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Biologically active compounds from *Goniothalamus gardneri*

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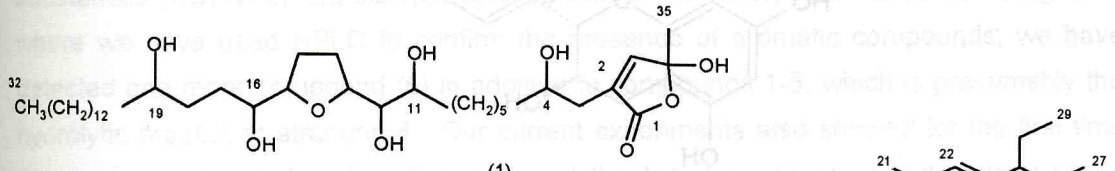
oniothalamus gardneri is an endemic member of the family Annonaceae in Sri Lanka, was collected from the Gannoruwa forest. Air-dried plant materials were sequentially extracted into hexane followed by CH_2Cl_2 and MeOH. The crude CH_2Cl_2 extract of leaves upon column chromatography yielded a new acetogenin (**1**) while the crude CH_2Cl_2 extract of roots upon column chromatography yielded a biologically active acetogenin (**2**). The fatty acid (**3**) and the steroid (**4**) were isolated from the crude CH_2Cl_2 extract of flowers.

Molecular formulas of the acetogenin (**1**) and (**2**) were determined to be $C_{35}H_{64}O_9$ and $C_{35}H_{64}O_7$, respectively, by HRFABMS. The NMR spectroscopic data revealed the presence of a α, β-unsaturated methyl –γ- lactone moiety, a long hydrocarbon chain bearing a THF ring and hydroxyl groups. Their positions of the hydroxyl substituents were determined by CI mass fragmentation patterns. They both exhibited activity against the 2nd instar larvae of *Aedes aegypti*. The acetogenin (**1**) has found to be new and (**2**) was earlier reported from *Annona glabra*.

The yellow oily fatty acid (**3**) gave a molecular ion $[M]^+$ at *m/z* 364 in its mass spectrum suggesting the molecular formula of $C_{24}H_{44}O_2$. The ^1H and ^{13}C NMR spectra indicated a long chain hydrocarbon bearing double bonds and a terminal carboxylic acid group. The stereochemistry around the double bonds was found to be *cis*. The steroid (**4**) was identified as 4, 22-stigmastadiene-3-one by comparing with the available data.



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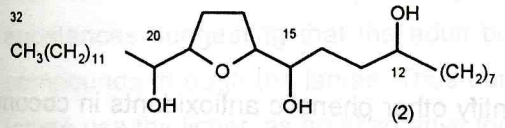

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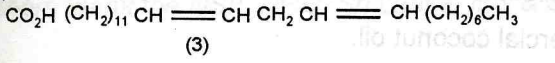

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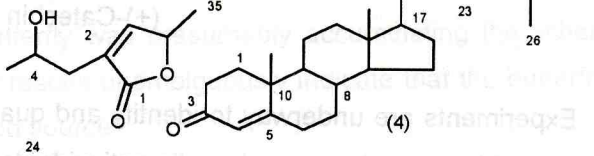

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