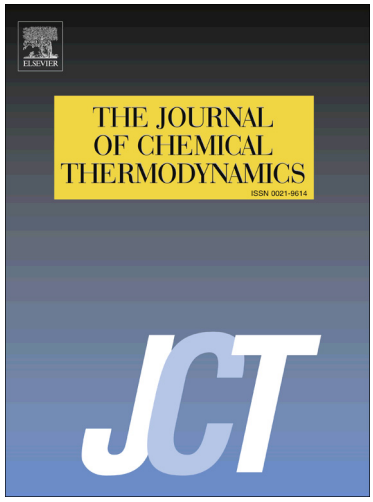

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Volume-related properties of thiophene and furan-2-carboxaldehyde phenylhydrazone derivatives in DMSO: A discussion about non-intrinsic contribution

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Abstract

An analysis of the experimental and theoretical non-intrinsic contribution to the limiting partial molar volume, $\langle\theta\rangle$, of thiophene- and furan-2-carboxaldehyde phenylhydrazone, 4-nitrophenylhydrazone and 2,4-dinitrophenylhydrazone derivatives – henceforth referred as PHT, NHT, DHT, PHF, NHF and DHF, respectively – in dimethylsulfoxide is presented. A refractometric method to determine $\langle\theta\rangle$ was proposed, which was able to successfully reproduce the method based on high-precision densitometry measurements at 293.15 K. No general trend of $\langle\theta\rangle$ with the molecular size was observed. The theoreti-

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