ABSTRACT

Synthesis of some derivatives of poly hyroxy compounds was carried out. The yield obtained was good enough. The structure of these synthesized compounds was determined by spectroscopic technique: IR. Thermal stability of selected derivatives of glycerol has been calculated by TGA and DSC analysis. Biological activities were also carried out for prepared compounds. Some of derivatives of glycerol and ethylene glycol have been tested for their in vitro antimicrobial activity against a variety of strains of bacteria but all (G1 to G6) were inactive against used pathogenic microorganism while derivatives of 3-amino-2-((1R,2S,3R,4R)-1,2,3,4,5-pentahyroxypentyl)thiazolidin-4-one (Ga, Gb, Gc, Gd, Ge, Gf, Gg) were studied by ROS (Radical Oxygen Scavenging) and DPPH assay of antioxidant activities.