

Geoclimatic Influences on the Constituents and Antioxidant Activity of Extracts from the Fruit of *Arbutus unedo* L.

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Abstract : We made a comparison between the total phenolic content, concentrations of flavonoids and antioxidant activity of four different extracts (butanol, ethyl acetate, chloroform, water) of *Arbutus unedo* L. fruit (Ericacea) of El Marsa and Terni area. The total phenolic content in the extracts was determined using the Folin-Ciocalteu reagent and it ranged between 26.57 and 48.23 gallic acid equivalents mg/g of dry weight of extract. The concentrations of flavonoids in plant extracts varied from 17.98 to 56.84 catechin equivalents mg/g. The antioxidant activity was analyzed in vitro using the DPPH reagent; among all extracts, ethyl acetate fraction from El Marsa area showed the highest antioxidant activity.

Keywords : antioxidant activity, *Arbutus unedo* L., fruit flavonoids, phenols, Western Algeria

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