

A NOTE ON THE PHENOLS OCCURRING IN SOME EUCALYPTUS OILS.

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So far as our knowledge goes phenolic bodies are absent in the greater portion of the essential oils of the various species of Eucalyptus, or, if occurring at all, are only present in very minute quantities, particularly in those usually found in commerce. In the oils of some species, however, phenols do occur, and it is the object of this note to record this fact. The chemistry of these bodies must be left for a subsequent paper.

In the oil of *E. linearis* of Tasmania a liquid phenol occurs in sufficient amount to enable its general characters to be determined, and as it does not appear to have been previously described we propose the name Tasmanol for it, as it appears to be most abundant in the oils of certain Tasmanian species, which, so far, are considered to be endemic in that island. Another species in which it occurs in fair amount is *E. Risdoni*.

The phenol was removed from the crude oil in the usual manner by shaking with aqueous sodium hydrate, washing the aqueous solution with ether to remove adhering oil, acidifying and extracting with ether. The residue, which contained a small amount of acetic and butyric acids, was washed with dilute sodium carbonate, extracted with ether, the ether removed and the phenol distilled. It boiled at 268 – 273° C. (uncor.) and at 175° under 25 mm. pressure. It was optically inactive, the specific gravity at 23° was 1.077, and the refractive index at 22° was 1.5269. Besides

being soluble in the alkalis the phenol is soluble in ammonia, partly soluble also in sodium carbonate but not in bi-carbonate. It also dissolves slightly in boiling water. The reaction with ferric chloride in alcoholic solution is characteristic, the deep red colour which is first formed remaining persistent for days, after the alcohol has evaporated. The odour reminds one somewhat of carvacrol under certain conditions. It contains one methoxy group and appears to have two phenolic groups in the para position to each other.

Tasmanol appears to be associated more with the cineol-phellandrene oils, but in the oils of certain species which do not contain phellandrene another phenol occurs, which, although probably allied with the other, is not identical with it, and may perhaps also be found to be a new substance. This phenol gives a green colour with ferric chloride in alcoholic solution, and is readily soluble in sodium carbonate, but not in bi-carbonate.



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