## B079 Composition of the essential oil of Nepeta curviflora Boiss.

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The essential oil of Nepeta curviflora Boiss. (Lamiaceae), collected in Lebanon, was obtained by hydrodistillation of the dried aerial parts (yield 0.3 %) and analyzed by GC and GC/MS. No previous data were reported for the plant and the oil.

GC analyses were performed on a Perkin-Elmer Sigma-115 instrument with a DB-1 fused-silica column (30 m x 0.25 mm, film thickness 0.25  $\mu$ m). Operating conditions: injector and detector temperature 250° and 285° respect., carrier gas He; oven temperature program 5 min isothermal at 40°, then at 2°/min up to 260° and then isothermal at 260° for 20 min. GC/MS analysis was performed using a Hewlett-Packard 5890 A apparatus, equipped with a HP-1 fused-silica column (30 m x 0.25 mm; film thickness 0.33  $\mu$ m, linked on line with a HP Mass Selective Detector (MSD 5970 HP); ionization voltage 70 eV; electron multiplier energy 2000 V; transfer line temperature 295°. The identification of oil components was established from their GC retention times, by comparing their MS spectra with those reported in literature, and by computer matching with the NIST 98 and Wiley 5 libraries, as well, whenever possible, co-injections with authentic compounds.

Thirtyfive compounds were identified constituting 93.8 % of the oil, the major components being caryophyllene (50.2 %), caryophyllene oxide (6.4 %) and (*E*)- $\beta$ -farnesene (5.3 %). The high percentage of caryophyllene in this Nepeta is quite unusual; in fact this sesquiterpene hydrocarbon occurs in many species of Nepeta but none has caryophyllene as the main component; for this reason we can consider this plant as the first example of a Nepeta species rich in caryophyllene.

## B080 Alkaloidal constituents from Aconitum jaluense Komar

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The root part of Aconitum jaluense Komar. (Ranunculaceae) has been used in folk medicine for the treatment of rheumatism and neuralgia. A new C<sub>20</sub> diterpenoid alkaloid with a hetisine type skeleton, name jaluenine, was isolated from this plant. The dried roots were extracted with MeOH followed by fractionation with CHCl<sub>3</sub> and 3% aqueous NH<sub>4</sub>OH to give alkaloidal fraction. The alkaloid fraction was subjected to silica gel column chromatography to yield a compound (1), mp 114 - 116°C, C<sub>29</sub>H<sub>33</sub>NO<sub>6</sub>. The structure of the new compound (1) was determined to be hetisane  $2\alpha$ ,  $3\beta$ ,  $7\beta$ ,  $13\alpha$ -tetrol 2-benzoate 13-acetate by spectroscopic methods including 2D NMR (<sup>1</sup>H-<sup>1</sup>H COSY, HMQC, HMBC, NOESY). In addition, the known compounds, mesaconitine, hypaconitine, lipohypaconitine, neoline, 15-hydroxyneoline, and napelline were isolated for the first time from this plant.



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