

"Monitoring herbivore induced VOC emissions from plants"

A. Schaub (1), J. Beauchamp (1), R. Mumm (2), M. Dicke (2), and A. Hansel (1,3)

- 1. Ionicon Analytik GmbH, Innsbruck, Austria, Andrea.Schaub@uibk.ac.at
- 2. Laboratory of Entomology, University of Wageningen, Wageningen, The Netherlands
- 3. Institute of Ion Physics and Applied Physics, Leopold-Franzens University, Innsbruck, Austria

Plants emit increased amount of volatile organic compounds (VOCs) in response to herbivore stress. Some of these volatiles are known to have a signalling effect on natural enemies of the herbivores and not much is known about the temporal evolution of these herbivore induced emissions. We carried out experiments to study the volatile emission from lima beans which were infested with spider mites in comparison to VOC emission of non-infested plants. The infested leaves emitted higher amounts of green leaf volatiles (GLV), methylsalicylate (MeSa), monoterpenes and DMNT (E-4,8-dimethyl-1,3,7-nonatriene). On-line PTR-MS data showed that these compounds are mainly emitted in presence of light.