

Abstract

This master thesis deals with the preparation of β -cyclodextrin derivatives which can be attached on gold surface via methylsulfanyl groups. The thesis particularly deals with the preparation and characterization of mono-aryl-per-6-(methylsulfanyl) derivatives of β -cyclodextrin prepared from corresponding monopropargyl derivative.

This work also deals with the attachment of per-6-deoxy-per-6-methylsulfanyl- β -cyclodextrin to gold surface of quartz crystal microbalances.

Keywords: β -cyclodextrin, methylsulfanyl derivatives, propargyl derivatives, cyclodextrin derivatization, click reaction