

添加剂对双子表面活性剂DYNOL-604浊点的影响

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摘要 对双子表面活性剂DYNOL-604的浊点开展研究,考察了添加剂对其浊点的影响。离子表面活性剂的加入,使其浊点升高,而加入醇时出现了一种双浊点的现象,我们称之为“下限浊点”和“上限浊点”。即温度低于“下限浊点”和高于“上限浊点”,体系由浑浊变为澄清。采用NMR手段测定“上限浊点”以上温度体系的自扩散系数,证明为双连续微乳液结构,并从R比值理论进行分析。

关键词 [表面活性剂](#) [扩散系数](#) [微乳](#) [核磁共振谱法](#)

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Effect of Alcohol and Ion-Surfactant on the Cloud Point Dynol-604

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Abstract The effect of a series of alcohols and ionic surfactants on the cloud point (CP) of nonionic surfactant Dynol-604 has been investigated. The result show that the addition of SDS and CTAB makes the cloud point of Dynol-604 increases greatly and the influence of alcohols on the cloud point of Dynol-604 is complex. When the alcohol is added into the Dynol-604 solution, the system appears double cloud points which are named "upper limit CP" and "lower limit CP" respectively. The phenomenon is discussed using the theory of Cohesion Energy Ratio. The system becomes transparent from turbidity when the temperature is above the upper limit CP. The measurement of the self-diffusion coefficients by the Pulse Field Gradient Spin-Echo Method (PFGSE-NMR) for the upper limit CP solution is carried out and we can conclude that the system is a bicontinuous microemulsion.

Key words [SURFACTANTS](#) [DIFFUSION COEFFICIENTS](#) [DIFFUSION COEFFICIENTS](#) [1H NMR](#)

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