independent of the temperature (provided $t < 550$ °C.) and these cannot be easily annealed out (Etzel & Maurer, 1950). As the temperature is raised the electrons captured in the vacancies are released causing an outward expansion of the lattice due to the change in the electric field. This expansion would be superimposed on the regular thermal expansion and would therefore manifest itself as an anomaly. One has to postulate a rather complex process of electron capture and release if one is to explain the two maxima and minima observed in KI.

It is quite suggestive that KI exhibits thermoluminescence peaks at the same temperatures (−90 and −40 °C.) at which it exhibits thermal expansion anomalies (Sharma, 1952). However KCl which shows similar thermoluminescence does not exhibit any anomalies in lattice expansion at low temperatures. It is felt that very much more accurate experimentation, particularly on the thermal expansion of other alkali iodides as also measurements of thermoluminescence, paramagnetic resonance etc., would be necessary before any convincing explanation could be offered for the anomalies reported in this paper.

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## Crystallographic data for hydroxydammarenone II.

By D. Rogers, *Chemistry Department, Imperial College, London, S. W. 7.* and J. G. Scane, *Physics Department, College of Technology, Portsmouth, England*

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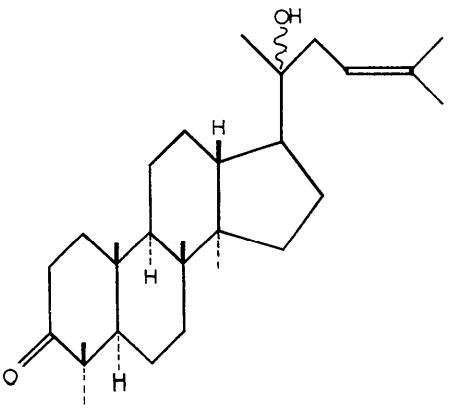
Hydroxydammarenone II, otherwise earlier known as dipterocarpol, is a triterpene constituent of dammar resin and is obtainable from several members of the dipterocarpaceae. This study was carried out to establish the proposed formula $C_{30}H_{50}O_2$; later work has shown it to have the constitution:




(See Mills & Werner, 1955, 1956; Mills, 1956; Cosserat, Ourisson & Takahashi, 1956; Godson, King & King, 1956; Biellmann, Crabbé & Ourisson, 1958).

The crystals, kindly supplied by Prof. G. Ourisson, had m.p. 134–136 °C., $[\alpha]_D = +66°$. They are colourless blocks elongated along [100], having (001) prominent, and bounded otherwise by either (010) or {011}, and {110}. The unit cell is orthorhombic with

$a = 7{\cdot}58$ Å  $D_o = 1{\cdot}10_5$ g.cm.$^{-3}$
$b = 11{\cdot}90$ Å  $D_c = 1{\cdot}101$ g.cm.$^{-3}$
$c = 29{\cdot}6$ Å  $Z = 4$
$U = 2670$ Å$^3$

The space group was determined uniquely from the systematic absences as $P2_12_12_1$. The calculated molecular weight is $444{\cdot}2 \pm 2{\cdot}5$, and the value of $D_c$ given above is based on $C_{30}H_{50}O_2$ (mol.wt. = 442·7).

The axes of the indicatrix lie as follows:

$\alpha \parallel \mathbf{b}$
$\beta \parallel \mathbf{a}$
$\gamma \parallel \mathbf{c}$

The optic axes lie outside the field of view when viewed parallel to **c**, and the $\alpha$–$\beta$ birefringence is very marked. This suggests a mode of packing of the molecules approximately parallel to (010) and with their main length along **c**, and this is supported by the outstanding strength of 020 and 022.

No further work on this substance is contemplated.

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