

# Application of hollow-fiber supported liquid membranes technique to the selective recovery of a low content of copper from a Chilean mine water

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This communication describes the application of a hollow-fiber-type solid supported liquid membrane technique to the selective recovery and enrichment of copper from a Chilean mine water. The membrane extractor works by impregnating the porous structure of solid support with an organic film containing a selective salicylaldoximic extractant. Using a relatively low concentration of carrier extractant, a high degree of copper recovery was performed by the liquid membrane technique. The stripping flux of copper from membrane to receiving strip liquor was greatly influenced by the oximic carrier concentration and slightly by the sulfuric acid concentration utilized as stripping agent. No traces of all contaminant ions were detected in the resulting copper strip product solution. These results show the feasibility of separation and enrichment of copper using this liquid membrane technique. A bigger recovery of metal could be attained using a pilot-scale extractor whose design is the subject