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Antioxidant Activity of Some Medicinal Plants Determined By FTIR Spectroscopy and Multivariate Analysis

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Abstract: A large number of medicinal plants and their purified constituents have shown beneficial therapeutic potentials. The majority of the antioxidant activity is due to flavonoids, flavones, isoflavones, anthocyanin, coumarin lignans, catechins and isocatechins. Commonly colorimetric methods are used to evaluate antioxidant activity in extracts of plants. However other alternative method that employs Fourier transform infrared spectroscopy (FTIR) and statistical strategies known as multivariate analysis can be applied. Leaves of eight medicinal plants were selected for this study (*Moringa oleifera, Laurus nobilis, Sambucus nigra, Mentha spicata, Menta piperita, Persea americana, Origanum vulgare, and Sambucus nigra),* obtained a chemometric method that predicts quantitatively antioxidant activity of extracts of these medicinal plants without the use of reagents.

Keywords: Infrared spectroscopy, Chemometric method and antioxidant

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