INTERDIFFUSION IN WATER SOLUTIONS OF ETHYL ALCOHOL

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Summary

The interdiffusion in multicomponent liquids under influence of chemical reactions has been studied. A nonlinear modification of Fick's law of diffusion [8, 9] is used. The concentration dependence of the diffusion coefficient $D_{\rm eff}$ for solutions "ethyl alcohol + water" is analyzed. It has been shown that the creation of molecular complexes (alcohol hydrates) should be taken into account in order to explain the nonmonotonic experimental dependence of $D_{\rm eff}$ on the alcohol concentration in solution (at $40 \div 60\%$ of alcohol, the minimum of the coefficient of diffusion is realized).