THERMODYNAMIC AND STRUCTURAL CHARACTERISTICS OF AQUEOUS DIAMINE SOLUTIONS

A. G. Titova[1], M. A. Krest'yaninov[2], and A. M. Zaichikov[1]

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Thermodynamic characteristics are calculated for aqueous diamine solutions prepared by substituting an amino group for the hydroxyl group of amino alcohols. Patterns are revealed in the change of the structural properties of the mixtures. The correlation between the entropy and enthalpy characteristics of the water–diamine systems and the excess packing coefficients suggests that the universal interactions determine the structural and energy properties of aqueous solutions of the studied diamines. The form of the concentration dependences of the structural and thermodynamic characteristics in the studied systems is found to be symbatic with the data for the mixtures of water with aprotic amides. The reasons for this are discussed by comparing the results with our previously published data for aqueous solutions of aprotic amides.

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