

Selectivity Effect of Lanthanum and Cerium according to the Extractants

방경모, 류호진, 강호철*
한국화학연구원
(hckang@kRICT.re.kr*)

Many methods as fractional precipitation, fractional crystallization, ion exchange and solvent extraction have been developed for the recovery of novel metals from the ore . Solvent extraction is conducted in many studies because of the advantages of high productivity and continuous process. In order to improve the selectivity of lanthanum and cerium, the recovery of lanthanum and cerium has been carried out by solvent extraction from the waste electronic devices. Experiment conditions, including the pH of the extracted solution, the changes in carbon chain length and concentration of the extractants were investigated in order to achieve a selective extraction. Using as the extractants 2-ethylhexylamine and dodecyl trimethyl ammonium chloride(DTAC) in kerosene, the separation factor of lanthanum and cerium is 15 and 10, respectively.