not able to positively identify it. This work is still under way. It was delayed several months on account of the fact that we were forced out of the old laboratory before the new one was completed.

MINNEAPOLIS, MINN.

## THE ACTION OF TRIOXYMETHYLENE ON p-XYLENE IN THE PRESENCE OF ALUMINUM CHLORIDE. II.

By RALPH C. Huston and Dwight T. Ewing. Received September 6, 1915.

The editors have kindly forwarded us a copy of the preceding article by Frankforter and Kokatnur. In order that the position taken in our first paper on this subject may be more clearly defined we think it best to call attention to the following points:

- I. It was not our purpose in taking up the work previously described by us to usurp the field of other investigators. The work was taken up in connection with other work on p-xylene which is being carried on in this laboratory. The results appeared to us to be worthy of publication.
- 2. We do not question the formation of diphenylmethane and anthracene derivatives when certain hydrocarbons are treated with trioxymethylene and aluminum chloride, but we have reason to believe that both are not always formed in appreciable amounts.
- 3. We do not believe that the equation of Frankforter and Kokatnur can be justified until it is shown by experimental data that diphenylmethane and anthracene derivatives are formed in equal molecular amounts. The fact that these derivatives are the principle ones isolated does not necessarily justify the equation.
- 4. Recent experiments in which toluene, trioxymethylene and aluminum chloride were used have led us to suspect that the relative yields of ditoluylmethane and dimethylanthracene depend to some extent upon the temperature of the reacting mixture.
- 5. It was not our intention to give the impression that we were drawing conclusions as to the structure of the compounds described by Frankforter and Kokatnur from our work on p-xylene. We simply wished to point out that some of the experimental data presented by them might be interpreted in a different way.
- 6. We did not state in our previous paper that an anthacene compound can not be formed from mesitylene. It was shown that more than one interpretation might be placed on the data given.

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