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**THERMODYNAMIC PARAMETERS OF THE IORIDIUM CHLORIDE OF THE
COMPLEX SORPTION ON Hg-GRAPHITE ELECTRODE**

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Introduction. The nature of the Hg-graphite electrode is not defined. In the early stae, the process of overcharging iridium chloride complex in graphite-type electrodes (GE) and Hg-graphite electrodes (HGE) was studied. In this work the process of diffusion control was showed. However, the graphite and mercury – graphite electrodes $[\text{IrCl}_6^{3-}]$ have the same differences in the form of current voltage curve of electrical oxidation of the complex. On the Hg-graphite electrode, the controlled oxidation currents of the complexes $[\text{IrCl}_6^{3-}]$ do not depend on the speed and rotation of the electrode or on the speed and mixing of the electrolyte.

Purpose: The purpose of this work is the separation of the curve theoretical oxidation of the electric complex $[\text{IrCl}_6^{3-}]$ and the determination of the thermodynamic parameters of the adsorption of G , E_p and Γ_T . The characteristics of the high voltamperograms attracted the attention of researchers, starting with the development of instrumental methods of pharmaceutical chemistry. The simulation of electrochemical reactions allows the prognostication of the process and under various conditions, without the need for multiple inspections of experiments.

Materials and Methods: The measurement of the voltamper curves of the electro-oxidation of the $[\text{IrCl}_6^{3-}]$ complex was carried out, using the voltamperic analyzer in complex of STA in the PEMC. In this work, a three-electrode cell is used, in which a working electric electrode is a graphite electric electrode with mercury, and after an oxidation of Hg the residual potential is on electrode, it is equal to 0.1 V. In the quality of the comparison of the electrons, an oxide silver was obtained. The volt-ampere curves were removed in the 1M HCl form, the end of the mercury. And in the solution of b, it was $5,2 \cdot 10^{-9}$ g/l, and the concentration of $[\text{IrCl}_6^{3-}]$ of the complex was $1,25 \cdot 10^{-5}$ g/l. As the sweat.ncial of the electro-chemical sedimentation of Hg, it is selected 0.8 V, the speed is 50 mV/s.

Results and its discussion. As a result of the studies carried out, the peak of the complex, which characterizes the process of electric oxidation $[\text{IrCl}_6^{3-}]$ was taken. In the mercury centrifugal potentials of the electrolytic oxide of the sorbed complex is equal to 0.74 V, the half-peak width $\delta = 0.075$. Values calculated by formulas: $E_p = 0.74$ V, $G = 1.6.29$, $G_t = 1,96 \cdot 10^{-10}$ mol/cm². According to the parameter, it is built the schedule of independency of the current from sweat. By comparing the theoretical and pr.actical vertices, the numerical values of the parameters in G , E_p and Γ_T are obtained, while theoretical theoretic pi.ka and practical pi.ka most match each other with a friend: $E_p=0,74$ V, $G=-1,121$, $\Gamma_T=1,65 \cdot 10^{-9}$ mol/cm². According to the data, with account of the adsorption and product of reaction in mercury-centered ($[\text{IrCl}_6^{3-}]$), it was built on the basis of the oxidation of $[\text{IrCl}_6^{3-}]$ complex.

Conclusion. The determination of the parameters of the adsorption by the formulas of the model of the theoretical theoretical natural chloride complex of the iridium and the detection of the experimental peak was carried out. We obtained the partial-numerical values of the sorption parameters of the sorption: the peak potential $E_p=0,74$ V, the parameter taken from the action in the adsorbtion layer $G = -1.121$, and adsorption setting $\Gamma_T=1,65 \cdot 10^{-9}$ mol/cm². This allows us to expand the possibilities of the considered model, to increase the accuracy of the calculations, and the thermodynamic and kinetic parameters in the process.