E2-06 Chemical investigation of *Gliricidia sepium*

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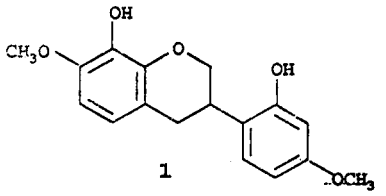
Gliricidia sepium (Leguminosea) grows as a shade plant in the plantations of Sri Lanka. The heartwood of this plant shows toxicity to the termite

Glyptotermes dilatatus, which is a threat to the low country tea plantations. Previous studies on the insecticidal activity of all parts of the plant showed activity against certain insect species. The previous chemical investigations of *G.sepium* were mainly focused on the leaves, and 3 flavonoids, 2 flavonoid glycosides some new hydrocarbons and 15 allelopathic compounds were reported. Bio-activity studies of the hexane, dichloromethane and methanol extracts from the stem bark of *G.sepium* showed that the hexane extract has the highest activity against the termite *Glyptotermes dilatatus*. The activity guided fractionation of the hot hexane extract from the heartwood of *G.sepium* gave 2 new natural products and a few other known compounds. This report describes the isolation and structural elucidation of 2 new isoflavans, 8,2'-dihydroxy-7,4'-dimethoxyisoflavan (**1**) and 7,4'-dihydroxy-3'-methoxyisoflavan (**2**) and 2 other compounds, new to the species alfromosin (**3**) and stigmasterol (**4**) from the hexane extract of the heartwood of *G.sepium*. Alfrmosin (**3**) has been described as a powerful antitumor agent. The structures of the compounds were determined by HRMS, EIMS, IR and ^{1}H & ^{13}C NMR spectral data with the help of modern spectroscopic techniques such as proton decoupling, NOE, ROESY, Homo and Hetero COSY studies.



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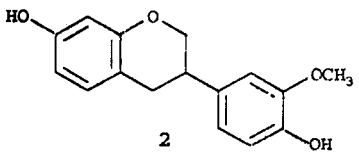

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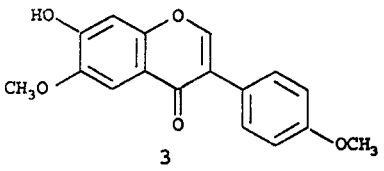

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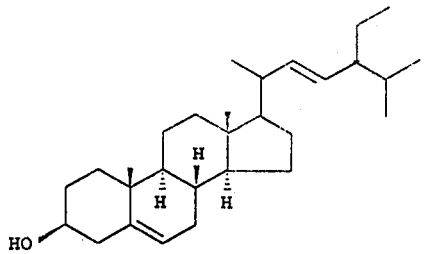

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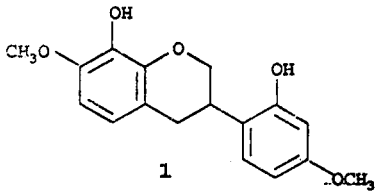

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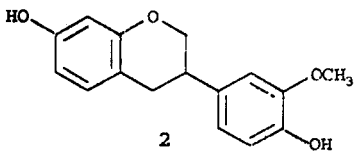

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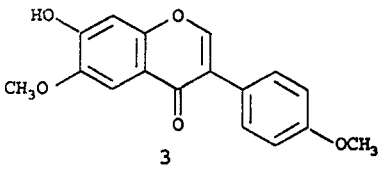

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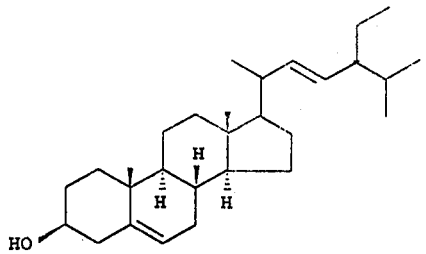

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