

Activity of enantiomers of sulcatol on apterae of *Rhopalosiphum padi*

Quiroz,

Niemeyer,

GC-MS analysis of volatiles released from wheat infested with a high density of aphids showed the presence of 6-methyl-5-hepten-2-ol (sulcatol). The proportion of enantiomers present in the volatiles was determined by esterifying the mixture with (1S)-(-)-camphanic chloride and quantifying the esters. The mixture consisted of 75% (R)-(-) and 25% (S)-(+). The mixture of enantiomers as well as the racemate showed significant repellency towards apterous *Rhopalosiphum padi* in an olfactometer (15.7% and 14.4%, respectively, with 10 ng of stimulus). Single enantiomers or a mixture containing 25% (R)-(-) and 75% (S)-(+)-enantiomers were inactive. The results are discussed in relation to the achievement of specificity by aphids in different pheromone-mediated behaviors.