

## Essential Oil Analysis of the Aerial Parts of *Sideritis incana* and *Calamitha hispidula*

**Authors :** Smain Amiraa, Hocine Laouerb, Fatima Benchikh-Amiraa, Guido Flaminic

**Abstract :** The aerial parts of *Sideritis incana* and *Calamintha hispidula* at the flowering stage were submitted to hydrodistillation in a Clevenger-type apparatus for 3 hours and the chemical composition of the essential oil was analyzed by GC coupled to GC-MS. The essential oil contained a total of 99 constituents for *S. incana* and 31 for *C. hispidula* representing 95.7% and 99.6 of the total oils, respectively. The mains components of *S. incana* oil were linalool (25.2), cedrol (13.7%), geraniol (7%) and  $\alpha$ -terpineol (5.4%). The chemical constituents of the oil from *C. hispidula* were predominated by pulegone (43.2%), isomenthone (36%), piperitone (3.2%), limonene (2.6%) and 4-terpineol (2.5%). The results revealed that the oil of the plants is characterized by the presence of many important components which could be applied in food, pharmaceutical and perfume industry.

**Keywords :** essential oils, *Calamintha hispidula*, *Sideritis incana*, chemical and molecular engineering

**Conference Title :** ICC 2015 : International Conference on Chemoinformatics

**Conference Location :** Jeddah, Saudi Arabia

**Conference Dates :** January 26-27, 2015