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Author: Shu-Wen Xue Min-Qiong Tang Li Xu Zhi-guo Shi



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Magnetic nanoparticles with hydrophobicity and hydrophilicity for solid-phase extraction of polycyclic aromatic hydrocarbons from environmental water samples

Shu-Wen Xue^a, Min-Qiong Tang^a, Li Xu^a, Zhi-guo Shi^{b,*}

^aTongji School of Pharmacy, Huazhong University of Science and Technology, Wuhan
430030, China

^bDepartment of Chemistry, Wuhan University, Wuhan 430072, China

*Corresponding author. Tel: +86 27 68752701; Fax: +86 27 68754067

Email address: shizg@whu.edu.cn (Z.-g. Shi).

Abstract

Magnetic nanoparticles (MNPs) featured with divinylbenzene (DVB) and sulfonate functionalities ($\text{Fe}_3\text{O}_4\text{-DVB-SO}_3^-$) were prepared via “thiol-ene” click chemistry. The hydrophobic DVB moieties were dedicated for extraction while the hydrophilic sulfonate groups were designed for dispersing the MNPs in aqueous sample solution. Thus, the special designed material could ensure operational convenience and improve

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