NOVEL SYNTHESIS OF SUBSTITUTED QUINOLINES

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Theraputic potentialities of substituted quinolines have long been known in the literature. In the present study we had prepared substituted quinolines in two, three and 4-position by a novel method through the condensation of yilidine derivatives of isatin with some active methylene compounds.

Condensation of isatomalononitrile with 3-methylpyrazoline-5-one, 1-Phenyl-3-methylpyrazoline-5-one , benzoyl acetonitrile and ethylacetoacetate, yielded 4- substituted 2-amino-3-cyano quinolines which have the following 4-substitutents; (3-methyl-5-oxo-2- pyrazoline-4-oyl), (1-phenyl-3-methyl-5-oxo-2-pyrazoline-4-oyl-3-and its -1,3-dione) and 2-ethoxycarbonyl butan-1,3-dione) respectively.

Condensation of isatoethyl cyanoacetate with 3-methylpyrazoline -5-one, 1-phenyl-3-methyl pyrazoline -5-one and acetyl acetone produced the corresponding 4-substituted -2-amino-3-ethoxycarbonyl quinolines which have the following 4-substituents; (3-methyl-5-oxo-2-pyrazoline-4-oyl), (1-phenyl-3-methyl-5-oxo-2-pyrazoline-4-oyl) and (2-acetylbutan-1,3-dione) respectively.

The condensation mechanism is suggested to go through an addition-cydization mechansim which will be discussed.