

**1,28-DIHYDROXY D : A-FRIEDO-OLEANAN-3-ONE. A NEW TRIOXYGENATED
D : A-FRIEDO-OLEANAN FROM THE LEAVES OF *CALOPHYLLUM
LANKAENSIS* KOSTERM., (GUTTIFERAE)**

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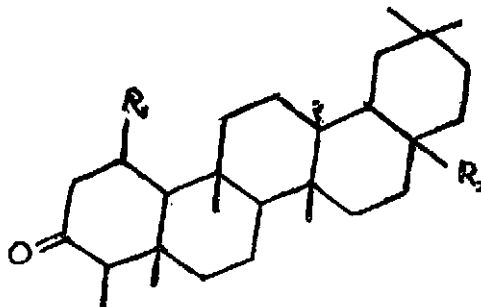
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During the investigation of the foliar constituents of the Sri Lankan (*Calophyllum*) species (1) a new trioxygenated D : A-friedo-oleanan was isolated from the leaf extractives of *Calophyllum lankaensis* Kosterm. (Guttiferae) It had a molecular formula $C_{30}H_{50}O_3$ (M^+ 458). The presence of the following functional

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groups were shown by ^1H n.m.r. spectra and/or i.r. spectroscopic data $-\text{CH}_2\text{OH}$, $\text{C}=\text{O}$, $-\text{CHOH}$. The ^1H n.m.r. spectra of the triterpene and its acetate showed that the $-\text{CH}-\text{OH}$ is at C-1 with $\text{C}=\text{O}$ at C-3. The mass spectral fragmentation of the triterpene diol and its derivatives showed that the $-\text{CH}_2\text{OH}$ is at C-28. The above data therefore indicate that the triterpene diol is 1,28-dihydroxy-D:A-friedo-oleanan-3-one (A). This is a new natural product.

In addition, the following compounds were isolated: D:A-friedo-oleanan-3-one (friedelin) (B), 28-hydroxy-D:A-friedo-oleanan-3-one (canophyllol) (C), 28-oxo-D:A-friedo-oleanan-3-one (Canophyllal) (D), 2(R), 3(R)-2, 3-dimethyl-5-hydroxy-6-(3-methyl butanyl)-6-(2, 7-dimethylocta-3, 6-dienyl)-7-oxo-8-(2-carboxy-1-phenylethyl)-2, 3, 6, 7-tetrahydro-benzo-4-pyrone (Calozeylanic acid) and 1-5, 1-7, 1-4', 11-5, 11-7, 11-4'-hexahydroxy 1-3', 11-8 biflavanone (Amantoflavone).



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| (A) R ₁ = OH, H; | R ₃ = CH ₂ OH |
| (B) R ₁ = 2H; | R ₂ = CH ₃ |
| (C) R ₁ = 2H; | R ₂ = CH ₂ OH |
| (D) R ₂ = 2H; | R ₂ = CHO |

Reference

1. Dharmaratne H. R. W. and Sotheeswaran S., *Proc. Sri Lanka Assoc. Adv. Sci.*, **37**, 75 (1981).