

## A B S T R A C T S

Part I of this thesis is a review of some of the chemistry of limonoids and quassinoids. Limonoids are all shown to be derivable from a euphol or tirucalloy type precursor in which four carbon atoms have been lost from the side chain. The biogenetic relationship between the limonoids and quassinoids is also discussed.

Part II describes the previous investigation of Carapa guianensis, the author's investigation of four Meliaceae plants, and identification and elucidation of compounds from the heartwood of C. guianensis and Cedrela mexicana, and from the dehisced capsules of C. mexicana. The possible biogenetic relationship of the elucidated compounds is also discussed.

Part III outlines the attempt to produce an odoratin type structure (in vitro) from methyl angolensate and mexicanolide.

Part IV describes a comparison of mass spectral data of our compounds with mass spectral data of some derivatives of gedunin.

6a,7a-dihydroxy-7-deacetoxygedunin from 6a-acetoxygedunin

The relationship of the triacetate to the other isolated products