

Electrochemical oxidation of eight newly synthesized derivatives of 2-(fenylamino)-2-thioacetamide in 0,1 mol dm<sup>-3</sup> sodium perchlorate – including effects of acid, base, and water – was studied. It was found that oxidation carried out in two subsequent steps, each of them is connected with exchanging of one electron. The oxidation is localised on sulphur atom, it is exchanged by oxygen atom in the final oxidation product. The effect of substituents on the course of electrochemical oxidation was also studied.