Colorimetric recognition of Cu(II) by (2-dimethylaminoethyl)-amino appended anthracene-9,10-diones in aqueous solutions – Deprotonation of aryl amine NH responsible for colour changes

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Electronic Supplemental Information

1.1. Visual changes in 2 with selected Metal ions

1.2. Visual changes in 3 with selected Metal ions
2.1 Selected Absorption plots of 2

Ratiometric plot of 2 with Cu(II) (100 μM) in the absence and presence of other metal ions (1000 μM) CH₃OH : H₂O 1:1, pH 7.0 + 0.1 [10 mM HEPES]

Ratiometric plot of 2 (100 μM) for different metal ions (100 μM)

pH titration of 2 + Cu(II) (1:1) in CH₃OH : H₂O 1:1
2.2 Selected Absorption plots of 3

pH titration of 3 in CH$_3$OH : H$_2$O 1:1

Titre of 3 against different concentrations of Cu(II), Ni(II), Co(II), Cd(II) and Zn(II)

pH titration of 3 + Cu(II) (1 :1) in CH$_3$OH : H$_2$O 1:1
pH titration of $3 + \text{Cu(II)}$ (1:2) in CH$_3$OH : H$_2$O 1:1

Titre of 3 against different concentrations of Cu(II),
Plot of ratio of intensities at 715 and 800 nm vs. Cu(II) concentration