

4th International Conference on

PLANT SCIENCE

March 28-29, 2024 | Webinar

Medicinal potential of bunium bulbocastanum tubers: Antioxidant and antibacterial properties

BENABDEL MOUMENE Djilali

Abdelhamid ibn badis university Mostaganem Algeria

This study delves into the medicinal properties of Bunium bulbocastanum tubers, a traditional remedy in Algerian phytotherapy, focusing on their bioactive components, notably polyphenols, flavonoids, and condensed tannins. Utilizing methods such as the Folin-Ciocalteu assay for total phenolic content, aluminium chloride colorimetric assay for flavonoids, and DPPH radical scavenging assay for antioxidant activity, alongside agar disc diffusion for antimicrobial efficacy, this research highlights the tubers' significant health benefits. Comprehensive liquid chromatography-mass spectrometry (LC-MS)

analysis was employed to identify and quantify key volatile compounds, revealing a rich presence of bioactive constituents. The study's findings indicate that Bunium bulbocastanum tubers exhibit remarkable antioxidant and antibacterial activities, attributing to their potential in pharmaceutical and nutraceutical applications. This research underscores the importance of traditional remedies and their place in contemporary medicinal practices, proposing Bunium bulbocastanum tubers as a significant source of natural bioactive compounds with therapeutic benefits.

Biography

BENABDELMOUMENE Djilali, is working in Abdelhamid ibn badis university Mostaganem Algeria