

低碳醇对季铵盐二聚表面活性剂C₍₁₂₎-2-C₍₁₂₎·2Br胶团化行为的影响

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摘要 随着丙、丁、戊、己醇的加入,与季铵盐二聚表面活性剂C₍₁₂₎-2-C₍₁₂₎·2Br组成了混合胶团,醇分子以烷烃链插入胶团中,羟基则位于胶团栅栏层处。这减弱了表面活性剂离子头基间的静电排斥力,使临界胶团浓度(cmc)降低,同时使胶团表面反离子解离度增大。随着醇分子的烷烃链增长,这种影响更为显著。

关键词 [季铵](#) [表面活性剂](#) [胶体](#) [醇](#)

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Effects of Alcohol on the Micellization of Quaternary-ammonium Dimeric Surfactant C₍₁₂₎-2-C₍₁₂₎·2Br in Aqueous Solution

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Abstract The effects of n-propanol, n-butanol, n-pentanol and n-hexanol on the micellization of quaternary-ammonium dimeric surfactant C₍₁₂₎-2-C₍₁₂₎·2Br have been investigated using conductivity and steady fluorescence measurements. The results show that the surfactant and the alcohols form mixed micelles with addition of alcohols. In the mixed micelles, the alkyl chains of the alcohol molecules penetrate into the micelle interior and the hydroxyl groups lie in the palisade layer of the micelles, which weaken the electrostatic repulsion between the ionic head groups of the surfactants and result in a decrease of cmc and an increase of the ionization degree of the micelle. The effects become more striking with increasing the alkyl chain length of the alcohol molecules.

Key words [QUATERNARY AMMONIUM COMPOUNDS](#) [SURFACTANTS](#) [COLLOID](#) [ALCOHOL](#)

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