

SOLVENT EXTRACTION OF TERVALENT LANTHANIDES  
WITH N-BENZOYLPHENYLHYDROXYLAMINE

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#### SUMMARY

The equilibrium extraction behavior for a series of trivalent lanthanide ions, La, Pr, Eu, Ho and Yb, using chloroform solutions containing N-benzoyl-phenylhydroxylamine (BPHA), either alone or combined with 1,10-phenanthroline (phen), trioctylphosphine oxide (TOPO) or tetra-n-heptylammonium chloride ( $R_4NCl$ ) was studied. The results demonstrated that these lanthanides are extracted as  $Ln(BPHA)_3 \cdot BPHA$ , or in the presence of phen, as  $Ln(BPHA)_3 \cdot phen$ , or in the presence of  $R_4NCl$ , as  $R_4NLn(BPHA)_4$ . However, in the presence of TOPO no adduct formation occurs.