

## Electronic Supplementary Material

### Molecular imprinting based on phosphorescent resonance energy transfer for malachite green detection in fishes and water

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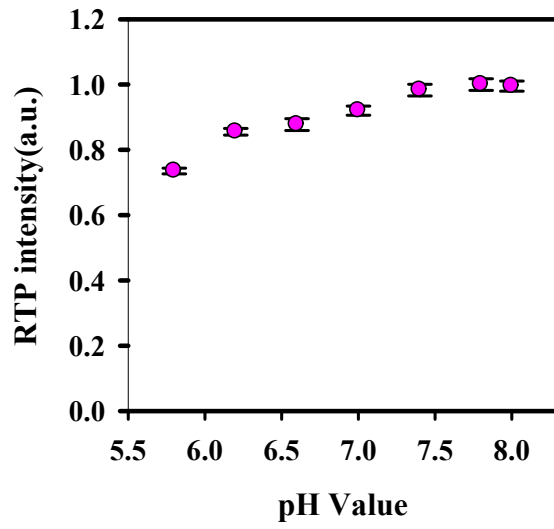
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**Table. S1** Effect of co-existing substances on the RTP intensity of 0.5 $\mu$ M MG.

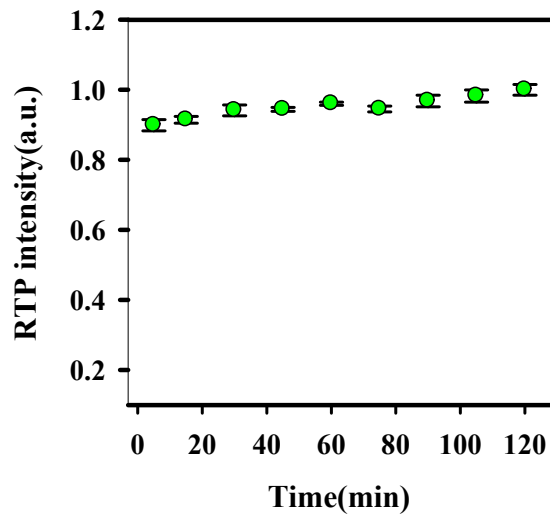
Co-existing substance	[Co-existing substance] / [MG]	Change of the RTP Intensity (%)
K <sup>+</sup>	1000	-1.3
Ca <sup>2+</sup>	50	+3.5
Mg <sup>2+</sup>	300	+5.2
HCO <sub>3</sub> <sup>-</sup>	500	+3.4
Lys	200	+2.9
Glu	200	+4.3
Arg	400	+3.8
Gly	400	+1.4

**Table. S2** MG spiked recovery experiments with fishes and natural waters (mean $\pm$ s, n=3).

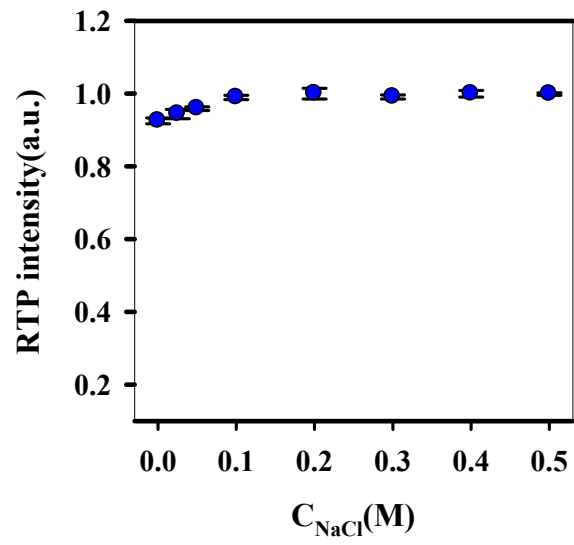
Type of samples	MG spiked ( $\mu$ M)	Recovery (%)
	0.2	96 $\pm$ 5
<i>C. idellus</i>	2	98 $\pm$ 6
	10	107 $\pm$ 3
	0.2	95 $\pm$ 5
natural water	2	101 $\pm$ 4
	10	102 $\pm$ 4



**Fig. S1** Effects of pH on RTP intensity of MIP-coated QDs.



**Fig. S2** Effects of time on RTP intensity of MIP-coated QDs.



**Fig. S3** Effects of NaCl concentration on RTP intensity of MIP-coated QDs.