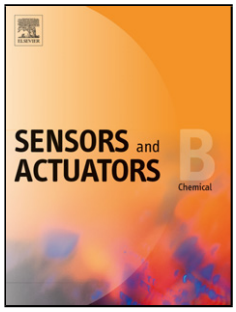

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Determination of Cu(II) in environmental water samples using polymer inclusion membrane-TAC optode in a continuous flow system

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Highlights:

- A polymer inclusion membrane (PIM) was prepared and its composition optimized.
- Light dependent resistor (LDR) detects decreasing light intensities.
- PIM and 2-(2-thiazolylazo)-p-cresol as a copper sensing optode in Continuous Flow.

Research highlights

The ligand, 2-(2-thiazolylazo)-p-cresol (TAC) has been successfully incorporated into a polymer inclusion membrane to complete a sensing platform for copper ions in water samples. The detection is through the color development from the complexation reaction of copper with TAC. The absorbance measurements are conducted by using light emitting diode (LED) and light dependent resistor (LDR) connected to a voltmeter. Results are obtained through the voltage readout on the computer. The sensor has a limit of detection (LOD) of 0.10 mgL^{-1}.