Characteristic of Monolithic Poly (Methacrylic acid-Ethylene Glycol Dimethacrylate) Column

노경호*, 염홍원
인하대학교
(rowkho@inha.ac.kr*)

The porous polymer monolithic columns been prepared by in situ therm-initiated polymerization of methacrylic acid and ethylene glycol dimethacrylate within the confines of chromatographic column in the presence of toluene-dodecanol as a porogenic solvent. Effects of the chromatographic condition such as mobile phase composition, flow rate and temperature on the retention and separations were investigated and separation mechanism was also discussed. The results showed hydrogen-bonding interaction and hydrophobic interaction play an important role in the retention and separation on this kind of monolithic column. Compared with traditional particle column, the monolithic column showed an significant interest because of their ease of preparation, high separation efficiency, low backpressure and fast analysis.