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NOTE

Synthesis and Characterization of 4-Aroyl Substituted Pyrazoline

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New 4-aroyl substituted pyrozoline (**II**) have been synthesized by the condensation of Ph·NH—NH_2·HCl with 3-aroyl flavanone (**I**) in DMF containing small amount of piperidine. Structure of the compound has been characterized by melting point, TLC, IR and PMR spectra.

Key Words: Synthesis, 4-Aroyl substituted pyrazoline.

Flavanones are reported[1–4] to react with hydrazines to yield pyrazolines and its reaction mechanism has also been explained[2]. Pyrazolines are found in drugs and dyes[5–6]. The present work deals with the synthesis of new substituted 3,5-diaryl-4-aroyl substituted pyrazoline (**II**) in DMF medium containing a little piperidine.

The structure of **II** was confirmed on the basis of chemical and spectral data.

Synthesis of 3-(2′-hydroxy-4′-methyl-5′-chlorophenyl)-4(2′-chloro benzoyl)-5-(4′-chlorophenyl)-1-phenyl-2-pyrazoline (II).

A mixture of 4′-chloro-3-(2′-chlrobenzoyl)-6-chloro-7-methyl flavanone[8] (**I**) (0.01 mol) and phenyl hydrazine hydrochloride (0.02 mol) in DMF (20 mL) containing few drops of piperidine (0.5 mL) were refluxed for 1.30 h. The reaction mixture was cooled, diluted with ice cold water, filtered and crystallized from ethanol to obtain compound (**II**). Yield 69%; m.p. 150°C; R_f 0.80; IR (KBr, cm^{-1}): 3094 ν(—OH), 1683 ν(C=O), 1591 ν(C=N), 1424 ν(C=N), 1321 ν(C—N), 1175–1111 ν(C—O) and 852 ν(C—Cl); ^1H NMR ($CDCl_3$): 2.5 δ (S, 3H, —CH_3), 3.4 δ (d, 1H, —CH), 4.35 δ (d, 1H, —CH), 7.4–8.3 δ (m, 15H, Ar—H) and 11.3 δ (s, 1H, —OH).

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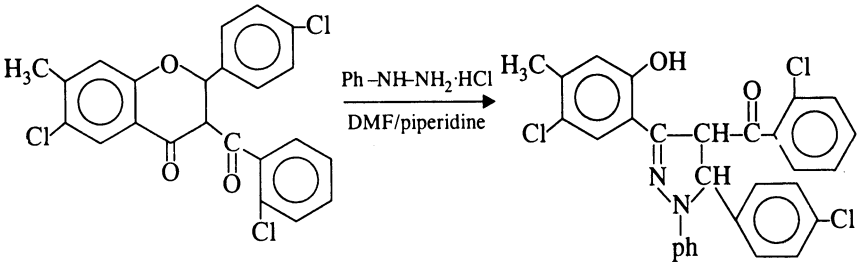

(I) **(II)**

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