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THESIS

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Constituents of Aristea ecklonii (Iridaceae) and
Salacia reticulata (Celastraceae)

A thesis submitted in partial fulfilment
of the requirements for the degree of

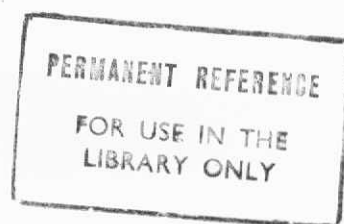
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by

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ABSTRACT

This thesis is composed of two parts. The first part describes the isolation and structure elucidation of constituents of Aristea ecklonii (Iridaceae). Plumbagin (5-hydroxy-2-methyl-1,4-naphthoquinone) which is the major constituent, two dimers of plumbagin, 3,3'-biplumbagin, 8,8'-biplumbagin, α -spinasterol were isolated from the dichloromethane extracts. The bromination reactions of plumbagin were studied and 3,3'-biplumbagin was synthesised in low yield by the dimerisation of plumbagin in the presence of potassium ferricyanide.

The second part of the thesis describes the isolation and characterisation of some triterpenes present in the stem bark of Salacia reticulata (Celastraceae). Four new lupanes, Lup-20(29)-ene-3,21-dione (68a), lup-20,29-dihydro-20,29 epoxy-3,21-dione (78), 30-hydroxylup-20(29)-ene-3,21-dione (87), 3 β -hydroxylup-20,29-dihydro-20,29-epoxy-3,21-dione (86) and a new D:A-friedooleanane, 30-hydroxy-D:A-friedooleanane-1,3-dione (82) were isolated and their structures were elucidated by chemical and spectroscopic methods.