

Supplementary material

A composite polymer of polystyrene coated with poly(4-vinylpyridine) as a sorbent for extraction of synthetic dyes from foodstuffs

Mengxin Zhang^a, Tong Xu^a, Tian Tian^a, Yi Zhang^a, Xing Li^b, Heng Yan^{*b} and Wei-hong Xie^{*a}

a. School of Biological Engineering and Food Science, Key Laboratory of Fermentation Engineering (Ministry of Education), Hubei Research Centre of Food Fermentation Engineering and Technology, Hubei University of Technology, 430068, Wuhan, China. E-mail: xiewh@hbut.edu.cn

b. Hubei Provincial Institute for Food Supervision and Test, Hubei Provincial Engineering and Technology Research Centre for Food Quality and Safety Test, Wuhan 430075, China.

*Correspondence: xiewh@hbut.edu.cn; Tel.: +86-139-7113-5198

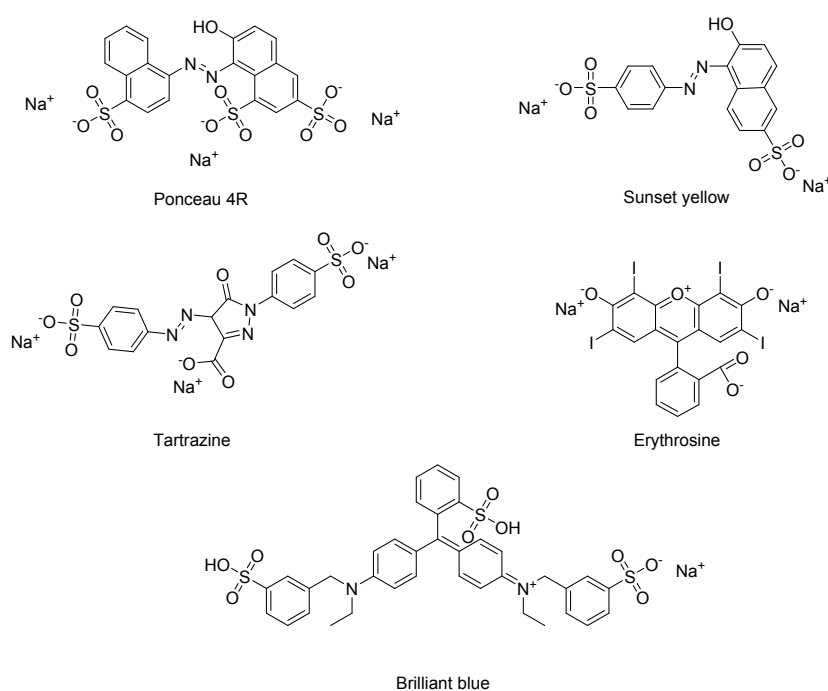


Figure S1. The chemical structures of the synthetic dyes

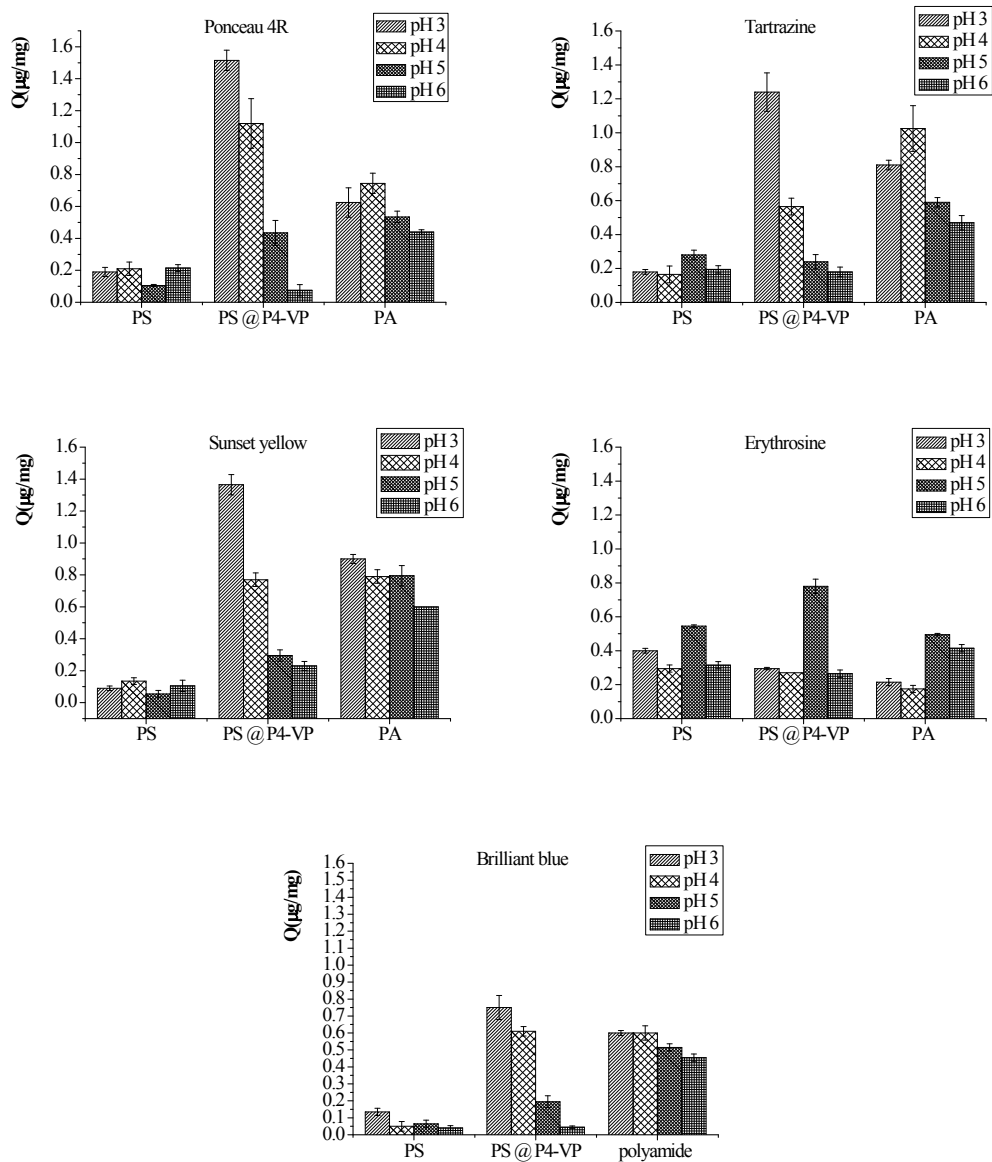


Figure S2. pH effect on adsorption of poly (St-co-EGDMA) (PS), poly (St-co-EGDMA) @poly (4-vinylpyridine-co-EGDMA) (PS @ P4-VP) and polyamide (PA) towards the five synthetic dyes.

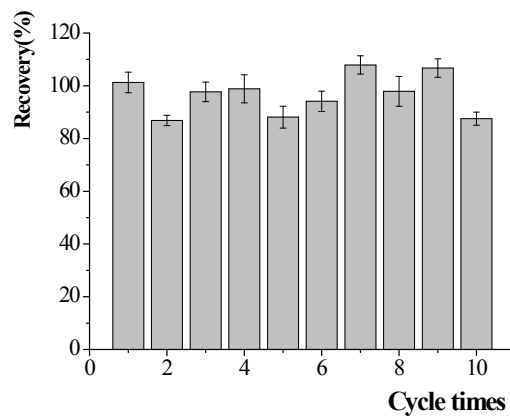


Figure S3. The recoveries of poly(*St-co*-EGDMA)@poly(4-vinylpyridine-*co*-EGDMA) for ten adsorption-desorption cycles (n=3).