DEPENDENCE OF THE OPERATION OF THE CARDIOELECTRODE ON THE PROPERTIES OF COATINGS DEPOSITED BY PLASMA METHODS [[1]](#footnote-1)\*)

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Method for measuring the cardio electrodes coatings properties deposited by plasma methods is presented. The measurement technique allows determine the efficiency of charge transfer, impedance, depolarization time, as well as the nonlinear dependences of these characteristics on the supplied potential and pulse duration. Coatings deposited by plasma methods have a multilayer structure and a developed surface (large effective surface area of Seff). The described technique also allows determine the Seff/S ratio. The scanning electron microscopy studies of the electrode surface are compared with the measured values of Seff.

Thus for Pt-coated cathode, the dependence of the described electrical characteristics on the duration of the stimulation pulse was obtained. The measurement results also allow determine the response of the cardio electrode-electrolyte system to stimulation pulses and the value of the effective cathode area. For the investigated sample the effective surface area was 3 times larger than the visible one. This result coincided with the results obtained by scanning electron and atomic force microscopy.

1. \*) [abstracts of this report in Russian](http://www.fpl.gpi.ru/Zvenigorod/L/Pt/ru/HU-Nagel'.docx) [↑](#footnote-ref-1)