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The Velocites of Hydrolysis of the Three Monomethoxy-Diphenyl Ketimines

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gated both in the presence and absence of microorganisms. No stimulation was found in the absence of microorganisms even though organic matter was introduced which improved growth under non-sterile conditions.

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THE PRODUCTION OF KYNURENIC ACID FROM TRYPTOPHANE DERIVATIVES

CLARENCE P. BERG

Tryptophane, when administered to certain animals, is converted into kynurenic acid. Use has been made of this fact in the study of possible cleavage of tryptophane derivatives in the alimentary tract and in the body proper. The methylene, benzoyl, acetyl, and ethyl ester hydrochloride derivatives of tryptophane were prepared and administered *per os* and subcutaneously. Of these, only the ethyl ester hydrochloride gave rise to an output of kynurenic acid comparable to that yielded by an equivalent amount of free tryptophane. The methylene and benzoyl derivatives did not yield appreciable quantities of kynurenic acid. Administration of the acetyl derivative caused a definite, though small, output of kynurenic acid.

Apparently, tryptophane ethyl ester hydrochloride is readily hydrolyzed in the body, acetyltryptophane is split to a limited extent, and benzoyltryptophane and methylenetryptophane do not undergo cleavage.

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THE VELOCITIES OF HYDROLYSIS OF THE THREE MONOMETHOXY-DIPHENYL KETIMINES

JAMES B. CULBERTSON AND AMEL L. BRESSON

The 2- and the 3-methoxy-diphenyl ketimines have been prepared employing the general method of Moureu and Mignonac.¹ The 4-methoxy-diphenyl ketimine had been prepared previously.

¹ Moureu and Mignonac, *Compt. rend.* 156, 1801-6 (1913) *Ann. Chim.* 9th ser., 14, 322-59 (1920).

The velocities of hydrolysis into the corresponding ketones have been determined for these monomethoxy-diphenyl ketimine hydrochlorides. The 2-methoxy-diphenyl ketimine has a decidedly slower rate of hydrolysis than the other two. The 4-methoxy compound is definitely slower than the 3-methoxy-diphenyl ketimine. All of these have slower rates of hydrolysis than diphenyl ketimine hydrochloride although the 3-methoxy compound is only slightly slower.

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THE VELOCITIES OF HYDROLYSIS OF MONO- AND POLYHYDROXY-DIPHENYL KETIMINES

JAMES B. CULBERTSON AND JAMES L. NAUMAN

The velocities of hydrolytic decomposition of the three monohydroxy-diphenyl, the resorcylic phenyl and the phloroglucinyl phenyl ketimine hydrochlorides have been measured. As a result of these measurements it has been found that the phenolic group in the 2- and 4-positions in the monohydroxy diphenyl ketimines gives rise to a marked retardation of the hydrolysis velocity compared with that of diphenyl ketimine, while the velocity of the 3-hydroxy-diphenyl ketimine was even faster than that of the diphenyl ketimine.

The polyhydroxy diphenyl ketimines with their hydroxy groups in the 2- and 4-positions are remarkably slow in their rates of hydrolysis.

This is a preliminary report. Further work is planned on diaryl ketimines having phenolic groups on both benzene rings with a view to establishing certain theoretical factors which the above data suggest may be involved in the stabilizing influence of these hydroxy groups in the benzene rings upon the hydrolysis of the imine group attached to the carbon atom between these rings.

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