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GC-MS method for determination of *Drosophila suzukii* pheromone's profile

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Drosophila suzukii, (Matsumura), the fruit fly Spotted Wing *Drosophila* (SWD), is one of the most important polyphagous pest of many small fruits, specifically stone fruits, berries and grapes. Ovipositor of the female can cause physical damage to the host fruit upon insertion, rendering it soft and thus of no commercial value. *Drosophila suzukii* has already been recorded in America and Europe, causing significant economic damages. Nowadays, biological control methods play a crucial role in the control of insect pests with the ability to suppress pest population below economic thresholds rather than only providing a temporary control as chemical control does. The new techniques have been focused on semiochemicals, the organic compounds that transmit chemical signals. Insect pheromones are chemical messages produced and used by insects for communication. Isolated pheromones are presently used for surveying insect populations and in a number of cases as part of insect control programs. In order to study the *Drosophila suzukii* pheromone profile, pheromones were extracted from the fly cuticle. These extracts were analyzed on a gas chromatograph coupled with a mass spectrometer. Compounds were identified based on their mass spectrum, retention time and internal standard. The comparison of the CH profile of male and female showed only quantitative differences. Finally, some newly compounds were detected.

Biography

Belenioti Maria is currently pursuing her PhD from the Department of Chemistry, University of Crete. She is a Scholar from State Scholarship Foundation. She has participated in several conferences and has implemented international program financed by the European Program Youth in Action.

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