FLOTATION AGENT FOR NONFERROUS METAL ORE DRESSING

Description
The OS-1M activating agent developed belongs to the class of oligosulfoxides; it is readily soluble in aqueous solutions and is used as a microadditive to butyl aerofloat, a collecting agent that is commonly employed in floatation ore dressing of chalcopyrite-cubanite ores.

Technical appraisal and economic benefits
The use of OS-1M in an amount of 0.5 g/ton of ore in the basic copper flotation of chalcopyrite-cubanite ores raises the copper content in copper concentrates by 0.5-1.8%. The nickel content in a nickel concentrate increases by 0.26%, and nickel extraction in a nickel concentrate increases by 13%. The consumption of butyl aerofloat is reduced by 35%. Use of the microadditive does not change the flotation circuit and does not complicate the equipment.

Application areas
The reagent can be used in floatation ore-dressing of nonferrous metal ores.

Development stage
An OC-1M prototype was tested on a commercial scale.

Patent situation
A patent was granted in the USSR (1989).

Commercial offers
Additional technological tests for a particular starting ore can be conducted, and the issues of regulation elaboration and production of required quantities of the reagent can be agreed upon.

Estimated cost
The estimated cost is 30% lower than the cost of butyl aerofloat.

Contacts
Cand. Sc. Elena Voskresenskaya, Scientific Secretary
Institute of Chemistry and Chemical Technology
42, K. Marx St., Krasnoyarsk, 660049, Russia
Phone: + (3912) 275485
Fax: + (3912) 238658
E-mail: env@icct.ru
http://www.icct.ru