Solid-Liquid Equilibria and Excess Molar Volumes and Molar Refractivity Deviations for the Binary Systems {Alamine 336 + 1-Octanol + 2-Octanol + 1-Decanol} at 298.15 K

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The commonly used solvents for the Molybdenum (Mo) extraction process are organic amine-type extractants, such as alamine 336. Heavy alcohols or alkanes, such as 1-octanol, 2-octanol, and 1-decanol are used as diluents.

In this work, therefore, we report the SLE for the mixtures of solvent (alamine 336) and modifiers, since they need to be separated after Mo extraction process. The experimental data have been correlated by the NRTL and the UNIQUAC models. In addition, the excess molar volumes (VE) and deviations in molar refractivity (ΔR) for solvents and modifiers at 298.15 K are reported. The determined VE and ΔR data were correlated with compositions using the Redlich-Kister polynomial.

Acknowledgment

This research was supported by the General Research Project of the Korea Institute of Geoscience and Mineral Resources (KIGAM). It was funded by the Ministry of Knowledge Economy of Korea