EVALUATION OF HEAVY METALS CONTENT IN WATER BY ELECTROCHEMICAL SENSORS BASED ON AZULENES

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New stochastic sensors were proposed for the screening of heavy metals in water samples. Heavy metals (e.g., Cd and Pb) are continuously accumulating into ecosystems mainly through industrial processes. They are nonbio-degradable species whose life-threatening hazards mostly depend on their chemical forms and exposure1. Therefore, their fast and reliable assay is essential.

Electroactive nanostructured materials from azulene derivative classes were synthesized and immobilized in graphite paste. Stochastic sensing - a new approach in electroanalysis, the only one that can perform both qualitative and quantitative analysis, was used2. The linear concentration range for heavy metals was established.

The main advantages of the proposed method are: fast assay of heavy metals in water samples, low cost per analysis, no sample preparation is required and high reliability of the assay.

Acknowledgment

References

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