SYNTHESES OF INDOLIZINE DERIVATIVES

Hiroshi Fujito, Yoshinori Tominaga, Yoshiro Matsuda, and Goro Kobayashi

Faculty of Pharmaceutical Sciences, Nagasaki University

1-14, Bunkyo-machi, Nagasaki 852, Japan

In a continuation of our previous studies of the ketenethioacetals, we have synthesized several heterocyclic compounds using the displacement reaction of ketenethioacetals. The present abstract reports the syntheses of indolizine derivatives by the reaction of ketenethioacetals.

Reaction of 1-[2,2-bis(methylthio)vinyl]pyridinium iodides with phenylsulfonylacetonitrile or nitromethane in the presence of triethylamine as a base in ethanol gave the corresponding indolizines in a good yield.

The reaction of N-phenacylpyridinium bromides with ketenethioacetal, 1-nitro-2,2-bis(methylthio)ethylene, in the presence of triethylamine as a base in ethanol under refluxing afforded the indolizines.

N-Aminopyridinium chlorides reacted with 1-nitro-2,2-bis(methylthio)ethylene under the same condition to give the azaindolizines in a good yield.