

1936

Iodine Substitution Products of Vanillin

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Recommended Citation

Raiford, L. Chas. and Wells, Eugene H. (1936) "Iodine Substitution Products of Vanillin," *Proceedings of the Iowa Academy of Science*, 43(1), 207-207.

Available at: <https://scholarworks.uni.edu/pias/vol43/iss1/53>

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case a migration of acyl from nitrogen to oxygen must have occurred. When one of these acyls is derived from a sulfonic acid no rearrangement is observed.¹

When one of the acyls is represented by a carboaryloxy radical and this is introduced into the amino group, attempts to prepare a diacyl derivative by means of an acyl radical derived from a carboxylic acid will fail. A benzoxazolone will be formed and the required phenol will be eliminated.²

It has now been found that a mixed diacyl derivative containing the carboaryloxy radical can be obtained, provided the other radical is *p*-tolylsulfonyl, and if the latter is introduced first. The behavior of this product toward hydrolyzing reagents is now being studied.

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IODINE SUBSTITUTION PRODUCTS OF VANILLIN

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In 1872 Carles prepared a mono- and a diiodovanillin, but did not characterize them. In the current edition of Beilstein they are recorded as of unknown structures.

Carles' work has now been repeated, and the structures of his products have been shown to be 5-iodovanillin and 2, 5-diiiodovanillin, respectively. The behavior of these and similar derivatives toward typical amino compounds has been studied. No pronounced steric hindrance was noted in the latter reactions. The relation between the numerical values of the melting points and the positions of the halogen atoms in the iodine derivatives, so far as they have been obtained, is in good agreement with that observed in the cases of the chlorine and bromine compounds, viz., that the lowest value is found for position 2, the next higher for 5 and the highest for 6. Likewise, for a given position the lowest is found for the chloride, the next higher for the bromide and the highest for the iodide.

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¹ J. Am. Chem. Soc., 53, 3420 (1931).

² J. Am. Chem. Soc., 56, 1586 (1934).