

## عنوان مقاله:

Synthesis of polyoxyethylene-crosslinked polystyrene network for preparation organic support via ATRP technique

## محل انتشار:

بیست و هفتمین کنفرانس شیمی آلی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

Solid-phase organic synthesis (SPOS) continues to be important in the development of libraries of new molecules 1. Microporous PS-DVB, with its high thermal stability, chemical inertness, and mechanical robustness, is an attractive support for solid-phase synthesis<sup>2</sup>. A drawback of the grafting approach, however, is that it reduces the functional group-to-mass ratio (polymer loading) by decreasing the number of free chloromethyl groups while increasing the resin mass. Replacing DVB with  $\alpha,\omega$ -bisfunctionalized PEG as the cross-linking agent represents a particularly intriguing approach as the properties of polymer networks are significantly influenced by the nature of the network junctions<sup>3</sup>. In the present study, a surface-initiated ATRP technique was used for the polyaddition of styrene monomer in the presence of a polyethylene glycol (PEG)-derived comonomer/crosslinker ( $\alpha,\omega$ -bis-4-(vinylbenzyl)ether of polyoxyethylene, denoted with STP) and the nanoparticles with anchored BnCl as the reaction initiator (Figure 1). The thermal behaviors of CPS and CPS/SNP's networks were thoroughly investigated by (thermogravimetric analysis (TGA) and differential thermal analysis (DTA

## کلمات کلیدی:

solid-phase organic chemistry, polystyrene networks, polyoxyethylene units, surface-initiated ATRP technique

## لینک ثابت مقاله در پایگاه سیویلیکا:

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