to the taste or to litmus. The boiling rod should be put in the solution when it reaches the boiling point, not before. Gregory Torossian.

Cleveland. Ohio.

## CORRECTION.

Page 228, line 4 , should read ". . $\gamma=$ I.530-I.535; . . . .". Page 228, line ${ }^{26-7}$, should read ". . parallel to the $\alpha-\gamma$ plane". George W. Morey.
[Contribution from the Chemical Laboratories of Columbia University. No. 230.]

## THE PREPARATION AND PROPERTIES OF CERTAIN METHOXYLATED CARBINOLS, OLEFINS AND KETONES, DERIVED FROM TRIMETHYLGALLIC ACID.

By Marston Taylor Bogert and Robert Melyne Isham. Received December 29. 1913.

## I. Introductory.

In secondary and tertiary carbinols of types I and II, the introduction of methoxyl groups in place of one or more of the hydrogens of their

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\text { I. } \mathrm{C}_{6} \mathrm{H}_{5} \cdot \mathrm{CH}(\mathrm{OH}) \mathrm{R} . \quad \text { II. } \mathrm{C}_{6} \mathrm{H}_{5} \cdot \mathrm{C}(\mathrm{OH}) \mathrm{R}_{2} .
$$

phenyl nuclei causes interesting alterations in their properties.
As compared with triphenyl carbinol itself, von Baeyer and Villiger, ${ }^{1}$ Kauffmann, ${ }^{2}$ and others have shown that methoxylated triphenyl carbinols exhibit increased halochromism and increased basicity, and are more easily reduced to the corresponding methoxylated triphenyl methane.

Hell ${ }^{3}$ attempted to prepare carbinols of type III by the action of the Barbier-Grignard reagent upon anisic aldehyde and upon $p$-methoxyIII. $\mathrm{CH}_{3} \mathrm{O}_{6} \mathrm{C}_{6} \mathrm{H}_{4} \cdot \mathrm{CR}(\mathrm{OH}) \mathrm{CH}_{2} \mathrm{R}_{1}\left(\mathrm{R}=\mathrm{H}\right.$ or $\left.\mathrm{C}_{6} \mathrm{H}_{5}\right)$.
benzophenone, but found that the expected carbinols were so unstable, that when the magnesium compounds were hydrolyzed with dilute acid, the corresponding olefins (IV) were obtained, and not the carbinols at all.

$$
\text { IV. } \mathrm{CH}_{3} \mathrm{O} \cdot \mathrm{C}_{6} \mathrm{H}_{4} \cdot \mathrm{CR}: \mathrm{CH} \cdot \mathrm{R}_{1}\left(\mathrm{R}=\mathrm{H} \text { or } \mathrm{C}_{6} \mathrm{H}_{5}\right)
$$

The instability of these secondary and tertiary carbinols, he attributed to the influence of the para methoxyl group. He noted also that anisyl phenyl propene and other methoxylated olefins of similar structure, do not give dibromo addition products when treated with bromine, but yield preferably monobromo substitution products (V), apparently by V. $\mathrm{CH}_{3} \mathrm{O} . \mathrm{C}_{6} \mathrm{H}_{4} \cdot \mathrm{C}\left(\mathrm{C}_{6} \mathrm{H}_{5}\right): \mathrm{CBr} . \mathrm{CH}_{3}$.

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\({ }^{1}\) Ber., 35, 3013 (1902).
\({ }^{2}\) Ibid., 38, 2702 (1905); 41, 4423 (1908); 45, 766 (1912); 46, 3779, 3788 (1913).
\({ }^{3}\) Ibid., 37, 225, 457, 1429, 4188 (1904).
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