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Abstract

In this study, a new stationary phase based on poly(itaconic acid)-grafted silica (Sil-PIA) were synthesized in deep eutectic solvents (DESs) and characterized in detail. Itaconic acid was homopolymerized on silica *via* surface radical chain-transfer reaction using DESs as a new kind of green solvents. Sil-PIA were obtained and characterized by Fourier transform infrared spectroscopy, elemental analysis and scanning electron microscopy. The retention changes of nucleosides and nucleobases on the columns was studied under different chromatographic conditions including salt