# THE INVESTIGATION OF THE SOLVENT EXTRACTION OF MOLYBDENUM FROM CONCENTRATED SOLUTION OF SULPHURIC ACID

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The solvent extraction of molybdenum(VI) from sulphuric acid solutions with di-(2-ethylhexyl) phosphoric acid (HDEHP) in n-heptane has been investigated. The extraction of Mo(VI) labelled with $^{99}Mo$ has been studied in the dependance of the concentrations of sulphuric acid (1 - 14 M) and molybdenum in the aqueous phase and of the extractant concentration.

It was observed that the addition of tributyl phosphate (TPB) increases the rate of the extraction, however, it lowers the extraction yield. The presence of zinc and copper in the original aqueous phase enhances the extraction of molybdenum. Using dodecylphosphoric acid (HDDP), molybdenum is extracted in a smaller extent than using HDEHP.

The extraction of copper and zinc (labelled with $^{64}Cu$ and $^{65}Zn$) from sulphuric acid solutions (4 - 12 M) by HDEHP and HDDP in n-heptane was also investigated. It was found that these elements are extracted with low distribution ratio (0.01 - 0.02).

The transfer of sulphuric acid of various concentration into HDEHP phase has been also studied using $^{35}S$. It was found that the extraction is low even at 12 M sulphuric acid.