

HY-LAB

THE INDEPENDENT H₂ QUALITY LAB AT ZBT

Analytic methods for measuring the H₂ quality according to ISO 14687

Validation by inter-lab comparison

Optimized sampling method

Quality control at HRS and other sources

Support of normative activities in Germany and EU



IMPURITY	ISO 14687 / μmol / mol	ANALYTICAL METHOD	DETECTION LIMIT* [μmol / mol]
Water	5	QCM IMR-MS	0,1 < 5
Total Hydrocarbons	2	GC-PED IMR-MS	0,01 0,5
Methane	100	GC-PED IMR-MS	0,01 0,125
Oxygen	5	GC-PED IMR-MS	0,01 3
Helium	300	EI-MS	200
Argon	300	GC-PED EI-MS	0,05 < 100
Nitrogen	300	GC-PED	0,1
Carbon Dioxide	2	IMR-MS	0,5
Carbon Monoxide	0,2	GC-PED IMR-MS	0,001 0,06
Total sulphur compounds	0,004	TD-GC-SCD IMR-MS	< 0,001 0,001 (H ₂ S)
Formaldehyde	0,2	IMR-MS	0,0022
Formic Acid	0,2	IMR-MS	0,05
Ammonia	0,1	IMR-MS	0,003
Halogenated compounds	0,05	IMR-MS	< 0,009

*MANUFACTURER SPECIFICATION

Gefördert durch:

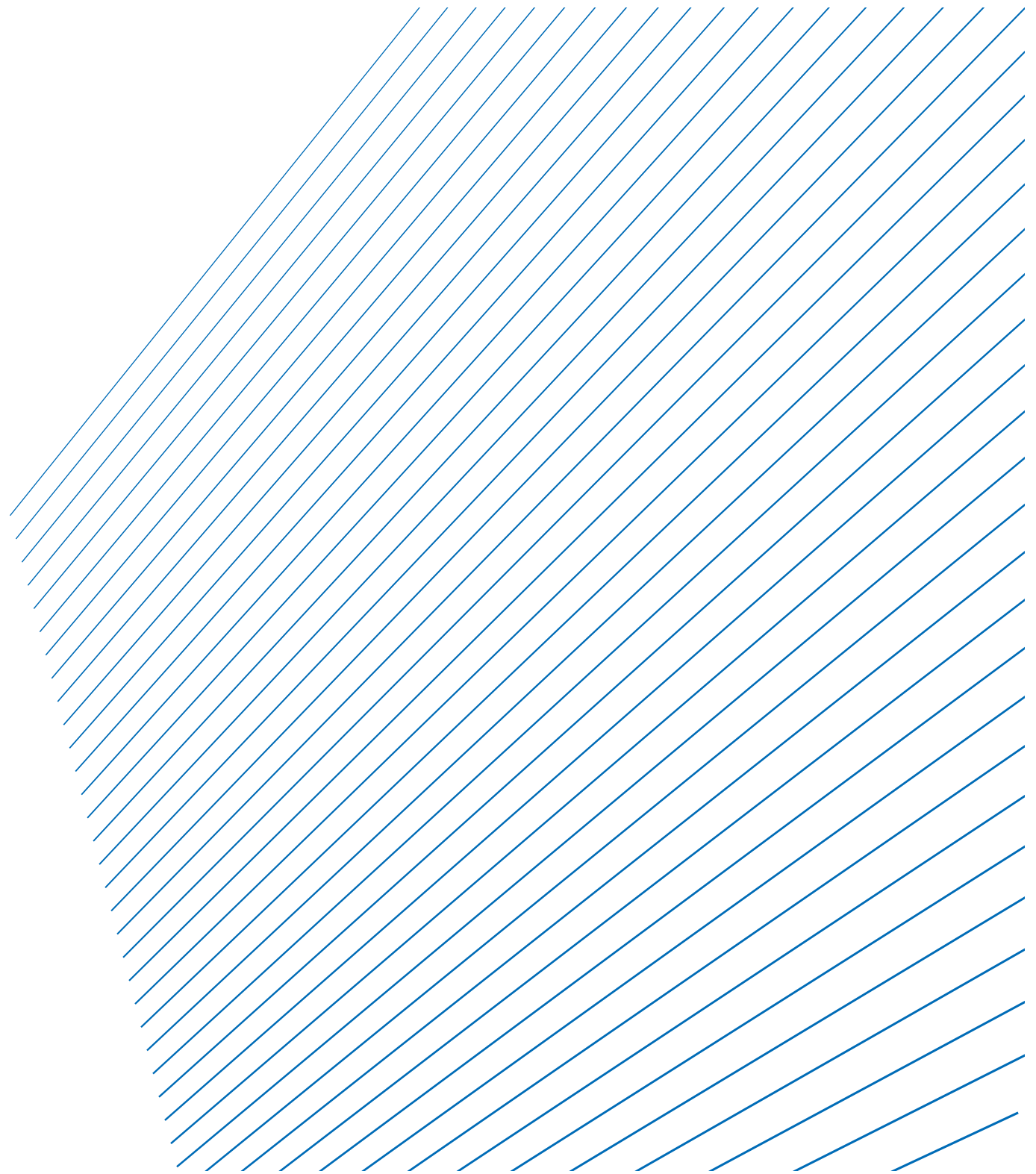


Koordiniert durch:



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