Extraction of thiophene from heptane using deep eutectic solvent

이봉섭†, 정우현, 신용섭, 이수미
강원대학교
(bslee0425@kangwon.ac.kr†)

Crude oil, modern industry's main resource, naturally includes sulfur and nitrogen compounds such as thiophene and dibenzothiophene, and pyridine. Due to their combustion, they are released in the form of oxides on the gas, damaging the ecosystem and reacting with oxygen and water vapor in the atmosphere to produce sulfuric acid and nitric acid, which accelerates corrosion in architectures used metal and stone. In this work, thiophene is extracted from heptane using deep eutectic solvent (choline chloride:propylene gycole=1:3) at 25 °C, 35 °C, and 45 °C. The experimental data are compared to the predicted results with COSMO-SAC model.