

A NEW SYNTHESIS OF 1,2,3,4,6,7,12,12b-OCTAHYDROINDOLO[2,3-a]QUINOLIZINE
AND OXYGENATION OF INDOLOQUINOLIZIDINE DERIVATIVES

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The reaction of tryptamine with δ -valerolactone gave the corresponding δ -hydroxyamide and N[2-(3-indolyl)-ethyl] 2-piperidone which were cyclized with POCl_3 followed by NaBH_4 reduction to give the title compound 1. Oxygenation of indoloquinolizidine derivatives.

1. Photosensitized oxygenation of the methochloride of 1 gave 2-acylindole, 5-methyl-12b-keto-5,12b-seco-1,2,3,4,6,7,12,12b-octahydroindolo[2,3-a]quinolizine, while 12-methyl derivative gave the corresponding quinolone.
2. Oxidation of indoloquinolizidine and 12-methyl derivative by photolysis of pyridazine N-oxide provided the corresponding spiro-oxindoles.