

[PD2-4] [04/21/2000 (Fri) 14:50 – 15:50 / [1st Fl, Bldg 3]]

Antibacterial Activity of the Essential Oil from the Herbs of *Agastache rugosa* and Its Composition

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The essential oil obtained by steam distillation from the herbs of *Agastache rugosa* showed significant antibacterial activities against putrefactive bacterial strains. For the elucidation of the volatile components, the essential oil was analyzed by GC-MS. Each component was identified by GC or mass spectral analysis. The identified compounds were as follows: isomenthone, menthone, dihydrocarvone, anethole, vanillin, eugenol, methyleugenol, beta-caryophyllene, beta-caryophyllene oxide. Several abundant components with phenylpropanoid -type structures were maybe contributable to the activity. This essential oil will be suitable for the development of a food preservative.

[PD2-5] [04/21/2000 (Fri) 14:50 – 15:50 / [1st Fl, Bldg 3]]

Two novel and two known cytotoxic Mono-tetrahydrofuran Acetogenins from *Annona cherimolia* seeds

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The Annonaceous acetogenins are a class of promising anticancer, antiinfective, and pesticidal natural products. Over 350 acetogenins, usually belonging to mono-, bis-, and tri-tetrahydrofuran (THF) groups, have been previously reported. Annonaceous acetogenins are powerful inhibitors of glutamate-dependent mitochondrial respiration, in both mammalian and insect systems, where they inhibit mitochondrial NADH: CoQ oxidoreductase activity; they also are powerful inhibitors of the plasma membrane NADH oxidase of tumor cells.

Used in traditional medicine as insecticide and parasiticide, *Annona cherimolia* Mill. (Annonaceae) is a traditional tree native to Peru, now cultivated for its edible fruits in the South of Spain.

Previous work on the seeds led to the isolation of eight novel and four known; in addition, two novel (Annomolone D and Annomoline) and two known (annonacin and annomontacin) Annonaceous acetogenins have been obtained from the seeds. All of the compounds are acetogenins of annonacin type. Annomolone D has a mono-THF ring with two flanking hydroxyls and possesses a 1,2-diol of the aliphatic chain. Annomoline has a mono-THF ring with two flanking hydroxyls, and it possesses a carbonyl group and a double bond in their molecules. Annonacin and annomontacin were known but were newly isolated from this plant.

[PD2-6] [04/21/2000 (Fri) 14:50 – 15:50 / [1st Fl, Bldg 3]]

A New Prenylated Flavanone from the Roots of *Sophora flavescens*

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