

The invention relates to a method and a device provided for determining the zero charge potential value of the solid metal electrode surface in acid aqueous solutions and may be used in the selection, determination, and estimation of surfactant properties of the substances bearing positive and negative charges, in the electrosynthesis, at the estimation of particles adsorption and desorption processes, at the correction of electrolyte solutions in laboratory and factory conditions.

The method, according to the invention, includes polarization of the electrode with periodic current with direct and back impulse, rapid break in the external electric circuit during the course of the current direct and back impulses with the concomitant obtaining of electronic oscillograms, time overlap of the polarizing circuit break moments, determination of the oscillogram curves convergence point, corresponding to the spontaneous droop of the potentials after break in the polarizing circuit and determination of the zero charge potential value of the solid metal electrode surface relative to the reference electrode.

The device for realization of the claimed method, according to the invention, includes a metal screen, a bath with electrolyte, a working electrode, a reference electrode, a studied surface, a resistor, switches, a thyatron relay, an apparatus for supply with periodic current with direct and back impulse, an electronic oscillograph for current measurement and an electronic oscillograph for potential measurement.

The result consists in increasing the precision of measurement of the zero charge potential value of the solid metal electrode surface.

Claims: 2

Fig.: 4