

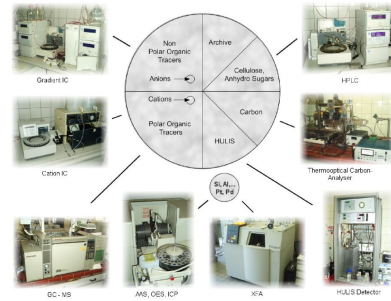
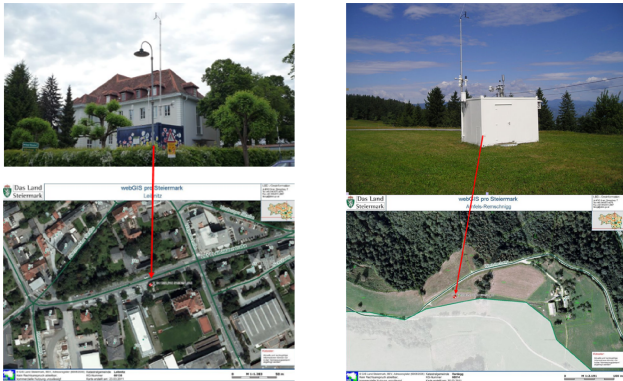


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Chemical composition of aerosols

Anne Kasper-Giebl, Magdalena Kistler
Institute of Chemical Technologies and Analytics

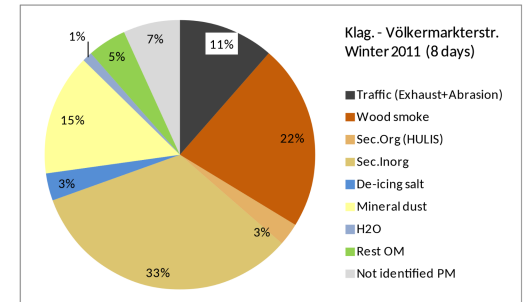
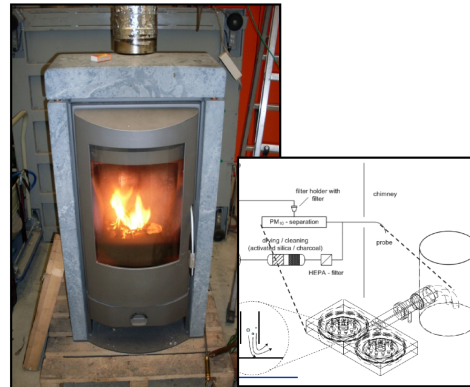
- Filter measurements (ambient and emission samples, combination with receptor models)



Makrotracer	Source
EC	Diesel Exhaust/Abrasion EC Woodsmoke
Levogluconan	Woodsmoke
HULIS	Secondary organics
Cellulose	Plant debris
Arabitol	Fungal spores
NaCl	De-icing salt
Si, Ca	Mineral dust
NH_4^+ , NO_3^- , SO_4^{2-}	Inorganic Secondary Aerosols

current activities / cooperations:

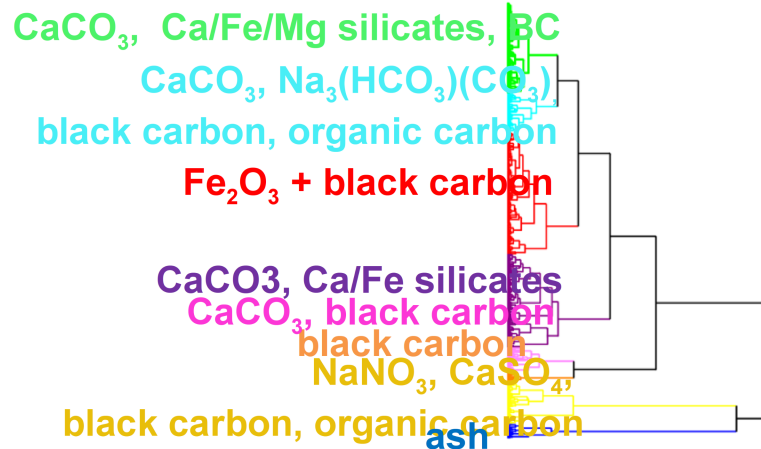
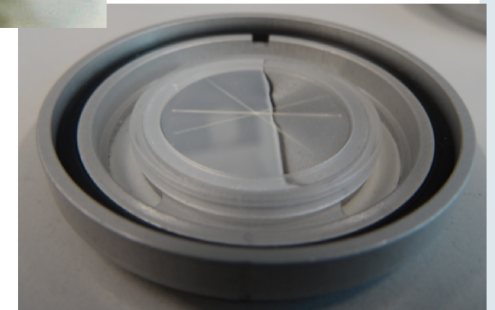
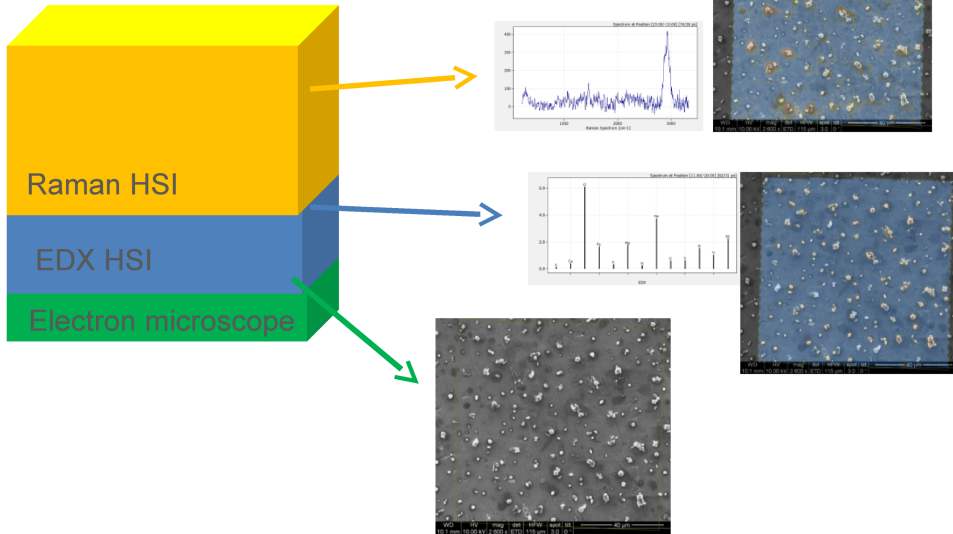
- Dr. Katarzyna Styszko (AGH, Krakow, PL) – chemical characterization of urban particles in respect to health effects, focus on emerging organic pollutants and mercury;
- Bioenergy 2020+, Wieselburg – CleanAir Vorau ambient air and emission samples
- Land Steiermark



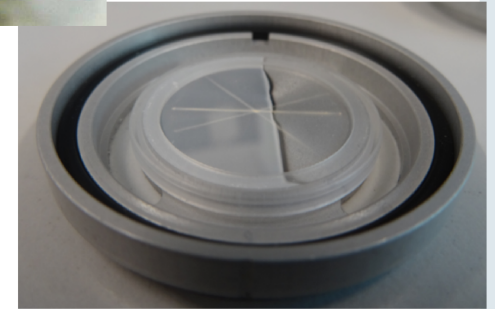
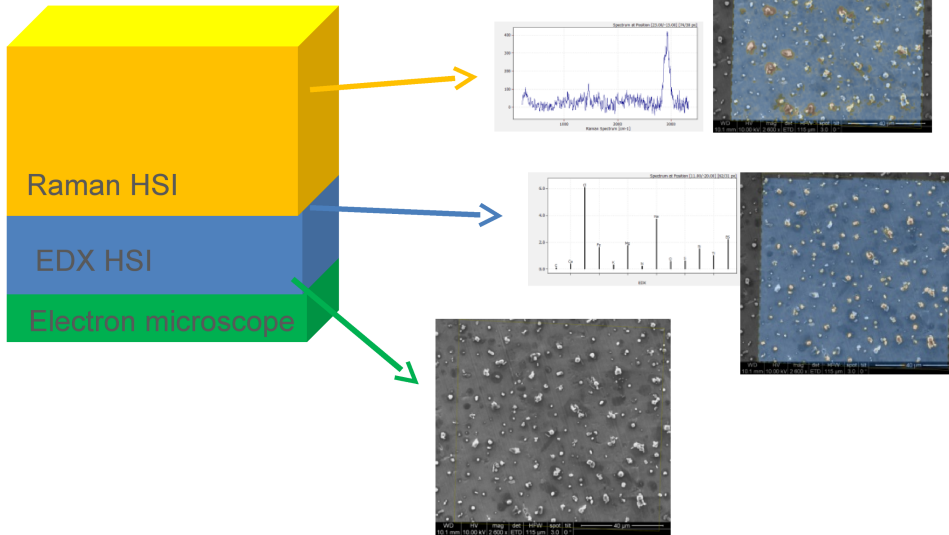
adapted from Bauer et al. 2012, Kistler et al. 2013, 2015

- University of Dakha, Bangladesh and Inst. of Space Technology, Islamabad, Pakistan)
- Intercomparison B(a)P – Umweltbundesamt, Bund /Bundesländer

- Multisensor Hyperspectral Data Set (MSHSI)



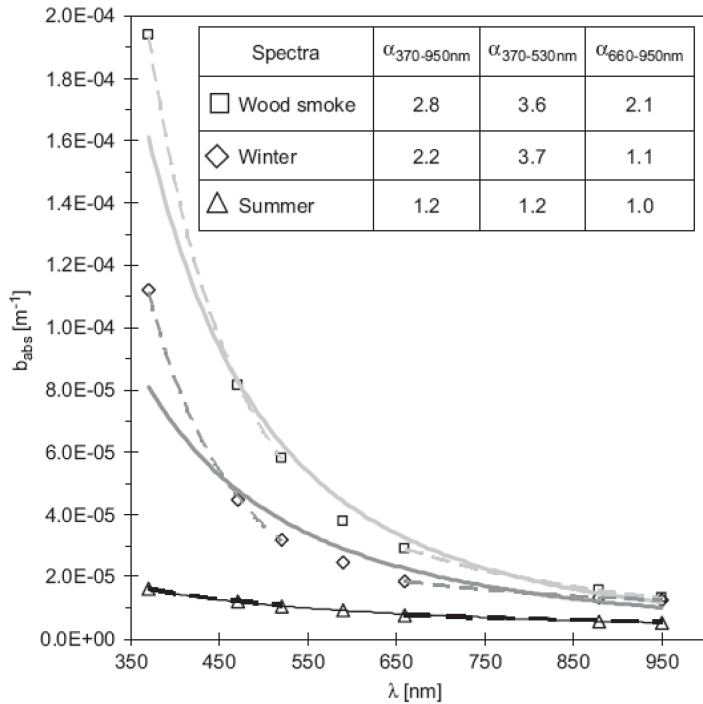
- Multisensor Hyperspectral Data Set (MSHSI)



current activities / cooperations

- **Single Particle Imaging for Air Quality Analysis in a City – SPI-City**
TU-Wien (E164, E206, E057E- AIC)
- **A—Life** (Uni Wien, Bernadett Weinzierl)

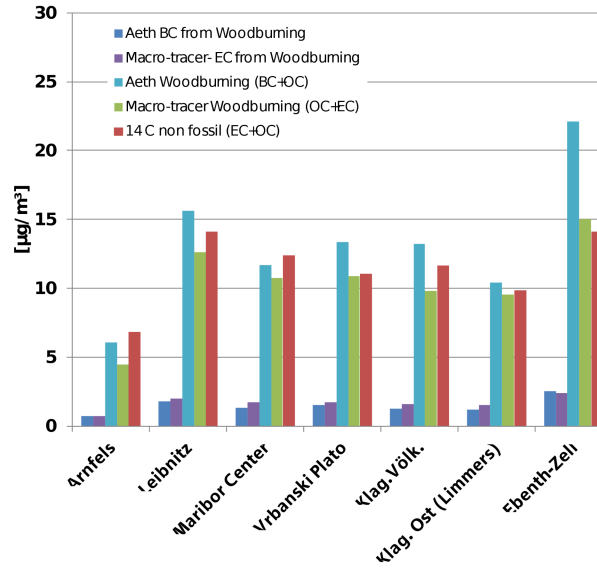
7λ Aethalometer



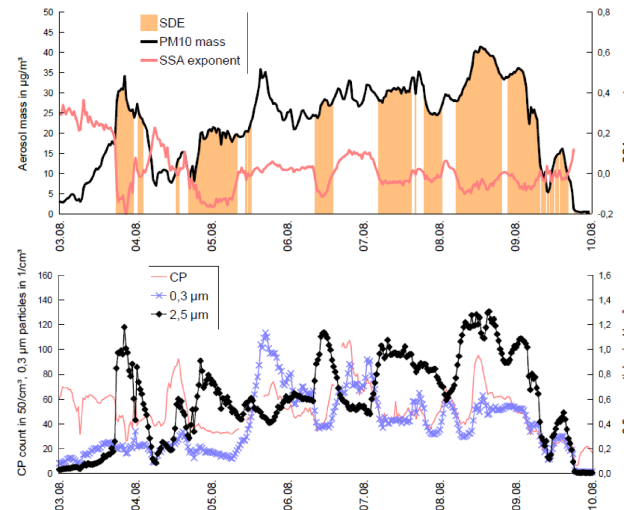
J. Sandradewi et al., Atmospheric Environment (2008) 101-112

current activities / cooperations:

- EMEP / ACTRIS winter measurement campaign (Sonnblick, Illmitz) together with Umweltbundesamt



Kistler et al 2013



Schauer et al 2016

Sonnblick Observatory (3106 m asl)

aerosol monitoring / sampling in cooperation with ZAMG, Umweltbundesamt



Aerosol mass

CP-count

OPC and SMPS – number size distribution

7λ Aethalometer

3λ Nephelometer

Filter Sampling, PM10 and PM1

Impactor sampling (campaigns)

