MPa

pvap	1009.00	kPa	233.19	Phase equilibrium data for binary mixtures of carbon dioxide with {1,1,2,3,3,3-hexafluoro-1-propene or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane} at temperatures between (233 and 273) K
pvap	1432.00	kPa	243.22	Phase equilibrium data for binary mixtures of carbon dioxide with {1,1,2,3,3,3-hexafluoro-1-propene or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane} at temperatures between (233 and 273) K
pvap	1970.00	kPa	253.21	Phase equilibrium data for binary mixtures of carbon dioxide with {1,1,2,3,3,3-hexafluoro-1-propene or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane} at temperatures between (233 and 273) K
pvap	2645.00	kPa	263.21	Phase equilibrium data for binary mixtures of carbon dioxide with {1,1,2,3,3,3-hexafluoro-1-propene or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane} at temperatures between (233 and 273) K
pvap	3473.00	kPa	273.19	Phase equilibrium data for binary mixtures of carbon dioxide with {1,1,2,3,3,3-hexafluoro-1-propene or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane} at temperatures between (233 and 273) K

pvap	3487.00	kPa	273.15	Phase equilibrium and critical point data for ethylene and chlorodifluoromethane binary mixtures using a new static-analytic apparatus
pvap	410.40	kPa	213.22	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa
pvap	681.80	kPa	223.15	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa

pvap	1426.30	kPa	243.13	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa
pvap	2646.70	kPa	263.13	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa
pvap	3491.30	kPa	273.22	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa

pvap	4502.30	kPa	283.15	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa
pvap	6595.00	kPa	299.22	Thermodynamics of the carbon dioxide plus argon (CO ₂ + Ar) system: An improved reference mixture model and measurements of vapor-liquid, vapor-solid, liquid-solid and vapor-liquid-solid phase equilibrium data at the temperatures 213 to 299 K and pressures up to 16 MPa
pvap	2294.00	kPa	258.44	(Vapor + liquid) equilibrium data for (carbon dioxide + 1,1-difluoroethane) system at temperatures from (258 to 343) K and pressures up to about 8 MPa
pvap	3977.00	kPa	278.25	(Vapor + liquid) equilibrium data for (carbon dioxide + 1,1-difluoroethane) system at temperatures from (258 to 343) K and pressures up to about 8 MPa

pvap	6502.60	kPa	298.84	(Vapor + liquid) equilibrium data for (carbon dioxide + 1,1-difluoroethane) system at temperatures from (258 to 343) K and pressures up to about 8 MPa
pvap	6020.00	kPa	295.45	A synthetic-dynamic method for water solubility measurements in high pressure CO2 using ATR FTIR spectroscopy
pvap	6240.00	kPa	297.05	A synthetic-dynamic method for water solubility measurements in high pressure CO2 using ATR FTIR spectroscopy
pvap	6520.00	kPa	299.05	A synthetic-dynamic method for water solubility measurements in high pressure CO2 using ATR FTIR spectroscopy
pvap	7090.00	kPa	302.65	A synthetic-dynamic method for water solubility measurements in high pressure CO2 using ATR FTIR spectroscopy
pvap	7180.00	kPa	303.25	A synthetic-dynamic method for water solubility measurements in high pressure CO2 using ATR FTIR spectroscopy
pvap	3476.00	kPa	272.78	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)

pvap	3958.00	kPa	277.83	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	4487.00	kPa	282.87	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	5069.00	kPa	287.92	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	5705.00	kPa	292.95	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	6404.00	kPa	297.99	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	7176.00	kPa	303.03	Isothermal (vapour + liquid) equilibrium data for binary systems of (n-hexane + CO2 or CHF3)
pvap	1426.50	kPa	243.15	Experimental research on (vapor + liquid) equilibria for the {trifluoroiodomethane (CF3I) + carbon dioxide (CO2)} system from 243.150 to 273.150 K
pvap	1968.40	kPa	253.15	Experimental research on (vapor + liquid) equilibria for the {trifluoroiodomethane (CF3I) + carbon dioxide (CO2)} system from 243.150 to 273.150 K

pvap	2647.50	kPa	263.15	Experimental research on (vapor + liquid) equilibria for the {trifluoroiodomethane (CF ₃ I) + carbon dioxide (CO ₂)} system from 243.150 to 273.150 K
pvap	3483.80	kPa	273.15	Experimental research on (vapor + liquid) equilibria for the {trifluoroiodomethane (CF ₃ I) + carbon dioxide (CO ₂)} system from 243.150 to 273.150 K
pvap	552.50	kPa	218.15	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	1004.40	kPa	233.15	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	1428.00	kPa	243.15	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	2293.70	kPa	258.15	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa

pvap	3484.60	kPa	273.15	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	5089.60	kPa	288.19	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	7171.20	kPa	302.94	Measurement and modelling of the vapor-liquid equilibrium of (CO ₂ + CO) at temperatures between (218.15 and 302.93) K at pressures up to 15 MPa
pvap	3485.70	kPa	273.16	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	3975.00	kPa	278.20	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	4502.00	kPa	283.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	5087.00	kPa	288.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination

pvap	5726.40	kPa	293.14	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	6430.10	kPa	298.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7212.80	kPa	303.19	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7290.90	kPa	303.64	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7326.10	kPa	303.85	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7358.80	kPa	304.04	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	3485.90	kPa	273.17	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination

pvap	3977.00	kPa	278.20	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	4500.50	kPa	283.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	5090.50	kPa	288.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	5726.50	kPa	293.14	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	6436.10	kPa	298.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7214.40	kPa	303.15	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7297.40	kPa	303.65	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination

pvap	7329.00	kPa	303.85	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	7360.50	kPa	304.04	A novel technique based in a cylindrical microwave resonator for high pressure phase equilibrium determination
pvap	3962.00	kPa	278.15	Experimental Solubility Data for Binary Mixtures of Ethane and 2,2,4-Trimethylpentane at Pressures up to 6 MPa Using a New Variable-Volume Sapphire Cell
pvap	5627.00	kPa	293.00	Experimental Measurements and Thermodynamic Modeling of the Dissociation Conditions of Clathrate Hydrates for (Refrigerant + NaCl + Water) Systems
pvap	4961.00	kPa	287.11	Phase Equilibrium and Liquid Viscosity of CO ₂ + n-Dodecane Mixtures between 283 and 353 K
pvap	5555.00	kPa	291.84	Phase Equilibrium and Liquid Viscosity of CO ₂ + n-Dodecane Mixtures between 283 and 353 K
pvap	6214.00	kPa	296.64	Phase Equilibrium and Liquid Viscosity of CO ₂ + n-Dodecane Mixtures between 283 and 353 K

pvap	6928.00	kPa	301.38	Phase Equilibrium and Liquid Viscosity of CO ₂ + n-Dodecane Mixtures between 283 and 353 K
pvap	1000.72	kPa	233.07	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	1000.81	kPa	233.07	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	1420.40	kPa	243.01	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	1420.51	kPa	243.01	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	1974.16	kPa	253.22	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	1974.47	kPa	253.22	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	2661.57	kPa	263.31	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus
pvap	2661.88	kPa	263.32	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus

pvap	3522.07	kPa	273.55	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	3522.39	kPa	273.56	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	4543.19	kPa	283.51	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	4543.58	kPa	283.52	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	5720.90	kPa	293.08	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	5721.42	kPa	293.09	Measurement of Vapor Pressures and Saturated Liquid Densities of Pure Fluids with a New Apparatus	
pvap	3960.00	kPa	278.15	Isothermal Vapor-Liquid Equilibria for the Binary System of Carbon Dioxide (CO ₂) + 1,1,1,2,3,3,3-Heptafluoropropane (R-227ea)	
pvap	5080.00	kPa	288.15	Isothermal Vapor-Liquid Equilibria for the Binary System of Carbon Dioxide (CO ₂) + 1,1,1,2,3,3,3-Heptafluoropropane (R-227ea)	

pvap	6425.00	kPa	298.15	Isothermal Vapor-Liquid Equilibria for the Binary System of Carbon Dioxide (CO ₂) + 1,1,1,2,3,3,3-Heptafluoropropane (R-227ea)	
pvap	1672.60	kPa	248.15	Vapor Liquid Equilibrium for Several Compounds Relevant to the Biofuels Industry Modeled with the Wilson Equation	
pvap	3485.10	kPa	273.15	Vapor Liquid Equilibrium for Several Compounds Relevant to the Biofuels Industry Modeled with the Wilson Equation	
pvap	4406.00	kPa	283.00	Experimental Measurements and Thermodynamic Modeling of the Dissociation Conditions of Clathrate Hydrates for (Refrigerant + NaCl + Water) Systems	
pvap	3387.00	kPa	273.00	Experimental Measurements and Thermodynamic Modeling of the Dissociation Conditions of Clathrate Hydrates for (Refrigerant + NaCl + Water) Systems	
pvap	4392.00	kPa	282.15	Phase Equilibrium and Liquid Viscosity of CO ₂ + n-Dodecane Mixtures between 283 and 353 K	

rhog	1.56	kg/m3	344.15	High-pressure densities and interfacial tensions of binary systems containing carbon dioxide + n-alkanes: (n-Dodecane, n-tridecane, n-tetradecane)
srf	0.00	N/m	273.20	KDB

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	2.05818e+01
Coeff. B	-3.08771e+03
Coeff. C	-1.26700e+00
Temperature range (K), min.	153.41
Temperature range (K), max.	264.19

Datasets

Kinematic viscosity, m2/s

Temperature, K - Gas	Pressure, kPa - Gas	Kinematic viscosity, m2/s - Gas
220.00	195.46	0.0000024
220.00	226.71	0.0000020
220.00	254.44	0.0000018
220.00	288.21	0.0000016
220.00	324.47	0.0000014
220.00	362.71	0.0000012
220.00	393.15	0.0000011
220.00	425.51	0.0000010
220.00	449.74	0.0000010
220.00	479.78	0.0000009

235.00	224.78	0.0000023
235.00	359.42	0.0000014
235.00	452.88	0.0000011
235.00	545.18	0.0000009
235.00	638.46	0.0000008
235.00	723.88	0.0000007
235.00	803.31	0.0000006
250.00	274.20	0.0000022
250.00	372.33	0.0000016
250.00	491.25	0.0000012
250.00	595.84	0.0000010
250.00	702.28	0.0000008
250.00	818.89	0.0000007
250.00	953.03	0.0000006
250.00	1060.25	0.0000005
250.00	1177.57	0.0000004
250.00	1291.60	0.0000004
250.00	1438.24	0.0000004
270.00	196.61	0.0000035
270.00	354.95	0.0000020
270.00	526.01	0.0000013
270.00	705.02	0.0000009
270.00	898.25	0.0000007
270.00	1076.54	0.0000006
270.00	1287.09	0.0000005
270.00	1446.70	0.0000004
270.00	1630.02	0.0000004
270.00	1846.01	0.0000003
270.00	2079.64	0.0000003
270.00	2316.11	0.0000002
270.00	2509.61	0.0000002
285.00	371.48	0.0000021
285.00	575.25	0.0000013
285.00	787.74	0.0000009
285.00	1012.98	0.0000007
285.00	1228.51	0.0000006
285.00	1500.40	0.0000005
285.00	1707.23	0.0000004
285.00	1947.24	0.0000004
285.00	2221.25	0.0000003
285.00	2559.66	0.0000003
285.00	2841.89	0.0000002
285.00	3057.76	0.0000002
300.00	313.43	0.0000027

300.00	531.89	0.0000016
300.00	748.54	0.0000011
300.00	993.26	0.0000008
300.00	1237.01	0.0000007
300.00	1526.14	0.0000005
300.00	1747.76	0.0000005
300.00	1991.46	0.0000004
300.00	2272.21	0.0000003
300.00	2577.86	0.0000003
300.00	2893.94	0.0000003
300.00	3145.79	0.0000002
304.77	317.81	0.0000028
304.77	527.05	0.0000016
304.77	745.25	0.0000012
304.77	979.77	0.0000009
304.77	1201.73	0.0000007
304.77	1478.86	0.0000006
304.77	1699.38	0.0000005
304.77	1949.98	0.0000004
304.77	2235.18	0.0000004
304.77	2552.72	0.0000003
304.77	2881.02	0.0000003
304.77	3135.88	0.0000002
310.00	342.08	0.0000027
310.00	552.05	0.0000016
310.00	773.76	0.0000011
310.00	1018.04	0.0000009
310.00	1259.27	0.0000007
310.00	1549.04	0.0000006
310.00	1786.58	0.0000005
310.00	2055.58	0.0000004
310.00	2362.96	0.0000003
310.00	2708.78	0.0000003
310.00	3077.99	0.0000003
330.00	201.27	0.0000052
330.00	402.42	0.0000026
330.00	626.86	0.0000016
330.00	846.53	0.0000012
330.00	1059.35	0.0000009
330.00	1332.98	0.0000007
330.00	1559.26	0.0000006
330.00	1813.09	0.0000005
330.00	2103.20	0.0000005
330.00	2423.40	0.0000004

330.00	2778.74	0.0000003
330.00	3067.62	0.0000003
350.00	234.16	0.0000050
350.00	440.84	0.0000026
350.00	660.10	0.0000017
350.00	905.02	0.0000013
350.00	1143.54	0.0000010
350.00	1347.77	0.0000008
350.00	1584.41	0.0000007
350.00	1872.95	0.0000006
350.00	2228.51	0.0000005
350.00	2447.32	0.0000004
350.00	2827.17	0.0000004
350.00	3133.84	0.0000003
370.00	335.49	0.0000038
370.00	537.70	0.0000024
370.00	749.31	0.0000017
370.00	964.83	0.0000013
370.00	1228.54	0.0000010
370.00	1449.30	0.0000009
370.00	1714.08	0.0000007
370.00	2019.04	0.0000006
370.00	2382.70	0.0000005
370.00	2771.65	0.0000004
370.00	3095.89	0.0000004

Reference

<https://www.doi.org/10.1016/j.jct.2007.07.002>

Mass density, kg/m³

Temperature, K - Gas	Pressure, kPa - Gas	Mass density, kg/m ³ - Gas
273.15	1001.00	21.2
273.15	2001.00	45.7
273.15	3001.00	77.3
273.15	3300.00	89.9
283.15	1000.00	20.4
283.15	2001.00	43.1
283.15	3001.00	70.9
283.15	4000.00	108.4
283.15	4400.00	130.1
293.15	1011.00	19.8

293.15	2001.00	41.0
293.15	3001.00	66.2
293.15	4000.00	97.3
293.15	5000.00	140.4
293.15	5600.00	182.2

Reference

<https://www.doi.org/10.1021/je300590v>

Mass density, kg/m3

Pressure, kPa - Fluid (supercritical or subcritical phases)	Temperature, K - Fluid (supercritical or subcritical phases)	Mass density, kg/m3 - Fluid (supercritical or subcritical phases)
6100.00	291.30	817.0
7100.00	291.50	834.0
8100.00	291.70	849.0
9200.00	291.90	861.0
10200.00	292.00	872.0
15200.00	292.10	916.0
20200.00	292.10	948.0
25300.00	292.10	975.0
30100.00	292.10	997.0

Reference

<https://www.doi.org/10.1016/j.fluid.2010.07.009>

Temperature, K	Pressure, kPa	Mass density, kg/m3
323.20	10968.00	497.981
323.25	12967.00	633.58
323.24	14966.00	698.2
323.25	16965.00	739.597
323.24	18962.00	770.445
323.26	20966.00	795.018
323.25	22962.00	815.681
323.24	24961.00	833.514
323.25	26959.00	849.181
323.25	28037.00	856.967

Reference

<https://www.doi.org/10.1016/j.jct.2015.07.014>

Temperature, K

Pressure, kPa

Mass density, kg/m3

308.00	10000.00	714.84
308.00	12000.00	768.42
308.00	15000.00	816.06
308.00	18000.00	848.87
308.00	21000.00	874.4
318.00	10000.00	502.57
318.00	12000.00	659.73
318.00	15000.00	743.17
318.00	18000.00	790.18
318.00	21000.00	823.71
328.00	10000.00	326.4
328.00	12000.00	506.85
328.00	15000.00	654.94
328.00	18000.00	724.13
328.00	21000.00	768.74

Reference

<https://www.doi.org/10.1016/j.tca.2011.01.039>

Temperature, K	Pressure, kPa	Mass density, kg/m3
304.29	10390.00	768.95
398.60	20324.00	391.9
469.77	20740.00	272.48
304.29	21349.00	895.09
304.29	31385.00	950.66
469.78	36325.00	466.7
398.62	36685.00	645.59
398.62	36789.00	646.63
304.29	42233.00	992.73
398.61	52521.00	764.26
469.73	54964.00	621.41
304.29	56603.00	1034.73
304.29	69065.00	1063.89
469.74	69479.00	702.01
398.61	70281.00	846.15
304.30	86449.00	1097.67
398.61	86718.00	900.46
469.75	86961.00	773.96
469.74	103717.00	827.38
398.61	103727.00	944.72
469.74	103847.00	827.75
304.30	104549.00	1127.06
469.76	116457.00	861.27
398.61	118142.00	975.99

304.30	119826.00	1148.82
398.62	119829.00	979.32
304.30	136467.00	1169.87
469.76	137604.00	908.75
398.62	137833.00	1012.46

Reference

<https://www.doi.org/10.1021/acs.jced.6b00138>

Pressure, kPa	Temperature, K	Mass density, kg/m3
10000.00	303.15	770.5
20000.00	303.15	890.1
30000.00	303.15	949.2
40000.00	303.15	989.1
50000.00	303.15	1020.0
60000.00	303.15	1045.8
70000.00	303.15	1068.0
10000.00	313.15	628.9
20000.00	313.15	839.3
30000.00	313.15	909.2
40000.00	313.15	955.5
50000.00	313.15	990.5
60000.00	313.15	1019.0
70000.00	313.15	1043.5

Reference

<https://www.doi.org/10.1021/acs.jced.9b00311>

Temperature, K	Pressure, kPa	Mass density, kg/m3
310.00	1998.00	37.614
310.00	5002.00	116.171
310.00	10014.00	686.16
310.00	19987.00	856.152
310.00	29966.00	921.817
310.00	49929.00	999.875
310.00	75042.00	1062.566
310.00	100055.00	1108.29
310.00	125012.00	1144.813
310.00	139289.00	1162.991
310.00	149970.00	1175.569
310.00	159844.00	1186.558
350.00	2011.00	32.349
350.00	5001.00	89.638
350.00	9986.00	228.244

350.00	19981.00	613.586
350.00	30013.00	758.897
350.00	50017.00	884.809
350.00	74904.00	969.636
350.00	99977.00	1027.564
350.00	124895.00	1071.804
400.00	999.00	13.455
400.00	1998.00	27.43
400.00	4998.00	72.779
400.00	10021.00	161.96
400.00	14986.00	267.104
400.00	20028.00	381.082
400.00	25054.00	482.518
400.00	29994.00	561.435
400.00	35005.00	623.368
400.00	39985.00	672.037
400.00	49967.00	745.445
400.00	59920.00	799.163
400.00	69997.00	842.031
400.00	79880.00	876.766
400.00	89950.00	906.957
400.00	99838.00	932.857
400.00	109931.00	956.349
400.00	120079.00	977.599
400.00	126010.00	989.102
400.00	139527.00	1013.251
450.00	4998.00	62.269
450.00	9998.00	131.635
450.00	19983.00	284.802
450.00	29992.00	430.142
450.00	49933.00	626.132
450.00	75024.00	762.158
450.00	99833.00	847.163
450.00	122193.00	903.768

Reference

<https://www.doi.org/10.1021/je1001158>

Temperature, K	Pressure, kPa	Mass density, kg/m3
343.13	761.77	12.0399
343.13	761.77	12.0258
343.13	405.34	6.3329
343.13	405.34	6.3325
343.13	214.49	3.3311

343.13	2584.25	43.5107
343.13	4543.03	82.704
343.13	214.49	3.3345
343.13	2584.25	43.3646
343.13	4543.03	82.3364
343.13	5888.24	114.0166
343.13	5888.24	113.4483
343.13	556.21	8.7319
343.13	1040.75	16.6004
343.13	1416.95	22.8886
343.13	1919.84	31.5581
343.13	7469.20	157.1781
343.13	556.21	8.7265
343.13	1040.75	16.5719
343.13	1416.95	22.8367
343.13	1919.84	31.4693
343.13	7469.20	156.3104
343.13	295.01	4.5929
343.13	3447.34	59.9881
343.13	295.01	4.5951
343.13	3447.34	59.7539

Reference

<https://www.doi.org/10.1021/je100148h>

Temperature, K	Pressure, kPa	Mass density, kg/m ³
313.15	340.00	8.2
313.15	690.00	15.1
313.15	1030.00	21.4
313.15	1380.00	26.7
313.15	1720.00	34.2
313.15	2070.00	38.6
313.15	2410.00	48.4
313.15	2760.00	56.7
313.15	3100.00	64.1
313.15	3450.00	72.9
313.15	3800.00	80.9
313.15	4140.00	87.5
313.15	4480.00	99.4
313.15	4830.00	109.8
313.15	5170.00	122.0
313.15	5510.00	134.0
313.15	5860.00	145.4
313.15	6200.00	158.0

313.15	6550.00	175.1
313.15	6890.00	194.5
313.15	7240.00	218.9
313.15	7580.00	239.9
313.15	7930.00	272.8
313.15	8270.00	315.6
313.15	8620.00	383.1
313.15	8960.00	478.5
313.15	9310.00	554.1
313.15	9650.00	599.1
313.15	10000.00	630.0
313.15	10340.00	649.1
313.15	10690.00	667.8
313.15	11030.00	682.9
313.15	11380.00	696.2
313.15	11720.00	708.0
313.15	12070.00	718.3
313.15	12410.00	727.4
313.15	12750.00	737.3
313.15	13100.00	744.1
313.15	13440.00	751.0
313.15	13790.00	757.9
313.15	14130.00	765.3
313.15	14480.00	770.0
313.15	14820.00	775.9
313.15	15160.00	781.5
313.15	15510.00	786.4
313.15	15860.00	791.7
313.15	16200.00	796.1
313.15	16550.00	801.2
313.15	16900.00	805.8
313.15	17240.00	809.8
333.15	340.00	7.7
333.15	690.00	13.4
333.15	1030.00	19.9
333.15	1380.00	25.1
333.15	1720.00	31.9
333.15	2070.00	38.4
333.15	2410.00	44.1
333.15	2760.00	51.2
333.15	3100.00	59.1
333.15	3450.00	65.1
333.15	3800.00	73.1
333.15	4140.00	79.7

333.15	4480.00	87.9
333.15	4830.00	96.5
333.15	5170.00	105.1
333.15	5510.00	114.2
333.15	5860.00	123.8
333.15	6200.00	133.4
333.15	6550.00	144.2
333.15	6890.00	154.3
333.15	7240.00	166.4
333.15	7580.00	178.8
333.15	7930.00	190.1
333.15	8270.00	205.2
333.15	8620.00	219.5
333.15	8960.00	235.1
333.15	9310.00	252.4
333.15	9650.00	271.0
333.15	10000.00	291.4
333.15	10340.00	313.6
333.15	10690.00	337.0
333.15	11030.00	361.9
333.15	11380.00	388.0
333.15	11720.00	411.1
333.15	12070.00	437.9
333.15	12410.00	463.8
333.15	12750.00	489.2
333.15	13100.00	510.1
333.15	13440.00	530.7
333.15	13790.00	549.9
333.15	14130.00	567.7
333.15	14480.00	582.0
333.15	14820.00	596.0
333.15	15160.00	609.4
333.15	15510.00	621.0
333.15	15860.00	627.4
333.15	16200.00	642.1
333.15	16550.00	651.8
333.15	16900.00	661.7
333.15	17240.00	669.7
353.15	340.00	7.4
353.15	690.00	13.5
353.15	1030.00	18.8
353.15	1380.00	24.6
353.15	1720.00	31.4
353.15	2070.00	36.1

353.15	2410.00	41.9
353.15	2760.00	48.0
353.15	3100.00	54.1
353.15	3450.00	61.4
353.15	3800.00	67.2
353.15	4140.00	73.8
353.15	4480.00	80.5
353.15	4830.00	88.0
353.15	5170.00	94.9
353.15	5510.00	102.4
353.15	5860.00	110.2
353.15	6200.00	118.0
353.15	6550.00	126.2
353.15	6890.00	134.4
353.15	7240.00	143.4
353.15	7580.00	152.1
353.15	7930.00	161.4
353.15	8270.00	171.1
353.15	8620.00	180.8
353.15	8960.00	191.1
353.15	9310.00	201.8
353.15	9650.00	211.9
353.15	10000.00	223.5
353.15	10340.00	235.0
353.15	10690.00	247.4
353.15	11030.00	259.8
353.15	11380.00	272.4
353.15	11720.00	283.9
353.15	12070.00	298.3
353.15	12410.00	312.1
353.15	12750.00	328.4
353.15	13100.00	342.0
353.15	13440.00	356.7
353.15	13790.00	372.8
353.15	14130.00	388.6
353.15	14480.00	403.0
353.15	14820.00	417.8
353.15	15160.00	433.0
353.15	15510.00	447.5
353.15	15860.00	461.0
353.15	16200.00	475.0
353.15	16550.00	488.1
353.15	16900.00	501.0
353.15	17240.00	513.0

373.15	340.00	6.5
373.15	690.00	10.9
373.15	1030.00	17.1
373.15	1380.00	23.2
373.15	1720.00	28.6
373.15	2070.00	32.7
373.15	2410.00	39.2
373.15	2760.00	44.8
373.15	3100.00	50.3
373.15	3450.00	56.1
373.15	3800.00	63.2
373.15	4140.00	67.9
373.15	4480.00	73.1
373.15	4830.00	80.0
373.15	5170.00	86.2
373.15	5510.00	93.0
373.15	5860.00	99.2
373.15	6200.00	106.0
373.15	6550.00	112.9
373.15	6890.00	120.0
373.15	7240.00	127.0
373.15	7580.00	135.4
373.15	7930.00	143.1
373.15	8270.00	151.1
373.15	8620.00	158.1
373.15	8960.00	166.1
373.15	9310.00	174.4
373.15	9650.00	182.7
373.15	10000.00	191.9
373.15	10340.00	199.4
373.15	10690.00	208.4
373.15	11030.00	217.3
373.15	11380.00	223.2
373.15	11720.00	233.1
373.15	12070.00	242.8
373.15	12410.00	252.7
373.15	12750.00	262.8
373.15	13100.00	272.5
373.15	13440.00	283.1
373.15	13790.00	293.1
373.15	14130.00	304.7
373.15	14480.00	314.9
373.15	14820.00	325.0
373.15	15160.00	336.1

373.15	15510.00	347.6
373.15	15860.00	358.1
373.15	16200.00	368.7
373.15	16550.00	379.8
373.15	16900.00	390.2
373.15	17240.00	400.4
393.15	340.00	5.7
393.15	690.00	9.5
393.15	1030.00	16.3
393.15	1380.00	22.1
393.15	1720.00	26.9
393.15	2070.00	32.0
393.15	2410.00	37.0
393.15	2760.00	47.5
393.15	3100.00	47.4
393.15	3450.00	52.9
393.15	3800.00	58.2
393.15	4140.00	63.6
393.15	4480.00	69.2
393.15	4830.00	74.7
393.15	5170.00	80.4
393.15	5510.00	86.2
393.15	5860.00	92.4
393.15	6200.00	98.1
393.15	6550.00	104.7
393.15	6890.00	110.5
393.15	7240.00	113.6
393.15	7580.00	123.1
393.15	7930.00	129.9
393.15	8270.00	136.2
393.15	8620.00	142.9
393.15	8960.00	149.4
393.15	9310.00	156.2
393.15	9650.00	163.2
393.15	10000.00	170.4
393.15	10340.00	176.4
393.15	10690.00	183.2
393.15	11030.00	191.1
393.15	11380.00	198.2
393.15	11720.00	203.9
393.15	12070.00	210.8
393.15	12410.00	218.0
393.15	12750.00	226.3
393.15	13100.00	234.0

393.15	13440.00	242.1
393.15	13790.00	250.9
393.15	14130.00	258.0
393.15	14480.00	266.4
393.15	14820.00	275.0
393.15	15160.00	283.9
393.15	15510.00	291.1
393.15	15860.00	300.7
393.15	16200.00	308.4
393.15	16550.00	316.8
393.15	16900.00	325.1
393.15	17240.00	333.1

Reference

<https://www.doi.org/10.1021/je301283e>

Temperature, K	Pressure, kPa	Mass density, kg/m3
308.15	10000.00	717.2
308.15	15000.00	816.1
308.15	20000.00	866.1
308.15	30000.00	929.0
308.15	40000.00	971.7
313.15	10000.00	636.6
313.15	15000.00	781.3
313.15	20000.00	840.2
313.15	30000.00	909.7
313.15	40000.00	955.5
323.15	10000.00	397.3
323.15	15000.00	701.8
323.15	20000.00	784.9
323.15	30000.00	870.3
323.15	40000.00	922.8
333.15	10000.00	296.1
333.15	15000.00	607.0
333.15	20000.00	724.4
333.15	30000.00	829.6
333.15	40000.00	889.8

Reference

<https://www.doi.org/10.1021/je700373r>

Pressure, kPa	Temperature, K	Mass density, kg/m3
10000.00	313.00	570.0
15000.00	313.00	780.0

20000.00	308.00	870.0
20000.00	313.00	850.0
20000.00	318.00	820.0
20000.00	323.00	790.0
20000.00	328.00	760.0
20000.00	333.00	730.0
20000.00	313.00	830.0
25000.00	313.00	890.0
36000.00	313.00	900.0

Reference

<https://www.doi.org/10.1021/je801009z>

Speed of sound, m/s

Temperature, K - Gas	Pressure, kPa - Gas	Speed of sound, m/s - Gas
260.00	884.92	242.761
260.00	822.03	243.577
260.00	760.19	244.37
260.00	701.21	245.119
260.00	626.77	246.054
260.00	562.69	246.845
260.00	501.31	247.598
260.00	434.17	248.411
260.00	379.95	249.058
260.00	317.37	249.804
270.00	977.38	247.218
270.00	906.73	248.028
270.00	819.89	249.014
270.00	732.10	249.996
270.00	644.89	250.959
270.00	556.68	251.923
270.00	460.73	252.96
270.00	362.27	254.006
270.00	305.05	254.606
280.00	981.82	252.563
280.00	884.20	253.546
280.00	798.98	254.394
280.00	692.20	255.443
280.00	621.46	256.133
280.00	537.04	256.947
280.00	453.25	257.75

280.00	362.38	258.608
280.00	280.31	259.377
290.00	819.49	259.125
290.00	733.65	259.876
290.00	655.16	260.559
290.00	571.60	261.28
290.00	490.56	261.978
290.00	421.86	262.559
290.00	355.64	263.124
290.00	282.86	263.732
290.00	228.71	264.19
300.00	1017.33	262.36
300.00	927.15	263.073
300.00	847.25	263.703
300.00	755.49	264.422
300.00	663.90	265.134
300.00	583.49	265.756
300.00	500.85	266.392
300.00	415.37	267.046
300.00	340.26	267.619
300.00	280.85	268.065
304.09	968.58	264.694
304.09	868.88	265.446
304.09	772.25	266.17
304.09	544.65	267.858
304.09	434.91	268.664
312.75	959.38	268.804
312.75	858.54	269.494
312.75	729.55	270.371
312.75	636.23	271.003
312.75	534.77	271.688
312.75	441.68	272.312
312.75	394.20	272.63
322.75	929.78	273.533
322.75	832.63	274.131
322.75	735.59	274.723
322.75	624.83	275.397
322.75	522.36	276.021
322.75	412.26	276.687
322.75	314.03	277.276
332.75	958.15	277.777
332.75	857.33	278.334
332.75	755.50	278.895
332.75	664.72	279.393

332.75	544.84	280.054
332.75	520.66	280.185
332.75	415.50	280.761
332.75	316.28	281.299
Reference		https://www.doi.org/10.1021/je500424b

Thermal conductivity, W/m/K

Temperature, K - Gas	Pressure, kPa - Gas	Thermal conductivity, W/m/K - Gas
298.89	6100.00	0.0331
299.02	5760.00	0.0290
299.19	5400.00	0.0263
299.31	5035.00	0.0244
299.50	4555.00	0.0227
299.60	3980.00	0.0211
299.73	3285.00	0.0197
299.85	2555.00	0.0186
300.06	1702.00	0.0178
300.37	714.00	0.0171
302.67	6635.00	0.0370
302.77	6400.00	0.0331
302.80	6025.00	0.0290
302.86	5675.00	0.0269
302.92	5290.00	0.0247
302.97	4870.00	0.0234
303.08	4340.00	0.0218
303.22	3765.00	0.0205
303.51	3160.00	0.0196
303.81	2415.00	0.0187
303.99	1612.00	0.0180
304.21	724.00	0.0174
324.87	7960.00	0.0321
324.90	7750.00	0.0312
324.92	7440.00	0.0295
324.95	5960.00	0.0250
325.01	6900.00	0.0277
325.04	6760.00	0.0272
325.10	5575.00	0.0243
325.12	6360.00	0.0261
325.28	5060.00	0.0232

325.42	4605.00	0.0225
325.48	4040.00	0.0218
325.64	3500.00	0.0213
325.81	2880.00	0.0205
325.93	2218.00	0.0200
326.03	1514.00	0.0196
326.17	684.00	0.0192
326.26	497.00	0.0191
350.83	9985.00	0.0332
350.89	8840.00	0.0303
350.96	7540.00	0.0277
351.12	6040.00	0.0255
351.44	4275.00	0.0235
351.82	2214.00	0.0220
351.87	1820.00	0.0218
351.91	1420.00	0.0215
352.10	994.00	0.0214
352.23	572.00	0.0214
375.68	14930.00	0.0418
375.71	13880.00	0.0389
375.75	12560.00	0.0362
375.80	11100.00	0.0332
375.85	9640.00	0.0308
375.91	8060.00	0.0289
376.01	6260.00	0.0267
376.11	4240.00	0.0250
376.28	2004.00	0.0238
376.51	1015.00	0.0235
400.85	15010.00	0.0384
400.93	13550.00	0.0362
400.98	11950.00	0.0339
401.03	10340.00	0.0319
401.15	8495.00	0.0300
401.30	6660.00	0.0285
401.42	4600.00	0.0271
401.60	2382.00	0.0260
401.66	1690.00	0.0258
401.74	975.00	0.0257
427.12	12000.00	0.0343
427.23	9898.00	0.0325
427.38	8240.00	0.0313
427.51	6160.00	0.0297
427.67	3970.00	0.0288
427.70	3020.00	0.0283

427.95	2050.00	0.0281
428.05	1040.00	0.0280

Reference <https://www.doi.org/10.1007/s10765-005-5566-6>

Viscosity, Pa*s

Temperature, K - Gas	Pressure, kPa - Gas	Viscosity, Pa*s - Gas
298.15	604.50	0.0000149
298.15	498.50	0.0000149
298.15	402.90	0.0000149
298.15	303.30	0.0000149
298.15	204.60	0.0000149
298.15	100.80	0.0000149
323.16	598.70	0.0000161
323.16	500.40	0.0000161
323.16	400.70	0.0000161
323.16	304.90	0.0000161
323.16	200.90	0.0000161
323.16	151.60	0.0000161
323.16	100.80	0.0000161
373.16	802.60	0.0000185
373.16	604.90	0.0000185
373.16	399.90	0.0000184
373.16	296.80	0.0000184
373.16	201.10	0.0000184
373.16	151.40	0.0000184
373.16	100.40	0.0000184
423.14	998.90	0.0000208
423.14	800.80	0.0000207
423.14	600.40	0.0000207
423.14	397.60	0.0000207
423.14	302.00	0.0000207
423.14	204.10	0.0000206
423.14	153.30	0.0000207
423.14	100.20	0.0000206
473.15	1200.90	0.0000229
473.15	997.80	0.0000229
473.15	803.00	0.0000228
473.15	601.10	0.0000228
473.15	403.50	0.0000228

473.15	202.50	0.0000228
473.15	153.00	0.0000228
473.16	100.10	0.0000228
253.15	401.40	0.0000127
253.15	300.50	0.0000127
253.15	200.50	0.0000127
253.15	153.00	0.0000127
253.15	100.20	0.0000127
273.17	502.80	0.0000137
273.17	399.40	0.0000137
273.17	301.70	0.0000137
273.17	203.40	0.0000137
273.17	151.80	0.0000137
273.17	100.40	0.0000137
298.15	502.80	0.0000149
298.15	400.00	0.0000149
298.15	303.20	0.0000149
298.15	201.60	0.0000149
298.15	150.40	0.0000149
298.15	100.80	0.0000149
298.15	499.70	0.0000149

Reference

<https://www.doi.org/10.1016/j.jct.2015.04.015>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
308.20	1200.00	0.0000153
308.20	2070.00	0.0000154
308.20	11330.00	0.0000638
308.20	22090.00	0.0000882
308.20	34970.00	0.0001068
308.20	68930.00	0.0001441
308.20	101200.00	0.0001733
308.20	150520.00	0.0002220
323.20	1270.00	0.0000161
323.20	2050.00	0.0000163
323.20	5040.00	0.0000174
323.20	11440.00	0.0000398
323.20	20670.00	0.0000711
323.20	50820.00	0.0001120
323.20	105530.00	0.0001606
323.20	150430.00	0.0001953

Reference

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Sources

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The Precise Measurement of Vapor Liquid Equilibrium Properties of the Experimental Investigation of the Density and Viscosity of CO₂-Loaded Supercritical Fluids in the Solvent Dimethyl Carbonate at High Pressures: Diffusion coefficients of metal acetylacetonates in supercritical Me₂SO and correlation of the solubility of juglone in supercritical CO₂ and Me₂SO: Thermodynamic properties of L-tryptophan: Solubility of p-Methylbenzene Sulfonic Acid in Pure and Modified Supercritical CO₂: Experimental Measurements of the {CO₂ (1) + Acetone (2) + Ivermectin (3)} System at High Pressure and Lovastatin in Mixtures of Dichloromethane and Supercritical methanol and trifluoroethyl acrylate: Pressure Measurements on Unloaded and CO₂-Loaded 3-Amino-1-propanol: Measurement and correlation of the viscosity of (nitrogen + carbon dioxide) mixtures at temperatures and pressures and liquid densities and excess molar properties of CO₂ to 2-methyl-2-butanol from (313 to 363) K and pressures up to 16 and 18 MPa: Viscosity of 2-methyl-2-butanol: Puric acids: extranuclear nucleosides and derivatives: A combined calorimetric and ionic liquid 1-methyl-2-methylimidazolium bis(trifluoromethyl)phosphate dependence and Data Correlation of Carbon Dioxide Enhanced Oil Capture by binary systems of pyridine- and ionic liquids and CO₂ in mixtures of dimethyl ether and carbon dioxide: Aromaticity and stability going in opposite directions: An energetic, Solubility of Gaseous and Electronic Surfactants in Carbon Dioxide and Its Role in Enhancing Oil Recovery Using Dense Fluids: Systems Experiments and Thermodynamic Measurements for the Carbon Dioxide + 1,1-Difluoroethane Binary System: Experimental and computational thermochemical study of two Density Viscosity and solubility of carbon dioxide in 1-methyl-2-pyrrolidone and 5-fluoro-2-methylbenzofuroxazole diphosphate-based chelating agents in Supercritical Carbon dioxide: Quantitative Raman spectroscopic investigation of geo-fluids: Solubility of 4-androstenol in CO₂: Part I. Supercritical Carbon Dioxide at Several Temperatures: CO₂/H₂ gas mixtures in ionic liquids: The enthalpies of formation of alkyl carbamates: Experimental and Measurements of Binary Diffusion Coefficient and Partition Ratio at Low Pressure: A Calorimetric and Thermodynamic Spectroscopic and Calorimetric Investigation of an anion: mini-bomb combustion calorimeter: Measurements of the solubilities of derivatized amino acids in Supercritical CO₂ and Me₂SO: Solubility of CO₂ in pyrrole system: Solubility of CO₂ in Alcohols, Glycols, Ethers, and Ketones at High Pressures Diffusion coefficients of: 2-fluoroanisole, 2-bromoanisole, Mesitylene and 1,3-dimethylbenzene at isothermal solubility data in CO₂ and 2-methyl-2-butanol: 5,6,7,8-tetramethoxychromen-4-one (rombezoin) in supercritical CO₂ and Me₂SO: Solubility of CO₂ in mixtures of Imidazole: 2-methylimidazole, O₂ Solubility in Saturated Liquid CH₄ + N₂ and CH₄ + CO₂ mixtures: Solubility of Tocopherol in System Methyl Oleate + Tocopherol + Supercritical CO₂ and Partial Molar Volume of 2,2'-Oxybis(N,N-bis(2-methoxyethyl)acetamide) in Supercritical Carbon Dioxide:

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Vapor-Liquid Equilibrium for Carbon Dioxide + Isopropyl, Isobutyl, and Isopentylacetate vapor-liquid equilibria for binary carbon dioxide and protic fluorosilquid base of the ternary systems
Vincenzo acid:
acetic acid (R15) Surface Tension/carbon Measurements of Partially Carboxylated Aqueous Monobenzenesulfonates:
Solubility of CO₂ in (Acetone + Water): Critical Properties of the Reacting Mixture in the Esterification of Acetic Acid phase equilibria and mass transfer studies applied to supercritical fluid extraction of solubilities of carbon dioxide in five levulinic acid-based deep eutectic solvents and their mixtures at temperatures from (300.15 to 363.15) K and pressures from (5 to 18) MPa
Equation 1,2-diol Water Mixtures: Heat Capacity of Sodium Aminoacetate Solutions before and after CO₂ Absorption
Absorption of Ionic Liquid-Ionic Liquid Mixtures:
Experimental Vapor-Liquid Equilibria for the Carbon Dioxide + Octane and Carbon Dioxide + Decane Systems: methylbenzonitriles: Experimental and Predicted Solubility of Phenyl Succinate in Supercritical Carbon Dioxide Using Monte Carlo Molecular Dynamics for carbon dioxide (CO₂) at T = 29.95, 30.01, 31 and Modeling Study of 11 the Phase Behavior of (Hexanone (DLS): Chloroform + Water) Mixtures: Isothermal Compressibility of Styrene + Benzene binary system and properties of a prepared low-pressure systems: experimental and theoretical study: potassium lysinate solutions: Vapor - liquid equilibrium formation and modeling of Carbon Dioxide and Propane with the Effect of cosolvent method-point of binary and ternary systems for the Association model for solvent solubility of pharmaceuticals in solvents: Supercritical Carbon dioxide and mixed 3,5-dinitrobenzoic acid and Solubility of Nicotin in Supercritical Nitrogen and Carbon Dioxide at T = 300.15 MPa modeling (5 to 30) investigations of solubility and criticality of benzene derivatives and combustion of the Diacylrombenzoic acid in water and ethanol and carbon thermodynamics of solvation of oxygen-carbon dioxides of Crystalline 2-Amino-5-nitroimidazole (CofS)
Viscosity of n-alkyl-3-methyl-imidazolium Bromide and Solubility of CO₂ in aqueous solution of (Potassium persulfate + Sodium carbonate) Potassium carbonate Salt Concentration Potassium carbonate of water in carbon dioxide-rich phase measurements and thermodynamic modeling of (CO₂ + Nonaqueous liquid) equilibria data for (carbon dioxide + 1,1-difluoroethane) System of temperature from 1258 to Supercritical Carbon Dioxide about 8 Solubilities of C.I. Disperse Orange 25 and C.I. Disperse Blue 354 in Supercritical carbon dioxide gas and tetra-n-butylammonium bromide as electrolyte of Na₂SO₄ on the CO₂ solubility in water at high pressure: Experiment and modeling solubility of CO₂ in aqueous solutions of Ethanol-Ethanol-Ethanol on High-Pressure Vapor-Liquid Equilibria for Binary Carbon Dioxide and Ethylene Glycol-alcohol System: Vapor Liquid Equilibrium Measurements of Difluoromethane + Methanol, Difluoromethane + Perfluorooctane and Diffusion of CO₂ in (OTM) Difluoroethane + 1,2-dichloroethane and 1,1,1-trifluoroethane - Fluorinated solutions:

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Using solid-membrane cells for the carbon dioxide and nitrogen (CO₂+N₂) system
Enthalpies of Sublimation 223, 270, 284, 290, 303, 316, Methacrylates and 18 Vinyl Methacrylates in High-Pressure measurement of CO₂ + ethylene glycol dimethyl ether and 2-tert-butyl-2-methylpropane in 2,2,2-trifluoroethane
Incorporation of 2,2,2-trifluoroethane and ethylene glycol dimethyl ether in the synthesis of polyurethanes
Experimental Measurement of CO₂ Solubility in Aqueous CaCl₂ Solution at Temperatures of 20 to 320 °C, 40 to 100 MPa, and Ethane in 1-butanol and saturated sodium chloride
Solubility of CO₂ in Propylene Glycol and Tripropylene Glycol Derivatives
Solubility of carbon dioxide in the supercritical CO₂ liquid
Low viscosity imidazolium liquid for CO₂/CH₄ separation: Thermophysical and high-pressure phase equilibria for gas-liquid and liquid-liquid systems
Properties of CO₂ in binary organic systems and carbon dioxide mixtures: dimethyl carbonate and Systems CO₂ + Styrene, CO₂ + Squalene, and CO₂ + 1-octene
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Solubility Determination and Correlation of Gatifloxacin, Enoxacin, and Ciprofloxacin in Supercritical CO₂ modeling of CO₂ in mixtures of water and carbon dioxide absorption in ionic liquids: 2-ethyl-2-methyl-1,3-dioxane four imidazolium-based ionic liquids:
Thermal Conductivity of Mixtures of Carbon Dioxide and Ethane in the Critical Region
Solubility of o-Nitrobenzoic Acid in Modified Supercritical Carbon Dioxide
Measurement and modeling for solubility of 3-hydroxybenzaldehyde and 3-methyl-2-butanone in Binary Mixtures of Room-Temperature Ionic Liquids at 100 °C
Thermodynamic properties of 2,2'-dipyridyl N-oxide and 2,2'-dipyridyl N,N'-dioxide. Solubility of CO₂ in mixtures of the N-O compound
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2-methyl-2-propyl-1,3-propanediol and 2-methyl-2-propyl-1,3-propanediol carbonate in supercritical carbon dioxide with maximum solubility of combustion and formation of enantiomers:
Estimation of CO₂ Adsorption Enthalpy by Correlating Measured Electrical Standard Molar Enthalpies of formation
Solubility of CO₂ in 2,2'-bipyridyl benzene derivatives: measurement of vapor-liquid and liquid-liquid phase equilibria calculation for ternary systems
Experimental solubility of carbon dioxide in aqueous solutions of dioxide+ethanol, dioxide+ethyl acetate, fine equilibrium pressure of carbon dioxide+ethane and 1-decanol from 10 to 32.15 MPa
System from 313.15 to 353.15 K and Pressures up to 10 MPa
Tensions of binary systems containing fluoromethanes of the Gaseous Value of Methane with the New GERG Reference Equation
Solubility of the ternary 1-hexyl-3-methylimidazolium hexafluorophosphate + Methanol in Aqueous Solutions
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Solubilities of Amide Compounds in Supercritical Carbon Dioxide: Gas gas experimental interfacial tension measurement: Phase Equilibria of the 1-Hexyl-2,3-dimethylimidazolium Bis(trifluoromethylsulfonyl)imide and Carbon Dioxide Binary System and 1-Octyl-2,3-dimethylimidazolium Bis(trifluoromethylsulfonyl)imide and Carbon Dioxide Binary System:

High Pressure Phase Equilibria of the Related Substances in the Limonene
 Solubility measurements of hydrogen
 in 1-butyl-3-methylimidazolium
 Tetrafluoroborate and the effect of
 additions of density, viscosity and
 surface energy of the binary and
 ternary systems. Carbon dioxide, hydrogen,
 methane and carbon dioxide
 (carbon dioxide in dichloromethane +
 carbon dioxide in methyl acetate +
 methyl benzoate, ethyl benzoate and
 methyl benzoate) and the effect of
 the energetics of δ^+ and
 Vapor Phase (p, rho., T, x) Behavior
 and Virial Coefficients for the (Argon +
 Carbon Dioxide) System
 Mixtures Carbon Dioxide + Heptane and
 Vapor-Liquid Phase Equilibria of
 Binary Mixtures of Carbon Dioxide with
 Equilibria of Carbon Dioxide in
 1-Ethyl-3-methylimidazolium
 Triethylamine, Densities, and
 Isothermal Compressibility of the CO₂
 + 1-Ethyl-3-methylimidazolium Ternary
 Systems at Different Conditions:
 60 °C, 100 °C, 120 °C, 140 °C, 160 °C,
 180 °C, 200 °C, 220 °C, 240 °C, 260 °C,
 280 °C, 300 °C, 320 °C, 340 °C, 360 °C,
 380 °C, 400 °C, 420 °C, 440 °C, 460 °C,
 480 °C, 500 °C, 520 °C, 540 °C, 560 °C,
 580 °C, 600 °C, 620 °C, 640 °C, 660 °C,
 680 °C, 700 °C, 720 °C, 740 °C, 760 °C,
 780 °C, 800 °C, 820 °C, 840 °C, 860 °C,
 880 °C, 900 °C, 920 °C, 940 °C, 960 °C,
 980 °C, 1000 °C
 Solubility of CO₂ in Molten Salt Systems: equation:
 Characterisation of a microwave
 re-entrant cavity resonator for
 phase-liquid Supercritical Fluid
 Equilibria for Systems Containing
 Carbon Dioxide and Hydrocarbons
 and the effect of the behaviour of the
 systems CO₂ + C.I. Disperse Orange 30
 Solubility and Diffusivity of CO₂ in
 [hxmim][NTf₂], [omim][NTf₂], and
 [bmim][NTf₂] at 298.15 and 308.15
 Chloroform in Supercritical
 Equilibrium phase equilibrium data
 for systems containing carbon dioxide,
 Solubility of Pyrazine and Chloroform
 Derivatives in Supercritical Carbon
 Solubility of CO₂ and H₂S in the ionic
 liquid 1-ethyl-3-methylimidazolium
 bis(trifluoromethyl)phosphonate:
 CO₂ capture process using high
 Effect of the presence of electrical
 conductivity and self-diffusion
 coefficients and theoretical
 investigation of solubility of carbon
 dioxide in concentrated aqueous
 4,6-diaminobromo-4,8-dihydroxyanthraquinone
 Equilibrium of Carbon Dioxide with or
 without a sulfonamide in
 Supercritical Carbon Dioxide (CO₂ +
 H₂O) temperatures from (293 to 450)
 and pressures up to 10 MPa:
 CO₂+n-Decane Mixtures in the Critical
 Region propylbarbituric and
 2-thiobarbituric acids: An
 Water Solubility and Saturation for CO₂
 CH₄ Mixtures at 323.2 K and 9,000 MPa:
 Solubility of CO₂ in triglycerides using
 Monte Carlo simulations:
 (p, rho, T, x) Properties of CO₂
 /Propane Binary Mixtures at 280 K to
 400 °C and up to 100 MPa
 measurement of high-pressure phase
 Equilibria of carbon dioxide and
 methyl n-hydroxybenzoates:
 Solubilities of Some 2H-Chromene
 Derivatives in Supercritical Carbon
 Dioxide phase (p, rho, T, x) behaviour
 and virial coefficients for the (ethane +
 Diffusion Coefficients of Carbon
 Dioxide in Eight Hydrocarbon Liquids
 Solubilities of gases in polyolefins
 and polyimides 2-Ethyl-2-(methyl
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Experimental P-T-G Measurements of Carbon Dioxide and 1,1-Difluoroethene Phase Equilibrium Measurements and Thermodynamic Modeling of the Solubility of Organic and Inorganic Acids in Supercritical Carbon Dioxide:
Low pressure carbon dioxide solubility in pure electrolyte solvents for mass transfer rate calculation of CO₂ from plants in future CO₂-rich regions
Solubility of CO₂ in some mixtures at low temperatures
critical carbon dioxide: Phase equilibrium measurements and thermodynamic modelling for the systems supercritical CO₂/acetic acid/benzonitrile (CO₂) and acrylonitrile/benzonitrile (CO₂) and various organic solvents
of Some Chlorophenols in Supercritical CO₂ in the Presence and Absence of Co-solvents
behaviour of binary (CO₂ + nicotine) and ternary (CO₂ + nicotine + sorbic acid) mixtures in the ternary solubility of cholesterol esters
High-pressure carbon dioxide of triethylene glycol dimethacrylate and methyl methacrylate in High-Pressure Phase Behavior of the Carbon Dioxide/acetic acid-ethyl orthosilicate and Carbon Dioxide: Solubilities of R-161 and R-143a in 1-Hexyl-3-methylimidazolium bis(trifluoromethylsulfonyl)amides: of dicyclopolydinitromethane and thermodynamic properties
Calorimetric Study of 4-Dimethylaminopyridine: Effect of Temperature and Water Concentration on CO₂ Absorption by High-Pressure Supercritical Carbon Dioxide + 1-Methyl-2-pyrrolidone and Carbon bromoacetophenone isomers
energetics of 1-(aminophenyl)pyrroles: A joint calorimetric and computational study
Thermodynamic properties of 1-naphthol: Mutual validation of experimental and calculated values
Experimental thermochemistry to high pressures and densities of carbon dioxide:
Data for Carbon Dioxide from (310 to 450 K up to 160 MPa): Solubility of novel open-chain crown ether bridged diposphates in supercritical carbon dioxide
Measurement and correlation of the diffusion coefficients of chromium (III) acetate in water
Amines in Supercritical CO₂: Solubility of Ethylamine, Propylamine and Butylamine in Supercritical CO₂ (Carbon Dioxide) Density Measurements of the Reagent-grade Pentamethylcarbonate in Carbon Dioxide-water: Experimental measurement of carbon dioxide solubility in
Vinylidene difluoride-2-one (NMP) + 1-Butyl-3-methylimidazolium hexafluorophosphate ternary mixture: Isothermal Compressibility of CO₂ in Various Systems in Various Phases of Ne, N₂, O₂, Ar, CO₂, Kr, Xe and H₂O using a double paddle
Ethyl-3-methylimidazolium Ethyl Sulfate and Mixtures of CO₂ with Argon and Methanol
Ethyl-3-methylimidazolium trifluoromethanesulfonate
Methyl Anthranilate Solubility in Supercritical Carbon Dioxide of
(2R,6R)-dynamic and static 2,6,10-triazines for the assessment of the density and phase behaviors of AOT micellar surfactants in Vapour-Liquid Equilibrium Data of the Carbon Dioxide-Ethyl Butyrate and Carbon Dioxide-4-Propylene Carbonate
Ethyl-3-methylimidazolium chloride and their derivatives from (313.0 to 373.0) K:

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Measurements of Binary Diffusion Coefficients for Ferrocene and Solubility of H₂O in Aqueous Solution of Puerarin in Ethanol + Supercritical Carbon Dioxide: Phase Behavior, Densities, and Isothermal Compressibility of CO₂ + Dense Masses of CO₂ + Supercritical CO₂ Expanded Liquids: Renewable platform chemicals: Thermochemical study of levulinic acid Esters: Establishing benchmarks for the Second Industrial Fluids Simulation Interface: Tension Measurements of the (H₂O + n-Decane + CO₂) Ternary System at Elevated Pressures and High-Pressure Phase Equilibria and Solubility of Carbon Dioxide: New Data and Thermodynamic Modeling of CO₂ in NH₃ CO₂ SO₂ H₂O system: Carbon dioxide solubility in 1-ethyl-3-methylimidazolium trifluoromethanesulfonate of the solubility of capsanthin in supercritical CO₂ and structural properties of neutral and deprotonated phenyl anions: Measurement and Modeling of Epigallocatechin Gallate Solubility in Supercritical CO₂ and with CO₂ + n-Decane: Validity of Superbase Ionic Investigation of Thermodynamic Properties on CO₂ Absorbents Blended with Ammonia: Solubility of supercritical carbon dioxide in ethane and water: 315.15 K vapor-liquid equilibrium data for the carbon dioxide (R744) + sec-butane (R610) system at 1-ethyl-3-methylimidazolium chloride: Hexamethylenetriamine and Carbon Dioxide Absorption Studies of Lactate and Elevated-Pressure Ionic Phase Equilibrium of (CO₂ + NO₂/N₂O₄) Mixtures and Solubilities for Binary Systems of Carbon Dioxide + Water and CO₂ + Decane at 59 °C: switchable hydrophilicity solvent systems: Temperature Heat Capacities and Standard Molar Enthalpy of Formation and Standard Molar Entropy of Formation for the Systems of CO₂ + Solvents: CO₂ + Benzodiphenyls: CO₂ + (Lycopene and Astaxanthin) in Supercritical Carbon Dioxide: 2-Dimethylaminoethanol Solutions at Temperature and Pressure of ionic liquid: The heat capacity and enthalpy of vaporization of pressures and enthalpies of sublimation of 1,1-bisadamantane: Volumetric Properties of Carbon Dioxide + Ethanol at 313.15 K: New analytic apparatus for experimental determination of experimental density and solubility of Natural Gas Components in Aqueous Solutions: Density investigation of several natural polyols (Dl-Hep) and their mixtures with supercritical CO₂ and the thermodynamic properties of 1-phenylpyrrole and 1,4-dimethylphenylpyrrole and Glyceryl Trioleate Mixture in Supercritical CO₂ and structural studies of gallic and ellagic acids: Solubility of CO₂ in aqueous TSP: Densities and Volumetric Characteristics of Binary System of CO₂ + n-Decane at 313.15 K: CO₂ pressures up to 19 MPa: Trans-9,10-didecahydronaphthalene and 4-tert-butylphenyl and 4-methylphenyl: Tension Data of the CO₂ Water System at High Pressures and Temperatures: Patchoulol in Supercritical Carbon Dioxide:

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Solubility of carbon dioxide in a eutectic mixture of choline chloride
The thermodynamic properties based
ionic liquids: Tetra-alkyl-ammonium
Solubility of Maleic Acid in
Supercritical Carbon Dioxide:
Measurement of Interfacial Tension of
CO₂ and NaCl Aqueous Solution over
Aqueous CO₂ and H₂O and
Room Temperature Ionic Liquid
Enthalpies of Combustion and
formation of fullerenes by
interfacial tension measurements in the
(CO₂+H₂) gas mixture and water
system at temperatures of the Carbon
Dioxide + Ethyl Propionate and Methyl
Propyl Ethyl Acetate Systems at
cloud point and bubble point for the
and interfacial tension of carbon dioxide
supercritical solvent system.
Systematic study of solvents:
5-fluoro-1,3-dimethyluracil:
High-pressure phase behavior of
Methyl Lactate and Ethyl Lactate in
Measurement and Correlation of CO₂
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of Copper Chloride hydrates
steroid compounds: SH₂O(s).
New (ρ , T) data for carbon dioxide -
Nitrogen mixtures from (250 to 400) K
at pressures up to 8 MPa:
Concentrated Aqueous
Monobenzimidazole and propazine:
supercritical carbon dioxide:
CO₂ Solubility in Phosphonic Chemical
Absorbents Dibutyl
Ethanol-Methyl phenylpropanol:
including the near critical regions of
the CO₂-equilibrium (CO₂ + 1,4-dioxane,
butyleneglycol and hexamethylenediamine)
systems (molar fraction temperature
ranges of 0.97-1.00; 160-180°C)
Binary mixtures of carbon dioxide
with organic vapors: binary systems up
to 10 MPa pressure and aromaticity:
Low-pressure solubilities and
thermodynamics of solvation of eight
gases Equilibria of Acrylonitrile and
Bromochloroethane in Carbon
Dioxide chemistry of R-SH group in
gas-phase: Experimental and
theoretical studies of transition sulfur
lithium and boron in liquid and
supercritical carbon dioxide of rare
earth complexes with salicylic acid:
Cloud-Point and Vapor-Liquid Behavior
of Binary and Ternary Systems for the
Phenol-acetic acid system and
formation equilibria between critical and
supercritical phases of acetic acid:
binary mixture for isopropyl acrylate
and isopropyl methacrylate in the ternary
system of carbon dioxide + ethanol +
ethyl acetate at increased pressures:
Dioxide on the Capillarity of the
Gas-membrane separator of Water System:
Trimethylene Urethane
Acetylation and Thermodynamic
Properties of Carbon Dioxide in
Binary Diffusion Coefficients of
Butyrene(II) Acetylacetone in
Supercritical Carbon Dioxide
Solubility of Substituted Phenols in
Supercritical Carbon Dioxide:
Adsorption and solubility measurement
of CO₂ in water-based ZnO and SiO₂
Carbon dioxide solubility in aqueous
potassium salt solutions of L-proline
Experimental vapor-liquid equilibria
for the Systems {2-Ethyl-1-hexanol +
carbon dioxide} and computational
energy study of two halogenated
ether-type polymeric derivatives in
supercritical carbon dioxide at
25 °C up to 10 MPa:

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Solubilities of CO₂ in hydroxyl ammonium ionic liquids at elevated pressures: properties and phase behavior of sulfur dioxide, carbon dioxide and phase behavior of the binary system ethyl lactate + carbon dioxide of Aqueous CO₂ Solutions Measured by Dynamic Light Scattering: Phase Behavior of 2,2-Dimethyl-1,3-propanediol in Carbon Dioxide and Thermodynamic Properties of Carbon Dioxide in Some Standard Solvents: enthalpies of formation and of sublimation of the terphenyl Measurement and Correlation of Solubility of Uracil in Supercritical Carbon Dioxide: Modeling of Phase Behavior, Density, and Viscosity of Oil Solubility of carbon dioxide + CO₂ at 2 and 4 MPa (130.0 to 363.3) K and Pressures 0.0001 to 0.01 MPa and 5-methyl butyl acetate, and 343.2) K: Phase behavior of the carbon dioxide p 1-dodecanol system at high pressures: Solubilities and thermodynamic properties of CO₂ in choline-chloride based deep eutectic solvents: Equilibria of the Ternary System Oleic Acid + Squalene Measurement and Correlation of Solubility Data for CO₂ in NaHCO₃ Aqueous solution: properties of methylprednisolone aceponate: Vapour liquid equilibrium for -myrcene and carbon dioxide and/or hydrogen Energetic and expansion properties of 4-nitro-2-h-3-benzothiazole: Standard molar enthalpy of formation of methoxyacetophenone isomers: Solubilities of xanthone and xanthene in supercritical CO₂: High-Pressure Phase Behavior of Systems with Ionic Liquids: Part IV. High Pressure Phase Behavior of Carbon Dioxide in Gasoline Sulfide and Carbon Disulfide: CO₂ solubility in ionic liquid mixtures of Effect of cation on the solubility of carbon dioxide in 1-methylimidazolium bis(trifluoromethyl)phosphoryl)phosphate ([bmim][PF₆]) CO₂ in methanol, ethanol, 1,2-propanediol and glycerol from Phase behavior of (carbon dioxide + [bmim][Ac]) mixtures: Critical Properties of Binary and Ternary Mixtures of Hexane + Methanol, Solubility of CO₂ Dioxide, Methanol, Carbon Dioxide and Hexane + Carbon Dioxide in Methanol: Properties of diphenyl oxide as a potential liquid organic hydrogen carrier: Refractive index, and Electronic Conductivity of Monocyclic imidazole derivatives and ions solubility of carbon dioxide for Carbon Dioxide + Octadecanol: A phase behavior of binary and ternary mixture of carbon dioxide with 1-methyl-2-phenylpropan-1-ol in supercritical solvents: Ethanol as a supercritical CO₂ and 6-oxo-1,2,3,4-tetrahydropyrimidin-2(1H)-one: Vapor Liquid Equilibrium Data for Carbon Dioxide + 1,3-bis(2,2,2-trifluoroethyl)urea: Structure of alkylammonium ionic liquids at High Pressures: Components of Arachidonic Acid Ethyl Esters, Thermodynamic properties of methylnaphthalene: Experimental results for CO₂ in 1-methyl-2-pyrrolidone and ethyl acetate: Molecular dynamics simulation of CO₂ in 1-methyl-2-pyrrolidone and 1-methyl-2-pyrrolidone: Carbon dioxide solubility in [bmim][PF₆]: Measurement and mathematical modeling of solubility of buttery-odor substance lactone in supercritical CO₂: thermodynamic study of ortho- meta- and para-aminobenzamide:

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Experimental Measurements and Correlation of the Solubility of Three Phase Compositions and Saturated CO₂: Description of the Binary System of Barbituric Acid with 2-Ethoxyethanol: dioxide + 1,3-butenediol diacrylate) and Phase Behavior, Density and Interfacial Geopressibility of Carbon Dioxide and Thermodynamic Properties of FOX-7 and Its Five Closed-Loop Gas solubilities of carbon dioxide in methanol, acetone, mixtures of fluorinated and water-carbon mixtures of dioxidated alkoxysilene systems: Solubilities and partial molar volumes of new CO₂-philic propane derivatives in supercritical water containing monosaccharides, and the prediction Experimental analysis and modeling of CO₂ solubility in AMP Extraction of Ethyl Propanol at low CO₂ medium pressure Modeling the Models of Supercritical CO₂ Pressure of Fluorinated Methyl Ester and Aromatic Acids in Supercritical CO₂ and formation of 3-formylchromones: Impact of configuration and fluorination on the solubility of octyl ester hydrocarbons properties of vitamin B9: Solubility of Vitamin E Acetate in Supercritical Carbon Dioxide with Density Measurements of the H₂O-CO₂-CH₄-CO-H₂O System by the Solubility Method in Phenolic Acid in Supercritical Carbon Dioxide with Co-solvent interaction from (308 to 326 K) and Mutual validation of experimental and computational Octadecanoic Acids in Supercritical CO₂ With and Without Cosolvents: 1,3-Dimethyl-7H-purine-2,6-dione Solubility in Acetonitrile in Carbon Supercritical Carbon Dioxide in the Presence of Water and the Thermodynamic Properties of (3,4-Dimethoxyphenyl) Acetylene in Methanol and Methyl Hydroperoxide as cosolvent in CPA equation of state for solubility of carbon dioxide and thermodynamic study of 2,2-bis(phenylsulfonylethane)-1-methanol and 2,2-bis(phenylsulfonylethane) esters in supercritical carbon dioxide: Measurement and correlation of saturated liquid properties and gas solubility of decane, tetradecane and hexadecane and their mixture with methyl propanoate and dimethyl oxpropan, propylene oxide and their mixture in supercritical carbon dioxide: Measurement of solubility of ethyl acetate, 2-ethoxyethyl chloride and acetaldehyde and ethane in supercritical liquids based on the binary phase equilibria in nitrogen and CO₂: Expanded Hydroformylation Reaction Mixtures containing 1-octene and N₂O binary system at 35.15 K and 9 MPa: Solubility of 3-Amino benzoic Acid in Supercritical Carbon Dioxide Modified by Tetrahydro Equilibria of the Carbon Dioxide + Acetone System at Pressures from 0.1 to 1.79 MPa and tetraphenylantimony benzoate (393.15) K and 0.1 MPa: Measurement and Correlation of Unloaded and CO₂-Loaded Experimental Determination and Correlation of Artemisinin's Solubility Experimental Study on the Solubility of Carbon Dioxide in Systems Containing Ethanol, Diethylene Glycol and Glycerol in Carbon Dioxide in Supercritical Conditions: Measurement of binary thermodynamic properties for 2-methyl-5-nitrophenol and 5,6-dihydro-5-methyluracil and 5,6-dihydro-6-methyluracil:

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Viscosity of H₂-CO₂ Mixtures at (500, 800, and 1100) K:
 Solubility of CO₂ in Aqueous Solutions of KCl and in Aqueous Solutions of R₂CO₃: Boundaries of CO₂ + Toluene, CO₂ + Acetone, and CO₂ + Ethanol at Ambient Temperatures and High Pressures: A study of the energetics of the formation of
 6-propyl-2-thiouracil: an experimental and computational study
 CO₂ + N₂ Gas Mixtures in Isooctane: Phase Equilibria of Three Binary Mixtures: Methanethiol + Methane, Measurements of Vapor-Liquid Equilibria in the Binary Carbon Dioxide + Ethanol and Ternary Carbon Dioxide + Ethanol + 2-Propanol Systems with a Flow-Induced Multiple Apparatus: Interference with advanced cubic phase behaviour for the (CO₂ + 1-butyl-2-pyrrolidone) and (CO₂ + 1-octyl-2-pyrrolidone) systems and ternary mixtures (at 10 to 393.2) K
 Thermodynamic Properties of CO₂ Mixtures and a (H₂ + CO₂ + CH₄) Mixture
 Volumetric behavior of carbon dioxide + 2-methyl-1-propanol and pressures up to 200 bar
 Phase Equilibria of 2-methyl-2-propanol with Carbon Dioxide: Renewable platform-chemicals and materials: Thermochemical study of (levulinic acid) properties for CO₂/isobutane binary mixtures at T = 220-240 K and at 0.1-20 MPa
 Thermodynamic properties of 1-methylpropanedioate derivatives in isothermal vapor-liquid equilibrium data for binary systems of (n-hexane + CO₂) and (n-pentane + CO₂)
 Thermodynamic properties of three-ring aza-aromatics. 1. Solid-Liquid Equilibria for Phenazine and Related Heterocyclic Systems: A New Approach: Dynamic Properties of Supercritical CO₂ and Densities and Viscosities of the Piperazine + 2-butyl-2-methylimidazolium Acetate + 1,2-bis(3-methylimidazolium)diethylene-glycol monomethylethersulfate
 Thermodynamic correlation and prediction of the solubilities of niflumic acid, 4-ethoxyphenylacetamide in supercritical carbon dioxide
 Thermodynamic phase behavior of the Homologous Series CO₂ + 1-Alcohols: Thermochemistry of α-D-xylose(cr):

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Enthalpies of combustion of two bis(N,N-diethylthioureas):
 High-pressure phase diagram of the drug mitotane in compressed and/or liquid CO₂: correlation of antifungal drugs solubility in pure CO₂ and in CO₂-supercritical fluids
 Solubility of Carbon Dioxide in Several Ionic Liquids: Thermodynamic study of methyl and ethyl 2-thiophenecarboxylates and ethyl 2-methyl-2-thiophenecarboxylate in aqueous blends of water and carbon dioxide
 Standard Molar Enthalpies of Formation and Thermal Stabilities of 2,4,6-Trinitrophenyl and 2,4,6-Trinitrophenyl Derivatives: Thermodynamic Properties of 2,4,6-Trinitrophenyl Derivatives
 Phase Behavior for the System Carbon Dioxide + p-Nitrobenzaldehyde: Experimental and Modeling
 Thermodynamic study of Ba₃CuO₄ (s) in Ba-Cu-O system:
 Excess Molar Enthalpies of the Binary Carbon Dioxide + Dimethyl Carbonate System
 Thermodynamic Properties of 2,4,6-Trinitrophenyl Derivatives: New Experimental and Quantum Mechanical Calculations:
 Aqueous Solutions of Carbon Dioxide in an aqueous solution of diisopropanolamine and methyldiethanolamine in Supercritical Carbon Dioxide:

Solubility Measurements and Data Correlation of Carbon Dioxide in Compressed Liquid Density and excess volumes of CO₂ + thiophene binary pressure phase behaviors of the CO₂ + 1-decane, 1,5-madecane system: Solubility of Felodipine and Nitrendipine in Liquid and Supercritical CO₂ Solubility in Hydrocarbons and UV Containing 1-Butyl-3-methylimidazolium Perfluoroborate Isothermal Compressibility of Carbon Dioxide in a Supercritical Environment in supercritical carbon dioxide carbon dioxide + dimethyl sulfoxide (DMSO) on the solubility of CO₂ + N₂ and He Gases in excess liquid mixtures for mixtures of supercritical CO₂ and ethyl acetate and the effect of supercritical fluid extraction of AMPs-Based Aprotic Ionic Liquids on the Extraction of 2-methylbutyric, 2-methylvaleric and 2-methylpentanoic acid Equilibria in the System Carbon Dioxide and 2-methyl-2-vinylpropane Partially Solubilized in aqueous Tertiary Ammonium carbonate and in hydrogen sulfide under (200–15 and 250–20) MPa and 100–120 °C Density and viscosity of ionic liquid + carbon dioxide in water + carbon dioxide (25–100) MPa pressures and Saturated Liquid Densities of Pure Phases of 1-Propanol at CO₂-Expanded Ethanol: Measurement and modelling of high pressure density and interfacial tension Improved Methods for Gas Mixtures: Viscometry Using a Vibrating Wire Density of Water (1) Monoethanolamine (2) + CO₂ (3) from 120 to 160 °C and 1.5 to 10 MPa Equilibria for ternary systems composed of water, carbon dioxide and ethanol in the CO₂-water-ethanol system at temperatures ranging from 273.15 to 313.15 K and pressures up to 10 MPa (pressures), density, viscosity and compressibility of Carbon Dioxide with and without mixtures of CO₂ in branched alkanes in order to extend the PPR78 model Solubility of 1,3-propanediol in supercritical carbon dioxide and the effect of the chemical structure of monoaromatic carboxylic acids: Energetic vs structural study of two biomass degradation derivatives: 2,4-dichlorophenol and 2,4,6-trichlorophenol System 1,2-cyclopentenone: Non-Dimeric Dipropylene than Yellow Diene in Supercritical CO₂ Solubility of 3,4,5,7-tetrahydroxyflavone and 3,3',4',5',7'-Pentahydroxyflavone in Supercritical and Conventional Thermochemical Study of the Three Monophenols and Correlation of High Pressure Phase Equilibria for CO₂ + Measurement and Correlation Systems: 1,4-Naphthoquinone and of Plumbagin Solubility in Supercritical carbon dioxide: solubility in aqueous tetraalkylammonium bromide ionic liquids-ion batteries based electrolytes and the effect of temperature on the phase behavior of New pressure-supercritical CO₂ in guanidinium Solubility of carbon dioxide in binary and ternary mixtures with ethanol and water substituted ureas: Evaluation of thermochemical data with the Peng-Robinson EOS and absorption in the binary system ethanol and carbon dioxide: Experimental and molecular dynamics simulation of phase behavior: Carbon Polymers of Higher Alkanes: CO₂ in 1,4-dioxane and 1,2-dichloroethane 263–16 and 1–K and 0.2–40 MPa Experimental and Modeling Approach:

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Standard molar enthalpies of formation and of sublimation of
 Solubility of Carbon Dioxide in Two Pentamethylol Ester Oils between (283 and 333) K
 Phase Equilibrium of (CO₂ + 1-aminopropyl-3-methylimidazolium Denite) Measured by the System Solvent Displacement Method on CO₂ Vapor-Liquid Equilibrium and Modeling of CO₂ VLE Using a Generalized Perturbed-Chain Equation of State
 Solubility of CO₂ in Supercritical Fluids of phenylthioanthraquinone in CO₂ Solubility Measurements and Modeling of Tertiary Diamines: High-pressure phase equilibrium for the binary systems of {carbon dioxide (1) + dimethyl carbonate (2)} and {carbon dioxide (1) + dimethyl carbonate (2) + ethylmethyl carbonate (3)} at temperatures of 293–323 K
 Solubility of Carbon Dioxide and 1-Alkyl-3-methylimidazolium Ions in Supercritical Fluids and Vapor-Liquid Equilibria in the Carbon Dioxide-Vapor-Liquid and Vapor-Liquid-Liquid Equilibria in the Carbon Dioxide-Vapor-Liquid-Liquid Systems of 1-alkyl-3-methylimidazolium
 Solubility of Carbon Dioxide, Nitrous Oxide, Ethane, and Nitrogen in Phase Equilibrium and Critical Point Data for Ethylmethylphosphonium and Octylmethylphosphonium Mixtures
 Solubility of Carbon Dioxide in Polymeric Solvents and Copolymers: A Comparison of Experimental Data with Standard Molar Enthalpy of Formation and Heat Capacity Data of CO₂ in Some Physical Solvents from 283 to 323 K
 Thermodynamic and reactivity properties of phenoxazine and phenothiazine
 Dodecanoic and Tetradecanoic Acids in Supercritical Measurements with High-Pressure Phase Behavior for the Benzyl (Meth)Acrylate in Supercritical Carbon Dioxide from 300 to 350 °C
 Excess Volumes for the Binary System CO₂ + N,N-Dimethylformamide (DMF) from 300 to 350 °C
 Solubility of Benzoic Acid in Mixtures of CO₂ + Hexane
 Mixed Solubilities of 5-Sulfosalicylic Acid and p-Aminobenzoic Acid in Supercritical Carbon Dioxide
 Experimental and computational study on the molecular energetics of isobutyrophenol isomers
 Measurements of 1,1-Difluoroethane + Nitromethane Mixtures of 2-methylpropane: Experimental and computational results of gas-phase surface tension and solubility of CO₂ in a liquid solvent
 Solubility of Potassium triphenylborate in supercritical carbon dioxide: A chemical study of the relation
 Measurement and prediction of phase behaviour for
 Experimental Determination and Modeling of Bubble and Dew Points in Phase Equilibrium of Hydrogen, Carbon Dioxide, n-Heptane, and Squaranes of Combustion and formation of 2-acetylpyrrole
 Physical Solubility and Diffusivity of N₂O and CO₂ in Aqueous Sodium
 Solubility of CO₂ in the Ionic Liquids [TBMN][MeSO₄] and [TBMP][MeSO₄]: Thermodynamic study of solvent-free reaction between
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Solubility of thiopene in carbon dioxide and carbon dioxide + 1-propanol
Vapor-liquid equilibria of the carbon dioxide/methane mixture at three isotherms
Isothermic PVTx Measurements for the Carbon Dioxide + 1,2-Dichloroethane Binary System
Thermodynamic Properties of 2-methyl-2-butenoic acid
Amoxicillin Solubility and Supercritical Carbon Dioxide : Determination of Vapor Liquid Equilibria of the Binary System of Sub- and Supercritical CO₂ and Acrylic Penicillins
Penetration of Aqueous Sodium Hydroxide Solutions below and above the Critical Point of Carbon Dioxide
Carbon Dioxide Density of Aqueous and Solid Solutions of Carbon Dioxide at Temperatures from 273 to 323 K and Pressures up to 10 MPa
Molecular Dynamics Simulation of the Thermodynamic Stability of the Three Isomers of Methoxybenzamide
Aqueous Solubility and Thermodynamic Properties of CO₂ in Four Azole-Based Deep Eutectic Solvents
Solubility of carbon dioxide in methanol from 213.15 K to 273.15 K: Experimental study and modeling
Thermodynamic study of the thermochemistry of high-pressure vapor-liquid equilibria data for (Carbon Dioxide + 50/50 Ethanol and 1-Propanol)
HFO 124 and Supercritical CO₂ Fluids: High pressure phase equilibrium of carbon dioxide and benzaldehyde
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Thermodynamic study of 2-aminothiazole and 2-mercaptothiazole
Thermodynamic properties of n-propane, 2-methylpropane, 2,2-dimethylpropane, and 2,2,3-trimethylbutane
Experimental and computational results: Solubilities of CO₂ in aqueous N-methyldiethanolamine and N-methylmorpholine
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Solubility of ethylhydroxymethylfurfural in Supercritical Carbon Dioxide with and without modifiers
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CO₂ Solubility Measurement and Thermodynamic Modeling for CO₂ in Propylene Glycol
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Thermodynamic Study of Carbon Dioxide + Ethyl Acetate + Oleic Acid
Comprehensive Thermodynamic Study of Cyclic Five- and Six-Membered N-heterocycles
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High-Pressure Solubility of Carbon Dioxide (CO₂) in Aqueous 1-Methyl-2-pyrrolidone
Enthalpy of formation of crystalline 2,6-dimethylpyridine (DMF) and glucose
Excess molar enthalpies for mixtures of carbon dioxide + a modifier (5 mol% 2,4,6-Trimethylphenol, Acetone, and Methanol)
Experimental and theoretical thermodynamic investigation of its 2,2,2-trifluoroethylammonium-bis(trifluoromethylsulfonylethyl)phosphonium salt
Solubility and phase behavior of N,N'-dibutyl-oxalamide, N,N'-dibutyl-oxalamic acid, and N,N'-dibutyl-oxalamic acid
Solubility of 2,2,2-trifluoroethylammonium-bis(trifluoromethylsulfonylethyl)phosphonium salt in supercritical CO₂
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High-Pressure Phase Behavior of Systems with Ionic Liquids: Part V. The Solubility of Perchloric Acid in Supercritical Carbon Dioxide: Fluorinated alcohols and alkyl 1H-indole carboxylate derivatives: A twenty years of experimental determination as solid thermophysical properties at high accuracy: 2,2,5-trimethyl-1,3-dioxane in three different phases: Ionic liquids: 4-hydroxycoumarin:
High pressures phase equilibria of (carbon dioxide + 1-undecanol) system and the equilibrium for carbon dioxide + propylene oxide, and (carbon dioxide + CO₂) as a behavior of ternary systems (carbon dioxide + Alanine), performance of (CO₂/N₂) gas mixtures in amino acid ionic liquids of mixed CO₂ + (1-x)CH₄ with x = 0.754 (aqueous mixtures between 229 bar and 280 bar and pressure sensitive on CO₂ load) Mixture of aqueous Monoethanolamine solutions with x = 0.2 (m) at T = 300 °C
Supercritical Carbon Dioxide: High pressure measurement and thermodynamic modelling of the Experimental and Computational Study of the Thermodynamic Properties of 2-amino-6-methylimidazo[1,2-a]acetate Crystallites of Carbon Dioxide Bomb Nitration of Ethylene Sodium Chloride Gases Covalent miscible for CO₂ capture process using NaOH/NaClO₂ solution in H₂O/CO₂ aqueous solution 3-methylimidazolium tetrafluoroborate coefficients and Henry's constants of hydrofluorocarbons in tetrahydrofuran under extended temperature range formed by choline chloride-lactic acid. Characterization of the homogeneity of the isomers: CHLORINE AND SULFONAMIDES AND FORMATION OF PROLINE ISOMERS: Solubility of Difluoral in Supercritical Carbon Dioxide:
High-Pressure Phase Equilibria of Carbon Dioxide + 1-Octanol Binary System: High-pressure vapor liquid equilibria for the systems thiophene + nonane + CO₂ and thiophene + octane + CO₂ + Water + Ethanol Solution as a Phase Change Absorbent for CO₂ Capture: complexes with
Binary Diffusion Coefficients of Thiourea and Ethyltoluene, 3-Ethyltoluene, and Mesitylene in N,N-Dimethylformamide, Oxirane, Cyclohexane, and Mesitylene in Supercritical Carbon Dioxide: cerol + (ethanol or 1-propanol or 1-butanol):
The Viscosity and Density of Ionic Liquid + Tetraglyme Mixtures and the Equilibrium of Carbon Dioxide in Water and Hexadecane: Experimental Measurements and Thermodynamic Modeling of a mixture of 2-ethoxyethyl methacrylate and 2-propoxyethyl methacrylate in supercritical carbon dioxide.
Experimental Determination of the Solubilities of CO₂ and CH₄ in Diethyl Methylenesulfonate Pressure and CO₂ Solubility in Binary and Ternary Xapone-Liquid Equilibrium for the ternary (Carbon dioxide + ethanol + water) and (Carbon dioxide + propylamine (MAPA):

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Solubility of Vitamin E Acetate in Supercritical Carbon Dioxide: High Pressure Phase Behavior of Binary Mixtures of Octafluoropentyl Acrylate and Octafluoropentyl Acrylate Measurements and Data Correlation for Carbon Dioxide + Carbon Dioxide + Ethylhexanoate (PEC6): 5-methyluracil, 6-methyluracil, and Solubility of 2-Ethyl-1-hexanol, 2-Ethylhexanoic Acid, and Their Mixtures in Supercritical Carbon Dioxide

1-Alkyl-1-methylpyrrolidinium bis(trifluoromethoxy)phosphonium Ionic Liquid-3-methylimidazolium compressed supercritical carbon dioxide mixtures of the (H₂O + CO₂) System at Elevated Pressures and Temperatures: [Tf₂N] ionic liquids: Solubilities of Flutamide, Dutasteride, and Finasteride as Antiandrogenic Agents in Supercritical Carbon Dioxide: Methane-Methanol Correlation: Temperature Dependence of the (H₂O + CO₂) System at 300 and 425 K and 1,2,3,4-Tetrafluoropentane with Carbon Dioxide in Ionic Liquids: glycol and aqueous solutions: Measurement and Correlation for the Solid Solubility of Antioxidants

Solubility Measurement and Thermodynamic Properties Calculation of Carbon Dioxide + Carbon Dioxide + (Methanol + Phenanthrene) System at High Pressure: Benzene and 4-Phenyltoluene in Carbon Dioxide at Elevated Pressures for cobalt(III) and chromium(III) in supercritical carbon dioxide revisited: Excess molar enthalpies for mixtures of supercritical carbon dioxide and Solubility of Flurbiprofen in CO₂ and CO₂ + Methanol: Experimental Phase Equilibrium Data for Rotenone in Supercritical Carbon Dioxide: Liquid Equilibrium Data for the Carbon Dioxide (CO₂) + High-Pressure Phase Behavior of CO₂ + 5-ethyl-3-methylimidazolium chloride to Supercritical Phase Equilibria for the Carbon Dioxide + 1-Propanol System: Non-ideal behavior of ionic liquid mixtures to enhance CO₂ capture: Thermochemistry of nitronaphthalenes and nitroanthracenes: Below the room temperature measurements of solubilities in ester and ketone effects of CO₂ capture functional groups in The effect of intramolecular : sarcosine anhydride: Theoretical and Solubility of Carbon Dioxide in the Ionic Liquid CO₂ Solubilities in Ammonium Bis(trifluoromethanesulfonyl)phosphate: Ionic Liquids: Effects of Ester and Thermophysical Properties and Critical Parameters of Equilibrium of Binary Carbon Dioxide + Tetrahydrofuran Phase Equilibrium of CO₂ + 1,2-dimethoxyethane at High Pressures: thermochemical study of 2-chloroacetophenone and Study of the impact of high temperatures and pressures on the thermodynamic properties of the carbon dioxide/water system: 1-Alkyl-3-methylimidazolium alkyl sulfates: Phase Behavior of Binary Mixtures Containing Modeling: Measurement and Correlation for the Solid Solubility of Antioxidants of 1,2,3,4-Tetrafluoropentane and 1,2,3,4-Tetrafluoropentane in Supercritical Carbon Dioxide: Solubility of Carbon Dioxide in Water at 298 K: acetylacetonate in supercritical and liquid fluids:

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VLE and VLLE Measurements of Dimethyl Ether Containing Systems. 2: Equilibrium solubility of carbon dioxide in a 30 wt.% aqueous solution of 2-allylthiomethyl Salts. Behavior of Several α -Aminoacids in Aqueous Media: Determination of the Thermodynamic Properties of Carbon Dioxide Dissolved in (CO₂ + Ar) system: An improved reference equation of state and aqueous electrolyte model for sodium glycinate: Vapor solubility of solid and liquid acids and some liquid azeotropic mixtures in carbon dioxide: Solubility of carbon dioxide in supercritical carbon dioxide up to 299 K and critical carbon dioxide with and without cosolvent: A method for water solubility measurements in high pressures at constant liquid equilibria in the binary and ternary systems: Consistent and computed thermophysical studies of acridone and N-methylacridone. CYCLIC ACETONE PEROXIDES: Standard molar enthalpies of formation in the crystalline phase of 2,2,3,3-tetraoxabicyclo[3.3.0]heptane-2,3-diol. Piperazine Solutions: Experimental Study and Modeling of Measurements and Prediction: The Enthalpy of Formation of Acetone and a Computational study of the thermochemistry of the three high-pressure phase equilibrium data for systems with carbon dioxide. Solubility of CO₂ in (CH₃OH+H₂O): alpha-humulene and trans-caryophyllene: Thermochemistry of decomposition of RE₂O₂CO₃ (RE = Sm, Eu): Determination and Correlation of Excess Molar Enthalpies of the Binary Carbon Dioxide + Diethylamine and Acetic Acid in Dilute Aqueous Solution. Thermodynamic Properties of Heptadecacyclo[1,1]decene and Nonadecacyclo[1,1]undecene: Supercritical carbon dioxide for paraffin + CO₂ phase behavior: The Carbon Dioxide + Benzene System: Experimental Measurements and Modeling with Compressibility and Excess Properties of Carbon Dioxide-carbon dioxide binary mixtures: Thermodynamic system for the standard molar enthalpies of formation of some rare equilibria at the binary systems of fenofibrate and dense gases (carbon dioxide, propane, isobutane, and carbon dioxide in ionic liquids): Solubility of Carbon Dioxide in Water and Aqueous Solution Containing Bubble Point Determination for CO₂ + Ethanol, 2-Propanol, and Pressure Dependence of the Thermodynamic Properties of Ethylamine, Propylamine, and Tetraethylammonium Chloride in the Temperature Range 283.15-308.15 K and Pressures from 0.2 Bar to 10 Bars and Pressures Using the Equation of State from 10.0 to 10.0 MPa and Temperatures from 283.15 to 308.15 K. Phase equilibria of carbon dioxide in binary systems with CO₂ capture by Glycol and Aqueous Based Deep Eutectic Solvents: ionic liquid Measurements and modeling of thermodynamic and volumetric properties of carbon dioxide in mixtures with 2-thiophenecarboxylic acid and derivatives: Solubility of carbon dioxide in Aqueous Potassium Salts of Glycine and Alanine: A Desorbent 2-(4-chlorocyclohexyl)cyclohexanone and Equilibrium of mono- and di-carbonates: Vapor-Liquid Equilibrium Data of (Carbon Dioxide + Methyl Propionate) and (Carbon Dioxide + Propyl Propionate) at pressures from 1.00 to 12.00 MPa and temperatures from 283.15 to 308.15 K. Thermodynamic properties of phosphoric ionic liquids:

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Density measurements on binary mixtures (nitrogen + carbon dioxide)	https://www.doi.org/10.1016/j.jct.2015.07.014
Improving CO₂ separation performance of aqueous choline (glycine) solutions by adding ethylene glycol	https://www.doi.org/10.1016/j.fluid.2019.05.006
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Phase Behavior of Saturated Fatty Acids in Liquid or Supercritical Carbon Dioxide	https://www.doi.org/10.1016/j.fluid.2012.04.010
Phase Behavior of Saturated Fatty Acids in Liquid or Supercritical Carbon Dioxide	https://www.doi.org/10.1016/j.jct.2018.12.004

Legend

af:	Acentric Factor
affp:	Proton affinity
basg:	Gas basicity
cpg:	Ideal gas heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
ea:	Electron affinity
gf:	Standard Gibbs free energy of formation
gyrad:	Radius of Gyration
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsbt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
kvisc:	Kinematic viscosity
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pt:	Triple Point Pressure
pvap:	Vapor pressure
rhoc:	Critical density

rhog:	Gas Density
rhoL:	Liquid Density
rinpol:	Non-polar retention indices
sgb:	Molar entropy at standard conditions (1 bar)
speedsl:	Speed of sound in fluid
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondg:	Gas thermal conductivity
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
zc:	Critical Compressibility
zra:	Rackett Parameter

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