Potassium carbonate

Inchi:	InChI=1S/CH2O3.2K/c2-1(3)4;;/h(H2,2,3,4);;/q;2*+1/p-2
InchiKey:	BWHMMNNQKKPAPP-UHFFFAOYSA-L
Formula:	CK2O3
SMILES:	O=C(O[K])O[K]
Mol. weight [g/mol]:	138.21

Physical Properties

Property code	Value	Unit	Source
tt	1171.15	K	Fusion characterization of biomass ash

Sources

Measurement and Correlation of Phase Diagram Data for Aqueous Two-Phase Systems Containing 1-Ethyl-3-methylimidazolium Dimethyl Phosphate + K3PO4/K2HPO4/K2CO3 + H2O at (298.15, 308.15, and 318.15) K:	https://www.doi.org/10.1021/je2004758
Acetonitrile and Na+ or K+ Salts as Constituents of the Aqueous Two-Phase Systems for Separation of Ionic Liquids:	https://www.doi.org/10.1021/acs.jced.9b00526
Extraction and consecutive purification of anthocyanins from grape pomace using ionic liquid solutions:	https://www.doi.org/10.1016/j.fluid.2017.08.006
(Solid + liquid) phase equilibrium for the ternary system (K2CO3-Na2CO3-H2O) at T = (323.15, 343.15, and 363.15) K:	https://www.doi.org/10.1016/j.jct.2017.01.001
Recovery of PhSO3K from Industrial Waste Based on Solid-Liquid Equilibrium of the PhSO3K-K2CO3-H2O System:	https://www.doi.org/10.1021/acs.jced.7b00998
Partitioning of amino acids in the novel biphasic systems based on environmentally friendly ethyl lactate:	https://www.doi.org/10.1016/j.fluid.2018.01.016
Fusion characterization of biomass ash:	https://www.doi.org/10.1016/j.tca.2016.06.008
Creating efficient novel aqueous two-phase systems: Salting-out effect and high solubility of salt:	https://www.doi.org/10.1016/j.fluid.2019.03.002
Ionic Liquids Analogues Based on Potassium Carbonate:	https://www.doi.org/10.1016/j.tca.2013.10.028
Phase Diagram Data for Several Salt + Salt Aqueous Biphasic Systems at 298.15 K:	https://www.doi.org/10.1021/je7000478
Salt Effect on Ethanol-Based Aqueous Biphasic Systems Applied to Alkaloids Partition: An Experimental and Theoretical Approach:	https://www.doi.org/10.1021/acs.jced.8b01024
Influence of selected potassium salts on thermal stability of ammonium nitrate:	https://www.doi.org/10.1016/j.tca.2019.178313
Aqueous biphasic systems involving alkylsulfate-based ionic liquids:	https://www.doi.org/10.1016/j.jct.2011.04.024
Phase Diagram of [Amim]Cl + Salt Aqueous Biphasic Systems and Its Application for [Amim]Cl Recovery:	https://www.doi.org/10.1021/je900009a
Study on the Phase Equilibrium of Na+, K+//Cl-, CO32--H2O and Single-Salt of Potassium Separation with the Aid of Compressed CO2:	https://www.doi.org/10.1021/acs.jced.9b00367
Liquid-liquid equilibria of ionic liquid 1-(2-methoxyethyl)-3-methylimidazolium bromide + potassium carbonate, potassium phosphate, dipotassium phosphate + water aqueous two-phase systems:	https://www.doi.org/10.1016/j.fluid.2013.11.046
Lanthanum and Cerium Separation Using an Aqueous Two-Phase System with Ionic Liquid:	https://www.doi.org/10.1021/acs.jced.9b00293
Choline derivative ionic liquids-based aqueous two-phase systems: Phase diagrams and partition of purine alkaloids:	https://www.doi.org/10.1016/j.jct.2017.10.017
Thermodynamics of proton dissociation from aqueous bicarbonate: apparent molar volumes and apparent molar heat capacities of potassium carbonate and potassium bicarbonate at T=(278.15 to 393.15) K and at the pressure 0.35 MPa:	https://www.doi.org/10.1016/j.jct.2003.12.008
Phase diagrams of ionic liquids-based aqueous biphasic systems as a platform for extraction processes:	https://www.doi.org/10.1016/j.jct.2013.10.024
Liquid-Liquid Equilibrium and Extraction Performance of Aqueous Biphasic Systems Composed of Water, Cholinium Carboxylate Ionic Liquids and K2CO3:	https://www.doi.org/10.1021/acs.jced.9b00452

Solubility of CO_2 in Aqueous Solutions of KCl and in Aqueous Solutions of K_2CO_3:	https://www.doi.org/10.1021/je060430q
Phase diagrams of aqueous biphasic systems composed of ionic liquids and dipotassium carbonate at different temperatures:	https://www.doi.org/10.1016/j.fluid.2016.02.015
Liquid-Liquid Equilibria in Aqueous Mixtures of Alkylmethylimidazolium Glutamate with Potassium Carbonate and Some Physicochemical Properties of Aqueous [CnmIm][Glu] (n = 4, 6, 8) Solutions:	https://www.doi.org/10.1021/acs.jced.5b00948
(Liquid + liquid) equilibria for (acetate-based ionic liquids + inorganic salts) aqueous two-phase systems:	https://www.doi.org/10.1016/j.jct.2010.03.010
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=B6000504&Units=SI
Density and Solubility of CO_2 in Aqueous Solutions of (Potassium Carbonate + Sarcosine) and (Potassium Carbonate + Pipecolic Acid):	https://www.doi.org/10.1021/je300782p
Liquid-liquid equilibrium in the ternary systems triethylene glycol + salts + water at different temperatures; experiment and correlation:	https://www.doi.org/10.1016/j.fluid.2009.10.020
Density and refractive index measurements of transition-temperature mixture (deep eutectic analogues) based on potassium carbonate with dual hydrogen bond donors for CO_2 capture:	https://www.doi.org/10.1016/j.jct.2017.11.008
Salting-out effect of sodium, potassium, carbonate, sulfite, tartrate and thiosulfate ions on aqueous mixtures of 1-ethyl-2-pyrrolidone: A liquid-liquid equilibrium study:	https://www.doi.org/10.1016/j.fluid.2013.09.028
Liquid-Liquid Equilibria of Aqueous Biphasic Systems Containing Selected Imidazolium Ionic Liquids and Salts:	https://www.doi.org/10.1021/je700315u
(Liquid + liquid) equilibrium of aqueous biphasic systems composed of 1-benzyl or 1-hexyl-3-methylimidazolium chloride ionic liquids and inorganic salts:	https://www.doi.org/10.1016/j.jct.2012.05.004
Electrical Conductivity of Electrolytes Found In Natural Waters from (5 to 90) °C:	https://www.doi.org/10.1021/je101012n
Salting-Out Effect, Preferential Exclusion, and Phase Separation in Aqueous Solutions of Chaotropic Water-Miscible Ionic Liquids and Kosmotropic Salts: Effects of Temperature, Anions, and Cations:	https://www.doi.org/10.1021/je900681b
Absorption capacity and viscosity for CO_2 capture process using [illegible] promoted K_2CO_3 aqueous solution:	https://www.doi.org/10.1016/j.jct.2016.07.026
Temperature Effect on the Liquid-Liquid Equilibria for Some Aliphatic Alcohols + Water + K_2CO_3 Systems:	https://www.doi.org/10.1021/je050515b

Legend

tt:	Triple Point Temperature