Poster Presentation

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Design and development of Luminescent MOFs for sensing application

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Over the last few decades, metal organic frameworks (MOFs) have flourished as new emerging functional materials due to various potential applications in catalysis, chiral separation, sensing, gas storage, luminescent materials, ion exchange, magnetism, etc.[1,2] Based on systematic studies, earlier we have demonstrated the role of ancillary ligands and linkers in the formation of diverse MOFs with varied dimensionality and porosity.[3] In the present work, the effect of flexible spacer in hexadentate polypyridyl ancillary ligands on the structural diversity of two Cd(II) 2D MOFs (1 and 2) with fluorogenic linker has been demonstrated. Furthermore, their application in selective sensing of nitro-explosives will also be discussed.

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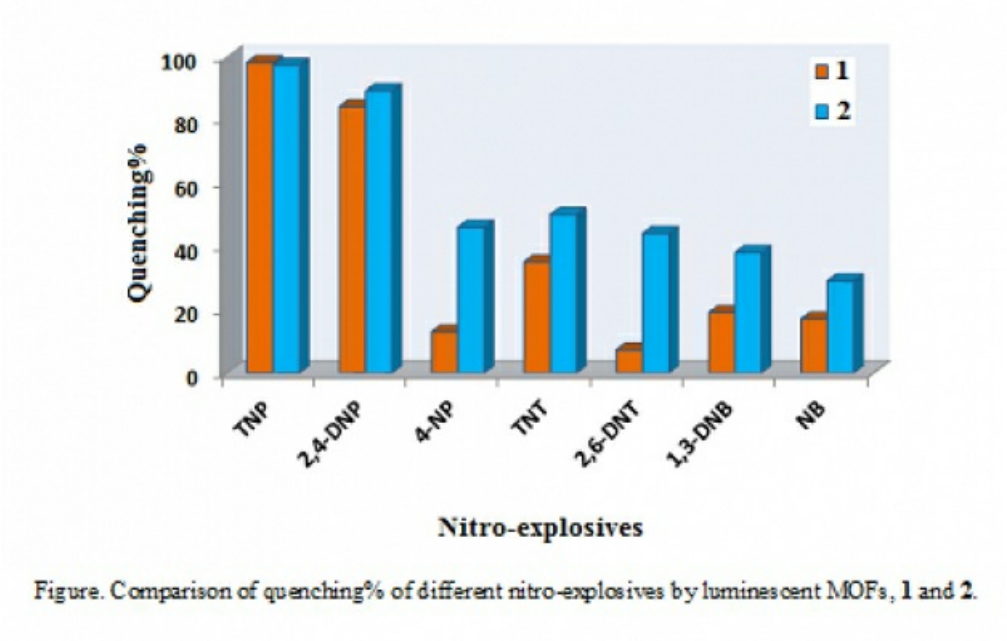

Figure. Comparison of quenching% of different nitro-explosives by luminescent MOFs, **1** and **2**.

Keywords: Luminescent MOFs, Sensing