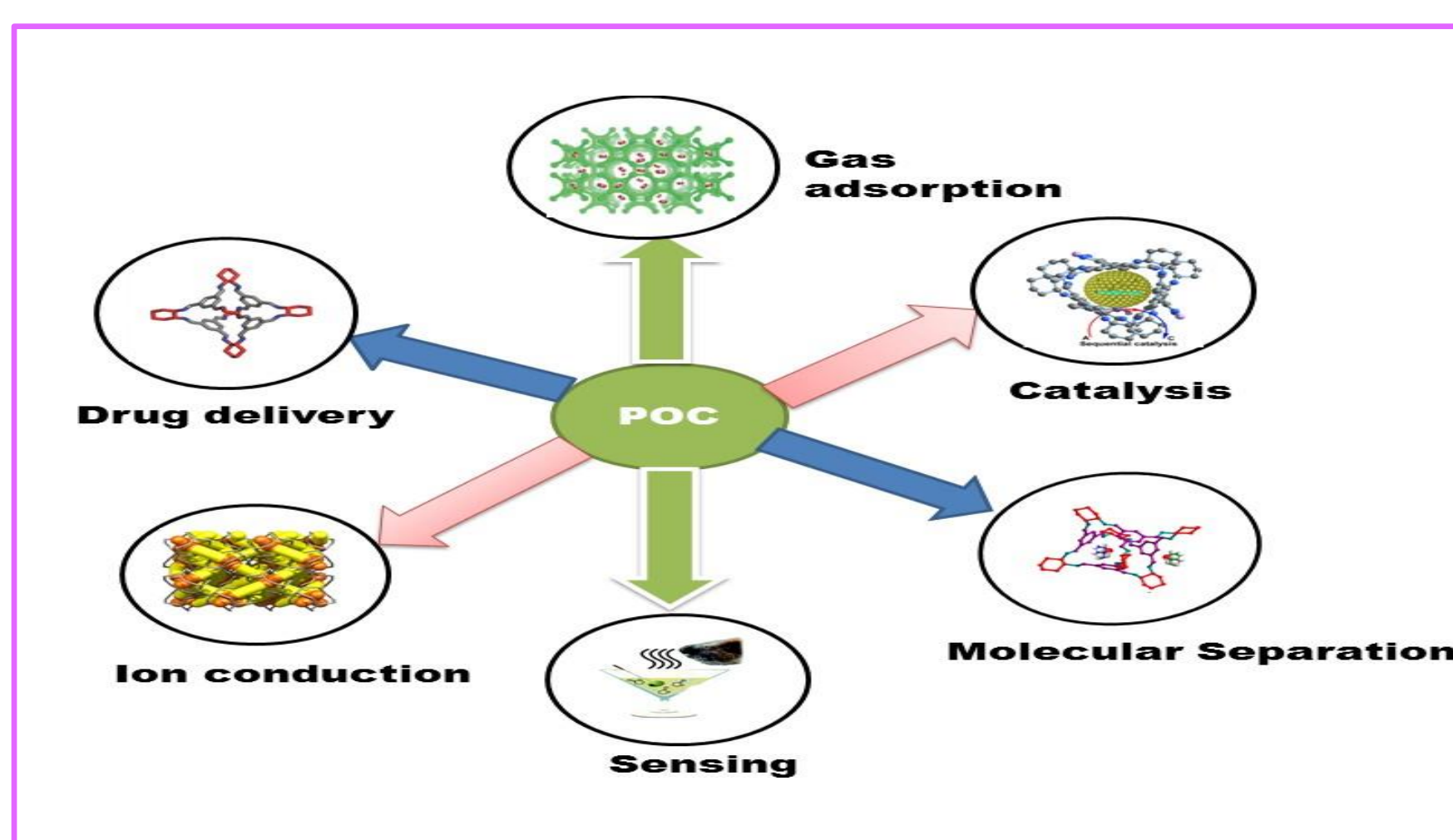
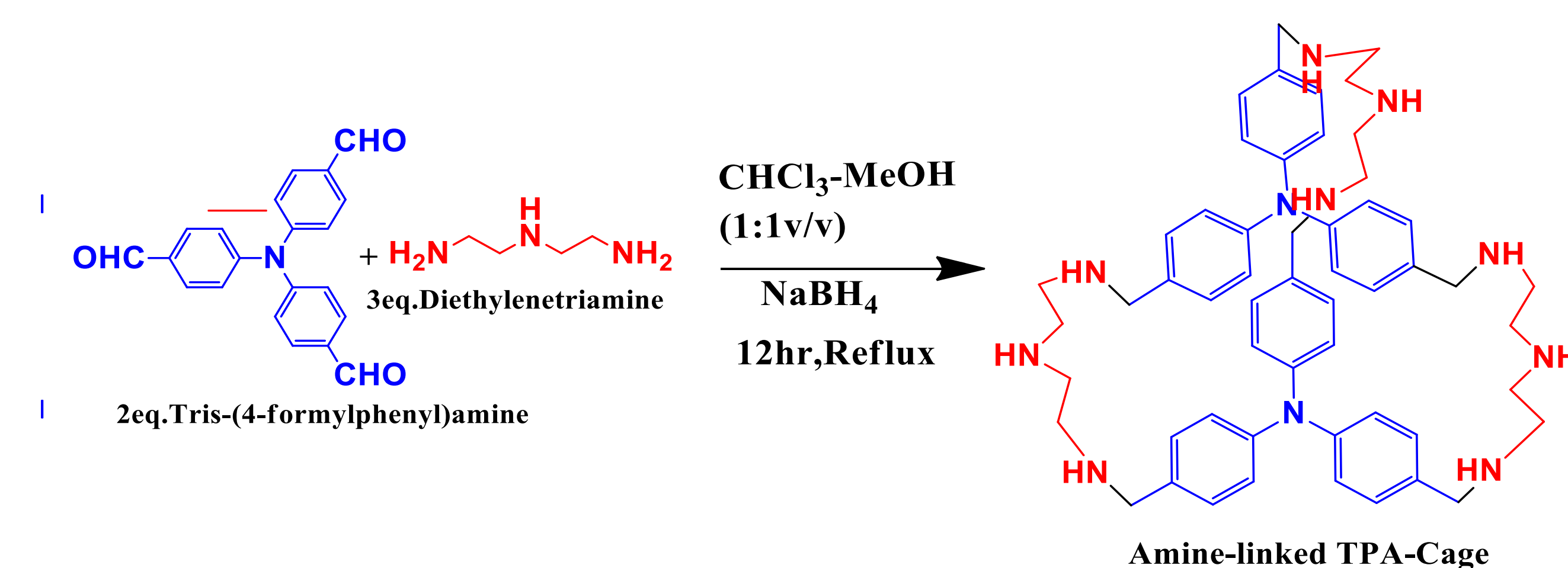


Abstract: Synthesized a novel [2+3] amine linked fluorescent organic cage, by combining the linkers of tris-(4-formylphenyl)amine and diethylenetriamine through Schiff's base mechanism. In this work, to investigate the organic cage that serves as a luminescent sensor for highly sensitive and selective detection of explosives (PA) and metal ions (Co^{2+}) by fluorescence quenching method. The quenching efficiency of cage for picric acid was found to be 96.89% even at low concentration (1 mM, 80 μL) of quencher (PA) in DCM and the quenching efficiency of cage for Co^{2+} was found to be 90.6% at low concentration (1 mM, 100 μL) of Co^{2+} in DMF solvent.

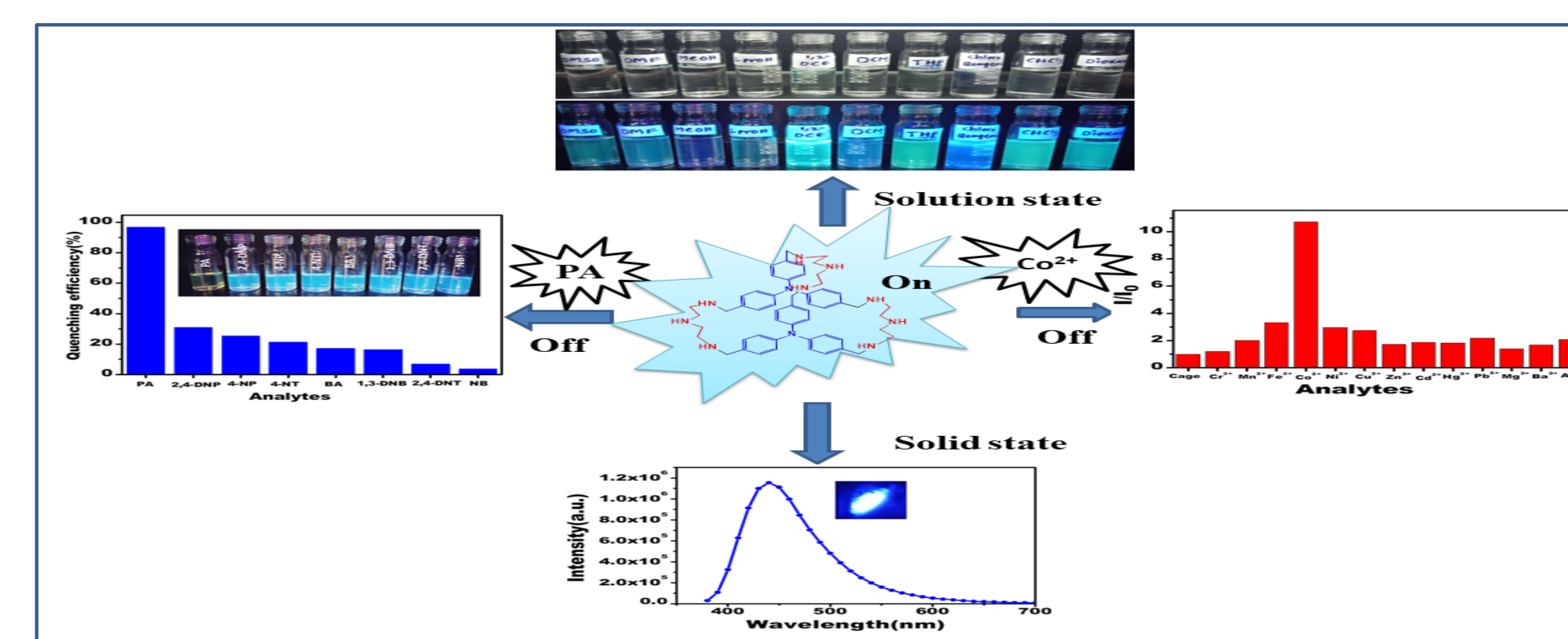
Introduction



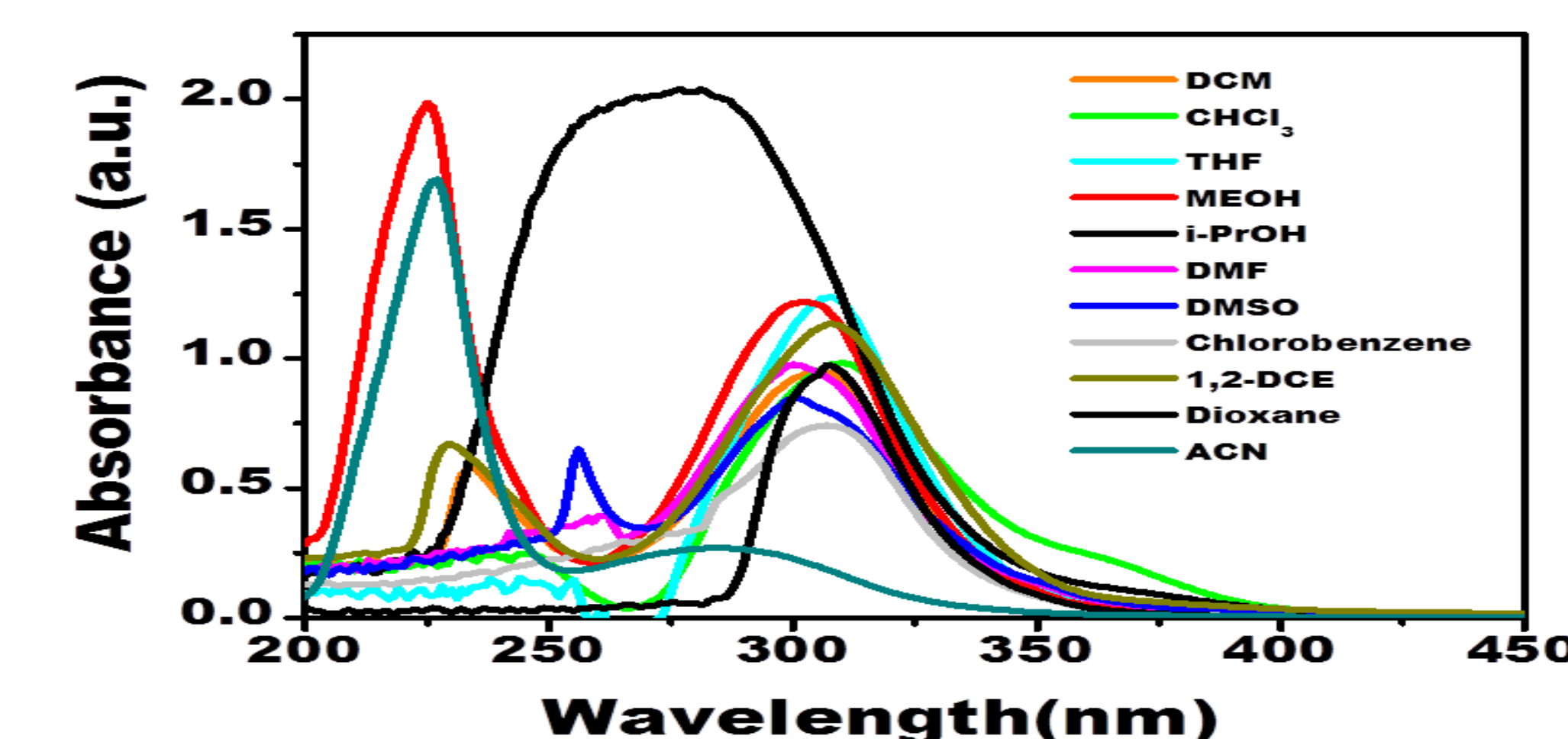
Synthetic route



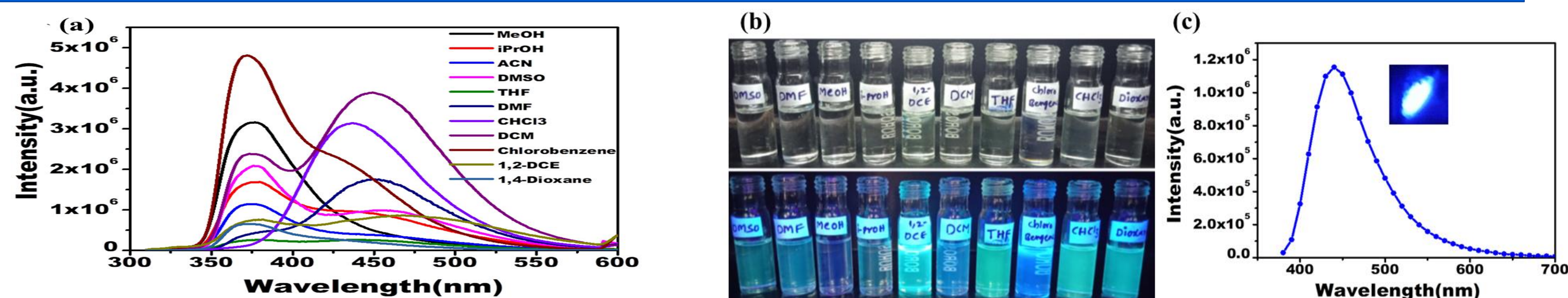
Graphical Abstract



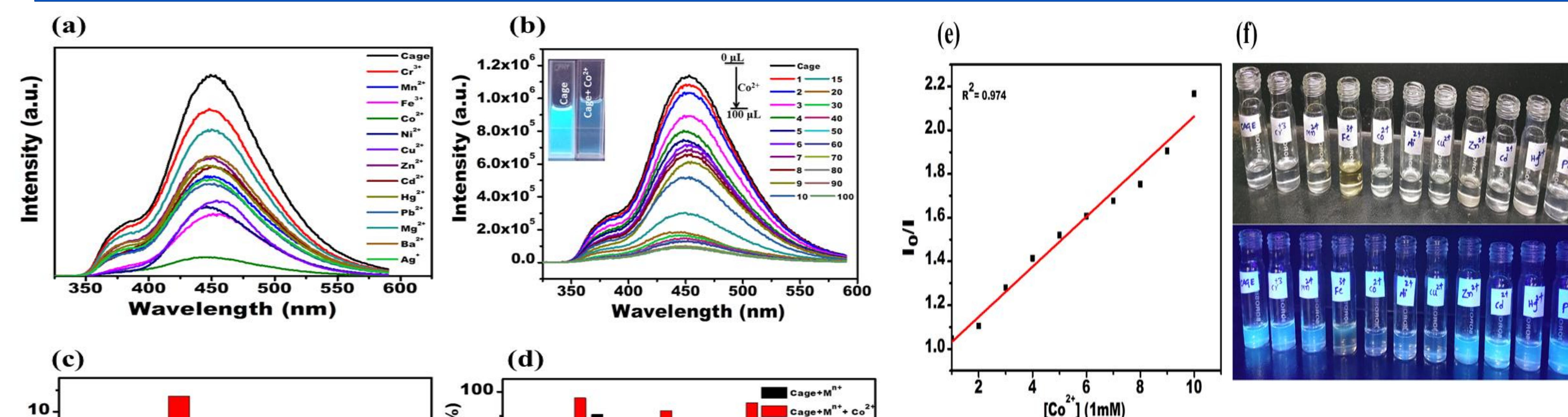
UV-absorption data



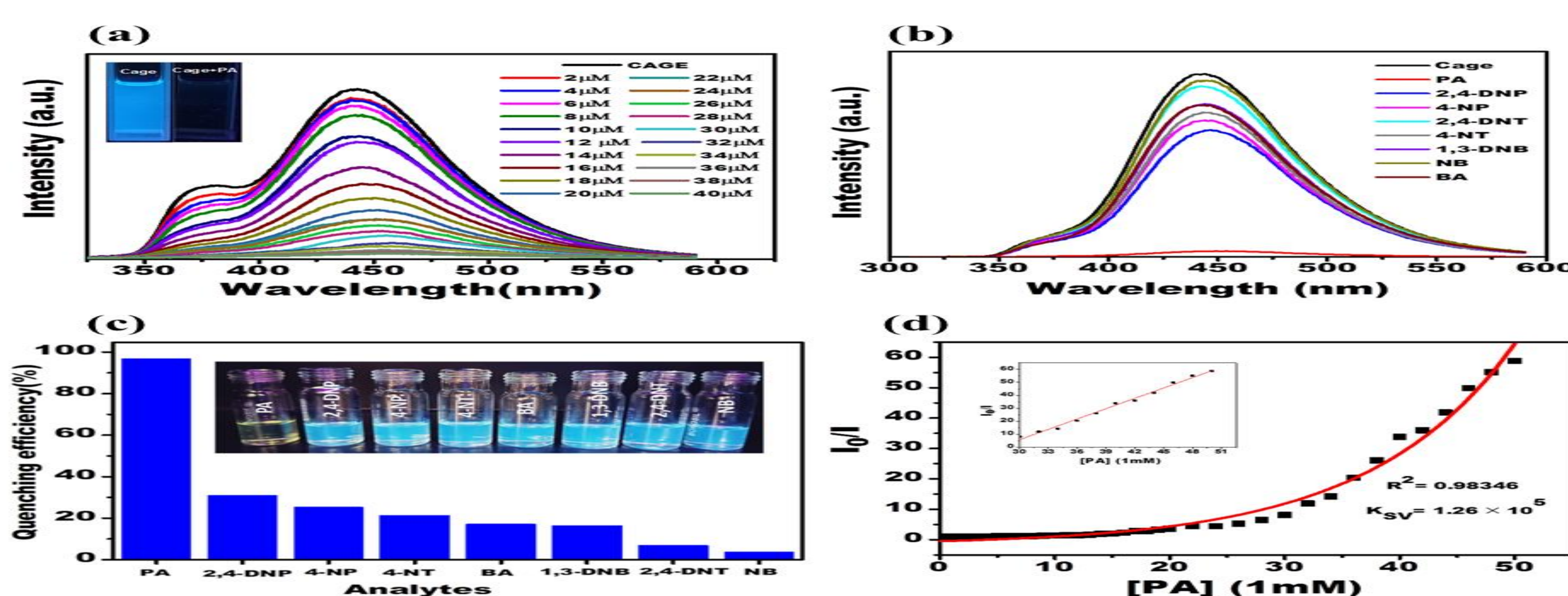
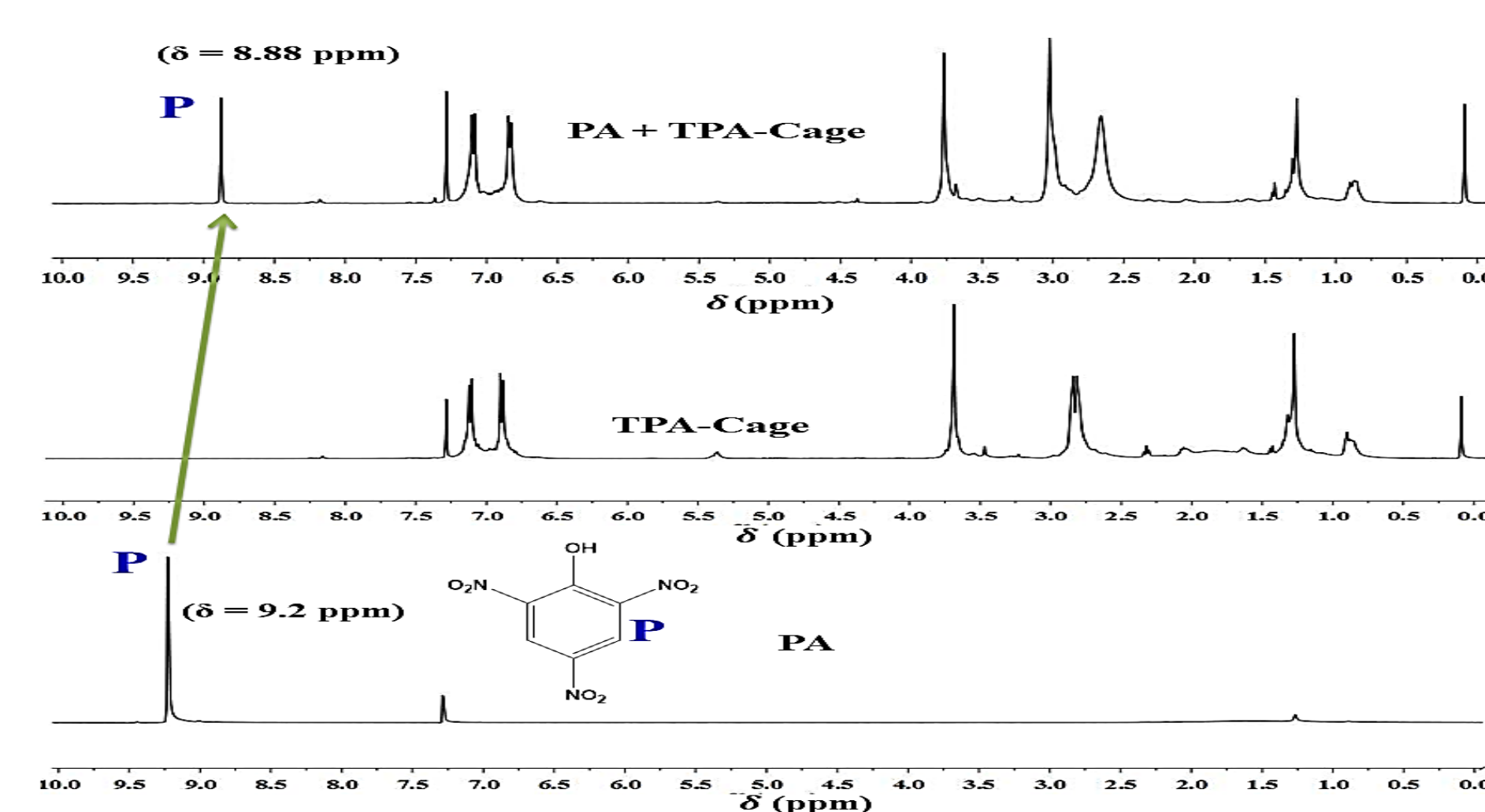
Fluorescence Emission Spectra



Metal ion sensing



Fl. Quenching With Nitroaromatics



References

- Sharma, V.; Chatterjee, N.; Srivastava, P.; De, D.; Bharadwaj, P. K. *Chemistry Select* **2019**, *4*, 7991-7995.
- Ramesh Kumar Gajula, and M. Jaya Prakash. *New J. Chem.* **2021**, *45*, 4810-4822.

