

Fig.S1 Thermogravimetric analysis of SiO<sub>2</sub> NPs, SiO<sub>2</sub>@Se(IV)-IIPS and NIPs.



Fig.S2 Zeta potentials of SiO<sub>2</sub> NP, SiO<sub>2</sub>@Se(IV)-IIPs and NIPs.







Fig. S3 BET experimental data.



Fig.S4 Elution performances of different eluting solvents.



Fig.S5 Adsorption-desorption cycle of SiO<sub>2</sub>@Se (IV)-IIPs.