The value given by Perkin and Gladstone for the sodium line is

$$n_{\rm D} = 1.475699$$
 at 17°,

experimentally I found

 $n_{\rm D} = 1.4750 \, {\rm at} \, 20^{\circ}.$

This measurement, together with the agreement in melting and boiling-points, leaves little doubt that my specimen of the ester was identical with that prepared by Claisen.

Boiling at atmospheric pressure for five minutes, and subsequent eooling, did not affect the refractive index, or the depth of colour with ferric chloride.

Attempts made to isolate a sodium salt corresponding to the "double" ferric salt, have not yet led to the desired conclusion, although sodium compounds have been isolated which contain a higher percent of sodium than the normal compound, and which give a colour with ferric chloride proportional to their content of sodium.

Effect of Water and of Alcohol on the Yield of Acetonoxelic Ester

The great effect exerted by traces of water on the yield has already been referred to (p. 5); the following table gives the results of experiments carried out with alcohol to which measured amounts of water had purposely been added.

Equivalent quantities of the three reagents, viz., 0.50 ec ethyl oxalate, 0.27 ec tone, 2.10 ce alcoholic solution of sodium ethylate (1.74, ormal) and 2.13 cc alcohol—making a total volume of 5.0 cc—were mixed and the reaction allowed to proceed to completion. In the first experiment Squibb's alsolute alcohol was used, in the others a solution of water in alcohol; the weight and the volume percent of the water in the 5 cc of reaction mixture is given in the table. Under "yield" is entered the amount of acetonoxalic ester formed in percent of that theoretically possible.

¹ Jour. Chem. Soc., 61, 855 (1892).

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