

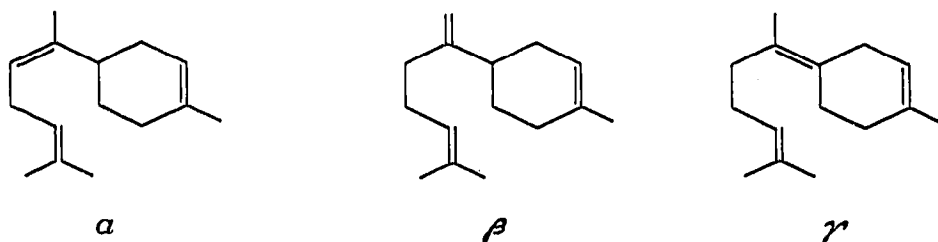
Gas chromatography of sesquiterpene hydrocarbons

Recently NIGAM AND LEVI¹ isolated from oil of opoponax, three sesquiterpene hydrocarbons which they identified as α -, β - and γ -bisabolene and reported the relative retention times shown in Table I.

TABLE I

	<i>S.E. 30</i> (10%)	<i>X.E. 60</i> (5%)	<i>Reoplex 400</i> (10%)
α -Bisabolene	0.791	0.602	0.526
β -Bisabolene	1.120	0.850	0.939
γ -Bisabolene	1.113	0.850	0.867
α -Santalene	0.810	0.586	0.507

The structures of the bisabolene isomers are:



We have also examined samples of oil of opoponax. From a consideration of the similarity of the structures of the isomers we thought that the relative retention times reported by NIGAM AND LEVI for α -bisabolene were unusually low.

During our work on oil of opoponax we isolated a compound having a relative retention time identical with that reported by NIGAM AND LEVI for α -bisabolene, but we identify it as α -santalene since its infrared and nuclear magnetic resonance spectra are identical with those of an authentic specimen isolated from sandalwood oil.

We have also isolated a compound having the same relative retention time as that reported by NIGAM AND LEVI for γ -bisabolene but found from its infrared and nuclear magnetic resonance spectra that it was the alpha and not the gamma isomer. We did not find β -bisabolene in our samples of opoponax oil.

NIGAM AND LEVI also reported the relative retention times on three different stationary phases of α -santalene isolated from sandalwood oil and we note that they found very similar times for α -santalene and " α -bisabolene".

*Bush Boake Allen Ltd., Chemical Division,
Stratford, London E.15 (Great Britain)*

A. F. REGAN
B. R. ANDREWS

1 I. C. NIGAM AND L. LEVI, *J. Chromatog.*, 33 (1966) 217-226.

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