

FULL PAPERS

SDS/*n*-C₅H₁₁OH/*n*-C₇H₁₆/H₂O体系中W/O-BI微乳液界面电性质

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收稿日期 2004-3-12 修回日期 2004-12-10 网络版发布日期 接受日期

摘要 在SDS/*n*-C₅H₁₁OH/*n*-C₇H₁₆/H₂O体系中, 在SDS/*n*-C₅H₁₁OH/*n*-C₇H₁₆/H₂O质量比为5.0/47.5/47.5时, 体系的上相为W/O微乳液, 下相为双连续结构。当庚烷的含量小于1%时, 随着庚烷的含量的增加, 上相电容(*C*_o, *C*_{od})下降, 上相电容(*C*_{BI}, *C*_{BI*d*})增加, W/O-BI界面电势Δ*E*、电容*C*₁、电荷传递电流*i*_{ct}减小。当庚烷的含量大于1%时, 随着庚烷的含量的增加, Δ*E*、*C*₁和*i*_{ct}变化不显著。

关键词 [界面电势](#), [界面电容](#), [界面电荷传递电流](#), [界面电阻率](#), [微乳液](#)

分类号

Interfacial Electric Properties Between W/O and

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Abstract

In the system of SDS/*n*-C₅H₁₁OH/*n*-C₇H₁₆/H₂O with the weight ratio of SDS/*n*-C₅H₁₁OH/H₂O system at 5.0/47.5/47.5, the upper phase of the system was W/O microemulsion, and the lower phase was the bicontinuous microemulsion. When the *n*-heptane content was less than 1%, with the increase of the *n*-heptane content, the capacitance (*C*_o, *C*_{od}) in the upper phase (W/O) dropped, the capacitance (*C*_{BI}, *C*_{BI*d*}) in the lower phase (BI) raised. At the same time, the W/O-BI interfacial potential (Δ*E*), capacitance (*C*₁), and charge-transfer current (*i*_{ct}) decreased. After the *n*-heptane content reached 1%, with the increase of the *n*-heptane content, Δ*E*, *C*₁ and *i*_{ct} demonstrated no significant change.

Key words [interfacial potential](#) [interfacial capacitance](#) [interfacial charge-transfer current](#) [interfacial resistivity](#) [microemulsion](#)

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