

Proceedings of the Iowa Academy of Science

Volume 48 | Annual Issue

Article 44

1941

Condensation of Vanillin and Substitution Products with Hippuric Acid (Abstract)

C. H. Buurman
State University of Iowa

L. Chas. Raiford
State University of Iowa

Copyright ©1941 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Buurman, C. H. and Raiford, L. Chas. (1941) "Condensation of Vanillin and Substitution Products with Hippuric Acid (Abstract)," *Proceedings of the Iowa Academy of Science*, 48(1), 245-245.

Available at: <https://scholarworks.uni.edu/pias/vol48/iss1/44>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

A NEUTRAL SIZING MATERIAL FOR INSULATING BOARD (ABSTRACT)

L. K. ARNOLD AND J. B. McLEOD

The usual sizing materials for paper and board are acid in reaction and interfere with certain chemicals useful for flame proofing. A wax sizing material precipitated by the action of calcium chloride produced excellent water resistance in insulating board and did not interfere with the flame proofing chemicals.

ENGINEERING EXPERIMENT STATION,
IOWA STATE COLLEGE,
AMES, IOWA

CONDENSATION OF VANILLIN AND SUBSTITUTION PRODUCTS WITH HIPPURIC ACID

(ABSTRACT)

C. H. BUURMAN AND
L. CHAS. RAIFORD

Condensation of vanillin with hippuric acid in presence of acetic anhydride gives *a*-benzoylamino-3-methoxy-4-acetoxycinnamic acid which, under the conditions of the experiment, loses the elements of water to give the related azlactone. This view of the reaction is supported by the fact that when esters of hippuric acid are used in this condensation lactones are not obtained. The ring may be opened by warming the lactone with 3 N caustic alkali solution. More drastic treatment causes further hydrolysis with the loss of benzoic acid and ammonia, and gives the related pyruvic acid. Similar results were obtained by starting with aceturic instead of hippuric acid. Several substitution products of vanillin were tested.

LABORATORY OF ORGANIC CHEMISTRY
STATE UNIVERSITY OF IOWA
IOWA CITY, IOWA

ACTIVITY OF THE CARBONYL GROUP OF 4, 7-DIMETHYL INDANONE-1

(ABSTRACT)

ROBERT COCROFT

The general rule may be drawn that ketones in which the carbonyl group is directly attached to the ring will not react with the usual reagents (hydroxylamine, phenyl-hydrazine, etc.) if the two ortho positions of the ring are occupied by methyl groups.