

Objectives

Sludge obtained from exhausted electrolyte contains substantial amount of environmentally and economically important metals, such as Ni, Cu, Cr, Zn and Fe. In these days practice the slugs are not utilized for re-use and discard since it is considered as merely hazardous waste. From other hand Ukraine hasn't Ni and Cr metal sources. With this project we intent to develop technology for recycling major components of sludge (Ni and Cu) and producing from it marketable materials, such as enamel (from Ni containing sludge), pigments (Cr-containing) and adsorbent (from etching solution)

Science and Technology involved.

Computer simulation of sludge models to develop the procedure of it processing. Developing of low waste technology for color metal recycling. Reducing of water request for the plant thanks to water re-use. Adsorbent preparation from waste material for it utilization in water purification in internal plant's cycle. Other research units: Dnepropetrovsk technology University, Ukraine.