



IONICON

A N A L Y T I K



WWW.PTRMS.COM



PTR-MS

...in environmental and atmospheric research...

...in food & flavour science...

...in material and packaging research...

...for industrial VOC monitoring...

...for dioxin precursor measurements...

...for indoor VOC contamination monitoring...

THE SOLUTION FOR ONLINE TRACE GAS ANALYSIS



PTR-MS

PROTON TRANSFER REACTION – MASS SPECTROMETRY

- > Very low detection limit (pptv-range)
- > Real-time quantification of compounds
- > Online VOC monitoring
- > No sample preparation – direct injection

> The PTR-MS product range:



Over 100 instruments sold to Europe, USA,
Canada, Australia, Japan, New Zealand, China,
Korea...

Customized...

PTR-MS

...Solutions

→ tailored to your needs!

Measurement campaigns
with several PTR-MS
systems:

- in the air
- in the sea



Customized...

PTR-MS

Solutions for the Industry

- > Automated VOC monitoring systems
- > Real-time monitoring of selected compounds
 - Low cost per sampling point
 - Modular software
 - Scalable solution
 - Easy-to-use
 - Little maintenance



Picture: Pixelquelle.de



> Application fields of PTR-MS:

Environmental research

- Atmospheric chemistry
- Emissions control
- Leaf wounding VOC detection

Food and aroma research

- Coffee headspace measurement
- Aroma science
- Nose space air analysis
- Determination of food freshness



> Application fields of PTR-MS:

Ambient air control

- Indoor air VOC detection (SBS monitoring)
- Cleanroom environment analysis

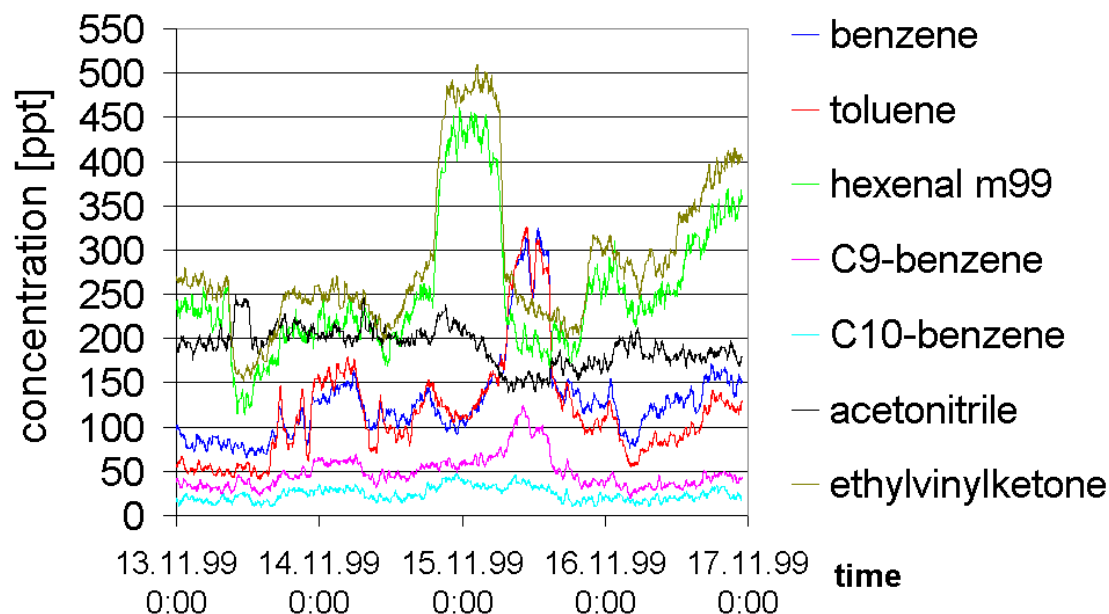
Industrial applications

- Waste incineration process control
- Production process control
- Material and packaging research
- Online VOC monitoring in chemical plants

- > Environmental pollution analysis
 - VOC measurement in 3105m
 - at the meteorological station Sonnblick



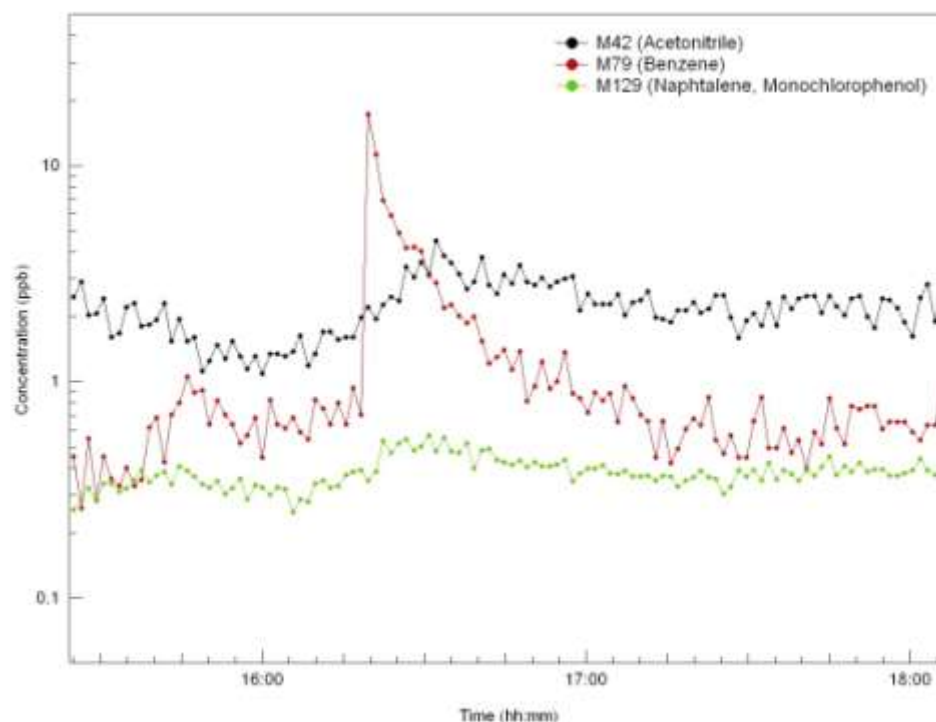
- ppt-levels
- voc detection



- > Waste incinerator dioxin emissions monitoring I
 - Dioxin surrogates and VOC detection
 - Process control



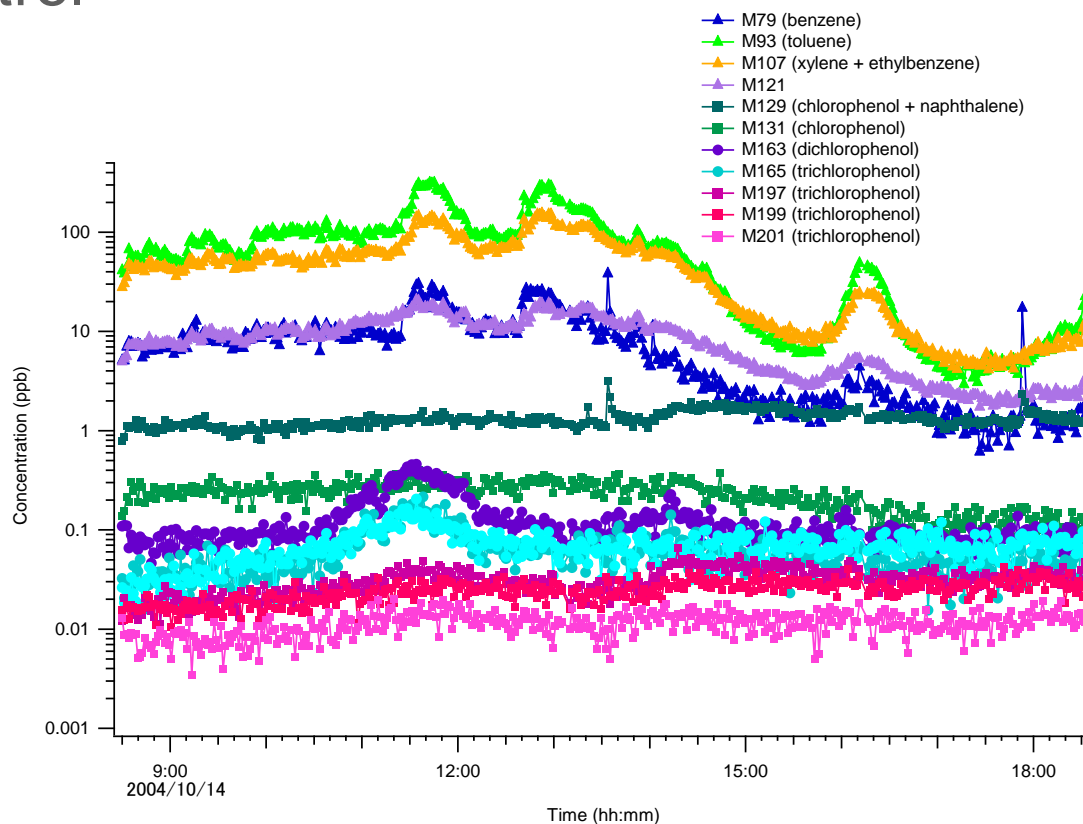
- Harmful dioxin
- Burning process monitoring
- High time resolution
- No sample preparation



- > Waste incinerator dioxin emissions monitoring II
 - Dioxin surrogates and VOC detection
 - Process control



Picture: Pixelquelle.de

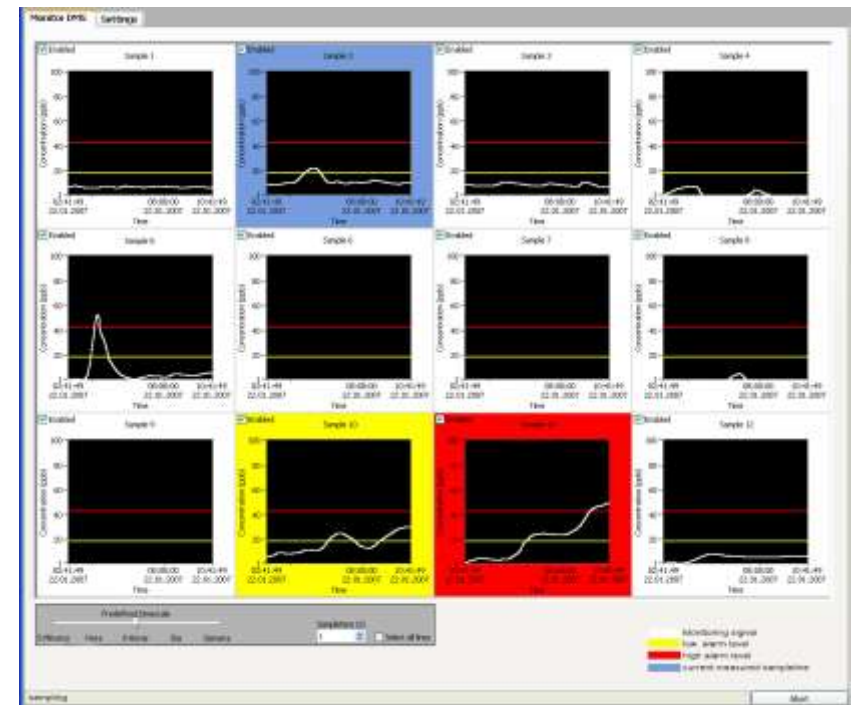


- > Chemical plant VOC online monitoring
 - Dimethylsulfate real-time control
 - 12 rooms simultaneous monitoring



Picture: Pixelquelle.de

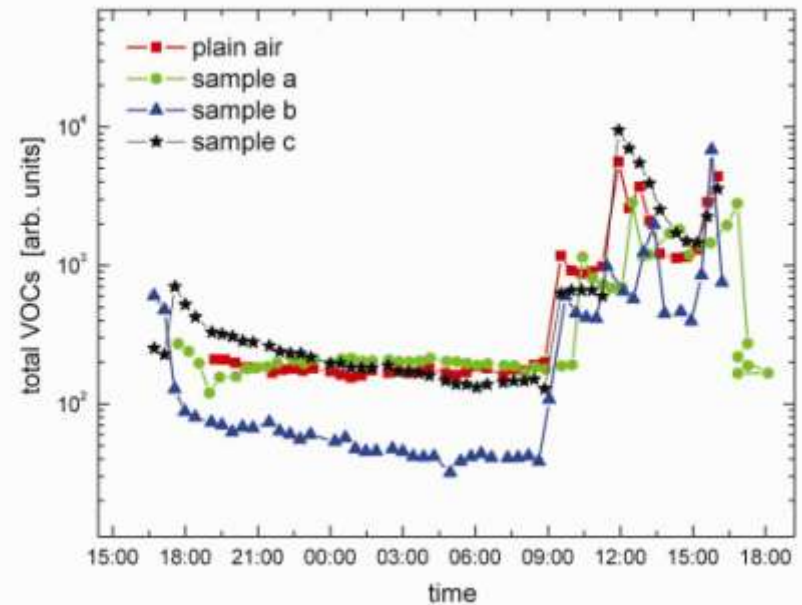
- Automatic calibration for DMS
- Auto-optimization
- Software-triggered alarm levels
- Work place safety



- > Indoor air quality measurement I
 - VOC detection in offices, buildings, cars, planes...



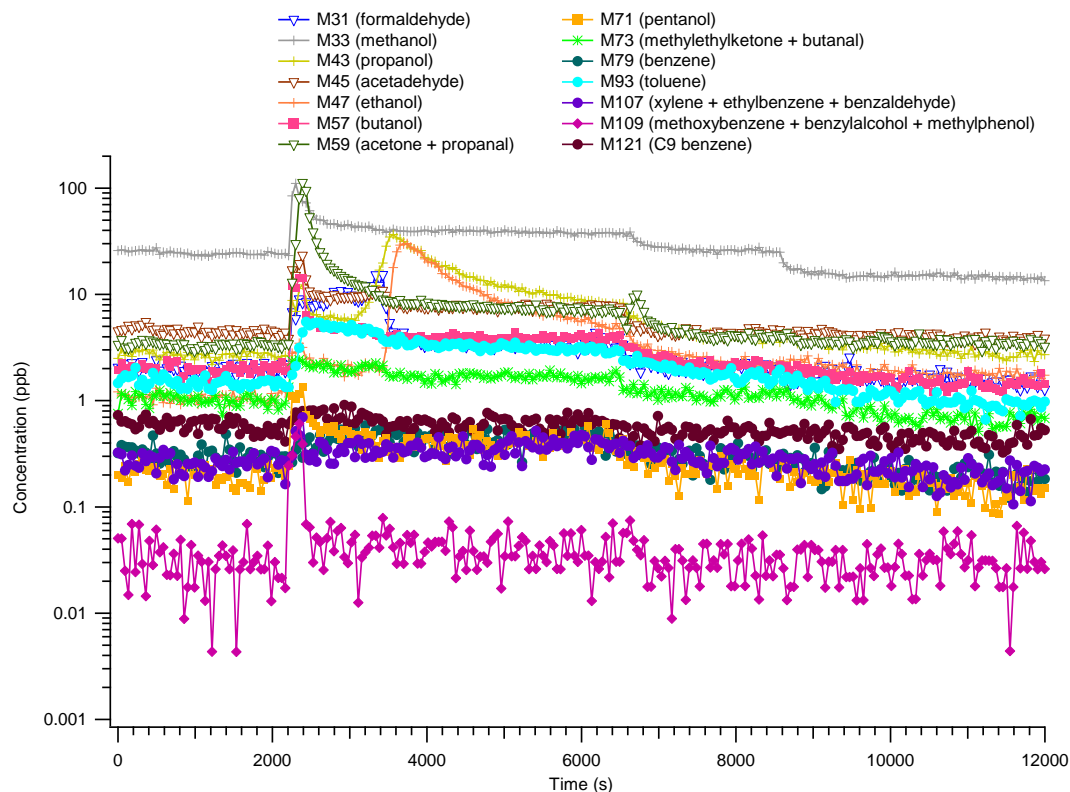
- Real time monitoring
- Total VOC
- Sick building syndrome



> Indoor air quality measurement II – VOC detection in a car cabin



Picture: Pixelquelle.de

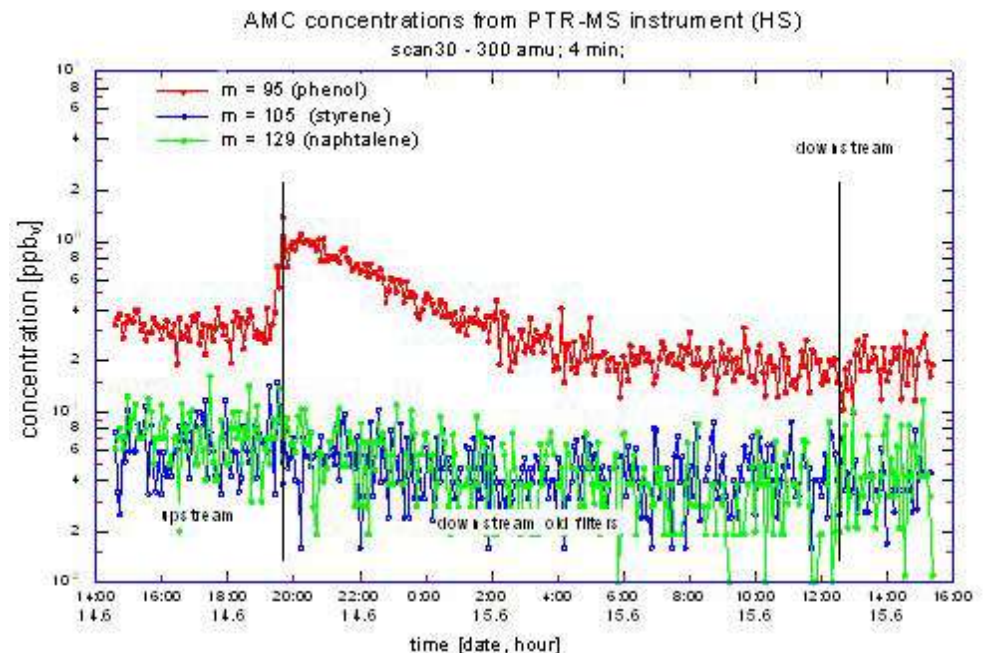


- > Cleanroom AMC monitoring
 - Airborne molecular contamination
 - Microelectronics industry



Picture: copyright by AMTC

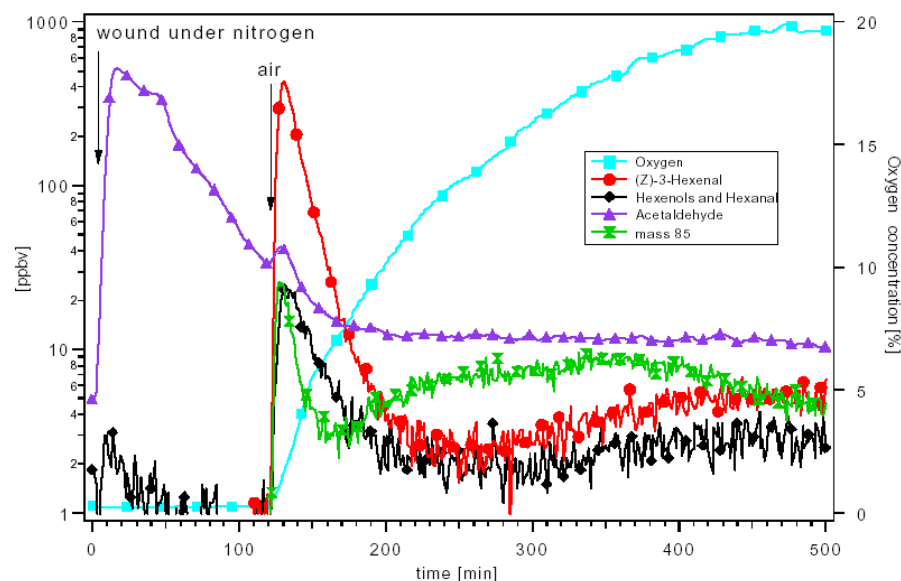
- Hazing of wafers, optics
- Production downtime
- Real time
- Online
- Process analysis



- > Leaf wound compound measurement
 - Real-time PTR-MS application
 - Wound reactions after cutting



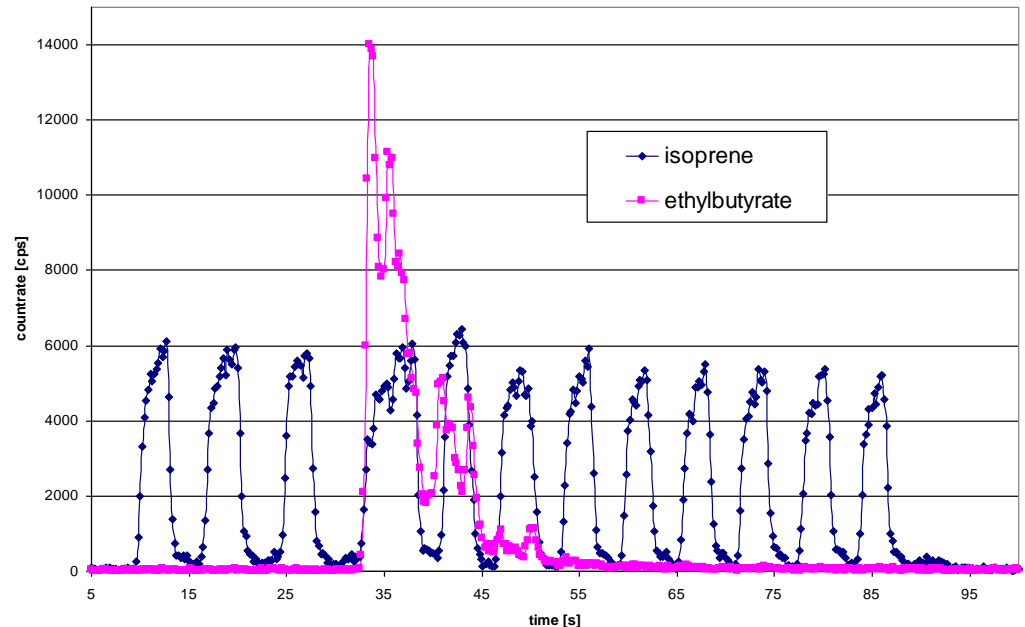
- Leaf aldehydes
- Leaf alcohols
- Very fast compound quantification



- > Food and flavor science
 - Nose space air analysis
 - Swallowing of strawberry flavored drink



High time resolution



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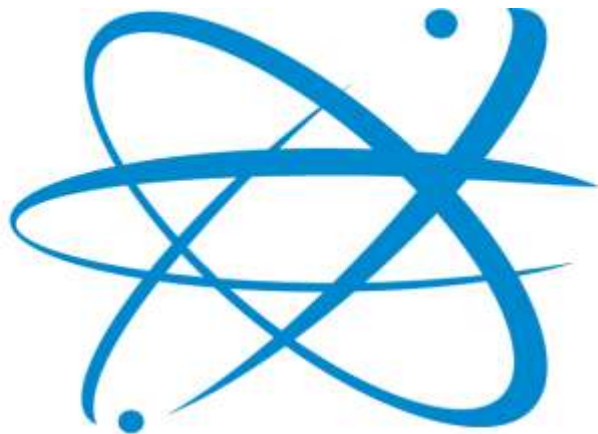
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