Electronic Supplementary Material

Swelling Technique Inspired Synthesis of Fluorescence Composite Sensor for Highly Selective Detection of Bifenthrin

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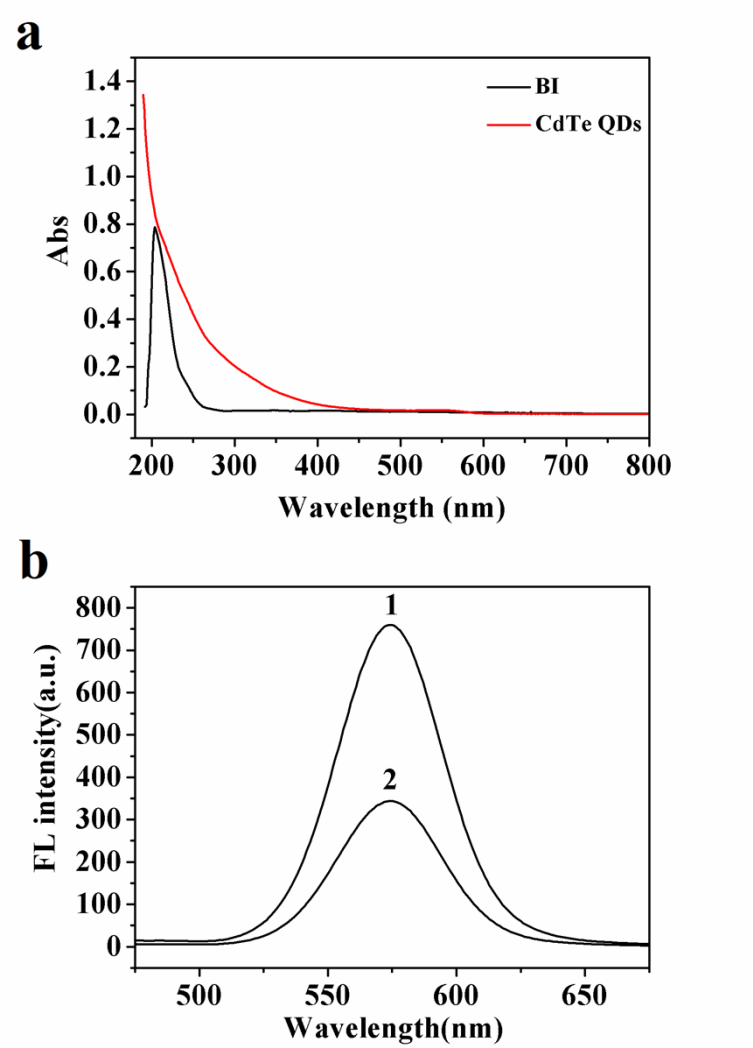

Figure S1 UV-vis spectra of BI and CdTe QDs (a) and the fluorescence spectra of CdTe QDs and CdTe QDs@BI

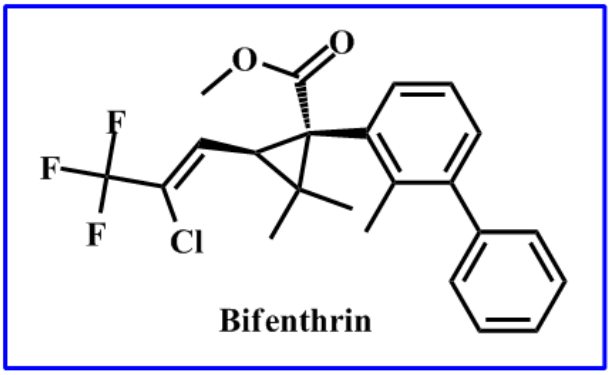

Figure S2 the structure of BI

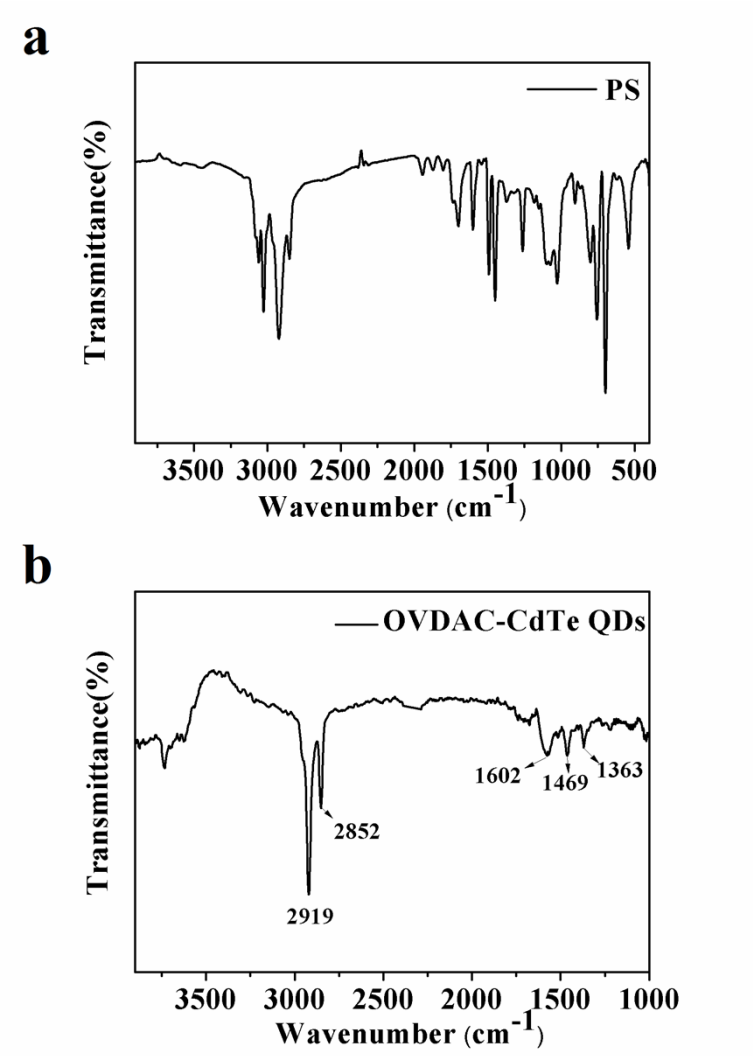

Figure S3 FT-IR spectra of PS microspheres (a) and OVDAC/CdTe QDs (b)

Table S1 The interference of different substance on the FL intensity of MIPs- and NIPs-(PS)-OVDAC/CdTe QDs (Experiment condition: MIPs- or NIPs (PS)-OVDAC/CdTe QDs, 16 mg L^{-1}; BI, 40 μmol L^{-1})

Coexisting substance	Coexistiong concentration (μmol L^{-1})	Change of fluorescent intensity (%) for MIPs	Change of fluorescent intensity (%) for NIPs
K^+	100	0.37	0.45
Na^+	100	0.53	0.43
Ca^{2+}	40	1.56	1.77
Mg^{2+}	40	2.37	2.47
NO_3^-	40	2.89	3.12
CO_3^{2-}	20	3.27	3.86

Table S2 Different Methods of Detection Bifenthrin

Analytical methods	samples	Analytical ranges	LODs	Recovery (%)	Reference
enzyme-linked immunosorbent assay (ELISA)	soil	1.18-23.65μM	0.009 μM	83.5-104.7	1
LC-ESI-MS/MS	Green Beans, Peas, and Chili Peppers	0.236-11.8 nM	0.33 nM	79.2-119	2
HPLC/UV	coconut fruit	0.236-11.8μM	0.095μM	74-116	3
GC/ECD	pear	0.47 -23.6μM	0.047μM	82.9-107.2	4
GC/MS	propolis	0.59-2.36μM	0.12μM	67.0 -94.2	5
FL	honey	0.5-40 μM	0.08 μM	93.7-105	This work

References

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