Electrochemical study of some new sulfa-nitrone compounds and their electrosynthesis with selected ketones

ABSTRACT

The electrochemical behavior of nitrone compounds and electrosynthesis of nitrone with some ketones were established by cyclic voltammetry (CV), for oxidation and reduction at a platinum electrode in DMF at scan rates 0.5 to 2 vs-1 at a potential range of 2 to -2 v. The study of cyclic voltammetry with different scan rates offers much information about electron transfer, kinetics, and transport properties of electrolysis reactions. The current was measured as a function of the linear potential applied. The resulting products were identified by physical properties like melting point (m.p.) and color. Also compounds showed the expected data in identification techniques like FTIR, 1HNMR, mass spectroscopy and Elemental analysis (CHN). The results verified chemical of the structures electrosynthesized compounds.