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**MODIFIED ELECTRODES BASED ON AZULENIC COMPOUNDS AND 1D
NANOSTRUCTURES WITH APPLICATIONS IN THE DETECTION OF HEAVY
METALS AND MEDICAL INTEREST COMPOUNDS**

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New chemically modified electrodes based on complexing polymers were obtained and studied by electropolymerization of 2 azulene ligands, (E)-5-(azulene-1-yl diazenyl)-1H-tetrazole and (E)-5-((6-t-butyl-4,8-dimethylazulen-1-yl) diazenyl)-1H-tetrazole. The modified electrodes obtained were tested in the analysis of heavy metals, obtaining a detection limit below 10^{-9} M for Pb(II) ion.

Electrodes modified with 1D nanostructures were prepared using bismuth nanowires (BiNWs) obtained from ionic liquid systems, which were integrated into an original composition to create a sensor for the detection of hydrogen peroxide.

The ligands, nanostructures of BiNWs, as well as the modified electrodes obtained on their basis were characterized by electrochemical methods (cyclic voltammetry, differential pulse voltammetry, rotating disk electrode voltammetry and electrochemical impedance spectroscopy), by structural techniques (SEM-EDX, AFM, STEM-EDX, XRD) and UV-Vis.