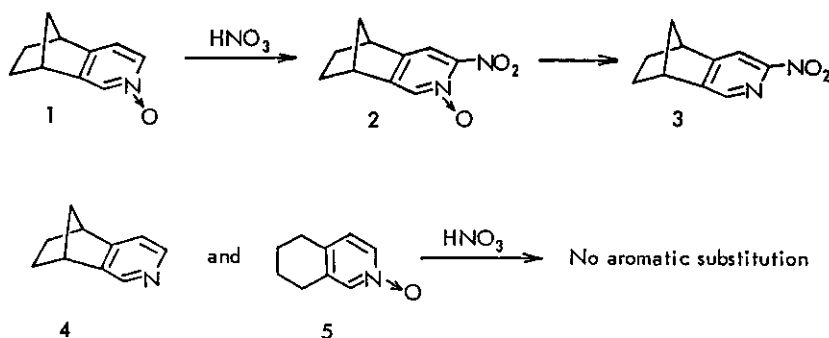


NITRATION OF 5,6,7,8-TETRAHYDRO-5,8-METHANOISOQUINOLINE
N-OXIDE WITH OTHER AROMATIC SUBSTITUTIONS.
EFFECTS OF NORBORNENE RING ON CHEMICAL AND
BIOLOGICAL REACTIVITIES

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Treatment of 5,6,7,8-tetrahydro-5,8-methanoisoquinoline N-oxide (1) with fuming nitric acid afforded 3-nitro-5,6,7,8-tetrahydro-5,8-methanoisoquinoline N-oxide (2), an example of formation of an α -nitropyridine N-oxide derivative by nitration of N-oxides. Further reaction of 2 resulted in deoxygenation giving 3-nitro-5,6,7,8-tetrahydro-5,8-methanoisoquinoline (3). No aromatic nitration was observed by similar treatment of 5,6,7,8-tetrahydro-5,8-methanoisoquinoline (4) or 5,6,7,8-tetrahydroisoquinoline N-oxide (5). Some other aromatic substitutions with 1 and 4 were carried out to obtain mainly the 3-substituted derivatives.



Mutagenicity of 2 is briefly reported. 3-Acylamino-5,6,7,8-tetrahydro-5,8-methanoisoquinolines showed significant anti-ulcer activities on animal tests, which are discussed in comparison with "Cimetidine".