

RESEARCH PAPERS

L-抗坏血酸在葡萄糖和蔗糖溶液中的黏度及其热力学性质的研究

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摘要 Viscosities and densities at several temperatures from 293.15 K to 313.15 K are reported for L-ascorbic acid in aqueous glucose and sucrose solutions at different concentrations. The parameters of density, viscosity coefficient B and partial molar volume are calculated by regression. The experimental results show that densities and viscosities decrease as temperature increases at the same solute and solvent (glucose and sucrose aqueous solution) concentrations, and increase with concentration of glucose and sucrose at the same solute concentration and temperature. B increases with concentration of glucose and sucrose and temperature. L-ascorbic acid is structure-breaker or structure-making for the glucose and sucrose aqueous solutions. Furthermore, the solute-solvent interactions in ternary systems of water-glucose-electrolyte and water-sucrose-electrolyte are discussed.

关键词 [L-ascorbic acid](#) [glucose](#) [sucrose](#) [density](#) [viscosity](#)

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Measurement and Correlation on Viscosity and Apparent Molar Volume of Ternary System for L-ascorbic Acid in Aqueous D-Glucose and Sucrose Solutions

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Key words [L-ascorbic acid](#); [glucose](#); [sucrose](#); [density](#); [viscosity](#)

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