

# Synthesis of new class of hetarylquinolines on base of 4-hydroxy-2-methyl-6-ethoxycarbonylquinoline

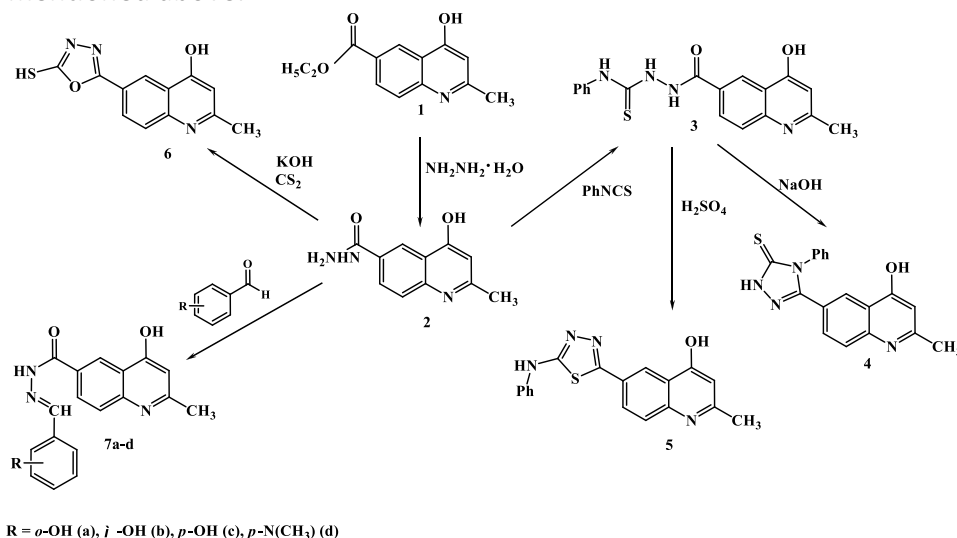
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Quinolines and their derivatives are an important class of heterocyclic compounds that occur widely in natural products, drugs and biologically active compounds. A large variety of quinolines have displayed interesting physiological activities [1-3] and found attractive applications as pharmaceuticals [4,5]. In accordance with these useful properties and related applications as mentioned above, the aim of this work is to synthesise the new triazole, thiadiazole, oxadiazolothionequinoline compounds and quinolyl substituted Schiff bases on base of 4-hydroxy-2-methyl-6-ethoxycarbonylquinoline. Continuing the synthesis of biologically active compounds [6] and target hetarylquinolines [7], the hydrazinolysis of compound 1 was carried out with hydrazine hydrate resulting in the 4-hydroxy-2-methylquinolin-6-carbohydrazide 2 which were used as starting material for preparation of target heterocyclic systems as mentioned above.



R = *o*-OH (a), *i*-OH (b), *p*-OH (c), *p*-N(CH<sub>3</sub>) (d)

The new triazole and thiadiazole derivatives were obtained from the reactions of the hydrazinecarbothioamide derivative 3. Reaction of compound 2 with phenyl isothiocyanate gave hydrazinecarbothioamide derivative 3, which was followed by its cyclization using 5% NaOH solution to form 5 and with conc. H<sub>2</sub>SO<sub>4</sub> to give 6, as reported in the literature [8].

Quinolyl substituted oxadiazolothione 6 were prepared by treatment of compounds 2 with carbon disulphide by refluxing in presence of potassium hydroxide in ethanol. On the basis of hydrazides the appropriate Schiff bases 7a-d were also synthesized with hydroxybenzaldehydes in ethanol as a solvent.

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