

## Effect of Hemicellulase on Extraction of Essential Oil from Algerian *Artemisia campestris*

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**Abstract :** Effect of enzyme on the yield and chemical composition of *Artemisia campestris* essential oil is reported in the present study. It was demonstrated that enzyme facilitated the extraction of essential oil with increase in oil yield and did not affect any noticeable change in flavour profile of the volatile oil. Essential oil was tested for antibacterial activity using *Escherichia coli*; which was extremely sensitive against control with the largest inhibition (29mm), whereas *Staphylococcus aureus* was the most sensitive against essential oil obtained from enzymatic pre-treatment with the largest inhibition zone (25mm). The antioxidant activity of the essential oil with hemicellulase pre-treatment (EO2) and control sample (EO1) was determined through reducing power. It was significantly lower than the standard drug (vitamin C) in this order: vitamin C > EO2 > EO1.

**Keywords :** *Artemisia campestris*, enzyme pre-treatment, hemicellulase, antibacterial activity, antioxidant activity

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