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Abstract

Reaction of 4-chlorocoumarine-3-carbonitrile with ethyl thioglycolate and ethyl glycinate hydrochloride afforded ethyl aminothienocoumarine carboxylate and amino pyrrolocoumarin carboxylate. Hydrazinolysis of amino thienocoumarin carboxylate afforded the hydrazino derivative which underwent various reactions to build new heterocyclic rings containing thienocoumarin moiety. Chloro acetylation of aminoester compound afforded the chloroacetyl amino which underwent nucleophilic substitution reactions with various amines followed by treatment with formaldehyde under Mannish conditions afforded the imidazo derivatives. Reaction of chloroacetylamino with potassium thiocyanate yielded ethylpyrimidothienocoumarine sulfanylacetate which was used as versatile precursor for synthesis of another heterocycles.

Reaction of chloro coumarin carbonitrile with hydrazine gave the aminopyrazolocoumaine which react with bifunctionally compounds to give the substituted pyrimido derivatives Diazotization and coupling of aminopyrazole with ethyl cyanoacetate yielded ethylaminotriazino pyrazolocoumarinecarboxylate.

Keywords: Thienocoumarine, pyrazolocoumarine, pyrimidothienocoumarine, imidazothieno coumarine, synthesis, anti-microbial activity.