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The Reaction of Dialkylmagnesium with Monochloroamine

George H. Coleman
State University of Iowa

Richard F. Blomquist
State University of Iowa

GROWTH PROMOTING ABILITY OF *d*- AND *l*-LYSINE

CLARENCE P. BERG

We have previously reported work on the influence of optical isomerism on the utilization of essential amino acids for growth. As an extension of this program we have devised a method for the resolution of *dl*-lysine and have fed the *d* and the *l* modifications to rats as supplements to diets deficient in lysine, but otherwise complete.

The unnatural *l*-lysine proved to be unable to stimulate growth. In this respect it is like the unnatural modification (*d*) of cystine, but differs from the unnatural isomers of tryptophane (*d*) and histidine (*d*).

BIOCHEMICAL LABORATORY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

THE REACTION OF DIALKYLMAGNESIUM WITH MONOCHLOROAMINE

GEORGE H. COLEMAN AND RICHARD F. BLOMQUIST

The yields of primary amines from monochloroamine and Grignard reagents prepared from alkyl halides vary greatly with the halogen present in the reagent. For example the yields from n-butyl reagents decrease from an average of 60 per cent with the chloride to about 15 per cent or less with the iodide. The percentage of dialkylmagnesium present in the three n-butyl reagents is about the same being above 65 per cent in each. With di-n-butylmagnesium however prepared from each of the three n-butyl Grignard reagents by the dioxane method the yields of n-butylamine are above 80 per cent.

DEPARTMENT OF CHEMISTRY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.