

## ABSTRACT

The work reported in this thesis relates to some preliminary studies on the preparation of Caramels from D-Grade Jamaican Sugar. Caramels were prepared from locally available raw sugar and compared with imported samples. The effect of using different inorganic salts as catalysts for the reaction was investigated. The properties of some of these caramels were examined using various analytical techniques, e.g. gas and paper chromatography, paper electrophoresis and ultraviolet spectroscopy.

The thesis is divided into three sections:-

Section 1 deals with the chemical reactions which are likely to occur during the process of caramelization. Reactions occurring in sugar-amine systems are discussed together with thermal, acid and alkaline degradation of sugars.

In Section 2 various methods used for the analysis of caramels and some of the results obtained are reviewed.

In Section 3 the studies on caramels prepared from Jamaican D-Grade Sugar are presented. A discussion of the results obtained and their significance is included.

These studies showed that Jamaican D-Grade Sugar could be used to prepare caramels which compared favourably with imported samples. It was estimated that local demand could be met by small scale commercial operations.