

Article

Electrochemical Comparison on New (Z)-5-(Azulen-1-Ylmethylene)-2-Thioxo-Thiazolidin-4-Ones

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Abstract: Three (Z)-5-(azulen-1-ylmethylene)-2-thioxo-thiazolidin-4-ones are electrochemically characterized by cyclic voltammetry, differential pulse voltammetry, and rotating disk electrode voltammetry. The electrochemical investigations revealed that the redox potential is influenced by the number and position of the alkyl groups, and the possible oxidation mechanism is proposed. These compounds, after their immobilization on glassy carbon electrodes during oxidative electropolymerization, were examined as complexing ligands for heavy metal ions from aqueous solutions through adsorptive stripping voltammetry.

Keywords: (Z)-5-(azulen-1-ylmethylene)-2-thioxo-thiazolidin-4-ones; electrochemical characterization; modified electrodes; metal detection

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