

1st OGTAC-CC ILC within ACTRIS

Autumn 2024

*1st OGTAC-CC community meeting within the framework of the
ECAC-CAIS CF 04/2024*



General aims:

- Determination of analytical limitations – LOD/LOQ
- Blank characterisation
- Evaluate analytical repeatability and reproducibility standard deviations
- Identification of biases/influencing factors on the quality of the provided data
- Results provide important input for the technical requirements documentation and the measurement guidelines
- 1st QA/QC activity for ACTRIS NFs measuring particulate organic tracers

Based on the NFs planning to provide data on particulate organics, the 1st ILC will be (minimum) on the compounds from the BB module:

- Levoglucosan
- Mannosan
- Galactosan

- Participation of the 5 NFs is obligatory
- 10 participating groups would be optimal
- Other groups measuring these compounds are very welcome to join!

Limitation is the amount of filter area!

NF	Birkenes	Zeppelin	Melpitz	Vielsalm	Sonnblick
Target compounds	arabitol, mannitol, fructose, glucose, trehalose, levoglucosan, mannosan, galactosan, 2- methylerythritol, 2-methylthreitol	Arabitol, mannitol, fructose, glucose, trehalose, levoglucosan, mannosan, galactosan, 2- methylerythritol, 2-methylthreitol	Levoglucosan	Levoglucosan, Mannosan and galactosan.	selected carbohydrates (e.g. anhydrosugars, sugar alcohols, monosaccharide s)

More compounds resulting from the applied analytical procedure are very welcome for the intercomparison!

- Planned duration of 3 months (e.g., Sept-Nov) for the full program:
 - Send around the test samples
 - Analysis
 - Provision of results
- Participants shall use their individual analytical measurement setup but need to follow the guidelines given by the CC with respect to:
 - Number of injections
 - Number of sample runs (repetitions)
 - Sequence design
 - Documentation

Sample overview and number of measurements:

- 1x field blank filter
- 2x real field samples
- Triplicate analysis, each sample 3 times full procedure (single injection)
- 2x liquid standard solutions (different concentrations)
- 3 injections each

Field samples (150mm quartz filter) will be collected using a High Volume Digital sampler 24h at 500 L min⁻¹

- Each participant will get a sufficient amount of filter area
- The CC will store one 10mm punch from each filter area sample as control

Next to do: Advertisement 😊



Questions, comments...



1 st OGTAC-CC community meeting 2024 (online) – Agenda Tuesday April 9	
13:00 - 13:15	Welcome
13:15 - 13:45	Introduction of OGTAC-CC
13:45 - 14:30	Presentation of the Technical Requirements and discussion part 1
	- Draft list of target compounds
Thanks for your attention!	
	- Maintenance (Sampling)
14:30 - 14:45	Coffee break
14:45 - 15:30	Presentation of the Technical Requirements and discussion part 2
	- Data resolution, coverage and provision
	- Sample handling and preparation in the laboratory
	- Recommended and supported analytical techniques
15:30 - 16:00	Outlook on the Measurement Guidelines
16:00 - 16:15	Coffee break
16:15 - 16:45	Introduction ILC autumn 2024
16:45 - 17:00	Time for further discussion

