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Novel fluorescent probes for sequential detection of ${\rm Cu}^{2+}$ and citrate anion and application in living cell imaging

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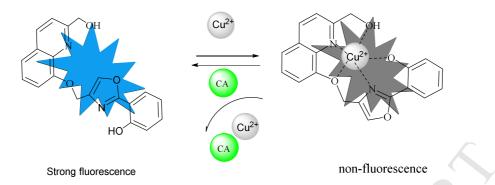
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In this study, we reported three novel probes L1, L2 and L3 for highly selectively and sensitivity detected Cu^{2+} ion through "turn off" response in DMF/H₂O solution (v/v=1/1, 0.01 M, Tris-HCl buffer, pH 7.30). Sequentially, the L1- Cu^{2+} , L2- Cu^{2+} and L3- Cu^{2+} complexes detected citrate anion through "turn on" response, which could be applying as molecular logic gate. Furthermore, the in vivo sensitivity experiments of Cu^{2+} ion and citrate anion were demonstrated through fluorescence imaging in living cells.

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