



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية  
@ ASUNET



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأفلام قد أعدت دون أية تغيرات



## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of  
15-25- c and relative humidity 20-40%

# بعض الوثائق الأصلية تالفة

# بالرسالة صفحات لم ترد بالاصل



**CHEMICAL AND  
TECHNOLOGICAL STUDIES ON  
SOME SPECIAL FOOD  
PROCESSING**

Box 1.

BY

**Ahmed Mohamed Mohamed Hamouda**

A Thesis Submitted in Partial Fulfilment  
of  
the Requirements for the Degree of

**MASTER OF SCIENCE**

in  
**Agricultural Science (Food Science)**

Department of Food Science and Technology  
Faculty of Agriculture, Moshtohor  
Zagazig University, Benha Branch

2001





# Approval Sheet

## Chemical and technological studies on some special food processing

By

**Ahmed Mohamed Mohamed Hamouda**

B.Sc. (Food Sci. & Tech.), Fac. of Agric., Zagazig University, 1995

A Thesis Submitted in Partial Fulfilment  
of  
the Requirements for the Degree of

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Date : / / 2001

Committee in charge





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## Chemical and technological studies on some special food processing

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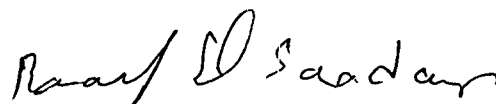
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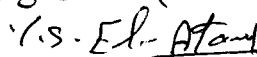
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## ABSTRACT

Recently, more than before, it is necessary of high energy, salts and vitamins drinks for sports especially through a daily nutrition and activity program. So, high energy drinks for sports must be drunk before and after exercises or matches.

In this work, juices were extracted from Balady orange, Sukkary orange, mandarin, lime, sweet lemon and grapefruit. The suitable blend was prepared by mixing different juices. Many citrus blend were carried out and the suitable blend was contained from juices of 32.5% Balady, 24% Sukkary, 13.5% mandarin, 16.5% lime, 4% sweet lemon and 5.5% grapefruit. From citrus blend three caloric drinks for sports were prepared by adding water, sucrose, glucose, fructose, sweet condensed milk, honey and some minerals and vitamins. The chemical,



physical microbiological and organoleptic evaluation were carried out during storage periods.

The results showed that the lime juice had a lower content of calorie and chemical constituents than another citrus juices except acidity. Citrus juices had a high content of potassium.

The data of all sport drink treatments showed that the results were better during storage at  $6\pm 1^{\circ}\text{C}$  than that storage at room temperature ( $20\text{--}30^{\circ}\text{C}$ ). whereas storage in refrigerator showed good stability results, and the microbiological examination for all treatments were very low in total count and less than 10 or zero for mould and yeast whereas coliform group were absent. The organoleptic evaluation showed that all treatments were better than control for taste, odor and overall acceptability during storage.