

CHEMICAL INVESTIGATION ON INDIAN MEDICINAL PLANTS AND PLANT PRODUCTS

*Thesis submitted for the Degree of
Doctor of Philosophy (Science)*



of

**The University of North Bengal
1969.**

By

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The present thesis submitted for the Degree of Philosophy (Science) of the University of North Bengal, Dist. Darjeeling consists of the following:

Part I:

Studies on oxidation of 3 β -acetoxy methyl betulinate by mercuric acetate and establishment of the stereochemistry of the isopropenyl substituent at C-19 of the oxidation product.

Part II:

The assignment of the correct structure of the lactone, obtained by mercuric acetate oxidation of 3 β -acetoxy betulinic acid and studies on the novel base-catalysed E-homorearrangement of the keto lactone derived thereof.

Part III:

Studies on the lead tetra-acetate oxidation of 3 β -acetoxy betulanic acid. The conversion of the olefine mixture obtained by Pb(IV) acetate oxidation to the corresponding 13(18)-unsaturated hydrocarbon and identity of this hydrocarbon with that prepared from the Hg(II) acetate oxidation product of 3 β -acetoxy methyl betulinate (Part I).

Part IV:

Chemical investigation on the neutral part of the benzene extract of the stem-bark of Macaranga denticulata, Muell. Arg. and

(ii)

isolation of a new triterpene alcohol, 3-epi-taraxerol.

Part V:

Chemical investigation on the stem bark of Bischofia javanica
Blume.