A Voltammetric Study of the Chemosensor Activity of Aminoanthracene Derivatives

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Abstract — The redox activity of potent chemosensors based on anthryl-containing diamines, thioureas, and ureas in the absence and in the presence of complexing metal cations in solution was studied by cyclic and differential pulse voltammetry. The free energy of intramolecular electron transfer was calculated. The experimental conclusions were confirmed by ab initio RHF/6-31G** calculations. A correlation was found between the electrochemical and photophysical data for the compounds studied.