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The Utilization of Cob Char as a Carburizing Agent

H. L. Maxwell
Iowa State College

of organometallic compounds of beryllium, calcium, strontium and barium.

IOWA STATE COLLEGE,
AMES, IOWA.

THE UTILIZATION OF COB CHAR AS A CARBURIZING AGENT

H. L. MAXWELL

(ABSTRACT)

It is shown that the char resulting from the distillation of corn cobs in the manufacture of furfural, may be substituted for the more expensive bone char now being used in the carburizing process. The distribution of the tri-ferro carbide, Fe_3C, in the carburized zone may be closely governed by time and temperature variations.

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THE PHOSGENO-ALUMINATES OF LITHIUM, MAGNESIUM, POTASSIUM, AND LEAD. MOLECULAR ASSOCIATION IN PHOSGENE SOLUTIONS

D. M. BIROSEL

(ABSTRACT)

The work of Germann and his students has definitely established that Phosgene is a Mother Solvent for a system of acids, bases, and salts. The acids are capable of reacting with metals and bases of this system to form salts. By neutralizing phosgenoaluminic acid with the anhydrous halides of Lithium, Magnesium, Potassium and Lead, their respective salts are obtained. The Potassium and Lead salts are difficult to work with because they form crusts at the end of the Faraday tubes. Lithium and Magnesium form $LiAlCl_4$ and $Mg_2Al_5Cl_{19}$ respectively. By a study of the pressure-concentration curves, these salts have been shown to be associated. Fourteen molecules of the sodium salt, twelve