

IDENTIFICATION, SYNTHESIS AND BIOLOGICAL ACTIVITY OF SOME INSECT PHEROMONES

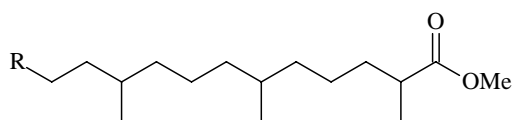
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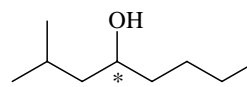
Pheromones are chemical compounds used for communication between individuals within the same species. These natural compounds are usually extremely minor components of organisms, and therefore the limited availability (micrograms to nanograms) of the natural product renders their structure determination difficult.

Organic synthesis plays an essential role on the pheromone chemistry. The proposed structures must be initially confirmed by unambiguous synthesis and, in the case of optically active compounds, enantioselective approaches allow the determination of the absolute configuration. Besides, pheromone synthesis provides all the necessary material for further biological experiments.

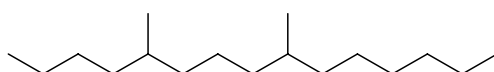
The results that we have encountered in the identification, synthesis and biological activity of some insect pheromones (below) will be discussed.



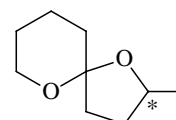
Piezodorus guildinii (ISiBA)



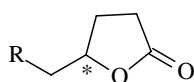
Sphenophorus levis (ISiBA)



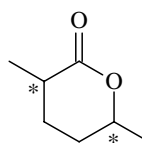
Leucoptera coffeella (SiBA)



Paravespula vulgaris (Si)



Many species (Si)



Xylocopa hirutissima (Si)

ISiBA = Identification, synthesis and biological activity data

SiBA = Synthesis and biological activity data

Si = Synthesis data