ABSTRACT

PHYTOCHEMICAL STUDIES ON ANNONA GLABRA, ANNONA PURPUREA AND SWIETENIA AUBREVILLEANA

Ronald Kumar Chabbinath Motilal

This dissertation deals with the chemical studies of three local plants. **Part One** examines the phytochemistry of Annona glabra and Annona purpurea (Annonaceae) and **Part Two** investigates Swietenia aubrevilleana (Meliaceae).

From Annona glabra, the known compound (-)-kaur-16-en-19-oic acid, was re-isolated and identified. This diterpene has previously been found in other members in this family.

From Annona purpurea, the known compound 24-methylenecycloartan-3β,21-diol, was isolated and identified. It is the first time that this triterpene has been reported from this family. This particular compound is also fully characterised by ^{1}H-^{13}C correlation data for the first time.

Finally the isolation and identification of two known limonoids, swietenolide and swietenolide diacetate as well as the isolation and structure of a new mexicanolide type limonoid, 3-desacetoxy-3-

tigolylhuminolide D (compound IV), from Swietenia aubrevilleana is discussed. This new compound represents another example of the rare mexicanolide type limonoid bearing oxygenated functionalities simultaneously at C2, C3 and C6.