

ABSTRACTSTUDIES ON *CEDRELA MEXICANA*AND *LEONOTIS NEPETAEFOLIA*

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PART A of this thesis gives a review of some aspects of the chemistry of limonoids. Suggested biogenetic pathways for guyanin and trijugin B from a methyl angolensate-type precursor are discussed. A survey of the limonoids found in *C. mexicana* is also included. Finally the isolation and identification of limonyl acetate from the green leaves of the same plant are presented. The data obtained from modern spectroscopic methods are extensively utilized in the discussion of the structure of limonyl acetate and derivatives.

PART B outlines:

- (a) chemical investigation of *Leonotis nepetaefolia*,
- (b) the production of callus from the cultured tissues of the same plant, and
- (c) a chemical comparison of the plant tissue extract with that of the cultured tissue. No secondary metabolites were detected in the latter.