

Synthesis and Theoretical Study of new Schiff base derivatives

Abstract

The study include preparation two Schiff base compounds , 4-acetoamidobenzylidene-glycine SB-A and 4acetoamidobenzylidene –nitrourea SB-B . Schiff bases were prepared by condensation of 4-acetanilbenzaldehyde with nitrourea and other with glycin. The products were characterized by both FT- IR and UV-Vis. Spectroscopyphotometry. The biological activities against selected types of bacteria which included gram positive bacteria (staphylococcus aureus), and gram negative bacteria (Escherichia coli, proteus sp., pseudomonas aeruginosa) was studied. Later, theoretical studies by using the optimized geometry molecular structures of both compounds, indicates SB-B is more stable than SB-A.

Keywords: p-acetamidobenzaldehyde, glycin Schiff base, nitrourea derivatives