Electronic Supplementary Material (ESI) for Analyst


# Magic sized ZnS quantum dots as a highly sensitive and selective fluorescence sensor probe for $Ag^+$ ion†

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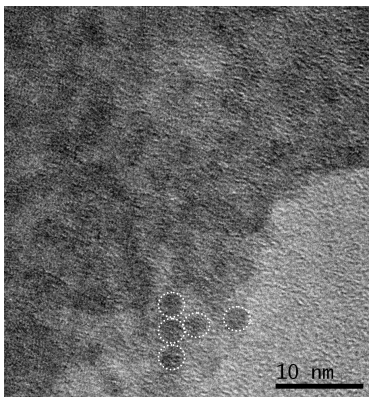


**Fig. S1** Bright field TEM image of 0.5 h refluxed TLA–ZnS QDs. Some clusters are encircled.

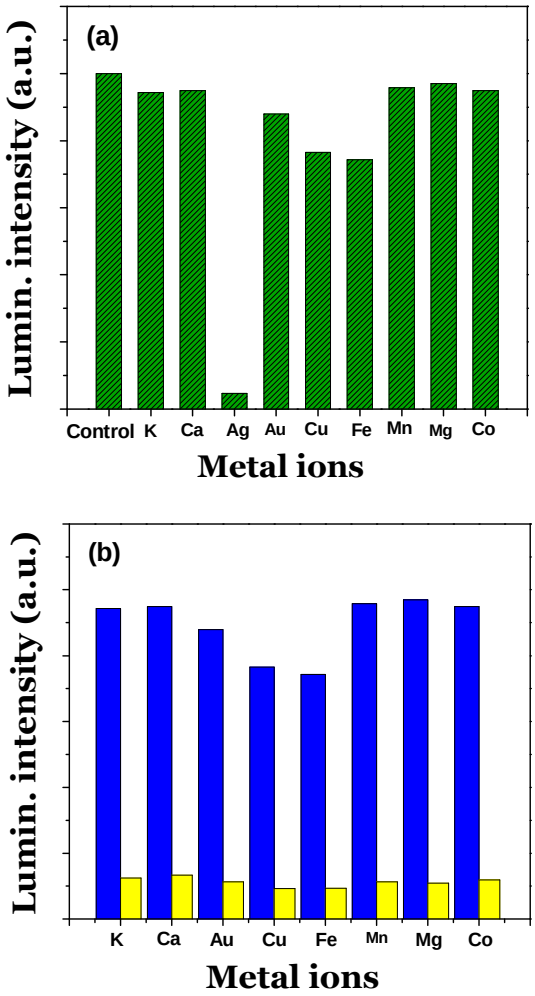


**Fig. S2** (a) Effect of different metal ions on the PL intensity of as-prepared (0 h) TLA capped ZnS QDs. Concentrations of $Ag^+$ ion: 0.5 μM; other ions: 100 μM. (b) Responses of PL intensities in the absence (blue) and presence (yellow) of 0.5 μM $Ag^+$ solution containing specific interfering metal ions of 100 μM.

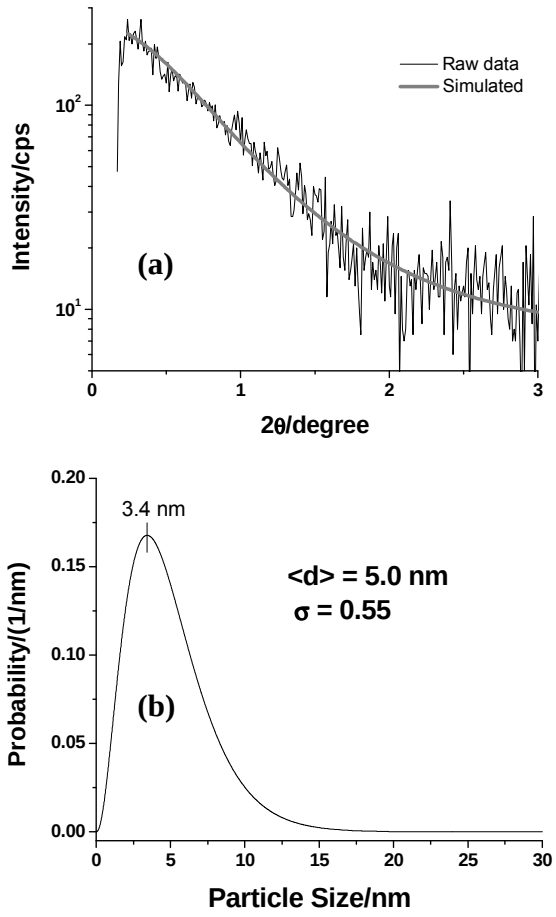


**Fig. S3** (a) Transmission SAXS analysis of 0.5 h refluxed TLA–ZnS QDs after addition of $Ag^+$ ion and (b) the corresponding particle size distributions. The average diameter (<d>) and dispersion (σ) of the distribution are indicated in the figure.