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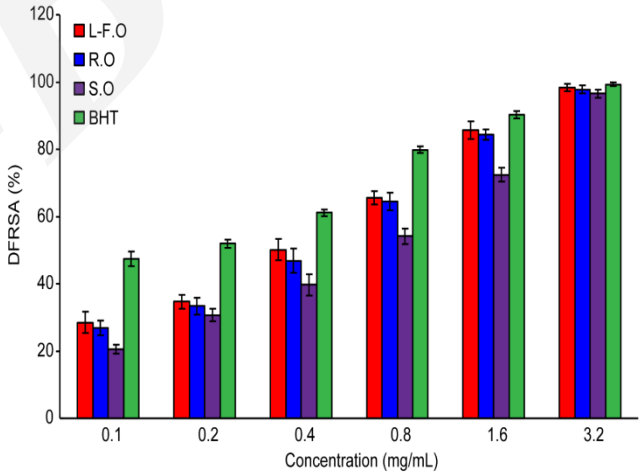
Chemical composition and antioxidant activities of essential oils from different parts of the oregano

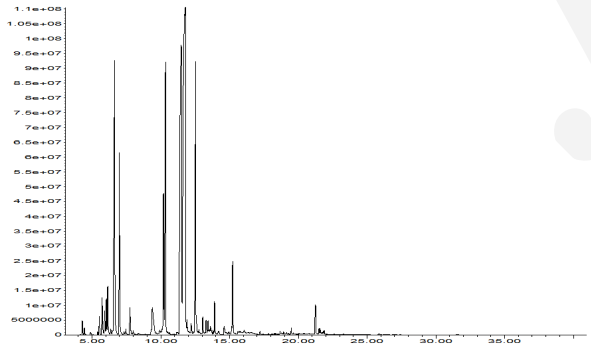
Key words: Oregano, Different parts, Essential oil, Chemical composition, Antioxidant activity.

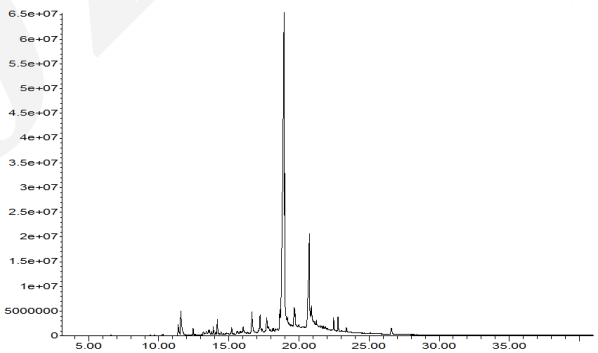
Research Summary

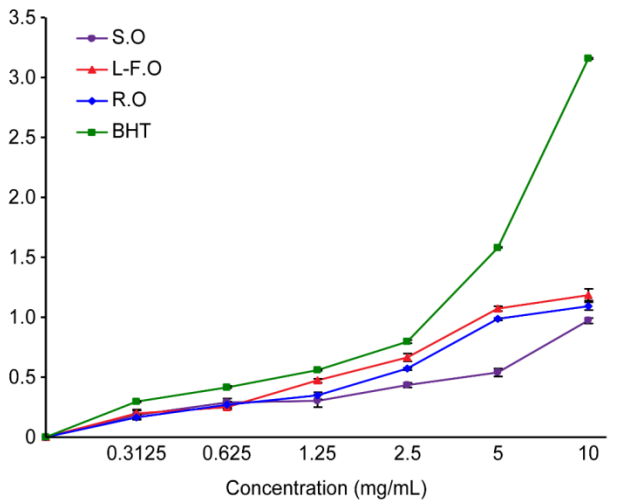
This research was undertaken in order to characterize the chemical compositions and evaluate the antioxidant activities of essential oils obtained from different parts of the *Origanum vulgare* L.(*O. vulgare* L.)，and the results are summarized as follows：

- **Twenty-nine compounds were found in the essential oils from roots**
- **The leave-flower oils had the strongest antioxidant activities ,and the stem oils had the weakest**
- **The essential oils from the different parts of the *O. vulgare* L. all have excellent antioxidant activities**

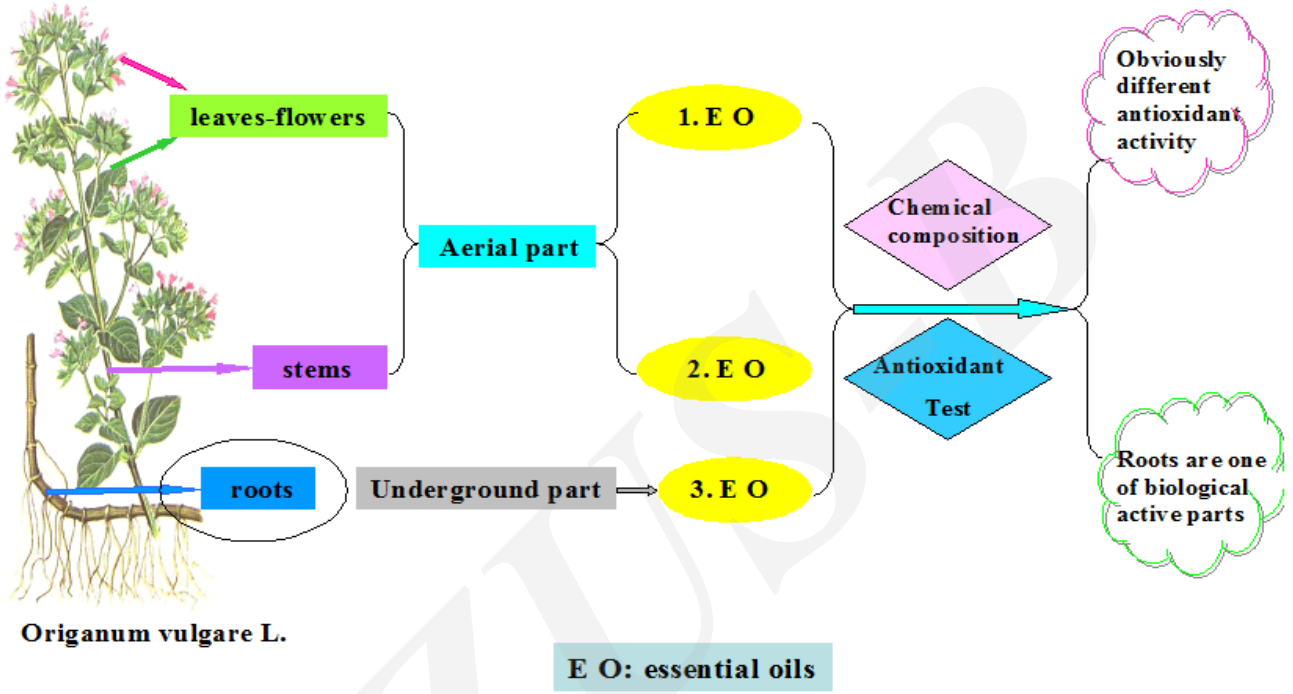








Innovation points



• Introduction:

the origin, growing environment and medicinal history of the *O. vulgare* L. , and the efficacy of oregano oil.

• Summary:

the difference of chemical composition and antioxidant activities of the three essential oils from different parts of the oregano.

• Emphasis:

the roots of the *O. vulgare* L. have significant medicinal values and should not be discarded when oregano is used for its antioxidant properties.

Innovation points

A series of figures and tables manifest that the roots of *O. vulgare* L. are one of the biological active parts.

Table S1 | Chemical compositions of essential oils from different parts of *O. vulgare* L.

Table 1 | IC_{50} values of essential oils from different parts of *O. vulgare* L.

Figure 1 | Comparison of the DFRSA of essential oils from different parts of *O. vulare* L.

Figure 2 | Comparison of the reducing powers of essential oils from different parts of *O. vulgare* L.

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