

Nonconventional methods for the separation recovery of metallic ions in aqueous systems

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Abstract In the last time nonconventional separation methods like Dissolved Air Flotation (DAF) have been applied, mostly for the purification and the recovery of some metals from industrial aqueous systems. By this relatively new method, better results than by using classical methods have been obtained regarding the degree of water purification and of the metallic ions recovery. The paper presents a synthesis of the studies in the field of separation through ionic flotation and its variants concerning the recovery of the metallic ions with a view to obtain some products (metallic oxides, salts), the recovery and depollution of the aqueous systems. The systematic studies performed on $[M(OH)_2]^{n+}$ -type solution permitted an exact estimation of factors that complete with to an efficient separation ($M=Cu, Co$ and Ni). On the basis of structure - flotability correlation there established the optimum conditions of a recovering separation, the types of the detachable compounds and their possibilities of application.

Keywords: alkylhydroxamic acids, imidasoline, 1,2 disubstituete, precipitate flotation
