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Solvent Extraction of Y(III) and Light Lanthanides(III) (Pr, Nd, Sm, Eu) From Aqueous Perchlorate Solutions Using 5,7-Dibromo-8-hydroxyquinoline

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Extraction of rare earth elements {Ln(III), where Ln = Y, Pr, Nd, Sm, Eu} from aqueous perchlorate solutions to chloroform using 5,7-dibromo-8-hydroxyquinoline (Hdbq) has been investigated. It has been found that all investigated Ln(III) ions were extracted to the organic phase as complexes of the type $Ln(dbq)_3$. Extraction parameters have been determined and separation factors for the investigated pairs of Ln(III), as well as Ln(III)/La(III) pairs have been calculated.