Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Supporting Information

Monochromatic visible-light driven photocatalysis realized on 2D ZnO shell arrays

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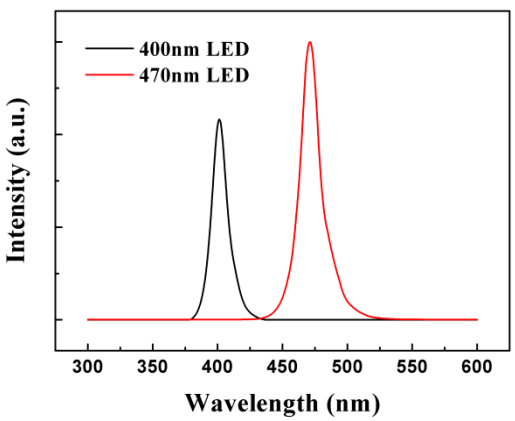

Figure S1. The emission spectra of commercial LEDs. We see the monochromatic emission peaks of LEDs located at 400nm and 470nm separately. So they could be served as visible light sources.

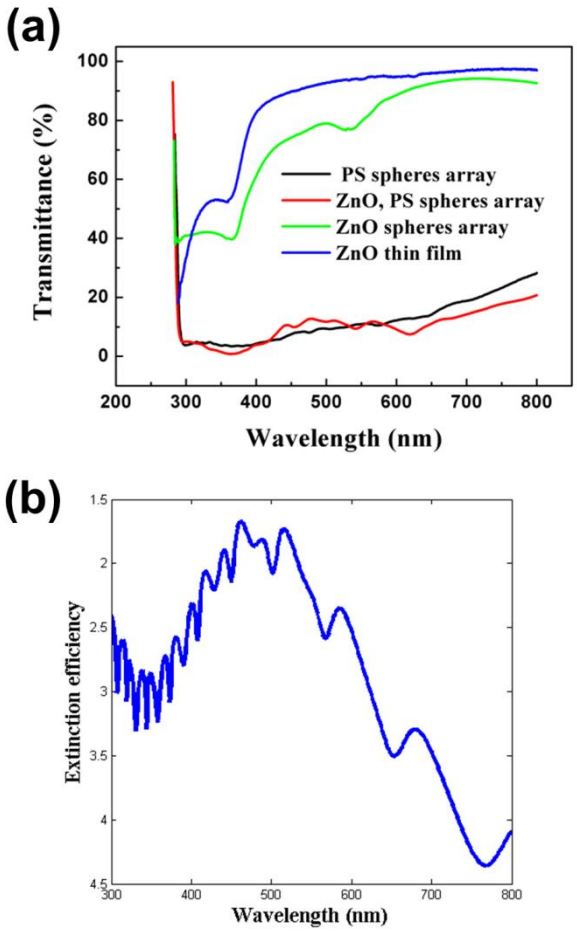

Figure S2. The optical transmission spectra (a) and simulated extinction spectrum (b) of 2D array of 1000nm PS spheres. It doesn't have a distinct band structure because the diffraction of 1000nm PS sphere array is not obvious in visible light region. But we could also identify the simulated peaks located at 650nm was enhanced after coating with ZnO and blue-shifted twice to 540nm, which supports our opinion.