E2-17 : AN ALKALI SOLUBLE POLYSACCHARIDE FROM *Aegie marmelos*

N Savitri Kumar, Saroja Pathirane, Dept. of Chemistry, University of Peradeniya.

Aegle marmelos (Rutaceae) is a small, deciduous tree found in Burma, India and Sri Lanka. The fruit pulp, leaves, flowers and root bark find many uses in traditional medicine. There are previous reports of the polysaccharides isolated from the seeds, fruits, stem and the gum from *A. marmelos*. This paper describes a study of an alkali soluble polysaccharide isolated from the stem bark of *A. marmelos*

Crushed stem bark was extracted sequentially with (a) methanol (b) water (c) aq. 1% NaOH and (d) aq. 10% KOH. The KOH extract was freeze dried, dissolved in distilled water and acidified to pH 4-5 with acetic acid. P_1 was separated by the addition of excess methanol.

The polysaccharide P_1 was composed mainly of glucose and contained small amounts of arabinose and xylose. Methanolysis and GLC of acetylated methyl glycosides showed the absence of uronic acids. Gel filtration on Sephacryl S-400 gave a single polymeric fraction. Methylation analysis of P_1 and of partial hydrolysates followed by GLC-MS indicated that P_1 was composed mainly of 1,4-linked glucospyranosyl residues. Small amounts of terminal xylopyranosyl, arabinofuranosyl and glucopyranosyl residues were also observed. A doublet at δ_H 5.36 (J 3.7 Hz) and the signal at δ_C 101.2 indicated that P_1 was composed of a backbone of 1,4-linked α-D-glucopyranosyl residues.

Acknowledgements - Miss Rukmali Jayakuru for technical assistance. Financial assistance from the International Program in Chemical Sciences, Uppsala University.