ARYLACETIC ACIDS AND RELATED COMPOUNDS

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This is my original work and has not been presented for a degree in any other University.

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This thesis has been submitted for examination with my approval as University Supervisor.

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ABSTRACT

In the reaction of arylacetic acids with alkaline sodium hypochlorite it has been shown that the nature of the products depends on the substituents on the ring. When electron attacting groups are present the products are the next lower aldehyde and/or carboxylic acid: the type of product being determined by the experimental conditions. When electron releasing groups are present the ring is activated towards substitution by electrophilic chlorine to give chloro- and dichloro derivatives. In phenylacetic acid itself, contrary to a previous report, we have shown that both oxidation/decarboxylation and chlorine substitution of the ring may take place.

Pyridyl acetic acids behave in a similar fashion to benzene derivatives bearing electron withdrawing groups.