

Sulphur measurements

– Task 7.3: developments towards standardization

Partners:



BRISK

Biofuels Research Infrastructure for Sharing Knowledge

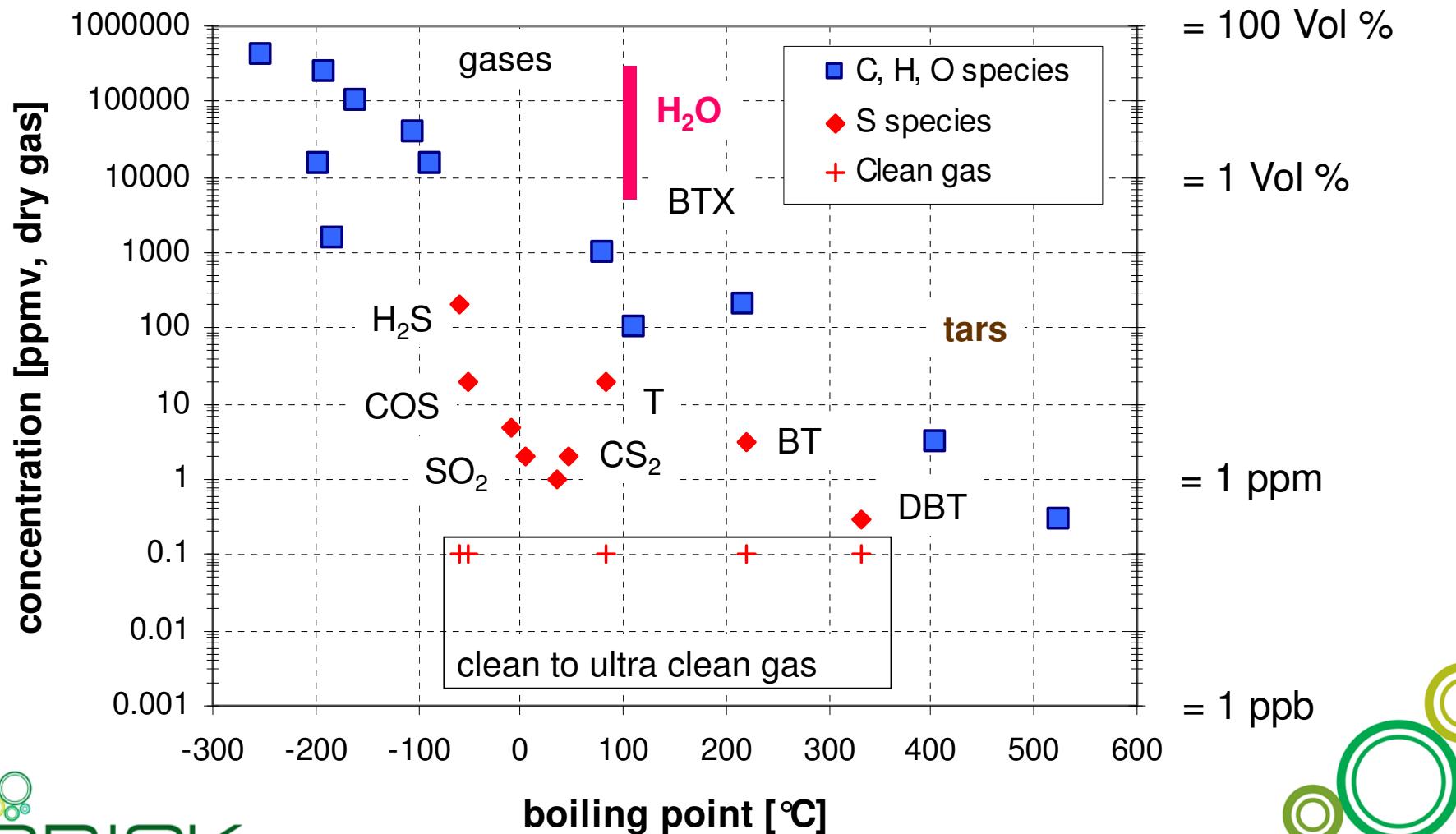
www.briskeu.com



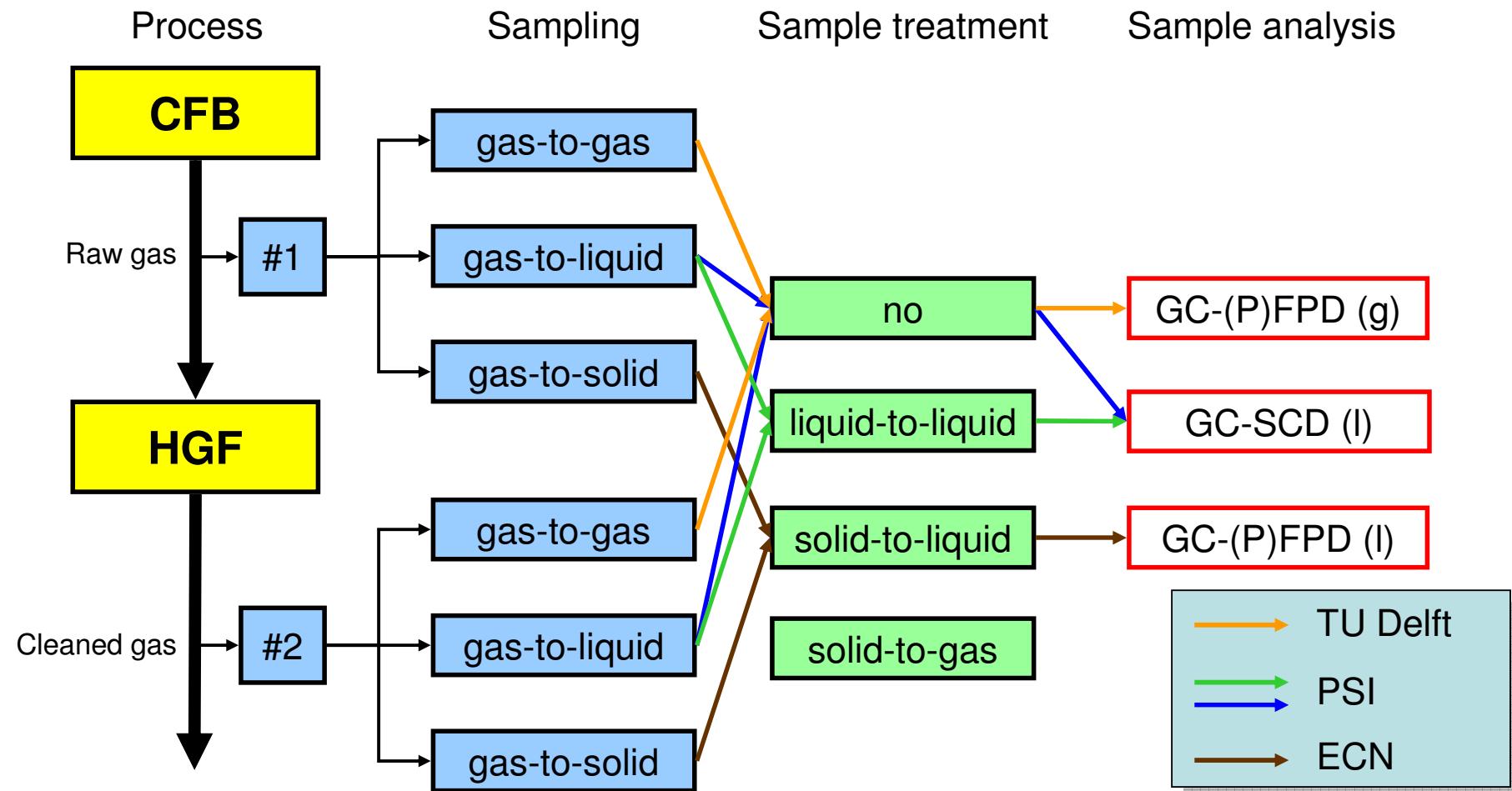
Serge Biollaz
PSI (CH)

Comparison of C-species and S-species

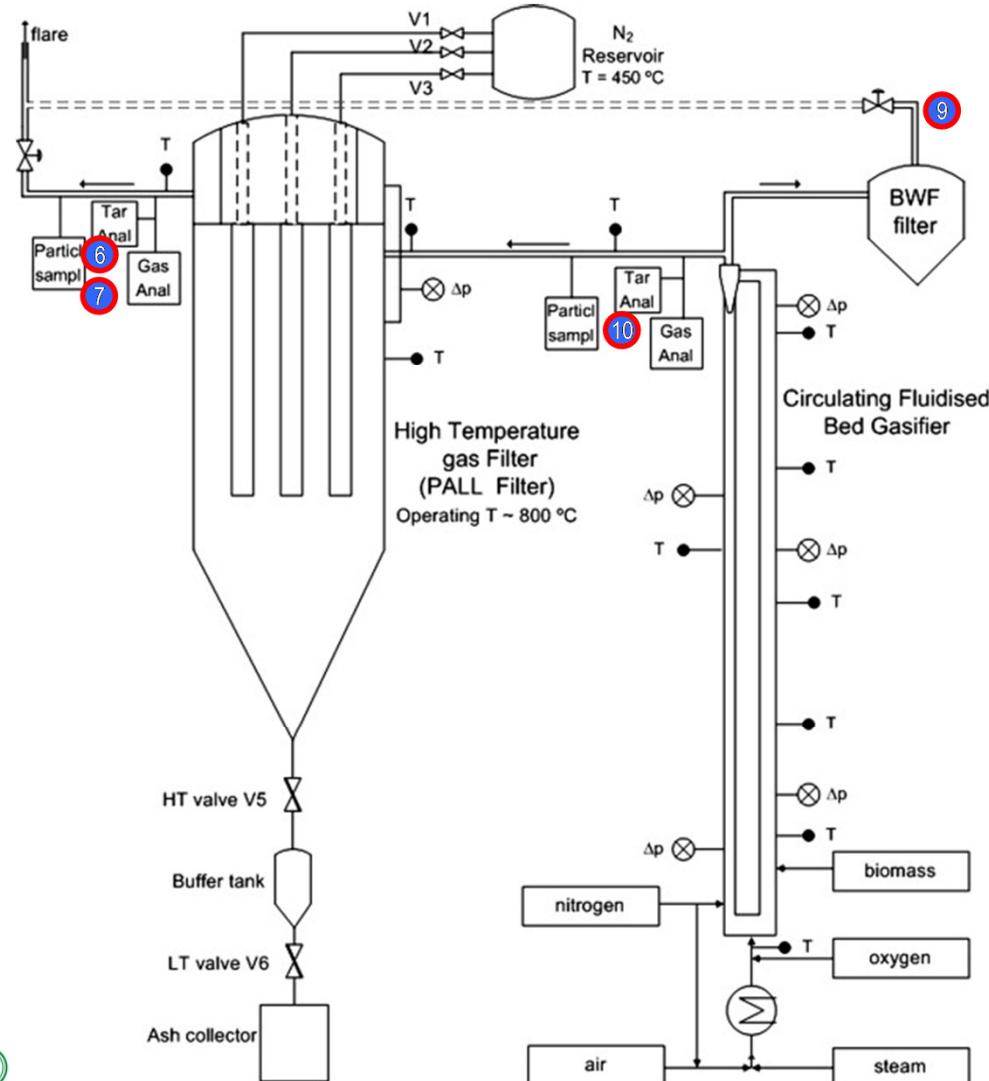
Qualitative data for low temperature gasification: Finger print for process and fuel



Different ways how to sample and analyse



TU Delft test rig: CFB gasification and hot gas filter

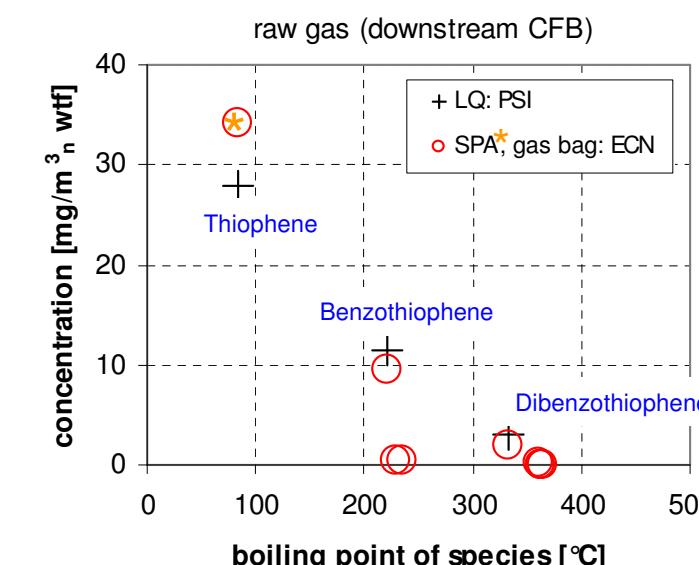
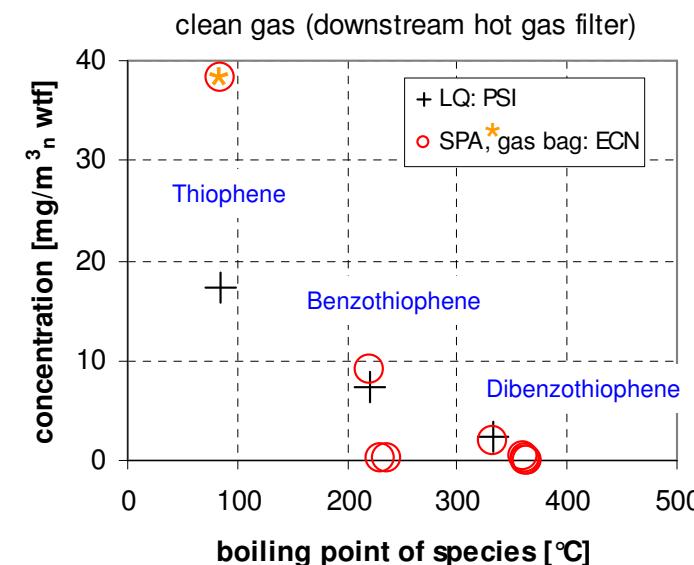
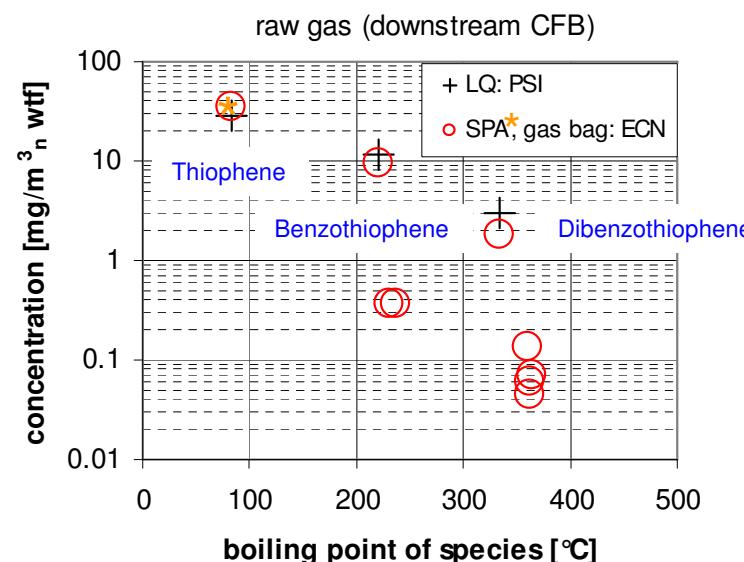
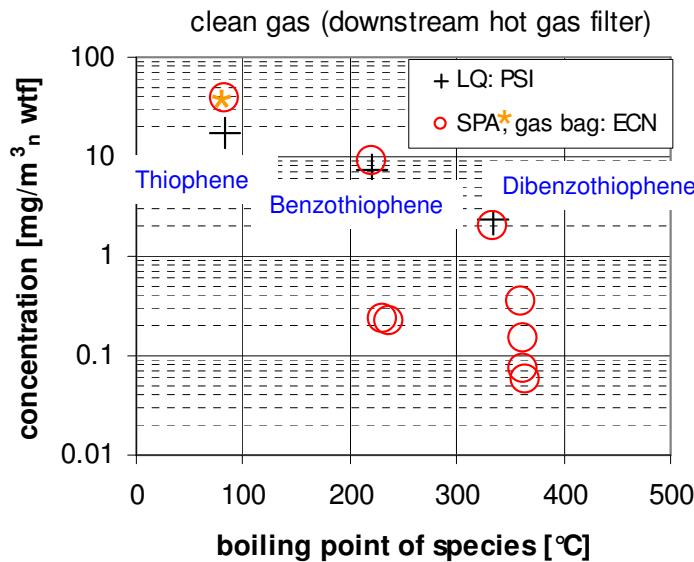


Sampling points for tar and sulfur tar measurement: 6 – 10

6. After hot gas filter (800°C), vertical
7. After hot gas filter (800°C) horizontal
9. After warm gas filter BWF (350°C)
10. Raw gas after analytical filter (300°C)

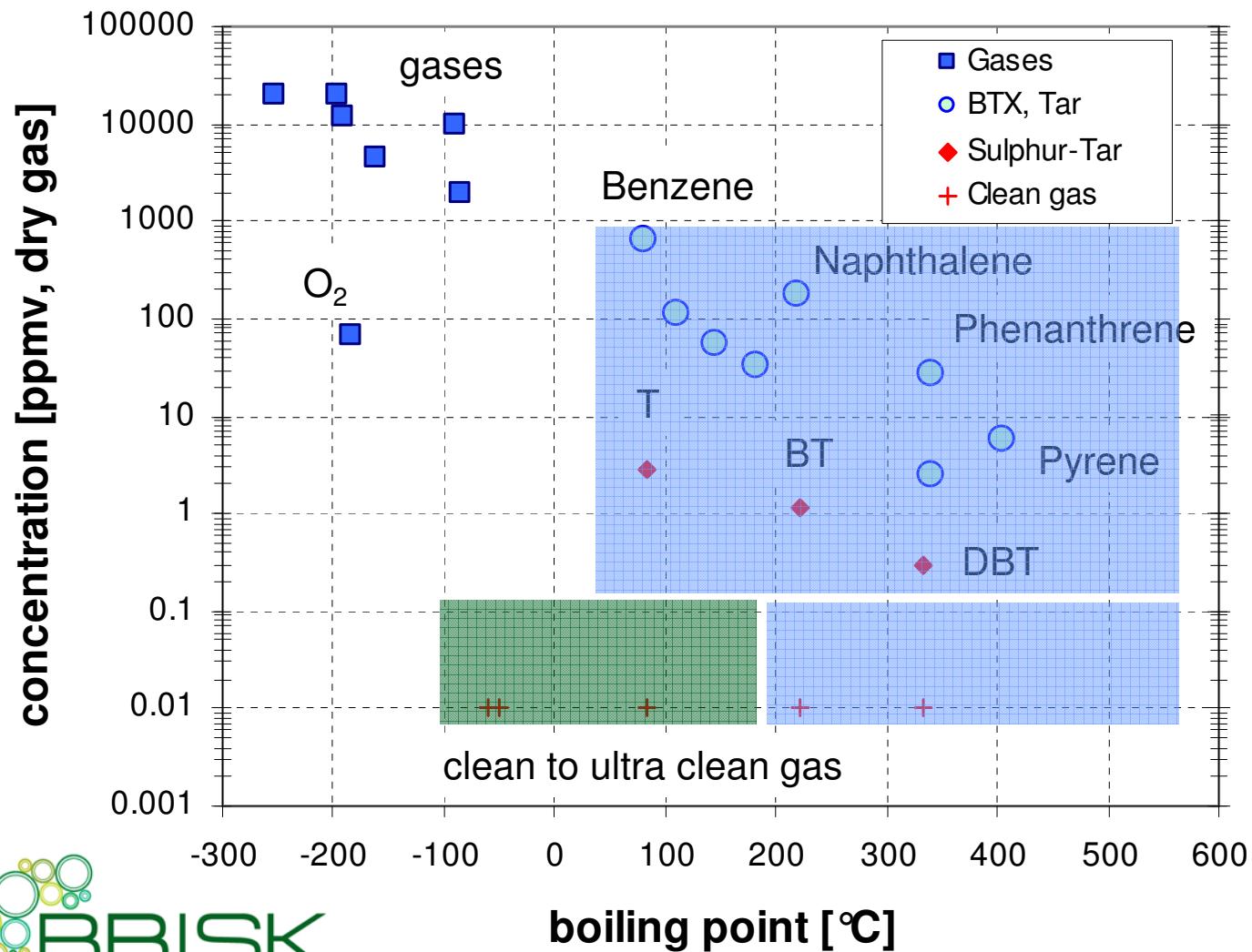


Comparison of sulphur measurement ECN & PSI



Tar - & sulphur protocol: Common basis

Selected data of TU Delft CBF gasifier, raw gas



~ tar protocol
NOT tar protocol

concentration [mg/m_n^3 , dry gas]

- $= 10 \text{ g/m}_n^3$
- $= 1 \text{ g/m}_n^3$
- $= 100 \text{ mg/m}_n^3$
- $= 10 \text{ mg/m}_n^3$
- $= 1 \text{ mg/m}_n^3$
- $= 0.1 \text{ mg/m}_n^3$

