

An Elegant Synthetic Route to 3-Cyano-5,6-dihydro-2-ethoxy-4-phenyl-pyrido[2,3-*a*]carbazoles

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2-Benzylidene-1-oxo-1,2,3,4-tetrahydrocarbazoles (**1a–e**) obtained from the corresponding 1-oxo-1,2,3,4-tetrahydrocarbazoles on reaction with malononitrile in dry benzene with sodium hydride afforded 3-cyano-5,6-dihydro-2-ethoxy-4-phenyl-pyrido[2,3-*a*]carbazoles (**2a–e**) in good yields. A plausible mechanism for the formation of the title compound has been proposed and all the compounds were characterised by IR, NMR, mass spectral methods and elemental analysis.

Key words: 1-Oxo-1,2,3,4-tetrahydrocarbazoles, 2-Benzylidene-1-oxo-1,2,3,4-tetrahydrocarbazoles, Aldol Condensation, Malononitrile, Sodium Hydride