

## CHEMICAL EXAMINATION OF BARK OF CASSIA SOPHERA

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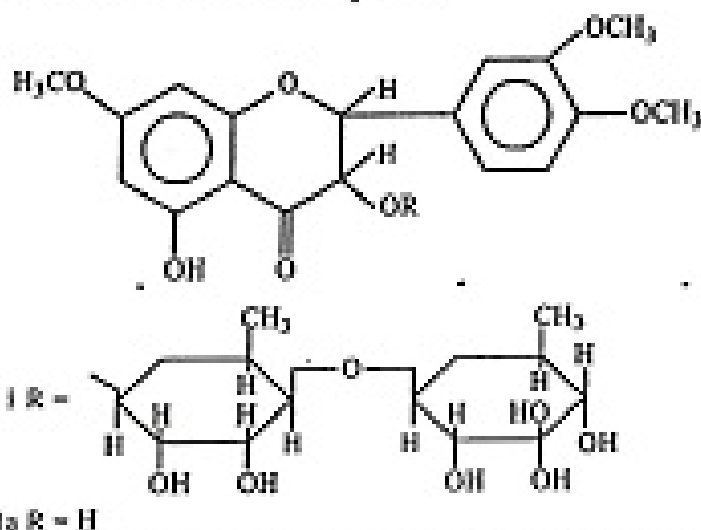
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A new glycoside 5-hydroxy-7, 3', 4'-trimethoxy flavanone-3-O-β-L-rhamnopyranosyl (1 → 4)-O-β-D-glucopyranoside has been isolated from the bark of *Cassia sophera*.

## INTRODUCTION

**C**assia species are rich source of flavonoids [1, 2], anthraquinones [3, 4] and polysaccharides [5], more than fifty species of the genus *Cassia* have been chemically examined in India and various compounds of structural significance and medicinal importance have been isolated [6]. *Cassia sophera* Linn (Leguminosae) possess many medicinal properties [7]. The present paper describe the isolation and structure elucidation of a new compound 5-hydroxy-7, 3', 4'-trimethoxy flavanone-3-O-β-L-rhamnopyranosyl (1 → 4)-O-β-D-glucopyranoside from the bark of *Cassia sophera*.



The water soluble portion of ethanol extract of the air dried stem bark of *Cassia sophera* on column chromatography yielded compound 1.

**Compound 1.** The elemental and molecular ion peak at  $m/z$  654 in the mass spectrum of compound 1 led to the molecular formula  $C_{30}H_{38}O_{16}$ . It's colour reaction [8-12] indicate it to be flavanone. It's UV band at  $\lambda_{max}$  288 nm (Band II) was in good agreement with dihydroflavone nature, its  $^1H$  NMR spectrum exhibited the signals for three methoxy group at  $\delta$  3.73 (s, 9H). NMR spectrum of compound showed doublet at  $\delta$  5.83 (1H,  $J = 8$  cps) for H-2 and 5.23 (d, 1H,  $J = 8$  cps) for H-3. This shows that compound is flavanone in nature.  $J$  values also confirms that both hydrogen on H-2 and H-3 are diaxial. Ring A of the compound is disubstituted and the substituent are present at H-5 and H-7,  $\delta$  5.88 (d,  $J = 2.5$ , cps, 1H) for H-6 and  $\delta$  5.92 (d,  $J = 2.5$ , cps, 1H) for H-8. Ring B of the compound is also disubstituted which