Electronic Supplementary Information

Amino-functionalized mesoporous silica nanospheres (MSN-NH₂) as

sorbent for extraction and concentration of synthetic dyes from

foodstuffs prior to HPLC analysis

Peige Qin, Yixin Yang, Wenqi Li, Jing Zhang, Qian Zhou, Minghua Lu*

Institute of Environmental and Analysis Science, School of Chemistry and Chemical Engineering, Henan University, Kaifeng 475004,

Henan, China.E-mail: mhlu@henu.edu.cn

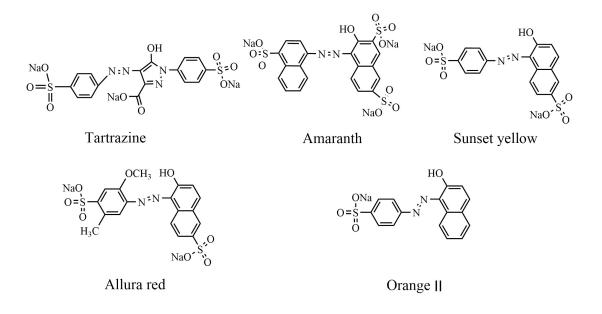


Figure S1 Chemical structure of synthetic dyes mentioned in this work

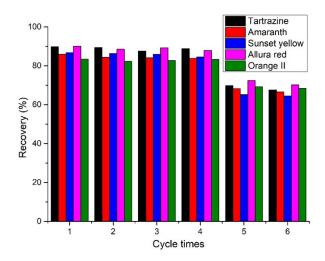


Figure S2 Reusability of MSN-NH $_2$ for extraction of synthetic dyes

Table S1 Elemental analysis of MSN and MSN-NH $_{\rm 2}$

Adsorbents	N (%)	C (%)	H (%)
MSN	0	3.35	1.174
MSN-NH ₂	2.82	8.54	2.702

Table S2 Pore characterizations of MSN, MSN-NH $_2$, and MSN-COOH

Samples	Surface area (m ² g ⁻¹)	Porevolume (cm ³ g ⁻¹)	Pore size (nm)
MSN	584.98	1.175	1.68ª
MSN-NH ₂	192.51	0.826	n.a.
MSN-COOH	161.51	0.953	n.a.

^a Estimated by NL-DFT method; n.a.: not applicable