

A RELATION FOR THERMAL CHARACTERISTICS
OF MIXTURES AS FUNCTIONS
OF CONCENTRATIONS

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S u m m a r y

By using perturbation theory for an isothermic-isobaric ensemble, we have deduced a formula that allows one to predict the properties of mixtures on the basis of the known characteristics of pure components. We have calculated such properties of mixtures as the molar volume, coefficient of isothermal compressibility, coefficient of volumetric expansion, compressibility of the water—acetone mixture, and density of the acetonitrile—benzene mixture under various thermodynamic conditions. The results of calculations are in good agreement with the experimental data for the indicated mixtures.