ABSTRACT

This thesis describes the phytochemical investigation of four plants.

Part I describes the isolation and identification of stigmasterol and lupeol acetate from *Pseudoelephantopus spicatus* (Aubl.) Gleason (Compositae). The Jones oxidation of stigmasterol is also discussed. No previous work has been reported on this species or any other of the genus.

Part II describes the isolation and identification of the triterpenes betulinic acid, epifriedelinol (β-friedelinol), Friedelin, β-amyrin and lupeol from *Clusia rosea* Jacq. (Guttiferae). Previous work on this species and the genus is also reviewed.

Part III describes the isolation and investigation of a long chain alcohol mixture from *Croton gossypifolius* Vahl. (Euphorbiaceae). β-Sitosterol was also isolated from this plant and its isolation and identification is described. Recent investigations of two *Croton* sp are also discussed.

Part IV describes the isolation and partial structure elucidation of the germacruranolide - Compound R from *Rolandra fruticosa* (L.) Kuntze (Compositae). Subsequently, the isolation of the novel germacruranolide acetoxyrolandrolide was reported from the same plant by Herz and co-workers. Compound R was identified with acetoxyrolandrolide. No previous work has been reported on this plant or any other of the genus.