STUDIES ON THE CHEMISTRY OF KIHIRIYA GUM (ACACIA CHUNDRA)

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Kihiriya (*Acacia chundra*, Leguminosae) is a small tree, with a dark brown and purple young shoots found in the dry zone of Sri Lanka. The heart wood of this tree is used in Ayurvedic system of medicine[1] for the preperation of pills for treatment of fevers accompanied with diarrhoea and worms. It is also used with other drugs for the preparation of decoctions in the treatment of biliousness, eczema, insanity and poisoning. The gum was found to be a good emulsifying agent and a suspending agent.

The stem of Kihiriya yields a gum on incision of its bark. Kihiriya gum was separated into a polysaccharide fraction and a polymeric proanthocyanin fraction. The polysaccharide fraction was separated and purified using a polyamide column. These fractions were analysed[2] after the hydrolysis to determine the component units. TLC analysis of the hydrolysate of purified polysaccharide fraction showed the presence of D-galactose, L-arabinose, L-rhamnose, and D-glucuronic acid.

Hydrolysis[2] of the isolated proanthocyanin showed the presence of pelargonidin galactose as the sugar unit. This is the first report on the chemistry of Kihiriya gum and its applications as emulsifying and suspending agents.

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References

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