

## Accepted Manuscript

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Authors: Navneet Kaur, Gaganpreet Kaur, Priya Alreja



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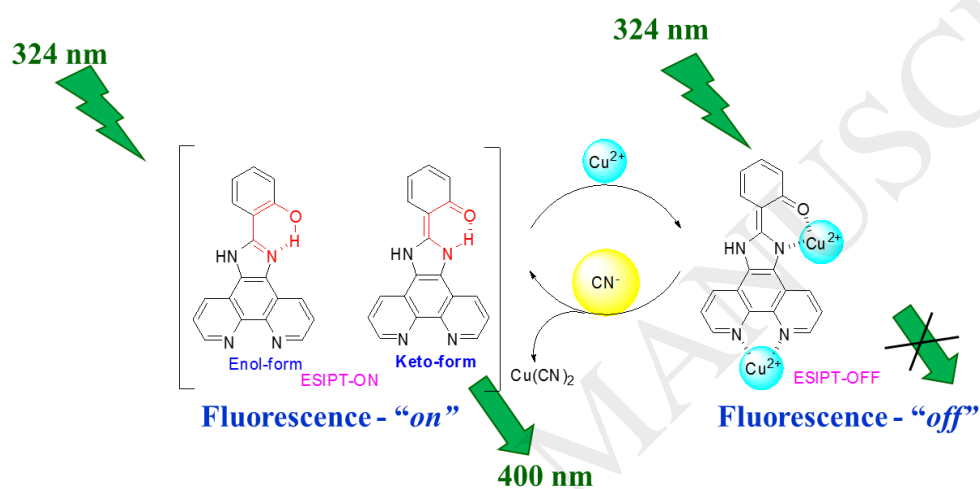
# 1, 10-Phenanthroline based ESIPT Sensor for Cascade Recognition of $\text{Cu}^{2+}$ and $\text{CN}^-$ ions

Navneet Kaur,\* Gaganpreet Kaur and Priya Alreja

Department of Chemistry, Panjab University, Chandigarh 160014, India

\* Corresponding author. Tel.: +91 172 2534430; fax: +91 172 2545074;  
e-mail: neet\_chem@yahoo.co.in; neet\_chem@pu.ac.in

## Graphical abstract



## Highlights

- A simple 1,10-phenanthroline based ESIPT sensor for fluorescent detection of different transition metal ions.
- “*In-situ*” generated **1**- $\text{Cu}^{2+}$  complex for cascade detection of  $\text{CN}^-$  ions.
- “*on-off-on*” switching process caused by  $\text{Cu}^{2+}$  and  $\text{CN}^-$  additions could be repeated several times with little fluorescence efficiency loss.
- Elaboration of “Set-Reset” flip flop at molecular level by alternate additions of  $\text{Cu}^{2+}$  and  $\text{CN}^-$  ions.

**Abstract:** The optical methods, using organic molecular sensors, for the detection of cations and anions, offer several advantages in being selective and sensitive, in addition to simple in application and *in-situ* monitoring. Herein, the chemosensing properties of 1,10-

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