EXCESS VOLUME AND CHANGES OF REFRACTIVE INDEX ON MIXING FOR
(PEGDME 250 + ETHANOL, OR 1-PROPANOL, OR 2-PROPANOL, OR 1-BUTANOL)
AT TEMPERATURES FROM 293.15K TO 333.15K

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In this work, experimental values refractive indices and densities for (Peggme 250 + ethanol, or 1-propanol, or 2-propanol, or 1-butanol) at temperatures from 293.15 K to 333.15 K and atmospheric pressure are presented as a function of mole fraction. The experimental values were fitted by a polynomial equation in mole fraction. Experimental values were measured with a Bellingham+Stanley model 60/ED high-accuracy Abbe Refractometer at the sodium D-line wavelength (589.3 nm). Changes of refractive index and excess molar volumes on mixing were determined and fitted to a variable-degree polynomial equation. Their parameters and root-mean-square deviations were calculated. The effect of temperature on the mixing and derived properties is analyzed in terms of the alkyl chain length, and the available hydrogen-bond interactions between solute-solvent molecules.