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Thermodynamic modelling of solubility and preferential solvation for ribavirin (II) in co-solvent mixtures of (methanol, *n*-propanol, acetonitrile or 1,4-dioxane) + water

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ABSTRACT

The equilibrium solubility of ribavirin in solvent mixtures of {methanol (1) + water (2)}, {*n*-propanol (1) + water (2)}, {acetonitrile (1) + water (2)} and {1,4-dioxane (1) + water (2)} was determined experimentally by using isothermal dissolution equilibrium method within the temperature range from (278.15 to 318.15) K under atmospheric pressure (101.1 kPa). At the same temperature and mass fraction of methanol (*n*-propanol, acetonitrile or 1,4-dioxane), the mole fraction solubility of ribavirin is greater in (methanol + water) than in the other three solvent mixtures. The

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