

# SUPER SESI

**FIT** FOSSILIONTECH

## Fast analysis, resolve the time dimension of in-vivo metabolomic studies

Human Breath Analysis, Mouse, Plant, Cell Culture Volatilomics



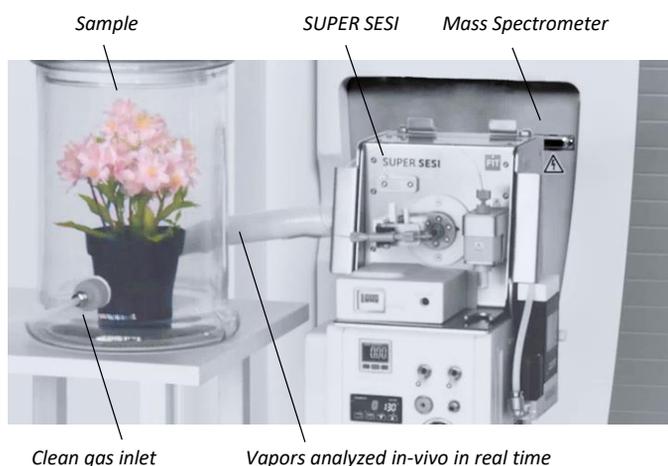
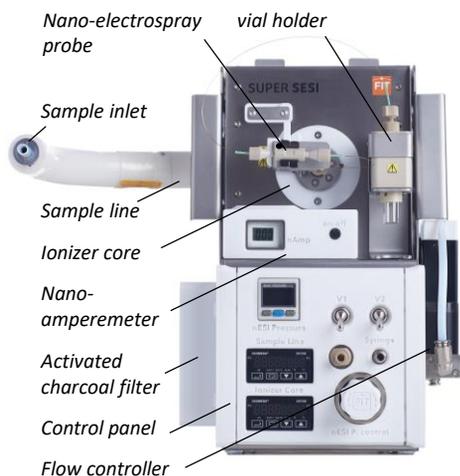
Contact us, we want to be your engineering partner!

We will study your analytical goals and develop customized solutions to enable new applications.

# Ionization of Vapor Molecules

## What is SUPER SESI?

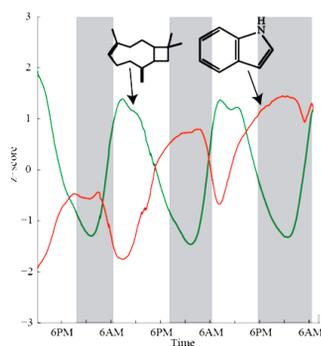
- SUPER SESI is a high efficiency Secondary Electrospray Ionization (SESI) source optimized for the analysis of volatile and semi-volatile organic compounds in real-time.
- SUPER SESI is compatible with high resolution Mass Spectrometers: Exactive and Q-Exactive Orbitrap series.
- **High biological significance** is achieved by optimizing for larger molecules (up to 600 Da) with low vapor pressure.
- **High quality data: simplified spectra, with remarkably low fragmentation;** ionizing agents are produced from nano-droplets and high energies are not involved.
- **High quality data:** internal automatic cleaning provide very low background levels, and great limits of detection.



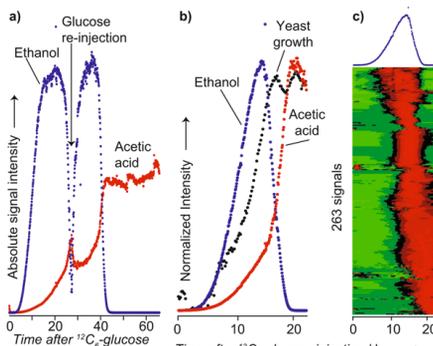
## How it works

- Vapors are preheated and mixed with a cloud of protonated water clusters produced by the nano-electrospray.
- Vapors are ionized at high pressure to maximize ionization efficiency and ions are transferred to the MS

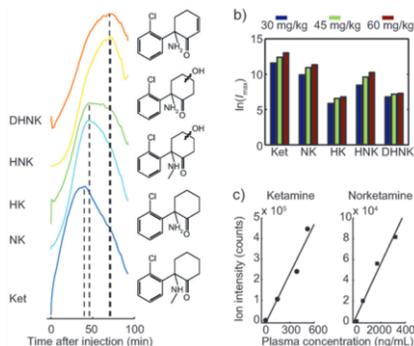
## Application to real-time volatilomics:



Plant, circadian cycles



Yeast, real-time response to glucose injection



Mice, real-time ketamine pharmacokinetics

Because the volatilome is constantly produced and can be collected **non-invasively**, it offers an ideal window to monitor dynamic processes. SUPER SESI is an ideal tool to resolve the time dimension of your metabolic studies, making sure that you capture the biological response to the stimuli of interest, without interferences.

**What would you use it for?**

