Glycine

Other names:	2-Aminoacetic acid
	Acetic acid, amino-
	Aciport
	Aminoacetic acid
	Aminoethanoic acid
	Amitone
	Athenon
	Glicoamin
	Gly
	Glycine, free base
	Glycine, non-medical
	Glycocoll
	Glycolixir
	Glycosthene
	Gyn-hydralin
	Hampshire glycine
	NH2CH2COOH
	NSC 25936
	Padil
Inchi:	InChI=1S/C2H5NO2/c3-1-2(4)5/h1,3H2,(H,4,5)
InchiKey:	DHMQDGOQFOQNFH-UHFFFAOYSA-N
Formula:	C2H5NO2
SMILES:	NCC(=O)O
Mol. weight [g/mol]:	75.07
CAS:	56-40-6

Physical Properties

Property code	Value	Unit	Source
affp	883.10 ± 1.90	kJ/mol	NIST Webbook
affp	886.30 ± 3.10	kJ/mol	NIST Webbook
affp	886.50	kJ/mol	NIST Webbook
basg	851.10 ± 1.90	kJ/mol	NIST Webbook
basg	852.20	kJ/mol	NIST Webbook
basg	856.00 ± 3.00	kJ/mol	NIST Webbook
basg	855.40 ± 3.60	kJ/mol	NIST Webbook
ep	2.00 ± 6.00	J/mol×K	NIST Webbook
gf	-233.33	kJ/mol	Joback Method

hf	-390.50 ± 4.60	kJ/mol	NIST Webbook
hfs	-527.50 ± 0.50	kJ/mol	NIST Webbook
hfs	-528.52 ± 0.42	kJ/mol	NIST Webbook
hfs	-537.20	kJ/mol	NIST Webbook
hfs	-528.61	kJ/mol	NIST Webbook
hfus	11.82	kJ/mol	Joback Method
hsub	138.10 ± 4.60	kJ/mol	NIST Webbook
hsub	138.10 ± 4.60	kJ/mol	NIST Webbook
hvap	54.11	kJ/mol	Joback Method
ie	9.25 ± 0.10	eV	NIST Webbook
ie	8.80	eV	NIST Webbook
ie	10.00	eV	NIST Webbook
ie	9.30	eV	NIST Webbook
ie	8.90	eV	NIST Webbook
ie	9.21 ± 0.05	eV	NIST Webbook
log10ws	0.52		Aqueous Solubility Prediction Method
logp	-0.970		Crippen Method
mcvol	56.460	ml/mol	McGowan Method
pc	6967.65	kPa	Joback Method
ss	109.20	J/mol×K	NIST Webbook
ss	103.51	J/mol×K	NIST Webbook
tb	463.74	K	Joback Method
tc	653.39	K	Joback Method
tf	530.49	K	Solubility of alpha-glycine in water with additives at a temperature range of (293.15 - 343.15) K: Experimental data and results of thermodynamic modeling
tf	527.85	K	Artificial neural networks as a supporting tool for compatibility study based on thermogravimetric data
vc	0.202	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	113.87	J/mol×K	463.74	Joback Method
cpg	118.43	J/mol×K	495.35	Joback Method
cpg	122.78	J/mol×K	526.96	Joback Method
cpg	126.92	J/mol×K	558.56	Joback Method

cpg	130.87	J/mol×K	590.17	Joback Method
cpg	134.62	J/mol×K	621.78	Joback Method
cpg	138.19	J/mol×K	653.39	Joback Method
cps	95.10	J/mol×K	298.00	NIST Webbook
cps	95.00	J/mol×K	298.00	NIST Webbook
cps	99.30	J/mol×K	298.15	NIST Webbook
cps	99.20	J/mol×K	298.15	NIST Webbook
cps	100.50	J/mol×K	299.50	NIST Webbook
hsubt	137.00 ± 2.00	kJ/mol	419.50	NIST Webbook
hsubt	136.00 ± 0.40	kJ/mol	455.00	NIST Webbook
hsubt	136.40 ± 4.00	kJ/mol	462.00	NIST Webbook
hsubt	131.00 ± 2.00	kJ/mol	414.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	6.23648e+03
Coeff. B	-3.25024e+05
Coeff. C	-9.21946e+02
Coeff. D	5.92592e-04
Temperature range (K), min.	452.15
Temperature range (K), max.	470.15

Sources

Volumetric, compressibility and viscometric studies on sodium cholate/sodium deoxycholate amino acid interactions in aqueous medium:	https://www.doi.org/10.1016/j.tca.2015.02.014
Solvation behavior of some amino acids in aqueous solutions of non-steroidal anti-inflammatory drug sodium ibuprofen at different temperatures analysed by volumetric and acoustic methods.	https://www.doi.org/10.1016/j.jct.2016.03.016
Excess Volume of Water in Hydrate Complexes of Some alpha-Amino Acids	https://www.doi.org/10.1021/je400415r
Interaction of antibacterial drug ampicillin with glycine and its dipeptides analyzed by volumetric and acoustic methods at different temperatures.	https://www.doi.org/10.1016/j.tca.2012.10.018
Densities and Speeds of Sound of Glycine, L-Alanine, and L-Valine in Aqueous 1-Ethyl-3-methylimidazolium Chloride Solutions at Different Temperatures.	https://www.doi.org/10.1021/je500324a
Thermodynamics of (solute + solute) and (solute + solvent) interactions of homologous series of amino acids with thiamine hydrochloride in aqueous medium at T = (305.15, 310.15, 315.15) K: A volumetric and acoustic approach:	https://www.doi.org/10.1016/j.jct.2016.06.026
Solute-solvent interactions of glycine, L-alanine and L-valine in aqueous 1-methyl-3-octylimidazolium chloride [illegible] temperature interval (288.15 - 308.15) K:	https://www.doi.org/10.1016/j.tca.2014.06.028
Artificial neural networks as a supporting tool for compatibility study based on experimental density	https://www.doi.org/10.1016/j.tca.2017.12.015
Investigation on molecular interaction of amino acids in aqueous disodium hydrogen phosphate solutions with reference to volumetric and compressibility measurements.	https://www.doi.org/10.1016/j.jct.2013.11.015
Interactions of some α-amino acids with tetra-n-alkylammonium bromides in aqueous medium at different temperatures.	https://www.doi.org/10.1016/j.jct.2006.08.010
Volumetric, ultrasonic, and viscometric behaviour of glycine, DL-alanine, and L-valine in aqueous 1,4-butanediol solutions at different temperatures:	https://www.doi.org/10.1016/j.jct.2008.09.008

Interactions of amino acids and peptides with the drug pentoxifylline in aqueous solution at various temperatures: A volumetric approach:	https://www.doi.org/10.1016/j.jct.2012.05.009
Interactions of Saccharides in Aqueous Glycine and Leucine Solutions at Different Temperatures (293.15 313.15) K: A Viscometric Study:	https://www.doi.org/10.1021/je500647a
Effect of NaBr, KCl, KBr, and MgCl2 on Viscosities of Aqueous Glycine and L-Alanine Solutions at 298.15 K:	https://www.doi.org/10.1021/je050048y
Salting-out effect in polypropylene glycol-amino acid aqueous solutions revealed by vapor pressure osmometry:	https://www.doi.org/10.1016/j.fluid.2016.05.025
Volumetric and Viscometric Studies of Amino Acids in Mannitol Aqueous Solutions at T = (293.15 to 328.15) K:	https://www.doi.org/10.1021/je501178z
Effect of glycine, DL-alanine and DL-2-aminobutyric acid on the temperature of maximum density of water:	https://www.doi.org/10.1016/j.jct.2015.04.024
Partial Molar Volumes, Partial Molar Compressibilities, and Viscosities of alpha,w-Amino Acids in Water and in Aqueous Solutions of Sodium Chloride over a Temperature Range of 293.15-353.15 K:	https://www.doi.org/10.1021/acs.jced.8b00236
Effect of concentration and temperature on apparent molar properties of homologous alpha-amino acids in aqueous semicarbazide hydrochloride solutions: A quest on the concept of kosmotropic/chaotropic behaviour of amino acids:	https://www.doi.org/10.1016/j.jct.2019.03.011
Activity of Water and Osmotic Coefficients for Two- and Three-Basic Amino Acid Derivative Solutions:	https://www.doi.org/10.1021/je300701m
Interactions of glycine, L-alanine and L-valine with aqueous solutions of trisodium citrate at different temperatures: A volumetric and acoustic approach:	https://www.doi.org/10.1016/j.jct.2013.08.010
Effect of sodium caprylate on the volumetric and viscometric properties of glycine, DL-alpha-alanine, and DL-alpha-amino-n-butyric acid in aqueous solutions:	https://www.doi.org/10.1016/j.jct.2003.11.001
Density and Viscosity Study of Interactions of Some Amino Acids in Aqueous Solutions of Sodium Benzoate:	https://www.doi.org/10.1021/acs.jced.5b01031
Investigation on solute-solvent interactions of glycine, L-alanine and L-valine in aqueous tetraethylammonium iodide solutions at different temperatures with reference to volumetric and acoustic measurements:	https://www.doi.org/10.1016/j.jct.2015.08.009
Volumetric Properties of Glycine in Aqueous Solutions of Some Sulfa Drugs at (288.15, 298.15, and 308.15) K:	https://www.doi.org/10.1021/je300455e
Study of Interactions between Amino Acids and Zinc Chloride in Aqueous Solutions through Volumetric Measurements at T) (288.15 to 318.15) K:	https://www.doi.org/10.1021/je8001464
Joback Method	https://en.wikipedia.org/wiki/Joback_method
Partial molar volume and partial molar compressibility of four homologous alpha-amino acids in aqueous sodium fluoride solutions at different temperatures:	https://www.doi.org/10.1016/j.jct.2011.01.004
Solvation behaviour of biologically active compounds in aqueous solutions of antibacterial drug amoxicillin at different temperatures:	https://www.doi.org/10.1016/j.jct.2014.03.015
Volumetric properties of amino acids in aqueous solutions of ammonium based protic ionic liquids:	https://www.doi.org/10.1016/j.fluid.2014.11.016
KCl effect on the solubility of five different amino acids in water:	https://www.doi.org/10.1016/j.fluid.2007.04.004
Effect of 1-butyl-4-methyl pyridinium iodide, [C4mpy]I, ionic liquid on hydration behaviour of aqueous solutions of alpha-amino acids at different temperatures through volumetric and ultrasonic study:	https://www.doi.org/10.1016/j.jct.2017.08.010
Effect of dipotassium hydrogen phosphate on thermodynamic properties of glycine and L-alanine in aqueous solutions at different temperatures:	https://www.doi.org/10.1016/j.jct.2012.04.020
Densities of aqueous solutions containing model compounds of amino acids and ionic salts at T = 298.15 K:	https://www.doi.org/10.1016/j.jct.2006.11.014
Vapor pressure osmometry determination of vapor-liquid equilibria behavior of aqueous imidazolium-based ionic liquid + amino acid systems:	https://www.doi.org/10.1016/j.fluid.2017.05.019
Densities and viscosities of amino acid + xylitol + water solutions at 293.15 less than T/K greater than 323.15:	https://www.doi.org/10.1021/acs.jced.6b00766
Densities and Speeds of Sound of Solutions of Glycine, l-Alanine, and l-Valine in Aqueous Ammonium Dihydrogen Phosphate at Different Temperatures:	https://www.doi.org/10.1021/acs.jced.7b00257
Enthalpic interactions between some amino acids and cyclohexanone in aqueous solutions at 298.15K:	https://www.doi.org/10.1016/j.tca.2006.07.009
Thermodynamics of proton dissociations from aqueous glycine at temperatures from 278.15 to 393.15 K, molalities from 0 to 1.0 mol.kg-1, and at the pressure 0.35 MPa: Apparent molar heat capacities and apparent molar volumes of glycine, glycinium chloride, and sodium glycinate:	https://www.doi.org/10.1016/j.jct.2005.06.017
Studies on sodium dodecyl sulfate in aqueous and in aqueous amino acid solutions: volumetric and viscometric approach:	https://www.doi.org/10.1016/j.jct.2013.11.022
Intermolecular interactions of alpha-amino acids and glycyl dipeptides with the drug [illegible] in aqueous solutions analyzed by volumetric and UV-vis spectroscopy:	https://www.doi.org/10.1016/j.jct.2016.06.018
Viscosities of Glycine, L-Alanine, and L-Valine in (0.2, 0.4, 0.6 and 0.8) mol kg [illegible] Aqueous [illegible] Solutions at Different Temperatures:	https://www.doi.org/10.1021/je400894j
[illegible] volumetric and viscosity properties of amino acids in aqueous solutions at T = (288.15 to 333.15) K:	https://www.doi.org/10.1016/j.jct.2011.12.020
Exploring the {Ciprofloxacin Hydrochloride + (Glycine/l-Isoleucine)} Interactions in Aqueous Solution over the Temperature range T = 288.15-323.15 K and at Pressure p = 1 x 105 Pa: Volumetric, Acoustic, Calorimetric, and Absorption Studies:	https://www.doi.org/10.1021/acs.jced.9b00295
Studies on the Diffusion Coefficients of Amino Acids in Aqueous Solutions:	https://www.doi.org/10.1021/je049582g
Study of solvation consequences of glycine, L-alanine and L-valine in aqueous 1-butyl-4-methylpyridinium chloride ionic liquid solutions probed by physicochemical approach in the temperature interval (288.15-308.15) K:	https://www.doi.org/10.1016/j.jct.2017.02.021
Effect of temperature on solvation behaviour of diclofenac sodium salt in aqueous glycine [illegible]	https://www.doi.org/10.1016/j.jct.2014.11.007
Interaction of homologous series of amino acids with sarcosine in presence of denaturant: Volumetric and calorimetric approach:	https://www.doi.org/10.1016/j.jct.2013.09.009
Interaction of some hydrophobic amino acids, peptides, and protein with aqueous 3-chloro-1,2-propanediol and 3-chloro-1-propanol: Biophysical studies:	https://www.doi.org/10.1016/j.jct.2010.11.015
Thermophysical Properties of Dicationic Ionic Liquids under the Influence of Amino Acid:	https://www.doi.org/10.1021/acs.jced.8b00349
Counteracting effects of trimethylamine N-oxide and betaine on the interactions of urea with zwitterionic glycine peptides:	https://www.doi.org/10.1016/j.tca.2009.02.017
Partial Molar Volumes and Viscosities of Some r-Amino Acids in Micellar Solutions of Sodium Caprylate:	https://www.doi.org/10.1021/je049927v
Rheological and time domain 1H NMR relaxation studies of some polyhydroxy solutes in presence of L-glycine:	https://www.doi.org/10.1016/j.jct.2016.04.006
Water Activity in Aqueous Amino Acid Solutions, with and without KCl, at 298.15 K:	https://www.doi.org/10.1021/je700466s

Volumetric, ultrasonic and UV absorption studies on interactions of antibiotic drug chloramphenicol with glycine and its dipeptide in aqueous solutions at T = (288.15-318.15) K:	https://www.doi.org/10.1016/j.jct.2016.03.040
Volumetric Properties of Some α,ω-Aminocarboxylic Acids in Aqueous Sodium Acetate and Magnesium Acetate Solutions at T = (288.15 to 318.15) K:	https://www.doi.org/10.1021/je100476h
Modulation in physicochemical characteristics of some polyhydroxy solutes in presence of L-glycine: Volumetric and NMR spectroscopic approach:	https://www.doi.org/10.1016/j.fluid.2015.05.043
Surface Tension of Glycine, Alanine, Aminobutyric Acid, Norvaline, and Norleucine in Water and in Aqueous Solutions of Strong Electrolytes at Temperatures from (293.15 to 313.15) K:	https://www.doi.org/10.1021/acs.jced.7b00433
Temperature and concentration dependence towards physicochemical attributes of glycine, L-alanine and L-valine in aqueous solutions of nortriptyline hydrochloride:	https://www.doi.org/10.1016/j.jct.2018.09.026
Volumetric and Viscometric Studies of Amino Acids in Vitamin B6 Aqueous Solutions at Different Temperatures:	https://www.doi.org/10.1021/je500975a
Densities, Sound Speed, and Viscosities of Some Amino Acids with Aqueous Tetra-Butyl Ammonium Iodide Solutions at Different Temperatures:	https://www.doi.org/10.1021/acs.jced.5b00198
Partial molar volumes of L-alanine, DL-serine, DL-threonine, L-histidine, glycine, and glycylglycine in water, NaCl, and DMSO aqueous solutions at T = 298.15 K:	https://www.doi.org/10.1016/j.jct.2005.03.015
Effects of clustering structure on volumetric properties of amino acids in (DMSO + water) mixtures:	https://www.doi.org/10.1016/j.jct.2012.01.015
Water Activity in Aqueous Amino Acid Solutions Containing Ammonium Sulfate at 298.2 K:	https://www.doi.org/10.1021/je401034k
Enthalpies of transfer of amino acids from water to aqueous solutions of formamide:	https://www.doi.org/10.1016/j.tca.2005.04.002
Volumetric and viscosity properties of glycine in ionic liquid + water solutions at 298.15 K:	https://www.doi.org/10.1016/j.jct.2018.09.036
Volumetric properties for glycine and L-serine in aqueous solutions of 1-Ethyl-3-methylimidazolium hydrogen sulfate ([Emim][HSO4]) at T = (298.15-313.15) K and ambient pressure:	https://www.doi.org/10.1016/j.jct.2016.07.046
Apparent Molar Volumes and Viscosity B-Coefficients of Some Amino Acids in Aqueous Tetramethylammonium Iodide Solutions at 298.15 K:	https://www.doi.org/10.1021/je7001418
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Solubility of the Proteinogenic a-Amino Acids in Water, Ethanol, and Ethanol-Water Mixtures:	https://www.doi.org/10.1021/acs.jced.7b00486
Volumetric and viscometric properties of amino acids in aqueous maltitol solutions at T = (293.15-323.15) K:	https://www.doi.org/10.1016/j.jct.2017.02.024
Solubilities of Glycine and Its Oligopeptides in Aqueous Solutions:	https://www.doi.org/10.1021/je0600754
Volumetric and Viscometric Studies of Some Amino Acids in Aqueous Solutions of Cadmium Chloride at T = (288.15 to 318.15) K and at Atmospheric Pressure:	https://www.doi.org/10.1021/je100909b
Thermodynamic contributions of peptide backbone unit from water to biocompatible ionic liquids at T = 298.15 K:	https://www.doi.org/10.1016/j.jct.2011.09.017
Standard molar enthalpy of formation of Nd(Gly)2(Ala)3Cl3*2H2O(s):	https://www.doi.org/10.1016/j.tca.2004.05.030
Physicochemical study of solute-solute and solute-solvent interactions of glycine, L-alanine, L-valine and L-isoleucine in aqueous D-mannose solutions at Different Temperatures with Reference to Speeds of Sound Measurements:	https://www.doi.org/10.1016/j.jct.2016.03.012
Solvation Behavior of Glycine, L-Alanine, and L-Valine in Aqueous Solutions at Temperatures from 293.15 K to 318.15 K:	https://www.doi.org/10.1007/s10765-015-2006-0
Effect of 1-Ethyl-3-methylimidazolium Bromide Ionic Liquid on the Volumetric Behavior of Some Aqueous L-Amino Acids Solutions:	https://www.doi.org/10.1021/je300953u
Vapor Pressure Osmometry, Volumetry, and Compressibility Properties for Solutions of Several Imidazolium Based Ionic Liquids in (Glycine + Water) Solutions:	https://www.doi.org/10.1021/acs.jced.7b00297
Densities, Partial Molar Volumes, and Heat Capacities of Glycine, L-Alanine, and L-Leucine in Aqueous Magnesium Chloride Solutions at Different Temperatures:	https://www.doi.org/10.1021/je034168m
Enthalpies of transfer of amino acids from water to aqueous solutions of sodium nitrate and sodium perchlorate at T = 298.15 K:	https://www.doi.org/10.1016/j.tca.2005.10.013
Solute-solvent interactions of glycine, L-alanine and L-valine in aqueous 1-methylimidazolium chloride ionic liquid solutions in the temperature interval (288.15 to 308.15) K:	https://www.doi.org/10.1016/j.jct.2015.07.038
Solubility of Form r and Form a of Glycine in Aqueous Solutions:	https://www.doi.org/10.1021/je7006988
Ammonium based ionic liquids act as compatible solvents for glycine peptides:	https://www.doi.org/10.1016/j.jct.2012.07.009
Densities, Viscosities, Electrical Conductances, and Refractive Indices of Amino Acid + Ionic Liquid ([BMIM]Br) + Water Mixtures at 298.15 K:	https://www.doi.org/10.1021/je900882r
Thermodynamic study on complex of neodymium with glycine:	https://www.doi.org/10.1016/j.jct.2014.11.012
Solubility of alpha-glycine in water with additives at a temperature range of (293.15–343.15) K: Experimental data and results of thermodynamic modeling:	https://www.doi.org/10.1016/j.fluid.2016.12.003
Investigations on molecular interaction of some amino acids with the drug levofloxacin in aqueous solution by volumetric and acoustic methods at different temperatures:	https://www.doi.org/10.1016/j.jct.2016.09.027
Surface tension and UV-visible investigations of aggregation and adsorption behaviour of NaC and NaDC in water-amino acid mixtures:	https://www.doi.org/10.1016/j.fluid.2015.03.012
Volumetric Properties of Glycine, L-Alanine, and L-Serine in Formamide + Water Mixtures at 298.15 K:	https://www.doi.org/10.1021/je5003797
Activity coefficients of glycine, d-alanine and l-valine in aqueous solutions containing MgSO4 at 298.15 K; experimental determination and correlation:	https://www.doi.org/10.1016/j.fluid.2011.10.015
Volumetric property of glycine, L-serine, L-alanine and L-proline in aqueous solutions of 1-phenylpiperazinium tetrafluoroborate:	https://www.doi.org/10.1016/j.jct.2016.03.045
Volumetric, viscometric, and refractive index behaviour of a-amino acids and their groups' contribution in aqueous D-glucose solution at different temperatures:	https://www.doi.org/10.1016/j.jct.2005.04.011
Interactions of some amino acids and glycine peptides with aqueous sodium dodecyl sulfate and cetyltrimethylammonium bromide at T 1/4 298.15 K: a volumetric approach:	https://www.doi.org/10.1016/j.jct.2003.09.010
Thermodynamics of the ternary systems: (water + glycine, L-alanine and L-serine + di-ammonium hydrogen citrate) from volumetric, compressibility, and (vapour + liquid) equilibria measurements:	https://www.doi.org/10.1016/j.jct.2010.08.021
Osmotic and activity coefficients of glycine, dl-a-alanine and dl-a-aminobutyric acid in aqueous solutions at temperatures between 288.15 and 303.15 K:	https://www.doi.org/10.1016/j.fluid.2006.10.012
Volumetric behaviour of amino acids and their group contributions in aqueous lactose solutions at different temperatures:	https://www.doi.org/10.1016/j.jct.2010.08.004

Volumetric and Viscosity Properties of Monosaccharides in Aqueous Amino Acid Solutions at 298.15 K:	https://www.doi.org/10.1021/je050412t
Thermodynamics of the interactions of a homologous series of some amino acids with trimethylamine N-oxide: Volumetric, compressibility, and calorimetric studies:	https://www.doi.org/10.1016/j.jct.2011.05.012
Solubility and Solvation Thermodynamics of a Series of Homologous α-Amino Acids in Non-Aqueous Binary Mixtures of Ethylene Glycol and Dimethyl Sulfoxide:	https://www.doi.org/10.1021/je5007899
Enthalpies of Transfer of Amino Acids from Water to Aqueous Solutions of	https://www.doi.org/10.1021/je050296u
Probing solute-solvent interactions of some bio-active solutes inaqueous barium nitrate solution on the basis of physicochemical contrivances:	https://www.doi.org/10.1016/j.tca.2013.06.017
Transportation of the protein stabilizing agents: Trimethylamine N-oxide, glycine and its N-methyl derivatives: the volumetric and compressibility studies:	https://www.doi.org/10.1016/j.jct.2013.01.023
Diffusion in ternary aqueous {L-dopa + (NaSO3)n-beta-cyclodextrin} solutions: synthetic pseudo binary approximation:	https://www.doi.org/10.1016/j.jct.2018.03.014
Study of solvation consequences of alpha-amino acids in aqueous ionic liquid solution probed by physicochemical approach:	https://www.doi.org/10.1016/j.fluid.2013.03.030
Solubility of glycine in binary system of ethanol + water solvent mixtures: Experimental data and thermodynamic modeling:	https://www.doi.org/10.1016/j.fluid.2013.09.013
Liquid Coexistence Curve Measurement of Aqueous Biphasic Systems Composed of [bmim][BF4] and Glycine, L-Proline, Respectively at 298.15 K:	https://www.doi.org/10.1021/je0601053
Volumetric Properties of Amino Acids in Aqueous N-Methylformamide Solutions at 298.15 K:	https://www.doi.org/10.1021/je1003466
Solubilities and Modeling of Glycine in Mixed NaCl MgCl2 Solutions in a Highly Concentrated Region:	https://www.doi.org/10.1021/acs.jced.6b00403
Conductometric analysis of 1-butyl-3-methylimidazolium ibuprofenate as an active pharmaceutical ingredient ionic liquid (API-IL) in the aqueous amino acids solutions:	https://www.doi.org/10.1016/j.jct.2016.07.047
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1459
Thermophysical Properties of 1-Hexyl-3-methylimidazolium Salicylate as an Active Pharmaceutical Ingredient Ionic Liquid (API-IL) in Aqueous Solutions of Glycine and L-Alanine:	https://www.doi.org/10.1021/acs.jced.8b00644
Study the interactions between some amino acids and a pharmaceutically	https://www.doi.org/10.1016/j.jct.2019.06.002
Densities and electrical conductances of amino acids + ionic liquid (HMImBr) ... at temperatures from 298.15 K to 313.15 K:	https://www.doi.org/10.1016/j.fluid.2010.04.002
Solid-Liquid Equilibria for the Glycine-Alcohol-NaCl-H2O System:	https://www.doi.org/10.1021/acs.jced.7b00549
Volumetric and viscometric study of amino acids in aqueous sorbitol solution at different temperatures:	https://www.doi.org/10.1016/j.jct.2015.10.002
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
Volumetric and viscometric studies of amino acids in L-ascorbic acid aqueous solutions at T = (293.15 to 323.15) K:	https://www.doi.org/10.1016/j.jct.2013.11.002
Study of the interactions of PAMAM-NH2 G4 dendrimer with selected natural amino acids in aqueous solutions:	https://www.doi.org/10.1016/j.jct.2013.10.022
Thermodynamics of the interactions of some amino acids and peptides with dodecyltrimethylammonium bromide and tetradecyltrimethylammonium bromide:	https://www.doi.org/10.1016/j.jct.2013.11.001
Enthalpies of Dilution of L-Alanine in Dimethylsulfoxide + Water and N,N-Dimethylformamide + Water Mixtures at 298.15 K:	https://www.doi.org/10.1021/je9005322
Measuring and modeling aqueous electrolyte/amino-acid solutions with ePC-SAFT:	https://www.doi.org/10.1016/j.jct.2013.08.018
Molecular interactions of some amino acids in aqueous 1-butyl-3-methylimidazolium bromide solutions at different temperatures: A volumetric approach:	https://www.doi.org/10.1016/j.jct.2018.05.008
Study of (solute + solute) and (solute + solvent) interactions of homologous series of amino acids in ... solutions at different temperatures by using physicochemical methods:	https://www.doi.org/10.1016/j.jct.2015.11.015
Study of Solvation Behavior of Some Biologically Active Compounds in Aqueous ... Solutions:	https://www.doi.org/10.1021/je400077c
Effect of tetra-n-alkylammonium bromides on the volumetric properties of glycine, L-alanine and glycylglycine at T = 298.15 K:	https://www.doi.org/10.1016/j.jct.2003.09.008
... glycylglycine in aqueous tetra-n-alkylammonium bromide solutions at 298.15 K:	https://www.doi.org/10.1016/j.jct.2004.07.006
Viscosities of Glycine and L-Alanine in (0.2, 0.4, 0.6, and 0.8) mol*kg 1 Aqueous Dipotassium Hydrogen Phosphate Solutions at Different Temperatures:	https://www.doi.org/10.1021/je300673m
Study of solute-solute and solute-solvent interactions of homologous series of some alpha amino acids in aqueous D-xylose solutions at different temperatures:	https://www.doi.org/10.1016/j.jct.2016.06.030
Model of action of betaine on some amino acids and globular proteins:	https://www.doi.org/10.1016/j.jct.2017.03.025
Enthalpies of dilution of glycine, L-alanine and L-serine in aqueous ... solutions ... using physicochemical methods:	https://www.doi.org/10.1016/j.tca.2004.05.021
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C56406&Units=SI
Study of thermodynamic properties of aqueous binary mixtures of glycine, L-alanine and β-alanine at low temperatures (T = 278.15, 279.15, and 283.15) K:	https://www.doi.org/10.1016/j.jct.2011.09.016
Osmotic Coefficients and Activity Coefficients in Aqueous ... Aminohexanoic Acid NaCl Mixtures at 298.15 K:	https://www.doi.org/10.1021/je500271z
KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1459
Physicochemical Behavior of Some Amino Acids/Glycylglycine in Aqueous D-Galactose Solutions at Different Temperatures:	https://www.doi.org/10.1007/s10765-010-0742-8
Conductivity and fluorescence studies on the micellization properties of sodium cholate and sodium deoxycholate in aqueous medium at different temperatures: Effect of selected amino acids:	https://www.doi.org/10.1016/j.jct.2014.10.014
The effect of ammonium sulfate on the solubility of amino acids in water at ... :	https://www.doi.org/10.1016/j.jct.2008.09.019
Thermodynamic properties of 1-butyl-3-methylimidazolium salicylate as an active pharmaceutical ingredient ionic liquid (API-IL) in aqueous solutions of glycine and L-alanine at T = (288.15 318.15) K:	https://www.doi.org/10.1016/j.tca.2016.05.013

Infinite Dilution Binary Diffusion Coefficients of Several r-Amino Acids in Water over a Temperature Range from (293.2 to 333.2) K with the Taylor Dispersion Technique. https://www.doi.org/10.1021/je060149b

Solubility and Thermodynamics of Solute-Solvent Interactions of Some Amino Acids in Aqueous Sodium Bromide and Potassium Bromide Solutions: https://www.doi.org/10.1021/acs.jced.7b00647

Legend

affp:	Proton affinity
basg:	Gas basicity
cpg:	Ideal gas heat capacity
cps:	Solid phase heat capacity
ep:	Protonation entropy at 298K
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
ss:	Solid phase molar entropy at standard conditions
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume