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Facile extractive separation studies of uranium(VI) assisted by dicyclohexano-18-crown-6 through green approach

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Abstract

[en] A reliable precise analytical method has been developed for the extraction of uranium(VI) from 1 M ammonium thiocyanate and 1 M acetic acid with 0.001 M dicyclohexano-18-crown-6 in nitrobenzene. Various parameters like ammonium thiocyanate concentration, acetic acid concentration, reagent study, solvent study, strippant study and loading capacity were studied. Uranium(VI) were selectively extracted and separated from diverse ion and ternary mixture. The proposed method was also used for the determination of uranium(VI) from rock and monazite sand sample. (author)

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