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# Density, viscosity, Excess molar Volume and viscosity deviation for [chloroform (1) + di-isopropyl- ether(2) + 1-propanol (3)] ternary system at 298.15 K.

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## Abstract

Densities  $\rho$  and viscosity  $\eta$  of the [chloroform (1) + di-isopropyl ether (DIPE) (2) + 1-propanol (3)] ternary system have been measured at 298.15 K and pressure of 960 hPa using an Anton Paar DMA 500 stavgimeter. Excess molar volumes  $V^E$  and viscosity deviation  $\Delta\eta$  were calculated. The excess molar volume  $V^E$  and viscosity deviation  $\Delta\eta$  for binary and ternary systems were correlated by a Redlich-Kister and Nagata and Tamura type equation. Also, the ternary excess molar volume and viscosity deviation  $Y_{123}^E$  were predicted using the Radojković equation. From the macroscopic behavior inferences were made about the molecular interactions in the ternary mixture

*Keywords: Ternary system, Excess molar volume, Viscosity deviations, Nagata-Tamura equation, Radojković equation*

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Subject area	<i>Physical Chemistry</i>
Compounds	Chloroform; di-isopropyl ether (DIPE); 1-propanol
Data category	<i>Physicochemical</i>
Data acquisition format	<i>Physical properties</i>
Data type	<i>Raw, analyzed, and calculated</i>

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