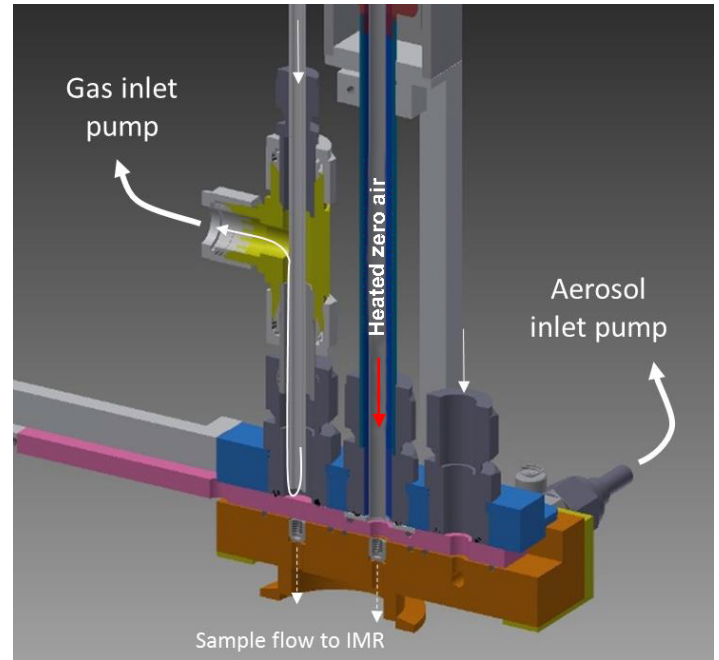


FIGAERO

Filter Inlet for Gas and Aerosols

Custom inlet for the Aerodyne ToF-CIMS enabling simultaneous real-time chemical analysis of trace gases and aerosols.

EyeOn Control System



Applications

Inlet Hardware

- For direct mounting on ToF-CIMS.

EyeOn Controller Box and Software

- Automated control of sampling valves and flows
- Programmable temperature ramp
- Synchronization with ToF-CIMS Data Acquisition
- Chemical characterization of gas and particle composition
- Laboratory or ambient sampling
- Characterization of SOA generated by smog chambers

Compatibility

- Compatible with both CIMS and Vocus instruments

Advantages

Aerosol Collection Efficiency

- Filter collects > 99.99% of aerosol particles, 0.1µm and larger

Limits of Detection

- Gas: <10 ppt for organic acids
- Aerosol: ~1 ng-m⁻³

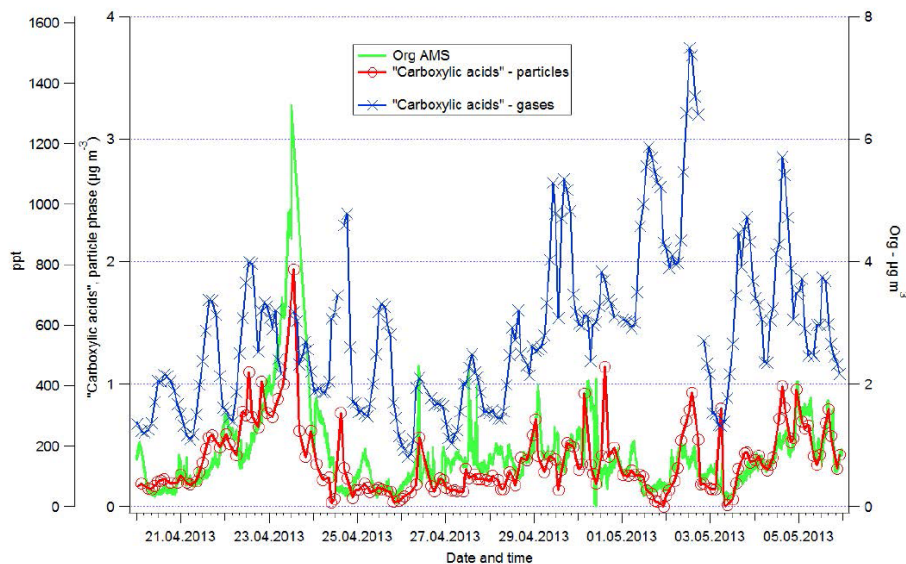
Time Resolution

- Up to 10 mass spectra/s
- No limit on aerosol collection time
- Temperature ramps >5 minutes

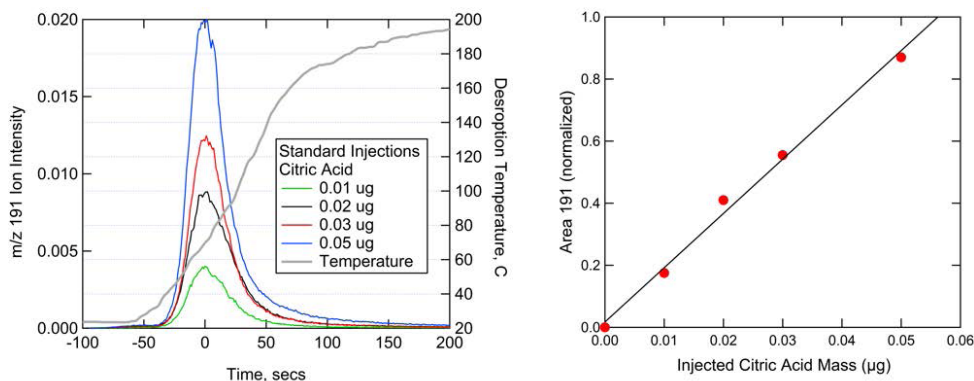
Tofware Software

- Available workflow in Tofware automatically separates your data which makes analysis simpler

FIGAERO



Comparison of gas particle measured with FIGAERO - CIMS and AMS.



Calibration with standard injections of Citric Acid (detected at m/z 191 - deprotonated citric acid).

Measured with acetate ion chemistry.

REFERENCES

Lopez-Hilfiker, F. D., Mohr, C., Ehn, M., Rubach, F., Kleist, E., Wildt, J., Mentel, Th. F., Lutz, A., Hallquist, M., Worsnop, D., Thornton, J. A. A novel method for online analysis of gas and particle composition: description and evaluation of a Filter Inlet for Gases and AEROSols (FIGAERO), *Atmos. Meas. Tech.*, 7(4), 983 - 1001, 2014.