酚酞作为探针研究水溶液中β-环糊精与低分子脂肪醇的互相作用

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摘要 本文报道在强碱性水溶液(PH=10)中用酚酞双阴离子作为控针, 研究低分子脂肪醇对β-环糊精的竞争结合。

关键词 <u>紫外分光光度法</u> <u>水溶液</u> <u>热力学性质</u> <u>元素分析</u> <u>环糊精</u> <u>探针</u> <u>疏水性质</u> <u>脂肪族醇</u> <u>酚酞</u> 竞争反应

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Study on the interaction between β -cyclodextrin and low molecular aliphatic alcohol in aqueous solution with phenolphthatein as probe

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Abstract It has been proved that in alkaline solution the three Ph groups of phenolphthalein (PP2-) have different polarity and the formation of the complex b-CD-PP2- had 1:1 stoichiometry. The cavity in b-CD was studied by using PP2- as probe. The binding constant of b-CD with aliphatic alcohol was determine by competitive inclusion method. The experimental results indicated that the cavity is an enzyme-like hydrophobic microenvironment.

Key wordsULTRAVIOLET SPECTROPHOTOMETRYAQUEOUS SOLUTIONTHERMODYNAMICPROPERTIESELEMENTAL ANALYSISCYCLODEXTRINPROBESHYDROPHOBIC PROPERTIESALIPHATIC ALCOHOLSPHENOLPHTHALEINUM

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