

一种新型表面活性剂的表面活性的研究

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摘要 采用表面张力法确定了新型表面活性剂3-对壬基苯氧基-2-羟丙基三甲基溴化铵的临界胶束浓度(cmc),并考察了盐度、温度和pH值对其cmc的影响。结果表明,此种表面活性剂的表面活性较高,盐度对其cmc影响最大,其次是pH值,温度对其cmc的影响较为复杂。理论计算结果表明,采用热力学函数可较好地解释试验结果。

关键词 [表面活性剂](#) [表面张力](#) [季铵](#) [胶束](#) [热力学函数](#)

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Study on Surface Activity of a Novel Cationic Surfactant

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Abstract The critical micelle concentration (cmc) of a novel surfactant, 3-p- nonylphenoxy-2-hydroxypropyltrimethyl ammonium bromide was determined by measuring the surface tension. The effects of salinity, pH, and temperature on cmc were studied. The results revealed that the novel surfactant had higher surface activity than traditional cationic surfactants. The cmc of the surfactant was strongly dependent on the salinity, while it was moderately affected by the pH value and complicatedly affected by the temperature. The experimental results could be satisfactorily explained by thermodynamic calculations.

Key words [SURFACTANTS](#) [SURFACE TENSION](#) [QUATERNARY AMMONIUM COMPOUNDS](#) [MICELLE](#) [THERMODYNAMIC FUNCTION](#)

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