

## Supporting information

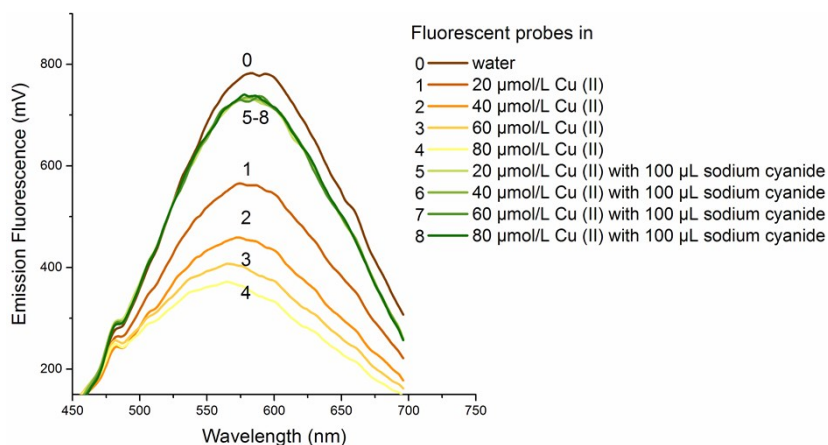


Figure. SI 1 Fluorescence quenching of yeast probes by  $\text{Cu}^{2+}$  and the following fluorescence recovery of copper treated yeast probes by  $\text{CN}^-$ .

A, Control, (0) fluorescent yeast probes in water.

B, Fluorescent yeast probes in (1) 20  $\mu\text{mol/L}$   $\text{Cu}^{2+}$ , (2) 40  $\mu\text{mol/L}$   $\text{Cu}^{2+}$ , (3) 60  $\mu\text{mol/L}$   $\text{Cu}^{2+}$  and (4) 80  $\mu\text{mol/L}$   $\text{Cu}^{2+}$ , respectively.

C, Yeast probes treated with different concentrations of copper, (5) 20  $\mu\text{mol/L}$ , (6) 40  $\mu\text{mol/L}$ , (7) 60  $\mu\text{mol/L}$  and (8) 80  $\mu\text{mol/L}$ , followed by supplementing with 100  $\mu\text{L}$  sodium cyanide (1 mmol/L), respectively.

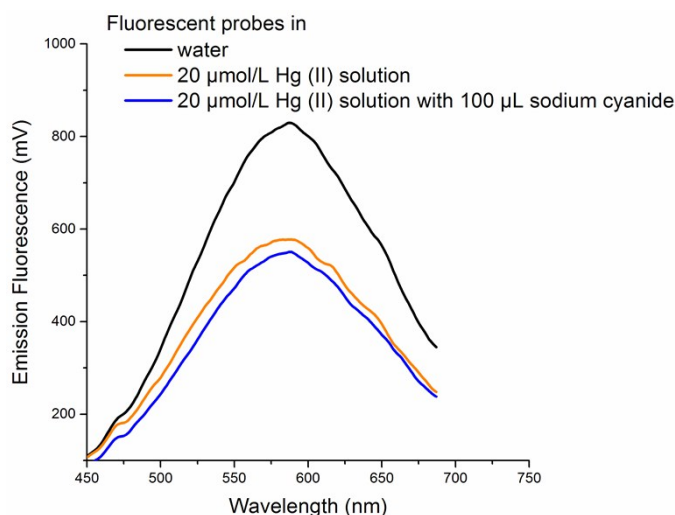


Figure. SI 2 Fluorescence quenching of yeast probes by  $\text{Hg}^{2+}$  and the effect of  $\text{CN}^-$  supplementation. (1) fluorescent yeast probes in water (control), (2) fluorescent yeast probes in 20  $\mu\text{mol/L}$   $\text{Hg}^{2+}$ , (3) mercury (20  $\mu\text{mol/L}$ ) pre-treated yeast probes

supplemented with 100  $\mu\text{L}$  sodium cyanide (1 mmol/L)