

Synthesis and Cycloaddition Reactions of 3-Cyanoindolizines

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1,3-Dipolar cycloaddition reactions of pyridinium and substituted pyridinium dicyanomethylides with phenyl vinyl sulfoxide in refluxing toluene under nitrogen give 1,2-unsubstituted 3-cyanoindolizines in moderate to good yield.

The 3-cyanoindolizines undergo (8+2) π cycloaddition to dimethyl acetylenedicarboxylate to afford cycl[3.2.2]azines which are only substituted in pyridine ring.

