شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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15 – 25c and relative humidity 20-40 %

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بالرسالة صفحات

لم ترد بالأصـــل

Studies on Compounds with Antioxidant Properties Isolated from some Aromatic Plants

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CONTENTS

Page

1 - AIM AND SCOPE OF THE WORK 1

2 - REVIEW OF LITERATURE 3

2.1 - Introduction 3

2.2 - The extraction methods of essential oils and semi-volatile compounds 4

2.3- The chemistry of essential oils 8

2.3.1- Hydrocarbons of the general formula $(C_5H_8)_n$- the terpenes 8

2.3.2- Oxygenated derivatives of these hydrocarbons 8

2.3.3- Aromatic compounds having a benzenoid structure 9

2.3.4 - Compounds containing nitrogen or sulphur 9

2.4 - Variations of the chemical composition of essential oils within a plant subfamily(especially *Eucalyptus*) independence of the species 10

2.5 - The effect of the climate conditions on the chemical composition of essential oils from Eucalyptus species: 12

2.6- Antioxidant activity of essential oils and non-volatile compounds 13

2.6.1- The mechanism of antioxidant reactions 13

Page

2.6.1.1- Initiation of autoxidation 15

2.6.1.2- Propagation and termination of autoxidation 18

2.6.2 - Prevention of autoxidation and use of antioxidants 18

3 - MATERIALS AND METHODS 30

3.1- Materials 30

3.2- Methods 30

3.2.1- Hydrodistillation (HD) 30

3.2.2- Solvent extraction 30

3.2.3- Soxhlet extraction 31

3.2.4 - Supercritical fluid extraction (SFE) 31

3.2,4.1- SFE without modifier addition 31

3.2.4.2- SFE with modifier addition 31

3.2.5 – Toxicological method

3.2.5 - Determination of the acute median lethal doses (LD_{50}) in rats 33

3.3 - Column chromatography 33

3.4 - Gas chromatography-mass spectrophotometry (GLC-MS) analysis

3.5- High performance liquid chromatography (HPLC) 35

3.5.1- Analytical HPLC 35

3.5.2- Semipreparative HPLC 36

3.5.3- HPLC with diode array detector 36

3.5.4- HPLC-MS thermospray 36

3.6 - Method of silylation 36

3.7 - Determination of antioxidant activity by the thiocyanate method 37

3.8 - Infrared spectrophotometry (IR) 37

3.9 - MS (high resolution) 37

Page

3.10 - Nuclear magnetic resonance spectrometry (NMR) 37

4 - RESULTS AND DISCUSSION 38

4.1- The identification and antioxidant activities of essential oil of *E. camaldulensis var. brevirostris* leafs 38

4.1.1- Chemical composition of the HD and SFE extracts 38

4.1.2- Antioxidant activity of the HD and SFE extracts 50

4.1.3- Conclusion s 52

4.2- The antioxidant activities and identification of non-volatile compounds of *E camaldulensis var. brevirostris leafs* 56

4.2.1- The antioxidant activities of non volatile compounds 56

4.2.2- The identification of the main HPLC separated compounds extracted from the leafs by ethanolic digestion 77

4.2.2.1- Retention time comparison 77

4.2.2.2 - UV analysis 77

4.2.2.3 - GC-MS analysis of the TMS derivatives 78

4.2.3 -The quantitative analysis of gallic acid and ellagic acid 84

4.2.3.1 - Quantitative analysis of gallic acid 84

4.2.3.2 - Quantitative analysis of ellagic acid 85

4.2.4 - Identification of the antioxidants components (F1 and F2) in SFE extract (modified with 15 % ethanol 86

4.2.4.1 - Identification of the isolated compound F1 88

4.2.4.2 - Identification of the isolated compound F2 96

4.2.4.3 - The antioxidant activities of the compounds (F1 and F2) 99

4.3 - The toxicity study of HD oil and ethanol digested extract 105

Page

5 – English summary **107**

6 – German summary **119**

7 - References **1118**

8 - Arabic summary **123**

AIM AND SCOPE OF THE WORK

1 - Aim and Scope of the Work

Lipid oxidation is a major cause of food quality deterioration. Oxidation of lipids initiates other changes in food, which affect its nutritional quality, wholesomeness and safety, colour, flavour and texture. Antioxidants are principal ingredients which protect food quality by preventing oxidative deterioration of foods.

Synthetic antioxidants such as butylated hydroxy toluene (BHT) and butylated hydroxy anisole (BHA) are commonly used in the food industry because they retard undesirable changes due to oxidation. However, their use in food has been falling off due to suspected action as promoters of carcinogenesis and a trend among consumers towards „all natural ingredients" have resulted in a pronounced activity in the field of natural additives.

Recently aromatic plants have received much attention as sources of active antioxidants. To the best of our knowledge, there are no previous reports on the antioxidants from the leaves of *Eucalyptus* species native to Egypt.

Eucalyptus camaldulensis var. brevirostris is a frequently planted tree in Egypt. Their leaves are not yet used commercially. Thus the main objective of the present study was to assess the effectiveness of the leaves of *Eucalyptus. camaldulensis var. brevirostris* as potential source for antioxidative compounds.

Using CO_2 as a solvent in the supercritical fluid extraction technique has drown more and more attention during the last years because of its environmental safety and convenience to be used in food industry. So it was of interest to evaluate this technique and traditional techniques in terms of their effectiveness in extracting the active antioxidant compounds.

The extracted materials are to be analysed by GC-MS, HPLC, HPLC-MS HNMR, MS, IR and UV methods in order to find a relation between their chemical constitution and antioxidant activity.

Toxicity studies have to be carried out to confirm the safe use of the extracted materials as natural antioxidant in food.

REVIEW OF LETRATURE