



Wir schaffen Wissen – heute für morgen

Paul Scherrer Institut

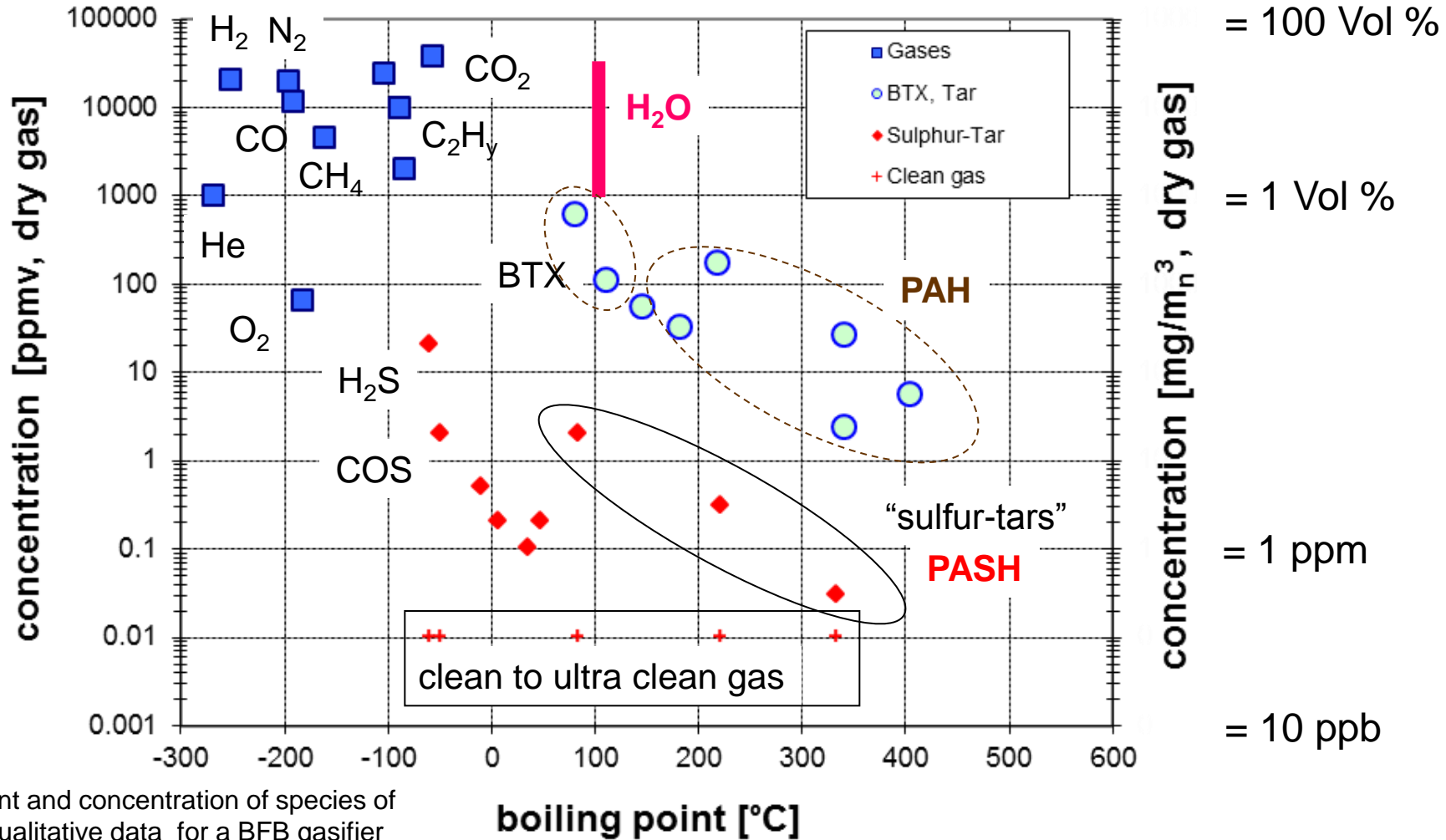
Serge Biollaz

Generic learning from round robin tests (PSI: Nov. 2013, KIT: March/June 2014) and planned follow up activities

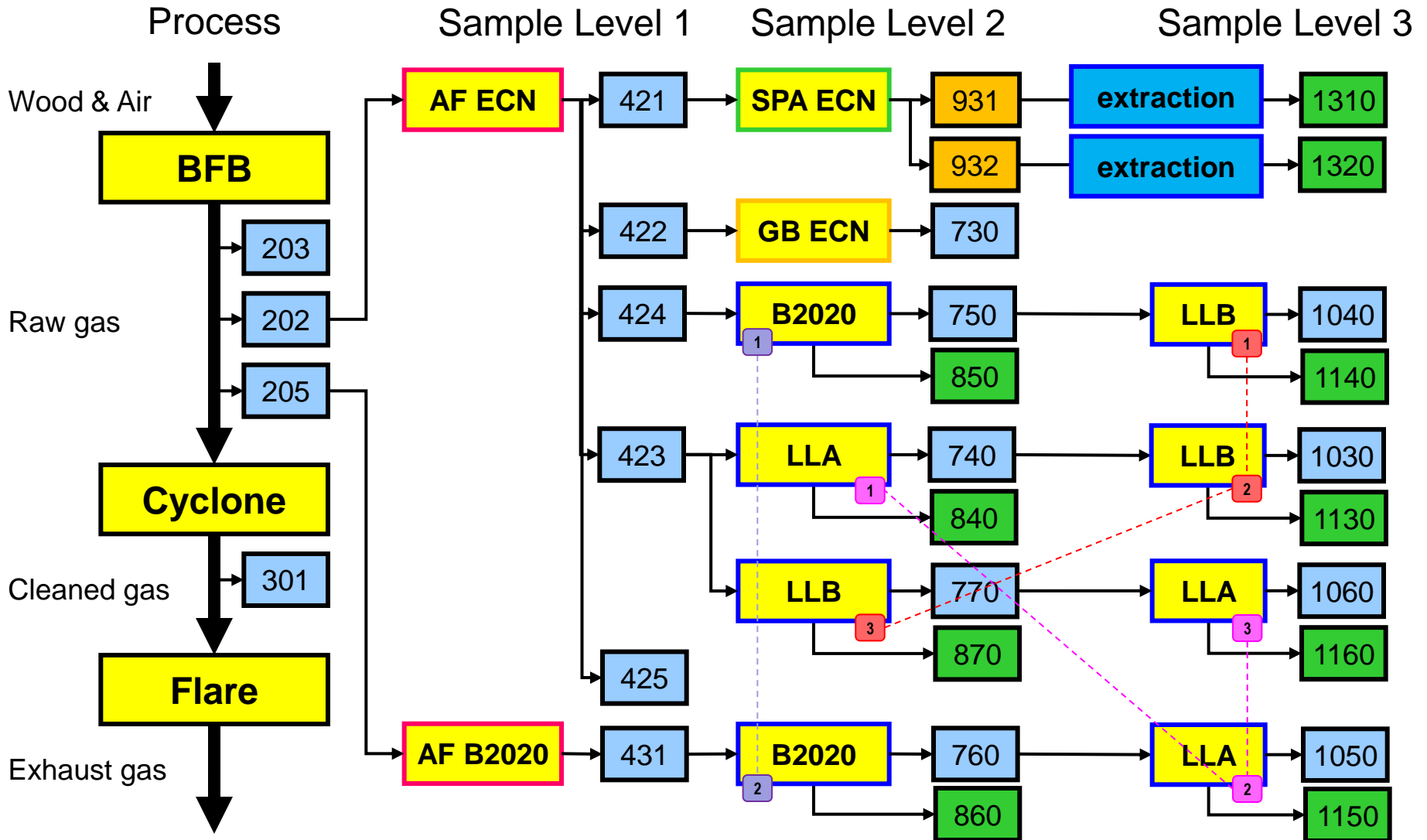
Sampling technique

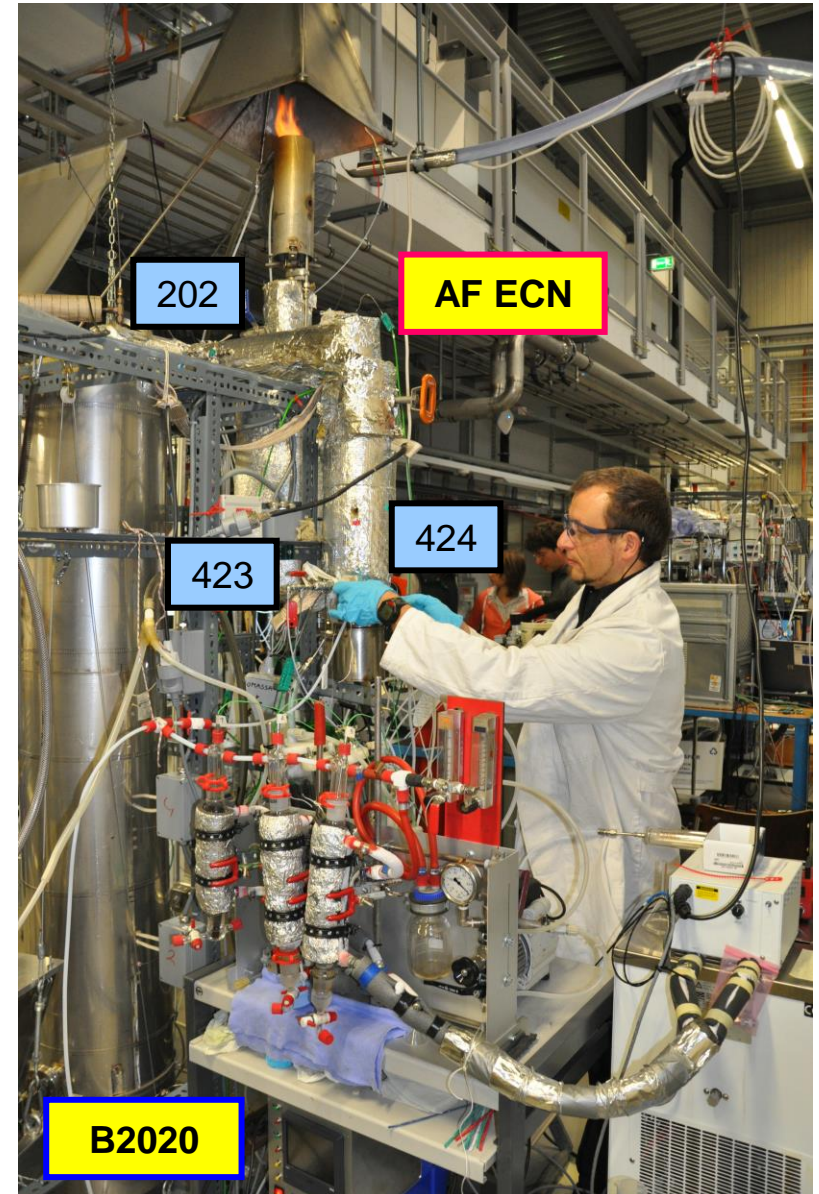
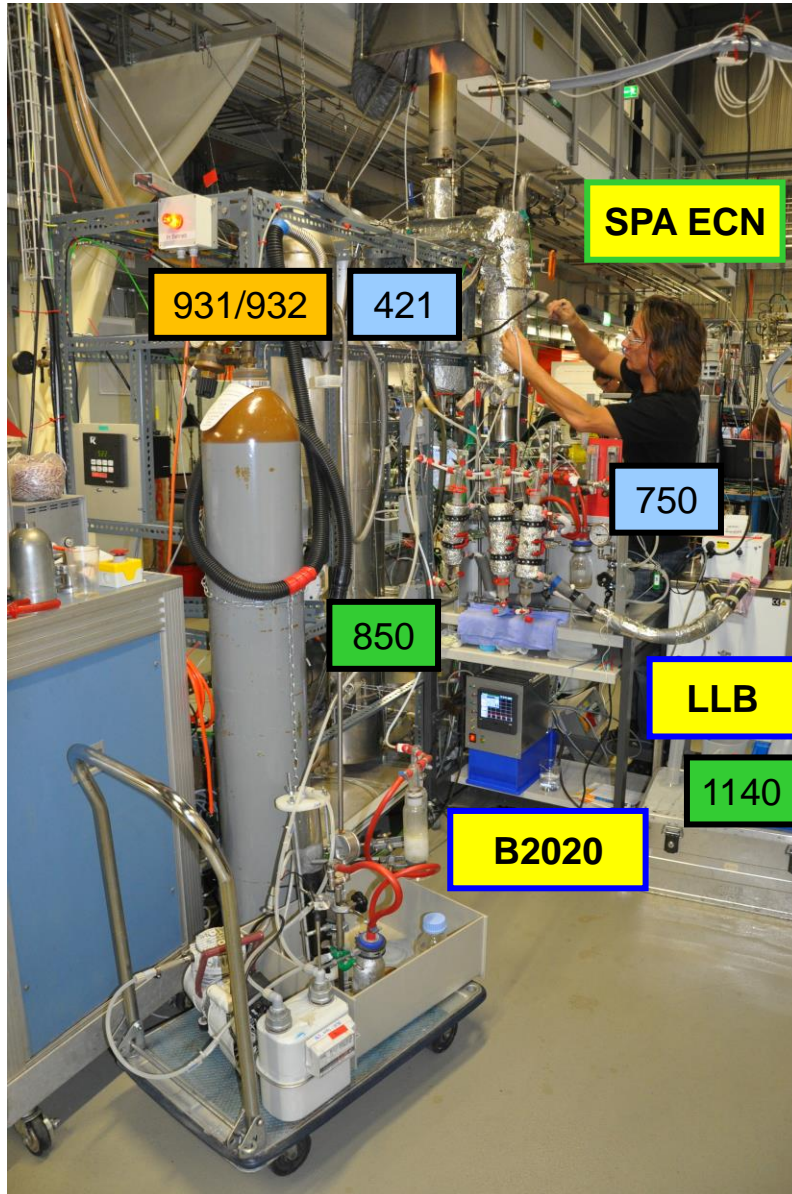
- gas-to-gas
- gas-to-liquid
- gas-to-solid

Analytical instruments

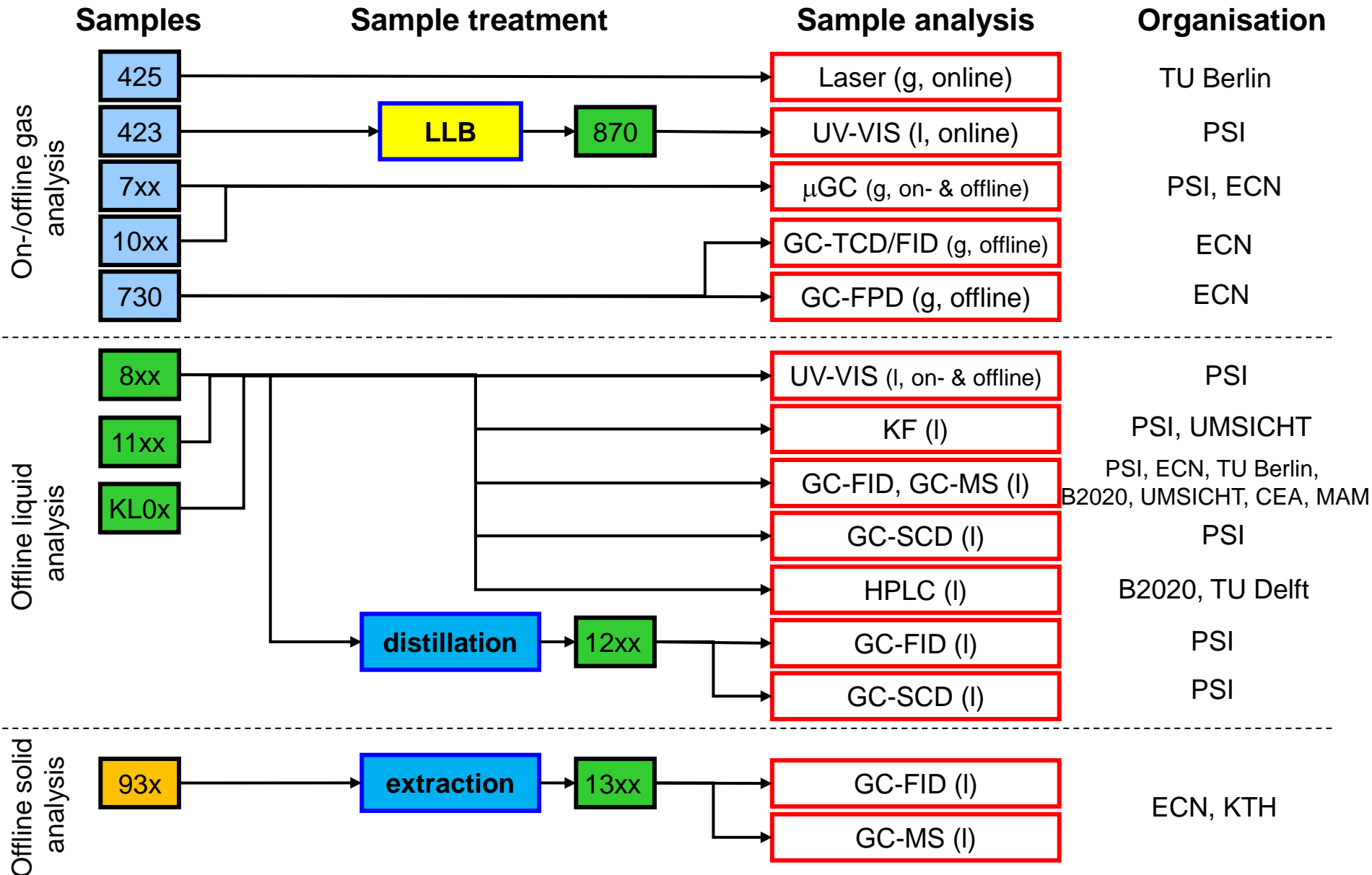


Boiling point and concentration of species of interest. Qualitative data for a BFB gasifier





Sample treatment and on-/offline analysis



- **Bad news:** There is always a **lack of time** in order to prepare all the things which seems to be important
 - Good news:** Be focused and do a first step. There are always opportunities for follow up activities.

- **Bad news:** The main challenge in round robin test is the clarification concerning the **numerous interfaces:**
 - Background knowledge and common understanding of the “problem”
 - Physical interfaces between installation, sampling systems and analytical instruments
 - Time constrains and alignment of joint interests
 - People with different background (cultural, education and experience)

- Good news:** If there is a clear Win-Win situation all these challenges can be handled soon or later.

- **Bad news:** From the first idea to perform a round robin test until the finalisation of a report/report it takes **12 to 24 month**
 - Good news:** Technical objectives of round robin test are less important. Much more important is to find partners with similar interest and a commitment to collaborate.
- **Bad news:** Round robin tests are **expensive**
 - Good news:** Be creative how you can mobilise resources / money for round robin tests. Low hanging fruits are joint activities which are base on ongoing funded projects.

Round robin tests:

There is no better way to learn from each other, expand the knowledge and move forward bioenergy technologies.

- Consolidate results of past round robin tests, i.e. PSI November 2013, TU Delft June 2012
- Prepare next round robin test, i.e. KIT bioliq installation (May/June 2014), most likely ECN Milena (Fall 2014), PSI (Fall 2014)
- Identify potential host sites and partner who want to participate in round robin tests
- 2 - 3 WEBinars about generic learning of round robin tests