fused pyridine derivatives

R 0450 23 - 156 $\beta\text{-}\text{Amino}$ Ketones as Key Intermediates in the Synthesis of Pyridines: A Novel and Efficient Route to Anellated Bi- and Terpyridines. —

The condensation of readily prepared Mannich base hydrochlorides such as (II), (V), or (VIII) with the heteroaromatic ketones (I) or (VII) gives rise to dihydrophenanthrolines such as (IV), (V), or diazafluorenes such as (X). The yields from (VII) are generally lower than those from (I). The pyridobispyrindine (XII), a sym. terpyridine, can be obtained by heating (VII) with the reagents (XI) and (III). (I) reacts analogously. — (WESTERWELLE, U.; ESSER, A.; RISCH, N.; Chem. Ber. 124 (1991) 3, 571-576; Fak. Chem., Univ. Bielefeld, W-4800 Bielefeld, Fed. Rep. Ger.; DE)

$$VII \quad \xrightarrow{\text{Me}_2 \overset{+}{\text{N}} = \text{CH}_2 \text{ CI}^- \text{ (XI), NH}_4^+ \text{ Ac} - \text{O}^- \text{ (III)}} \\ \text{MeCN, reflux} \quad \qquad \blacktriangleright \quad \text{N}$$

XII 48%