

Electronic Supplementary Information

Phase transfer-based synthesis of HgS nanocrystals

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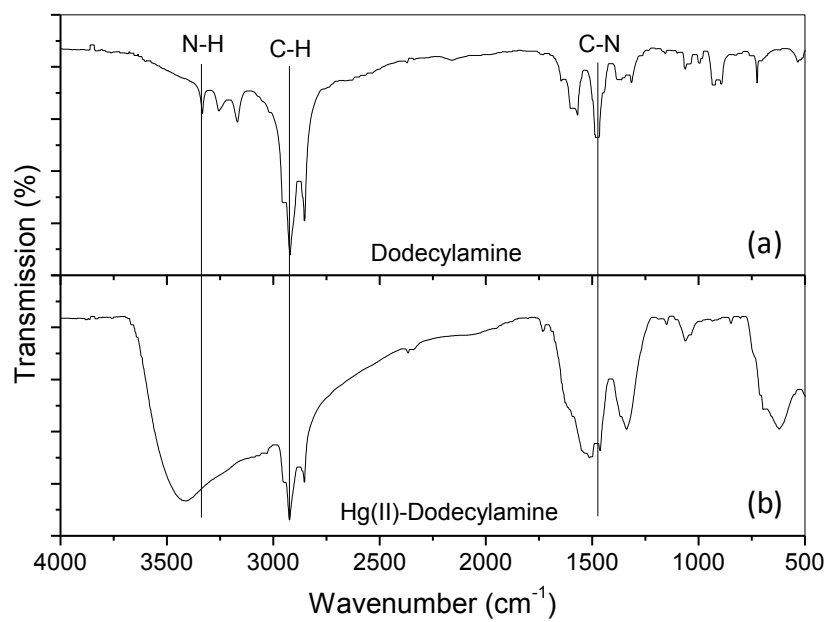


Fig. S1 FTIR spectra of pure DDT (a) and Hg(II)-DDT complexes (b) recovered from toluene after phase transfer of Hg(II) ions.

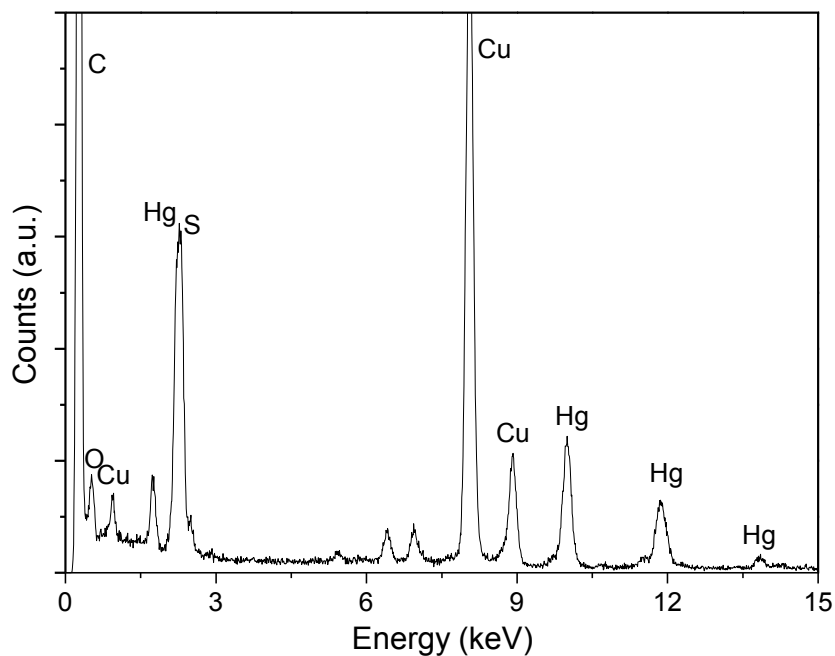


Fig. S2 EDX analysis of HgS nanocrystals as-prepared in toluene at room temperature using phase transfer technique.

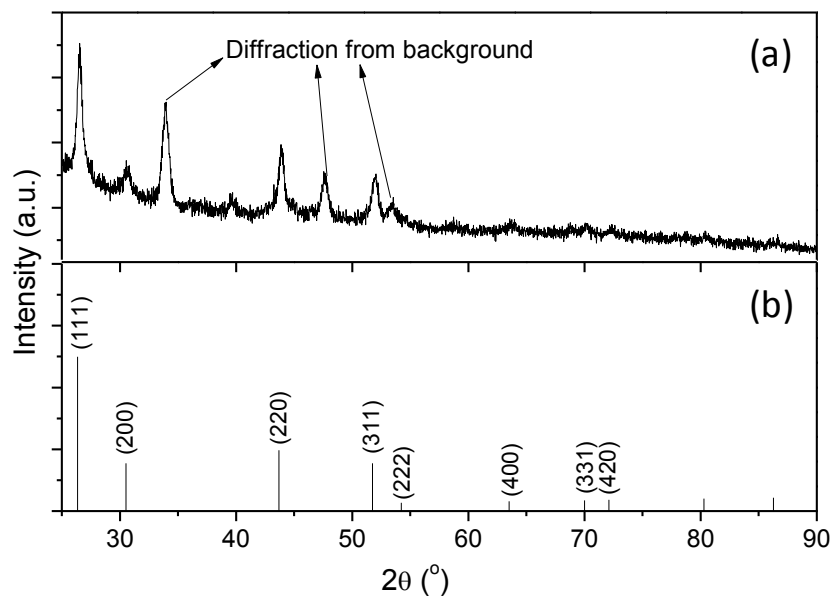


Fig. S3 X-ray diffraction (XRD) pattern of the HgS nanocrystals as-prepared in toluene at room temperature (a) and the reference (b, JCPDS Card File 890432).

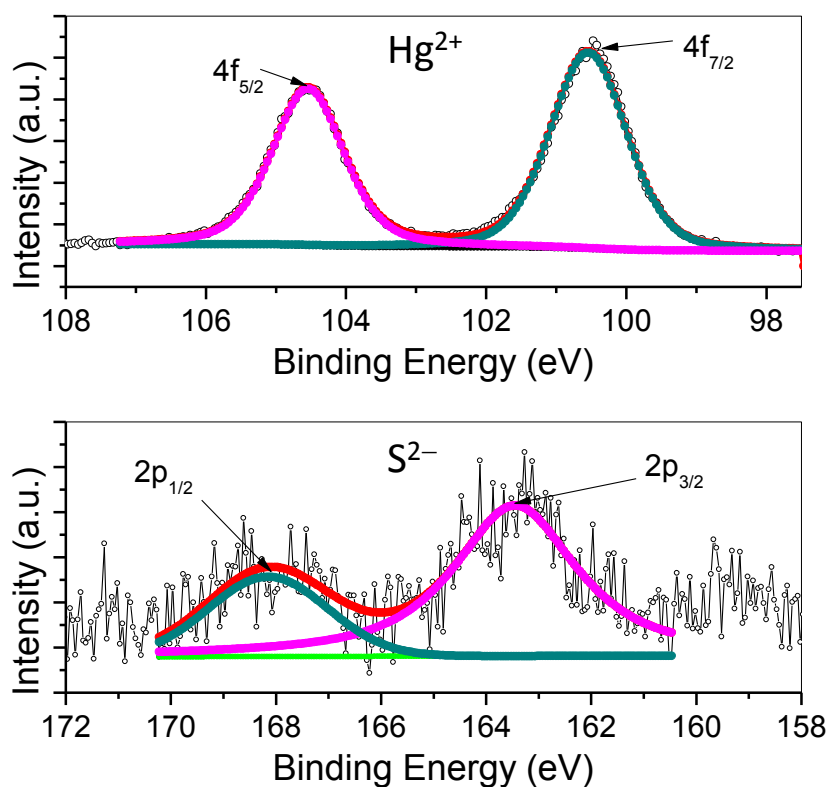


Fig. S4 Hg 4f and S sp XPS spectra of the HgS nanocrystals as-prepared in toluene at room temperature.

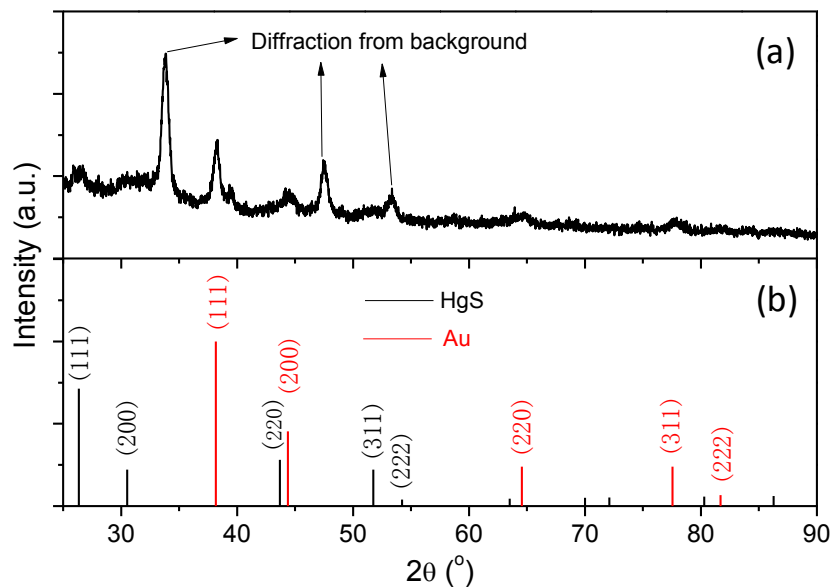


Fig. S5 X-ray diffraction (XRD) pattern of the HgS-Au nanocomposites as-prepared in toluene at room temperature (a) and the reference (b, JCPDS Card File 893697 for Au and JCPDS Card File 890422 for HgS, respectively).

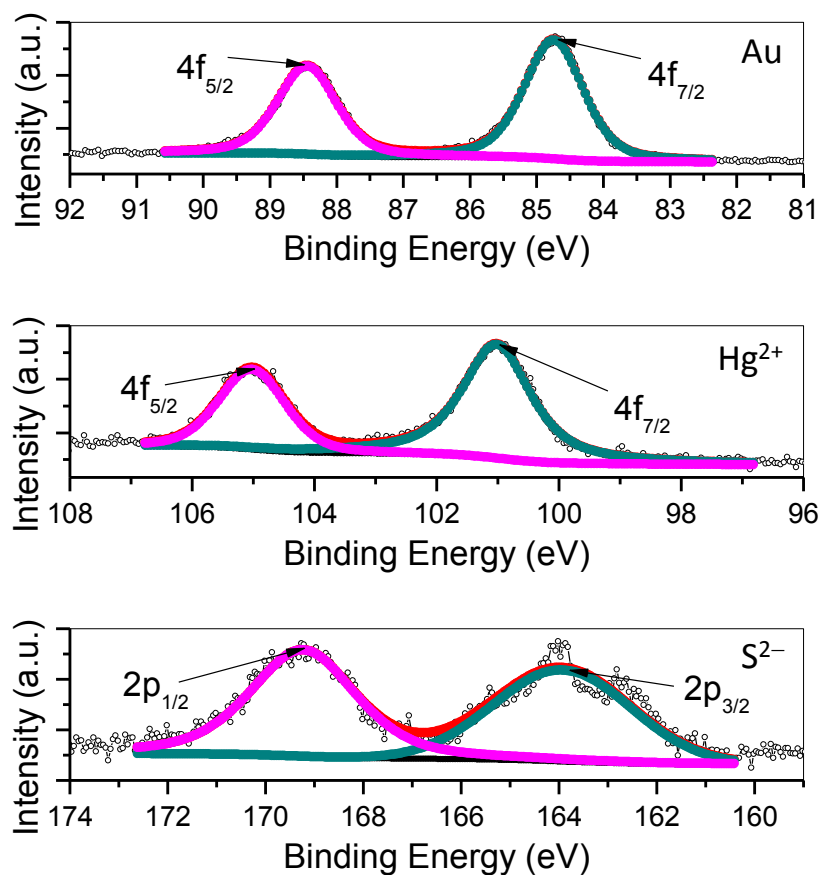


Fig. S6 Au 4f, Hg 4f, and S sp XPS spectra of the HgS-Au nanocomposites as-prepared in toluene at room temperature.