

NOTE**Synthesis and Characterization of Some Pyrimidinone Derivatives**

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A series of pyrimidinone derivatives have been prepared through cyclocondensation reaction of asparagine with aromatic aldehyde derivatives to give 2-(substituted phenyl)-6-carboxy-1,2,3,5,6-pentahydro-4-(1H)-pyrimidinone.

Key Words: Synthesis, Characterization, Pyrimidinone derivatives.

Pyrimidinone derivatives have been reported to show selective antitumor¹, antiviral², antitubercular³ and antifungal activity⁴. Many workers have synthesized heterocyclic compounds containing pyrimidinone moiety with the aim of obtaining some novel systems with potentially enhanced biological properties⁵. Botta *et al*⁶ have synthesized pyrimidinone and pyrimidinone derivatives by solid phase procedure.

Konopelski *et al*⁷⁻¹⁰ developed some new synthetic methodologies and their application toward the synthesis of complex organic molecules which have interesting biological activity and medicinal properties *e.g.* enantiomerically pure β -amino acids from pyrimidinone derivatives.

Although asparagine has been cyclized with acetone¹¹, cycloaddition with aldehydes has not been described in detail except for tetrahydropyrimidinone formation using formaldehyde. In present note, new pyrimidinone derivatives *via* reaction of several aromatic aldehydes with asparagine have been reported.

Melting points were determined in an open capillary tubes and are uncorrected. All the chemicals and solvents used were of laboratory grade, the reaction was monitored by TLC. IR (KBr, cm^{-1}) were recorded on a Unicam SP 1200 spectrophotometer, ¹H NMR spectra were recorded on a Bruker spectrometer (300 MHz) using TMS as internal standard (chemical shift in δ ppm) in CDCl_3 and DMSO-d_6 .

All the synthesized compounds gave satisfactory C, H, N analyses on Perkin-Elmer instrument, 2400 series.

TABLE-2
SPECTRAL DATA OF COMPOUNDS **IIIa-f**

Compd.	Infrared (ν , cm^{-1})	^1H NMR (δ ppm)
IIIa	3283, 2966, 1720, 1100, 780	2.8 (d, 2H), 4.5 (t, 1H), 5.3 (s, 1H), 7.0-8.0 (m, 5H)
IIIb	3280, 2970, 1720, 1450, 1108, 1020, 830	2.7 (d, 2H), 3.8 (s, 3H), 4.6 (t, 1H), 5.3 (s, 1H), 6.9-7.3 (m, 5H)
IIIc	3278, 2968, 1720, 1110, 840	2.7 (d, 2H), 4.5 (t, 1H), 5.0 (s, 1H), 6.9-7.7 (m, 4H)
III d	3600, 3278, 2970, 1719, 1112, 830	2.8 (d, 2H), 4.5 (t, 1H), 5.3 (s, 1H), 6.7-7.9 (m, 4H), 9.9 (s, 1H)
IIIe	3286, 2983, 1720, 1440, 1230, 760	2.8 (d, 2H), 3.0 (s, 6H), 4.5 (t, 1H), 5.3 (s, 1H), 6.6-7.8 (m, 4H)
III f	3290, 2993, 1720, 1500, 1112, 830	2.8 (d, 2H), 4.5 (t, 1H), 5.3 (s, 1H), 7.7-8.3 (m, 4H)

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