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Covalent organic framework as a novel electrochemical platform for highly sensitive and stable detection of lead

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ABSTRACT

A sensitive and selective TAPB-DMTP-COF (TAPB, 1,3,5-tris(4-aminophenyl)benzene; DMTP, 2,5-dimethoxyterephaldehyde; COF, covalent organic framework) modified carbon paste electrode was evaluated as a novel electrochemical sensor for the determination of lead in an aqueous medium. Lead was accumulated on the TAPB-DMTP-COF surface by the complexation with the amine groups, and detected by differential pulse anodic stripping voltammetry.