

Deutscher Wetterdienst Wetter und Klima aus einer Hand



Hohenpeissenberg NMHC data 2022 Issues and open questions

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Deutscher Wetterdienst

GC-FID C2-C8

since 1998

Wetter und Klima aus einer Hand



Platform, where aerosols and trace gases are measured

Main wind direction from SW

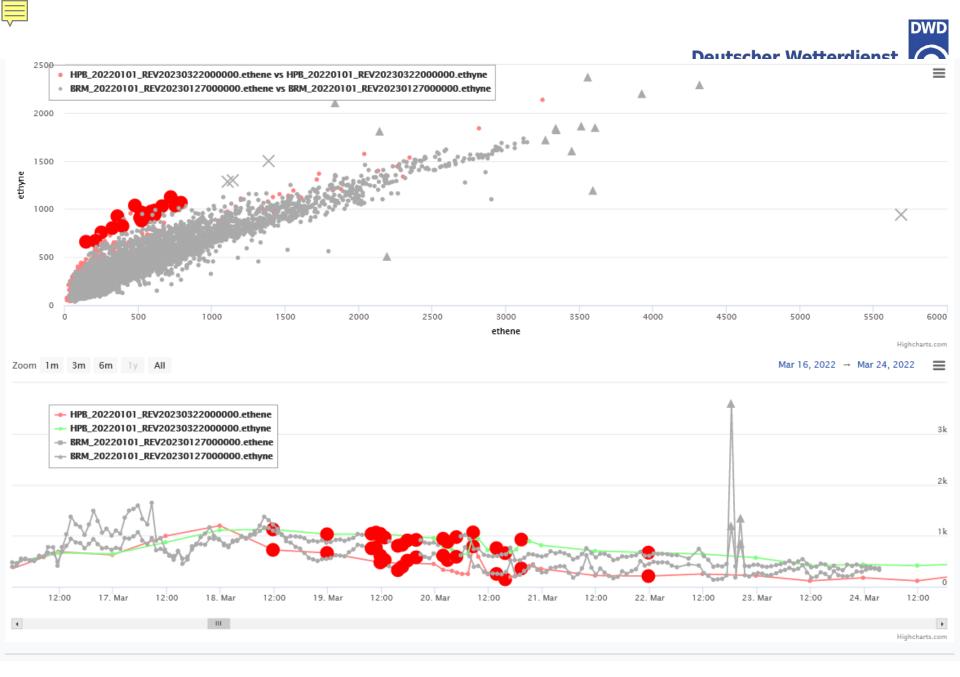
Glass inlet line (not heated) on top of the lab (375 L/min, about 8 m length, 4 cm i.d.) Routine measuremens: 2/day

00.00 00.00

11 11 11 11

Daily cylces: 1/month





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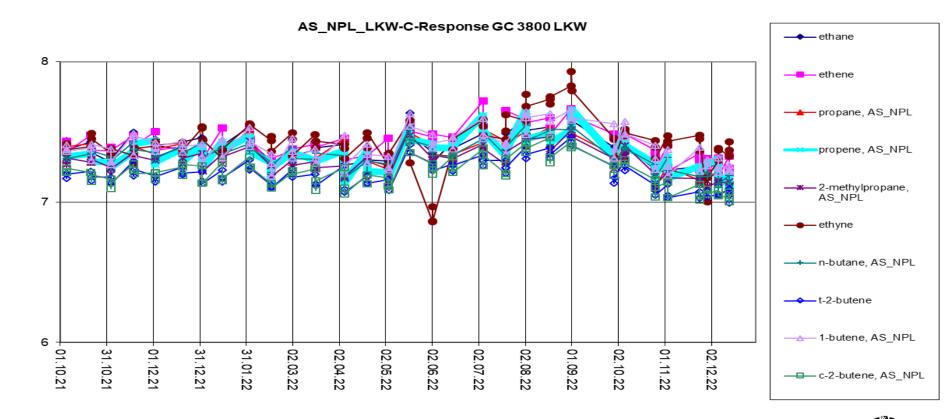


Performance working standard

Temporal evolution of C-response



C-response: Exchange of FID in May Besides Ethyne: intervall captures the changes and same behaviour for all species



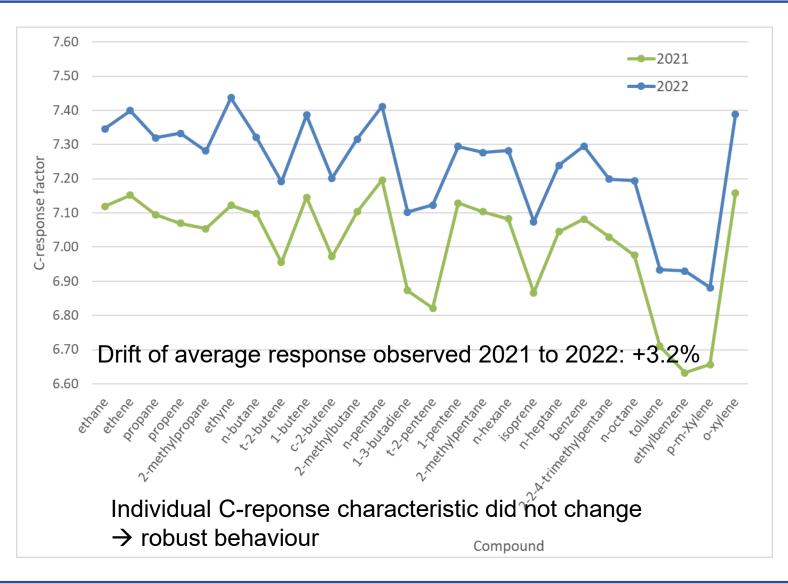


Performance working standard



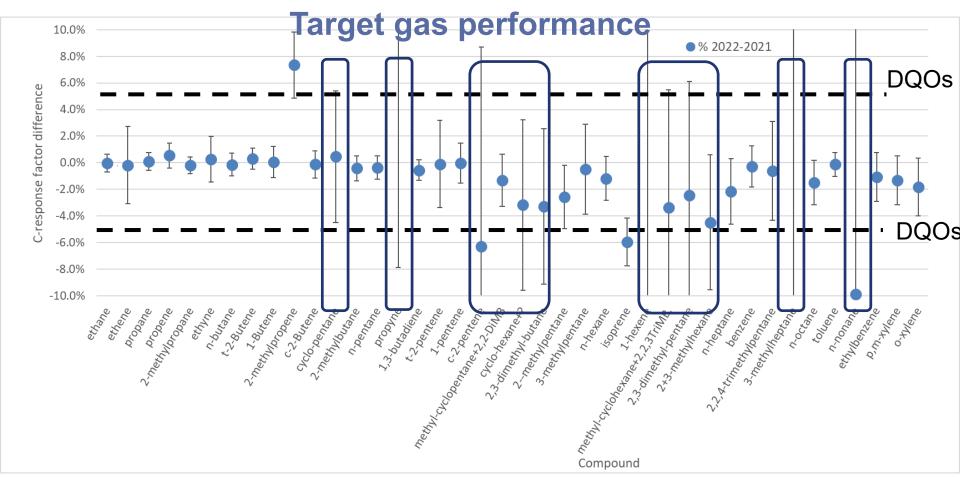
DWD

C-response per substance









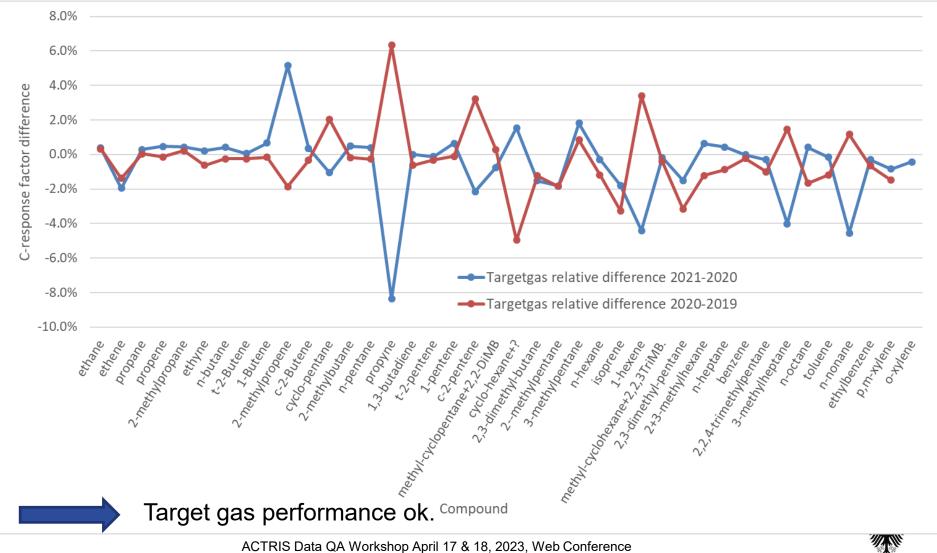
Amount fraction << 100pmol/mol



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Target gas performance







Summary for 2022

Calibration Perfomance: typical characteristics for individual responces factors did not change since 2020 and compact bahviour of all substances; one step in FID response after change of FID, which was captured by the monthly calibration.

Target gas: performance stable, changes 2021-2022 mostly <+-5% or within 5ppt, no trend.

 \rightarrow instrument performance ok.

Generally a bit more variability observed for targets and calibration \rightarrow exchange of FID or effect of additional "integrator"

Saharan dust event with specific correlation?



Thanks!

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