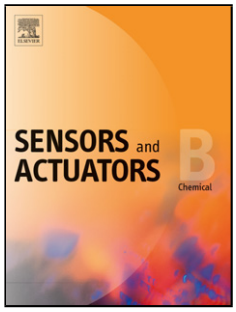

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A SERS-based molecular sensor for selective detection and quantification of copper(II) ions

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Highlights

- Dipicolylamine-based SERS molecular sensor for copper(II) ions
- Pronounced selectivity for copper(II) ions with excellent recoveries
- Detection of copper(II) ions down to $5x10^{-8}$ M
- Applicable in complex matrices

Abstract

A novel SERS-based molecular sensor for detection and quantification of copper(II) ions with very good specificity and selectivity is reported in this work. The sensing is enabled by the employment of a synthesized dipicolylamine-based ligand anchored onto plasmonic gold