



## CONFERENCE PROCEEDINGS

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### Selective Sensing for the detection of Cu<sup>2+</sup> by S-triazine ligand

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#### Abstract

A Novel chemosensor derived from S-triazine and pyridine-2-carbaldehyde was prepared by conventional method and it was characterized by FT-IR, <sup>1</sup>H-NMR spectrum. The specific selectivity in sensing of Cu<sup>2+</sup> was effectively studied by colorimetric and fluorescence technique. The chemosensor display strong “turn-on” fluorescence and promising selectivity towards sensing of Cu<sup>2+</sup>. The sensing was confirmed by UV-Visible spectrum. The mechanism of sensing is based on Photo Chelation enhanced fluorescence (CHEF). When Cu<sup>2+</sup> binds with ligand gets inhibited thereby enhancing the fluorescence intensity and CHEF takes place due to the binding of Cu<sup>2+</sup> with ligand. The detection limit was found out to be 0.03 μM.

**Keywords:** S-triazine, Highly selective Cu<sup>2+</sup> sensing, Fluorescence, Colorimetric