

MYSORE CARDAMOM OIL

RAO, SUDBOROUGH AND WATSON¹ recorded only some physical constants of Mysore cardamom oil. The results of a more extended investigation of its ingredients are here reported.*

The cardamoms from Sakalaspur District in Mysore were steam distilled, and it was found that the sundried first quality yields a higher percentage of essential oil than the others (3.75 per cent. by weight of the whole fruit and 4 per cent. by weight of the seeds). The essential oil had the following physical constants: n_D^{25} , 1.4615; sp. gr. at 26° C. 0.9250; $(\alpha)_D^{25}$, +12° 52. Such low values for optical rotation have not so far been recorded for Mysore oils. Rao, Sudborough and Watson¹ gave the value as +15.1° to +44°. Gildmeister and Hoffmann² have, however, recorded +12° to +15° for wild cardamom oil from Ceylon.

The aqueous portion of the steam distillate on extraction with chloroform gave .5 per cent. more of the essential oil and had the following physical constants: n_D^{25} , 1.4605; sp. gr. 0.920; $(\alpha)_D^{25}$, 0. The oil has a very penetrating odour and contains 80 per cent. cineol.

Its ester value is rather low, being only 38.8 (Rao Sudborough and Watson¹ give the ester value as 96.5 to 156.4). The acetylated product also had the low value 39.5 indicating that the percentage of free alcohol (probably terpineol) was low.

Fractions yielding high proportions of cineol³ (62.15%) and terpenyl acetate¹ (26.96%) have been obtained. None of the fractions gave tests for aldehydes and ketones.

The lævo rotation of the earlier fractions is probably due to the presence of a small quantity of *l*-sabinene.³

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1. *J. Ind. Inst. Sci.*, 1925, **8**, Part X, 155-58. 2. *The Volatile Oils*, 1916, **2**, 28. 3. Gildmeister and Hoffmann, *The Volatile Oils*, 1913, **1**, 523. 4. —, *Ibid.*, 1913, **1**, 516. 5. Moudgill, *J. Soc. Chem. Ind.*, 1924, **43**, 137.