The Scientistt
Exploring Science • Promoting Innovation

GSFST2023

2nd Global Summit on Food Science and Technology

March 23-25, 2023 **Rome, Italy**

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FOREWORD

Dear Colleagues,

It is a great pleasure to announce that The Scientistt will host the 2nd Global Summit on Food Science and Technology (GSFST2023) will be held in Rome, Italy during March 23-25, 2023.

GSFST2023 aims to bring together the renowned researchers, scientists and scholars to exchange ideas, to present sophisticated research works and to discuss hot topics in the field and share their experiences on all aspects of Food Science and Technology.

The GSFST2023 will be a 3 days event that means to gather the key players of the Food Science and Technology community and related sectors. This event is launched with the aims to become an established event, attracting global participants, intent on sharing, exchanging and exploring new avenues of Food Science and Technology-related scientific and commercial developments.

A wide-ranging scientific program consisting of plenary lectures, keynote lectures, Invited lectures, parallel sessions, as well as poster sessions for young scientists covering all topics in Food Science and Technology will be scheduled. This conference provides a wonderful opportunity for you to enhance your knowledge about the newest interdisciplinary approaches in Food Science and Technology.

Moreover, the conference offers a valuable platform to create new contacts in the field of Food Science and Technology, by providing valuable networking time for you to meet great personnel in the field.

We look forward to seeing you at GSFST2023 in Rome, Italy.

COMMITTEES

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Elizandra Ardohain

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Plant Extracts: A study on the Chemical Characterization and Bioactive Potential to Inhibit Grape Pathogens

Abstract

Orange (Citrus sinensis L.) peels are usually discarded as wastes; however, they are rich sources of bioactive compounds, including organic acids with biological properties[1]. In addition, fennel (Foeniculum vulgareMill.)and salvia (Salvia officinalis L.)are widespreadherbs, traditionallyused for medicinal purposes and human consumption. Their leaves have been described as potential sources of polyphenols, such as flavonoids with antioxidant and antifungal activities[2,3]. In this sense, the present study aimed to perform the phenolic characterization of fennel and salvia leaves extracts through HPLC-DAD/ESI-MS after a maceration process. Additionally, the extraction and the further characterization of orange peels'in terms of organic acids was also evaluated through HPLC-DAD. The antimicrobial potential of these plant extracts against food contaminants, including grapevine pathogens, such asBotrytis cinerea, was evaluated using the microdilution method. The results obtained showed thatthepolyphenols with the highest concentration in leave's extractswerethe flavonoids luteolin-7-O-glucuronide and quercetin-3-O-glucuronide, for salvia and fennel, respectively. The total amount of phenolic compounds in salvia was266±1 g/mg of extract, while for fennel was30±0.7 mg/g of extract, comprising the sum of total flavonoids and phenolic acids. The concentration of determined organic acids in orange peels was 8±0.1g/100g dw, in which the main compound found was citric acid(6±0.1g/100g dw).In this study, allplant extracts have demonstratedthe ability to inhibit the growth of B. cinerea at a concentration of 10 mg/mL. Therefore, these plant extracts, due to their potential composition in bioactive agents, could be used as naturalantifungals, acting against B. cinerea. Natural antimicrobials, based on plant extracts, represent a promising alternative for disease control and could provide significant economic benefits for the wine industry.

Keywords

Polyphenols; Citrus sinensis L.; Foeniculum vulgare Mill.; Salvia officinalis L.; antimicrobial activity; Botrytis cinerea

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Biography

Mst. Elizandra N. G. Ardohain is a doctoral researcher for the PreVineGrape POCI-01-0247-FEDER-049695 project. Student with experience in the agro-food area, especially in the chemical characterization, nutritional and bioactive properties evaluation of food and plant matrices.

GSFST2024

3rd Global Summit on Food Science and Technology

April 25-27, 2024 | Osaka, Japan

https://www.thescientistt.com/2024/food-science-summit