Supplement Information

Development of polyacrylic acid-functionalized porous zinc sulfide nanospheres for a non-aqueous solid phase extraction procedure toward alkaloids

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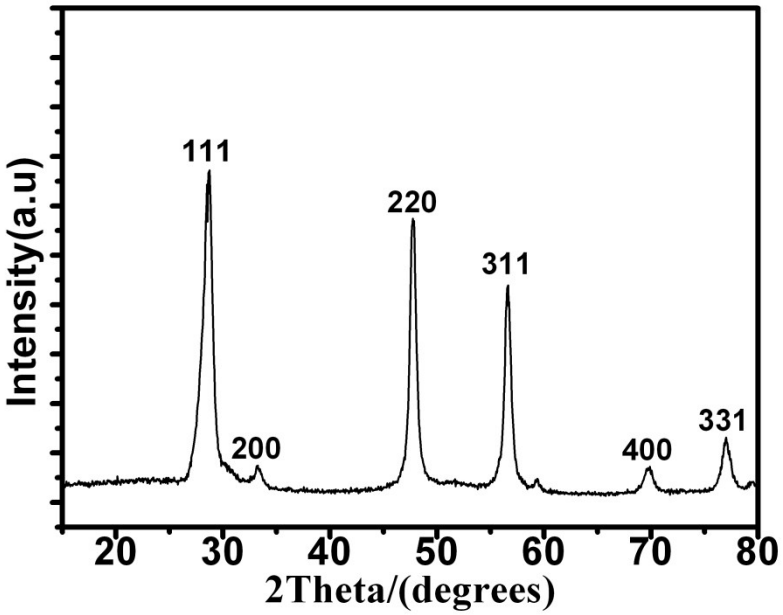

Figure S1 Typical XRD pattern of PZNs.

The Fourier transform infrared (FT-IR) spectra of the PZNs, NH_2-PZNs and PAA-PZNs were shown in Figure S2. In contrast to that of the as-prepared PZNs, the FT-IR spectrum of amine functionalized PZNs displays a new peak at 3500 cm^{-1}, ascribed to the N–H stretching vibration. Moreover, a new peak assigned to N–H asymmetric bending vibration at 1559 cm^{-1} and two peaks at 2951 and 2887 cm^{-1} assigning to C–H stretching vibrations appeared, which confirmed the successful functionalization of PZNs with amino groups. After grafting with PAA, two new adsorption peaks appeared at 1653 and 1717 cm^{-1}, which could be assigned to the C=O stretching vibration in the amide group, and the C=O stretching vibration in the carboxyl group, respectively, which indicated the successful grafting of PAA.

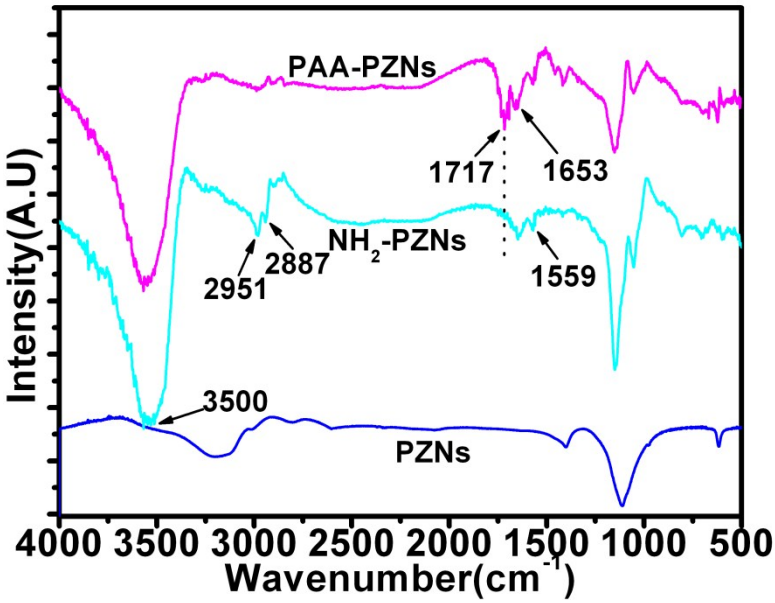

Figure S2. FT-IR spectra of PZNs, NH_2-PZNs, and PAA-PZNs.