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The Preparation of Permanent Filter Mats for Gooch Crucibles

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reactions and the proof of structure, insofar as such work involves organometallic compounds, it is necessary to determine specifically the mode of attachment of the metal to such polyvalent elements as carbon, nitrogen, oxygen and sulfur. For this reason, experiments are in progress on organobarium and organostrontium halides, as well as organomagnesium halides where the metal is attached particularly to sulfur and to oxygen. Because the polar nature of organometallic compounds makes them of such promise in the electronic interpretation of reactions, a quantitative study is being made of the reaction with substituted ethylenic compounds. Preliminary results of this work indicate that no addition takes place. A study is also in progress of the reaction of organometallic compounds with positive and negative halogens.

In studies on the mechanism of reduction by Grignard reagents, preliminary experiments show that magnesium halogen hydrides are not formed by catalytic reduction of organo-magnesium halides.

THE PREPARATION OF PERMANENT FILTER MATS FOR GOOCH CRUCIBLES

G. N. QUAM AND H. V. WRIGHT

A porcelain filter mat has been made (Sweeney and Quam — J.A.C.S. 46, 958, 1924) which withstands the heat of a blast lamp, remains constant in weight after repeated washing with aqua regia, has uniform porosity, and has the advantages of a Monroe crucible. Methods of standardizing the mats are being studied. The building of silica filter mats in silica crucibles is being investigated. Preliminary results indicate that a silica mat can be made according to the plan of the porcelain mat and have the added advantages that silica affords.

THE RELATION OF SUBSTITUENTS IN THE HYDRO- CARBON RADICALS TO THE FORMATION AND REACTIONS OF CERTAIN MIXED ETHERS

L. CHAS. RAIFORD AND J. C. COLBERT

Preliminary work in this laboratory indicates that substituents in the ring have an influence on the formation and decomposition of certain mixed ethers. The work now in progress concerns the activating or retarding influence of groups in the para position on the formation and reduction of such ethers.