## **Electronic Supplementary Material (ESM) for Publication:**

A ruthenium(II) complex with environment-responsive dual emission and its application in the detection of Cysteine/Homocysteine

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## **S1.** Supplementary results

Fig.S1 The absorption and emission spectra of 1 and 2 in DMF.

**Fig.S2** The emission spectra of **1** in different solvent. For compare, the intensity in DMF,DMSO,CH<sub>3</sub>CN were divided by 800, while the intensity in EtOH and HEPES buffer were divided by 50.

Fig.S3 The absorption and emission spectra of 1, 1-Cys and 2 in HEPES buffer.

Fig. S4 The ESI mass spectra of of 1, 1-Cys and 1-Hcy in HEPES buffer.



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