

The study of the substituent effect on the voltammetric behaviour of newly synthesized N-benzyl-salicylthioamides and the preparation and identification of products of their electrooxidation were the aims of this thesis. The voltammetric characteristics were measured by DC voltammetry on a rotating disc electrode in a non-aqueous media. Using QSER, the effect of substituents on the anodic half wave potential was quantified, and statistically valid correlation equations were obtained. The influence of reaction media on the compounds electrooxidation was also studied. Using preparative electrolysis, the electrooxidation products of two selected N-benzylsalicylthioamides were obtained. The one (structurally similar) product was identified in both cases. The following general scheme of electrochemical oxidation of N-benzylsalicylthioamides studied was proposed: the electrooxidation starts on sulphur atom by elimination of electrons, followed by translocation of charge on nitrogen atom, then hydrogen sulphite is eliminated, and a new ring is closed between two molecules of appropriate N-benzylsalicylthioamide.