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**ELECTROCHEMICAL BEHAVIOUR OF INDIUM IN SULFATE SOLUTIONS**

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Electronic and radioelectronic branches of industry being the main fields of application of indium necessitate the development of new methods of obtaining of metallic indium of high degree of purity. Metallic indium of high degree of purity is obtained by electrolysis of aqueous solutions. In the process of ionization of indium, the ions are formed of singly valent indium, which are not stable and enter the secondary reactions with the components of solution, which can be the reason of the inconsistency of anodic and cathodic yields of indium with respect to current and leads to the complications during the refinery of indium /1/.

For the effective refinery of indium to high purity the knowledge is necessary about the properties of singly valent indium in aqueous and aqueous-salty solutions.

In present work the electrochemical behaviour is investigated of indium in sulfate electrolytes. Experiments were carried out in standard three-electrode cell using platinum working and auxiliary electrodes, and also chlorine-silver electrode, which was used as the comparative electrode.

Cyclic voltamperometric curves, obtained in electrolytes with various concentration of triple-valent indium and under varied rates of potential scan testifies about the occurrence of step-wise mechanism of reduction of indium, which is in good correspondence with literature data /2/.

Obtained results may be used for the estimation of the parameters of electrochemical refinery of indium.

**Literature**

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