单硫酸卡那霉素、乙醇及其混合物在水中的稀释热

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摘要 本文测定了25℃的单硫酸卡那霉素水溶液和卡那霉素-乙醇水溶液的稀释热. 同时对乙醇水溶液的稀释热也重新进行了测定.

关键词 水溶液 乙醇 硫酸 卡那霉素 焓 热力学过程 相互作用 稀释热

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The heat of dilution of kanamycin monosulfate, ethanol and their mixtures in water

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Abstract The heat of dilution of kanamycin monosulfate, EtOH, and their mixtures in water was determine at 25?with a flow-microcalorimeter. The results were discussed using the McMillan-Mayer theory, by which the virial enthalpy coefficients of the excess enthalpies of binary and ternary solns. were evaluated. Data for EtOH agreed well with the published literature. All enthalpy pair interaction coefficients are pos., whereas triple interaction coefficients are neg. for kanamycin monosulfate, and pos. for EtOH. The signs of the pair interaction coefficients are attributed to the release of water mols. from the hydration spheres during aggregation. The concepts of cooperativity and compatibility were used for interpreting these anomalous enthalpy coefficients

 Key words
 AQUEOUS SOLUTION
 ETHANOL
 SULFURIC ACID
 KANAMYCIN
 ENTHALPY

 THERMODYNAMIC PROCESS
 INTERACTIONS
 DILUTION HEAT

DOI:

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