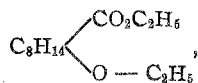


7. The ether acid of camphonolic acid,



is formed when the *bis*-hydrazone is boiled with alcohol.

URBANA, ILL., AND SIOUX CITY, IA.

NOTES.

Oil of Rubieva Multifida.—A specimen of the essential oil of *Rubieva Multifida*, distilled experimentally by the W. J. Bush Citrus Products Company, at National City, California, from the wild plants growing in the state, was examined.

The oil is light yellow in color and has an odor suggesting anise and terpenes. $d_{25}^{25} = 0.8542$. $[\alpha]_D = +35.75^\circ$ (100 mm. tube).

On the first distillation about 60% comes over at $37-40^\circ$ (under 3 mm. pressure). On repeated refractionation, about 85% of the oil was found to consist of a terpene fraction which, after rectifying over sodium, boils at $169-171^\circ$ (under atmospheric pressure). $d_{20}^{20} = 0.8507$, $[\alpha]_D = +46.4^\circ$ (100 mm. tube).

The terpene fraction polymerizes rapidly on boiling at atmospheric pressure, has an odor resembling that of phellandrene, and yields a nitrosite melting at $103-104^\circ$. Hence it consists largely of β -phellandrene.

From the higher boiling portion of the oil anethole was separated. A resinous residue, probably polymerized phellandrene, was left on distillation.

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In connection with the writer's recent paper on "The Effect of Surface Oxidation on Some Metallic Catalysts,"¹ his attention has been called to Michael Faraday's work² on the same subject. The investigation of Faraday led to conclusions practically identical with those numbered 1 and 4 in the writer's summary so far as platinum is concerned, namely, that its activity is increased by surface oxidation and is not much affected by reduction. Faraday also studied other phases of the problem, including the effect of the presence of small amounts of various gases. His paper, however, does not deal with the subjects leading to the writer's other conclusions.

FRANK F. RUPERT.

¹ THIS JOURNAL, 42, 402 (1920).

² *Trans. Roy. Soc. (London)*, 124, 55 (1834); "Experimental Researches in Electricity," I, 165.