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Elektrokemijska karakterizacija (1E)-1-N-[[4-(4-{{(E)-N-(4-aminofenil) karboksiimidoil}fenoksi}butoksi) fenil] metiliden} benzen -1,4-diamin

Electrochemical characterization of (1E)-1-N-[[4-(4-{{(E)-N-(4-aminophenyl) carboxyimidoil}phenoxy}butoxy) phenyl] methylidene} benzene -1,4-diamine

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Oxido-reduction properties of a newly synthesized Schiff base were investigated by cyclic voltammetry and differential pulse voltammetry. Measurements were conducted in a three electrode voltammetric cell in a non-aqueous medium. Glassy carbon was used as a working electrode, platinum wire as counter electrode and non-aqueous Ag/Ag⁺ electrode as a reference electrode. Inert atmosphere was accomplished by system purging with high purity argon Ar 5 ($\phi_{Ar} = 99,999\%$), before each measurement.

Cyclic voltammograms revealed one oxidation and one reduction peak of the investigated Schiff base ($E_{p,a} = 0,44$ V and $E_{p,k} = 0,39$ V), which increased both with increasing concentration ($c = 3,1 \cdot 10^{-5}$ mol dm⁻³... $1,25 \cdot 10^{-4}$ mol dm⁻³) and with scan rate ($\nu = 50...300$ mV/s) [1, 2]. Differential pulse voltammetry showed one oxidation peak $E_{p,a} = 0,41$ V, which also increased with rising concentration [3].

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