THERMOCHEMISTRY ASPECTS OF MECHANOCHEMISTRY ACTIVATION OF THE FLOTATION PROCESSES

<u>Milan M. Petrov</u>, Ljubiša D.Andrić, Dejan C. Todorović, Melina M.Vukadinović Franchet d'Esperey Street, Belgrade, 11000, Serbia, e-mail: <u>m.petrov@itnms.ac.rs</u>

The energy that holds together atoms in molecules is a significant value that is measured in tens and hundreds of thousands of joules per mole substance. These molecules, which built most of the world available to us, held together other, much weaker forces. Their energy is measured only in tens of joules per mole, values that we are sometimes prone to neglect by comparing them with the aforementioned. Cohesive pressure is the phenomena in condensed phases and is associated with intermolecular forces. Driving forces in the process of mass transfer of substance in multiphase disperse systems, driven by molecular forces, which resultant is formation of concentration and temperature gradient. Flotation process is carried out in the pulp, apropos, dispersed system which is in dynamic equilibrium with the energy of mixing. Selective forming of surface alloys on minerals in the pulp has a diffusion character is service of mass transfer. Separation processes, liquid-liquid, are actually processes of treating the mineral raw material by flotation contributing to a greater or

lesser extent, distribution of useful minerals. The paper presents the process ore flotation Veliki Krivelj and statistically analyzed the mechanism of action the collectors xanthate and aeropromoter.

Key words: concentration gradient, cohesive pressure, mass transfer, diffusion, flotation collectors.