Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Preparation of α-Fe_2O_3 hollow spheres, nanotube, nanoplates and nanorings as high efficient Cr(VI) adsorbents

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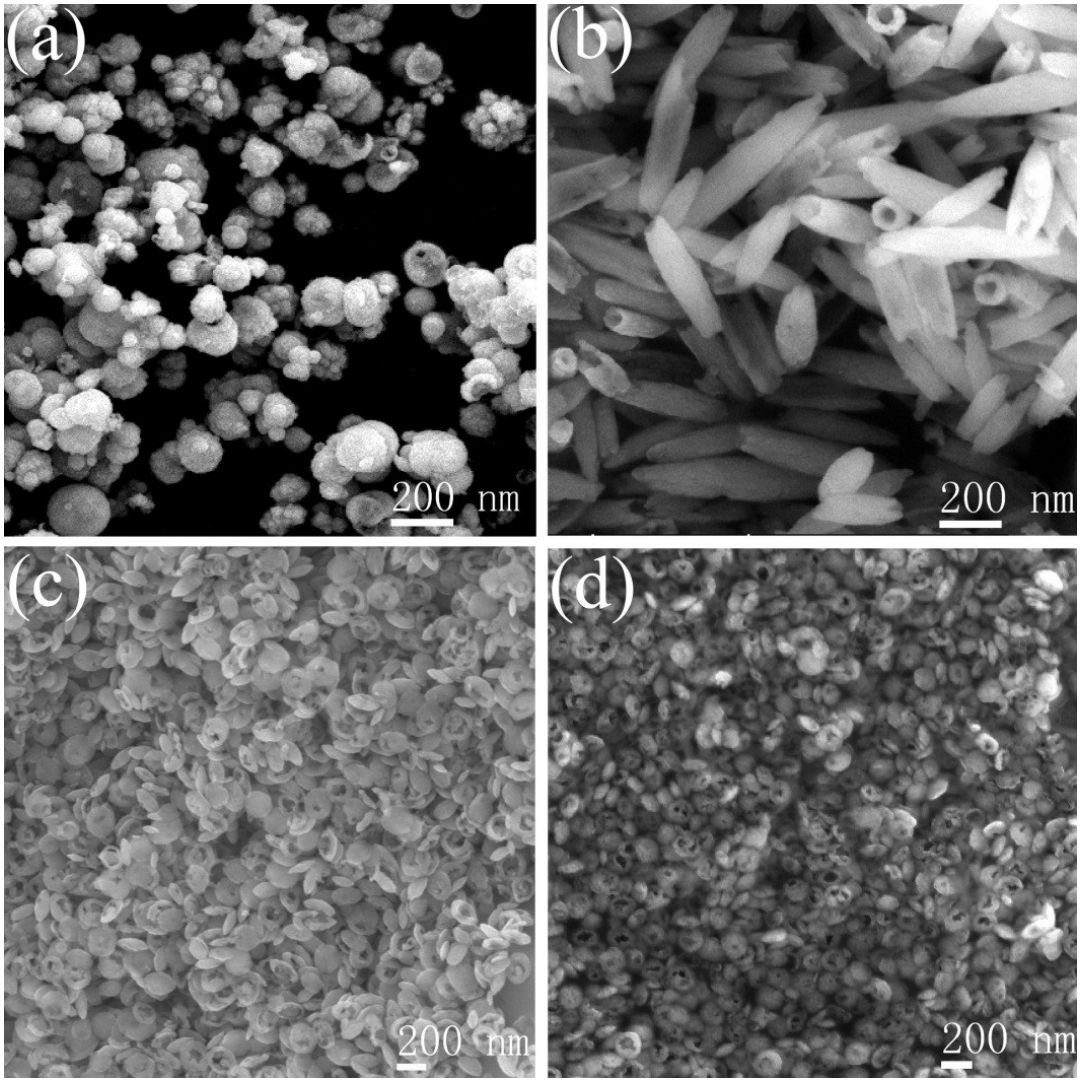

Figure S1. low magnification SEM images of α-Fe_2O_3, (a) hollow spheres in sample S1, (b) nanotubes in S2, (c) nanoplates in S3 and (d) nanorings in S4.

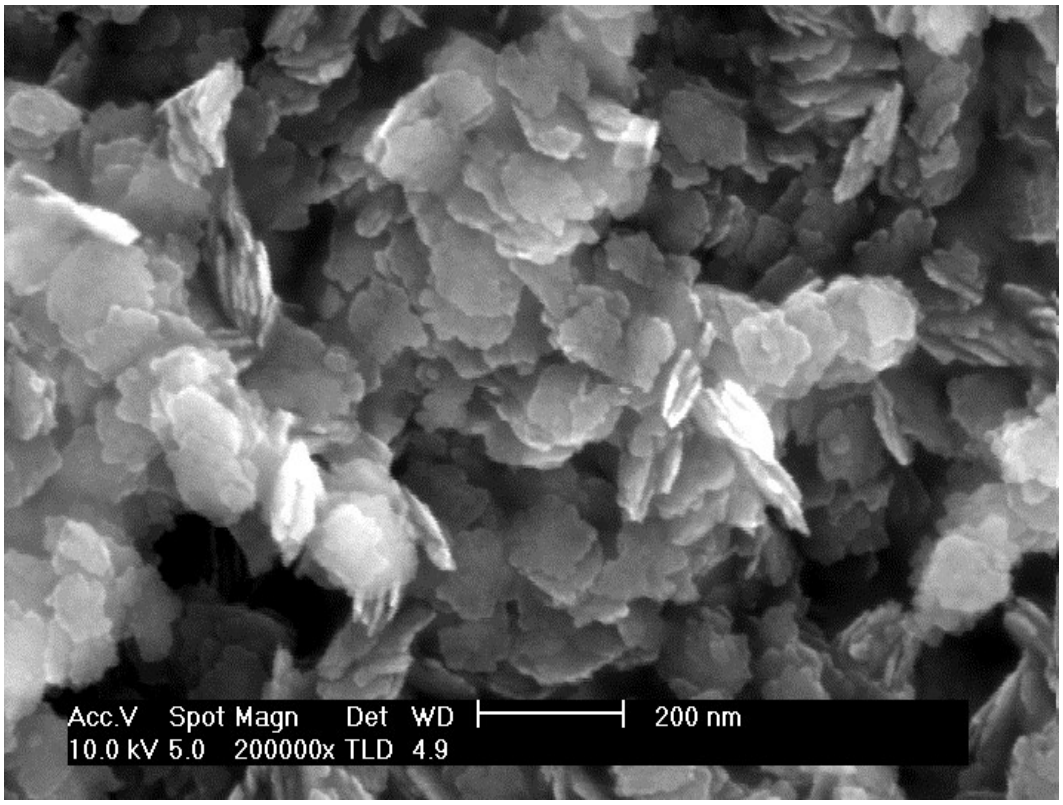

Figure S2. SEM image of the α-Fe_2O_3 product prepared in 8.0 mmol NaH_2PO_4 without adding urea.

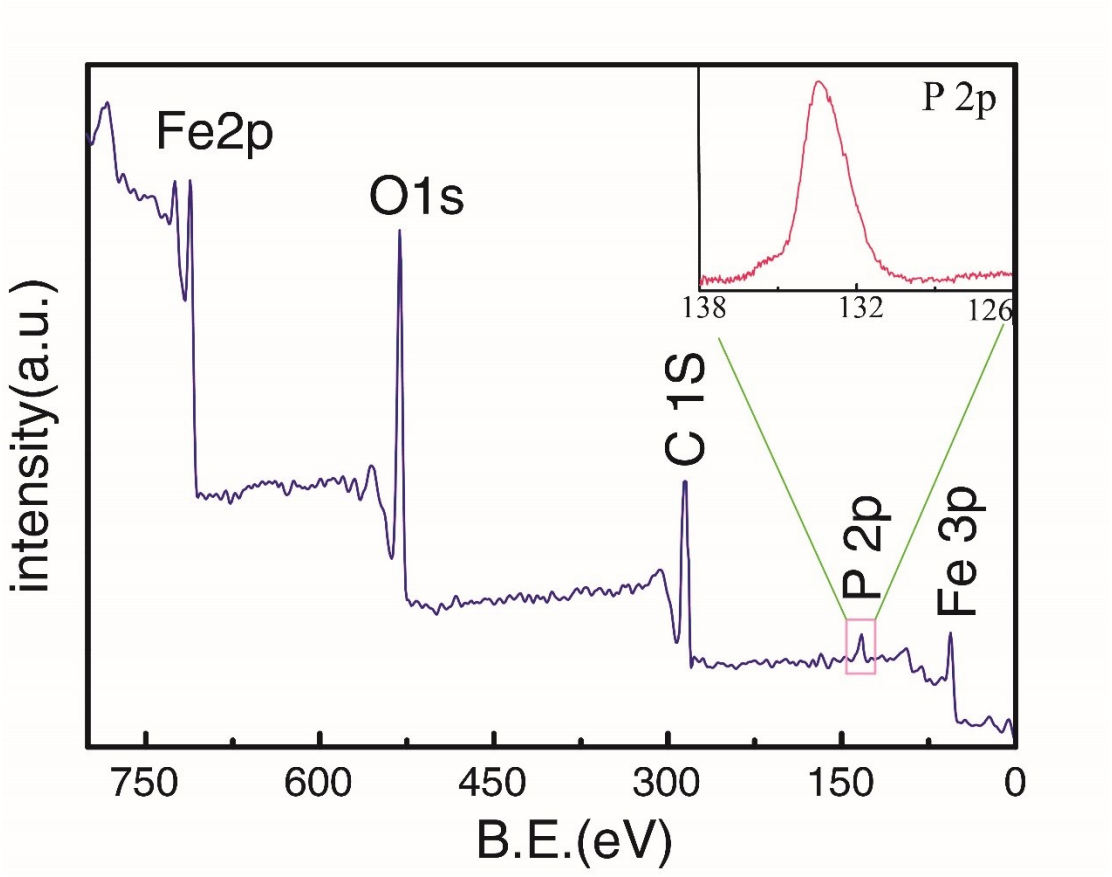

Figure S3. XPS spectrum of α-Fe_2O_3 obtained in 4.0 mmol NaH_2PO_4 without adding urea, and high-resolution spectrum of P 2p region (inset).

Table S1: Summary of the maximum Cr(VI)-adsorption capacities of different α-Fe_2O_3 adsorbents.

number	Adsorbent	Cr(VI) adsorption capacity [mg/g]
1	α-Fe_2O_3 mesoporous nanorods[1]	29.52
2	α-Fe_2O_3 microflowers [2]	5.4
3	α-Fe_2O_3 microspheres[3]	6.8
4	α-Fe_2O_3 nanofibers[4]	16.17
5	α-Fe_2O_3 mesoporous nanorods[5]	22.72
6	Commercial α-Fe_2O_3[1]	1.5

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