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Supplementary Information of

First total OH reactivity emission measurements from a Nordic wetland

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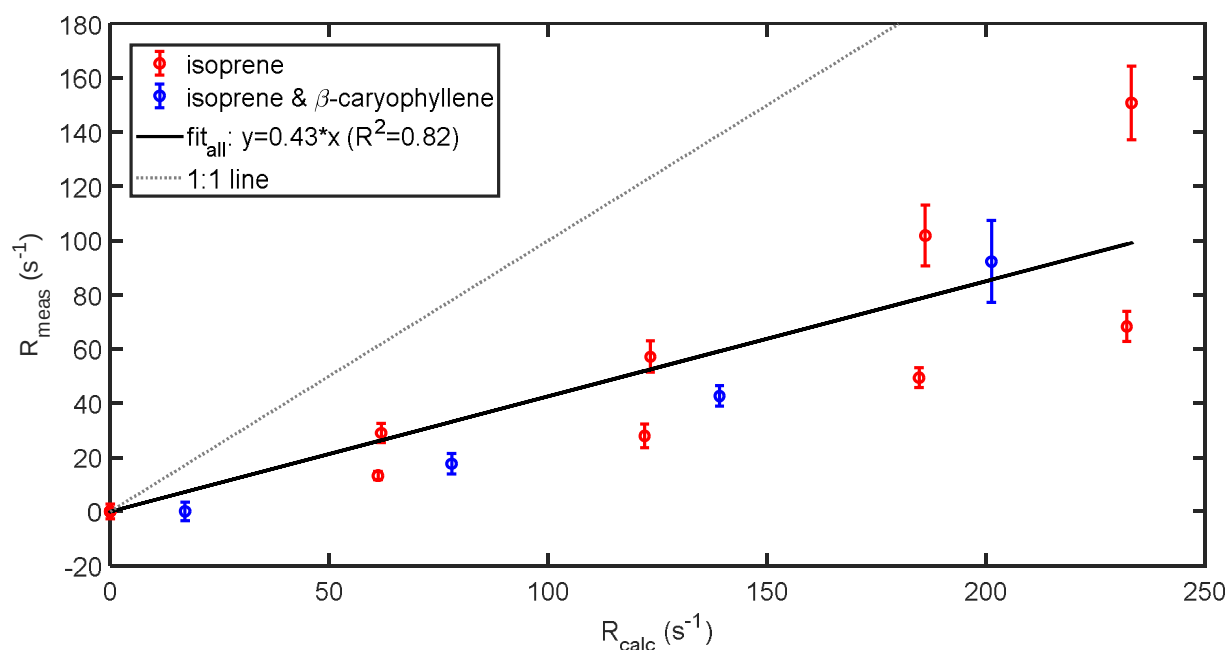


Figure S1: Calibration for the second order correction of isoprene (red) and isoprene with β -caryophyllene (blue). Each calibration step was averaged, and their standard deviations are shown. The black linear fit was calculated from the individual measurement points of the shown calibrations (red and blue).

Table S1: Acronyms and chemical formula used in the manuscript.

A_{cham}	area of soil chamber
A_{PFO}	pseudo-first-order correction factor
C1	measurement of pyrrole while sampling VOC free air with an OH scavenger
C2	measurement of pyrrole while sampling VOC free air
$C2_{\text{uncorrected}}$	uncorrected (for RH) pyrrole concentration during C2
C3	measurement of pyrrole while sampling ambient air
$C3_{\text{LOD}}$	limit of detection for C3
COHRE	calculated OH reactivity of emissions
CRM	comparative reactivity method
D	dilution correction in the reactor
f	flow through soil chamber
GC-MS	gas chromatograph - mass spectrometer
GLVs	green leaf volatiles
k_{pyr}	reaction rate of pyrrole with OH
k_{VOC_i}	reaction rate of VOC_i with OH

LOD	limit of detection
MOHRE	missing OH reactivity of emissions
MTs	monoterpenoids
MVK	methyl vinyl ketone
NO ₃	nitrate radical
O ₃	ozone
OH	hydroxyl radical
PAR	photosynthetically active radiation
RH _{C2}	relative humidity while measuring C2
RH _{C3}	relative humidity while measuring C3
R _{meas}	measured total OH reactivity
SQTs	sesquiterpenes
TD-GC-MS	thermal desorption- gas chromatograph- mass spectrometer
TOHRE	total OH reactivity from emissions
UV	ultra violet
VOCs	volatile organic compounds
σ_{C2}	standard deviation of the three 2-minute C2 measurements
ΔU_{TOHRE}	overall uncertainty of TOHRE
ΔU_P	uncertainty of pyrrole levels
ΔU_S	uncertainty of pyrrole calibration
ΔU_{kOH}	uncertainty of reaction rate constant (pyrrole)
ΔU_D	uncertainty of dilution
ΔU_F	uncertainty of fit (first order correction)
ΔU_{prec}	uncertainty of measurement precision
ΔU_{flow}	uncertainty of zero airflow through the chamber
ΔU_σ	uncertainty of relative humidity correction
ΔU_{COHRE}	overall uncertainty of COHRE
ΔU_{VOCi}	uncertainty of VOC concentrations
ΔU_{kVOCi}	uncertainty of used OH reactivities
ΔU_{MOHRE}	overall uncertainty of MOHRE