

Title	An approach to polysubstituted triazepines, thiadiazoles and thiazoles based on benzopyran moiety through the utility of versatile hydrazonoyl halides as <i>in vitro</i> monoamine oxidase inhibitors
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Abstract

The chromene compound **1** used as a key intermediate for synthesis of new heterocyclic compounds, it reacted with hydrazonoyl chlorides in presence of TEA to give the amidrazone derivatives **3a-h** which were cyclized to the corresponding triazepines **5a-h** on boiling with sodium ethoxide. Conversion of compound **1** to the methylthiocarbamate derivative **6** was performed through its reaction with carbon disulphide and KOH followed by methyl iodide. Compound **6** reacted with hydrazonoyl chlorides in presence of TEA to give thiadiazoles **8a-g**. In addition, chromene **1** combined with aminodithiocarbamic acid in DMF under reflux to furnish the thiosemicarbazide derivative **9** which in turn interacted with several hydrazonoyl chlorides to give the thiazole derivatives **11a-e**. The structures of the prepared compounds were confirmed from their spectroscopic data and elemental analysis. The synthesized compounds were tested against both MAO-A and MAO-B and showed good inhibitory activities especially against MAO-A.