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Title: Chromone Based Fluorescent Organic Nanoparticles for High-Precision *in-situ* Sensing of Cu^{2+} and CN^- Ions in 100% Aqueous Solutions

Authors: Shubhrajyotsna Bhardwaj, Nirma Maurya, Ashok Kumar Singh



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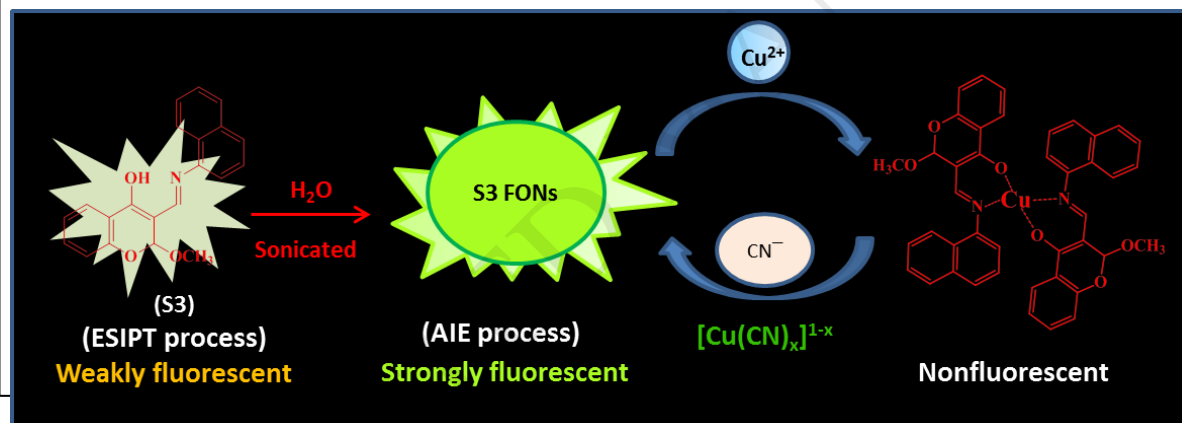
Department of Chemistry, Indian Institute of Technology – Roorkee, Roorkee 247667, India

Graphical Abstract

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Highlights:

- Novel multidentate probes S3 and S4 were synthesized and characterized.
- S3 was further developed as AIE based fluorescent organic nanoparticles.
- S3-FONs acted as efficient primary sensor for Cu^{2+} (turn OFF) and a potential secondary sensor for CN^- (turn ON).
- The proposed sensor detects the nanomolar concentrations of both of the ions.
- IMPLICATION logic gate and cellular imaging applications.

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