

Abstract

In the last few years heterocycles have gained close consideration, because of their large biological functions. Phenylpiperazine and benzamide properties give us a direction toward their derivatives. In this research, benzamide derivatives (**5a**, **5b**) are prepared and studied. At first electrophiles (**3a**, **3b**) are prepared. Then benzamide derivatives are prepared by the reaction of phenylpiperazine with electrophiles, using suitable solvents under standard conditions. The progress of the reaction is observed using TLC technique. For characterization of prepared compounds (**5a**, **5b**) proton-NMR and carbon-13 NMR spectral techniques are applied. The derivatives were tested to see how they interact with the elastase enzyme and if they can inhibit it.