Measurement of airborne molecular contamination (AMC) in clean room air

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Metrology for airborne molecular contamination in manufacturing environments = clean rooms

Measurement, generation and sampling trace level ≈ 1 ppb or nmol/mol airborne molecular contaminants (AMCs)

- Combining expertise in spectroscopy and gas metrology
New laser-based instrument employing photoacoustic spectroscopy
Open-path direct absorption spectrometer for reactive gases

The final device is in preparation
NH₃ Laboratory tests with PAS spectrometer: ppb-level calibration gas generation and measurement sensitivity with fast response
Metrology for airborne molecular contamination in manufacturing environments = clean rooms

- Focus on behavior and existence of reactive molecules NH₃ and HF in clean rooms
  - These key process chemicals are continuously used in very high concentrations and elevated solution temperatures
- Field test campaigns are conducted in industrial clean rooms in VTT (Micronova)
  - Field test and further development of photoacoustic sensor developed in MIKES
  - Parallel measurements of NH₃ with even more sensitive optical method (cavity ring-down spectroscopy, CRDS)
  - Special emphasis on reliable transportation and calibration of reactive acid and base gases
Thank you for your attention!

If you are interested in cooperation, please feel free to contact us:

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