

## ANTI-INFLAMMATORY ACTIVITY OF CITRUS ESSENCES HARVESTED LOCALLY IN CHLEF REGION (ALGERIA): *IN VIVO* STUDY

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### ABSTRACT

Essence was extracted by cold expression methods from four varieties of *Citrus* harvested in Chlef region: *C. Sinensis*, *C. paradisi*, *C. reticulata* and *C. aurantium*. The characterization of the essence was done by gas chromatography coupled to mass spectrometry (GC/ MS) in order to evaluate the quality and composition of these molecular species.

The anti-inflammatory activity of Citrus Essence was tested with a dose of 3 and 4 ml / kg by intra- peritoneal route after induced the paw edema by carrageen in mouse model (MORINI), the results obtained were compared with those of the standard treatment.

The results of our experiment showed that Citrus essence had a significant anti-inflammatory effect via evaluation of the percentage of inhibition of edema and after a period of 120 min with *C. reticulata* and *C. aurantium*, hence for *C. paradisi* and *C. Sinensis* were after 150 min. In conclusion we find that essence extracted from *Citrus* species reduces with significant manner the edema, whereas the molecule responsible for this effect could be limonene.

**KEYWORDS:** *Citrus*, Cold Expression, Anti-Inflammatory Activity, GC / MS