Abstract

In this work, capillary monolithic columns based on styrene, divinylbenzene and methacrylic acid were prepared by free radical polymerization inside fused sillica capillaries of 320 μm inner diameter. The columns were prepared by very simple process from polymerization mixtures with variable amount of methacrylic acid. Effect of electrostatic interactions between methacrylic acid, as weak cation-exchanger, and analytes on their retention was showed. Based on chromatographic measurements, effect of amount of methacrylic acid in polymerization mixtures on the morphological properties of monoliths and on the retention of small organic amines and benzene was discussed.