

SECTION E - PHYSICAL SCIENCES

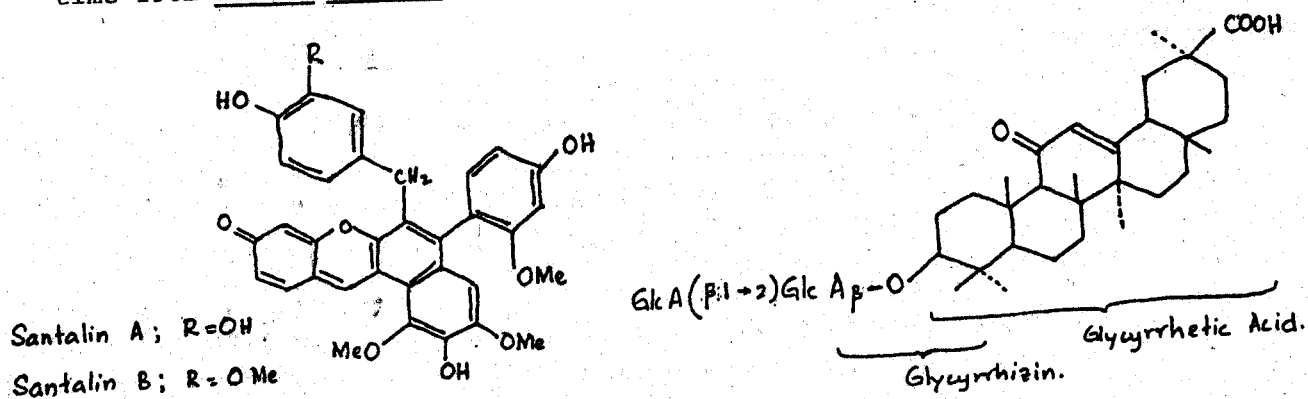
E 1 PRELIMINARY PHYTOCHEMICAL STUDIES ON MEDICINAL PLANTS USED AS SUBSTITUENTS IN AYURVEDA

K T D de Silva and K A P Jayatilaka
Dept. of Chemistry, University of Sri Jayewardenepura,
Nugegoda.

The use of substitute plants in the absence of authentic plants in certain Ayurvedic preparations, have been allowed in the Ayurveda Pharmacopoeia. Preliminary phytochemical studies on two sets of substitutes show that their chemical constituents are different.

Glycyrrhiza glabra and Pterocarpus santalinus are not found commercially in Sri Lanka and Abrus precatorius and Acacia chundra respectively are used as substitutes for them in Ayurvedic practice.

TLC studies to determine any similarity in the chemical constituents of the substitutes to those of the authentic plants indicated that Acacia Chundra contains additional colouring principles than Pterocarpus santalinus. Santalin A and B and one additional colouring compound were isolated for the first time from Acacia chundra.



Quantitative determination of glycyrrhizin (the main biologically active compound in both Glycyrrhiza glabra and Abrus precatorius) was performed using HPLC. The result of this study enables one to identify the authentic/substitute at the raw material stage and also to determine which plant is incorporated into the final preparation. Tests for assessing the quality of the raw material were also developed.

The grant given by NARESA for this project is acknowledged.