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Gibbs Energy Additivity Approaches in Estimation of Kinematic Viscosities of n-Alkane-1-ol

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Alcohols are solvents for organic and inorganic substances. Kinematic viscosity of liquid is important transport properties. In this study model for estimating *n*-alkane-1-ol kinematic viscosity are correlated to the Martin's rule of free energy additivity. Data available in literatures are used to validate and support the proposed equations. The kinematic viscosity of *n*-alkane-1-ol can be easily estimated from its carbon number (*z*) and temperatures (*T*). The Bias, average absolute deviation and coefficient of determination (\mathbb{R}^2) in estimating of *n*-alkane-1-ol are -0.17%, 1.73% and 0.999, respectively. The kinematic viscosity outside temperature between 288.15 and 363.15 K may be possibly estimated by this model but accuracy may be lower.

Primary authors: PHANKOSOL, Suriya; KRISNANGKURA, Kanit

Presenter: PHANKOSOL, Suriya

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