Supplementary Material

## Supplementary Figures



**Supplementary Figure S1.** XPS survey spectra of CdS nanoparticles obtained with (A) Cys, (B) Met.



 **Supplementary Figure S2**. EDX graph of CdS QDs biosynthesized by *P. fragi* GC01 with Cys for 3h (orange).



**Supplementary Figure S3.** VSCs produced by *Pseudomonas deceptionensis* M1T strains under biosynthesis conditions with Cys. (**A**) Fluorescence of bacterial supernatants under biosynthesis conditions during 1 h after UV light exposure. (**B**) Quantiﬁcation of H2S by GC after 1 h incubation. Bacterial strains were grown under biosynthesis conditions in M9 medium with 2mM cysteine, in presence or absence of CdCl2 20 µg mL at 28°C. Error bars represent standard deviation (n=3). Student’s t-test (P<0.05): Comparison between treatments without and with cadmium (Cd). \*Statistically significant differences.