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1D porous zinc(II) coordination polymer as fluorescent chemosensors for nitrobenzene and Fe^{3+}

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This paper studies the luminescence-sensing properties of 1D porous zinc coordination polymer $[Zn(3\text{-tba})_2]\cdot DMA$ (**1**, 3-Htba = 3-(4*H*-1,2,4-triazol-4-yl)benzoic acid, DMA = *N*,*N*-dimethylacetamide). The systematic luminescence experiments indicate that it can be potentially used as a fast-response fluorescence sensor for the sensitive detection of nitrobenzene and Fe^{3+} ion through drastic fluorescence quenching. Moreover, the quenching mechanisms of **1** towards nitrobenzene and Fe^{3+} have also been investigated.

Keywords: 1D coordination polymer, Luminescence, Sensing, Nitrobenzene, Fe^{3+} ion