

Preparation and Analytical Study of New Chelating Resin Containing Tetracycline Drug

Abstract

A new chelating resin was prepared by mixing tetracycline drug and trimethylolphenol. It was polymerized by heating to 90 °C then it was post cured to 100 °C after that it was grinded. The chelating behavior was examined against Co(II), Ni(II) and Cr(III) using patch method in different conditions like treatment time and pH at room temperature. The resin shows a good loading capacity toward Co(II) (time = 24 hrs and pH = 4) = 12.24 mg ion/ g resin, Cr(III) (time = 24 and pH = 4) = 11.21 mg ion/ g resin, and Ni(II) (time = 4 hrs and pH = 2) = 9.3 mg ion/ g resin.