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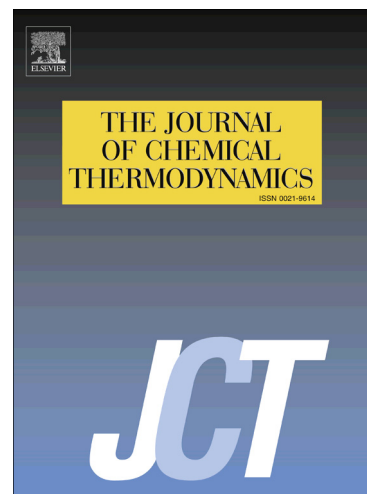
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## Thermodynamic behaviour of alkyl lactate - alkanol systems

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### Abstract

This work reports densities and speeds of sound of some alkyl lactates + alkanols binary mixtures over the whole composition range at  $T = 298.15$  K and  $p = 0.1$  MPa. The studied systems were methyl lactate or ethyl lactate with methanol, ethanol, 1-propanol, or 1-butanol. From experimental results, excess molar volumes and excess isentropic compressibilities have been calculated. Furthermore, excess molar enthalpies were experimentally determined at  $T = 298.15$  K and  $p = 0.1$  MPa. Finally, the excess properties were correlated with composition and discussed taking into account the associated character of both components, alkyl lactates and alkanols. From this analysis it has been concluded that excess properties values depend mainly on the length of the alkyl chain of the alkanol.

**Keywords:** alkanols; alkyl lactates; density; enthalpy of mixing; speed of sound.

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