

Supplementary information

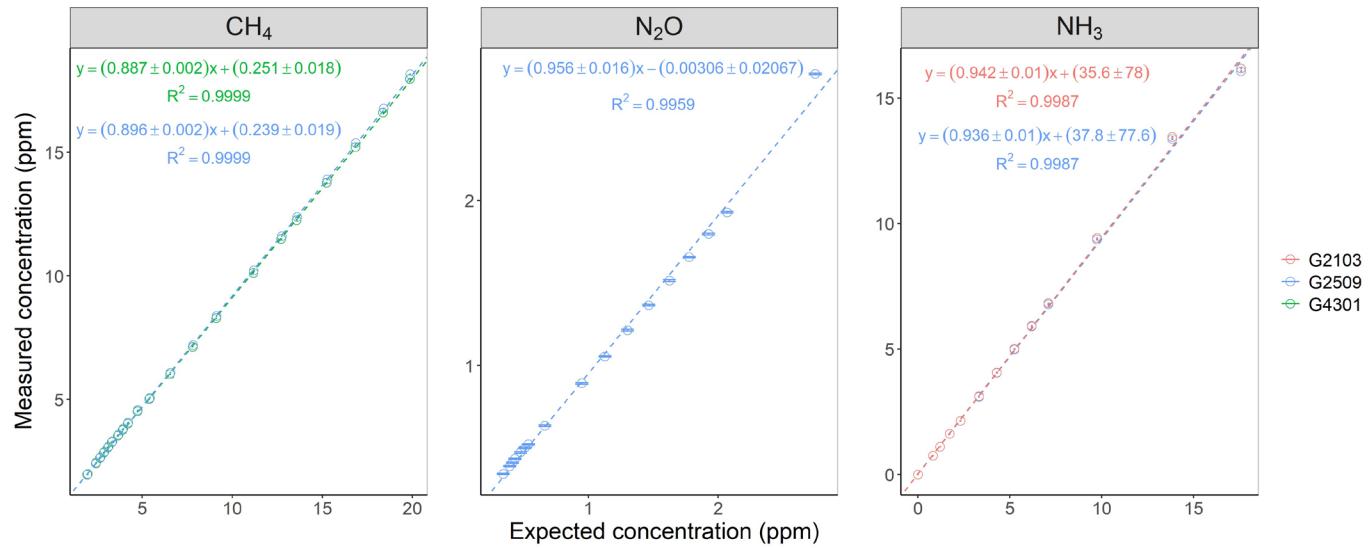


Figure S1: CRDS calibration for CH₄, N₂O and NH₃. Vertical error bars represent the standard deviation. The dashed line represents the equation of the best-fitted linear model.

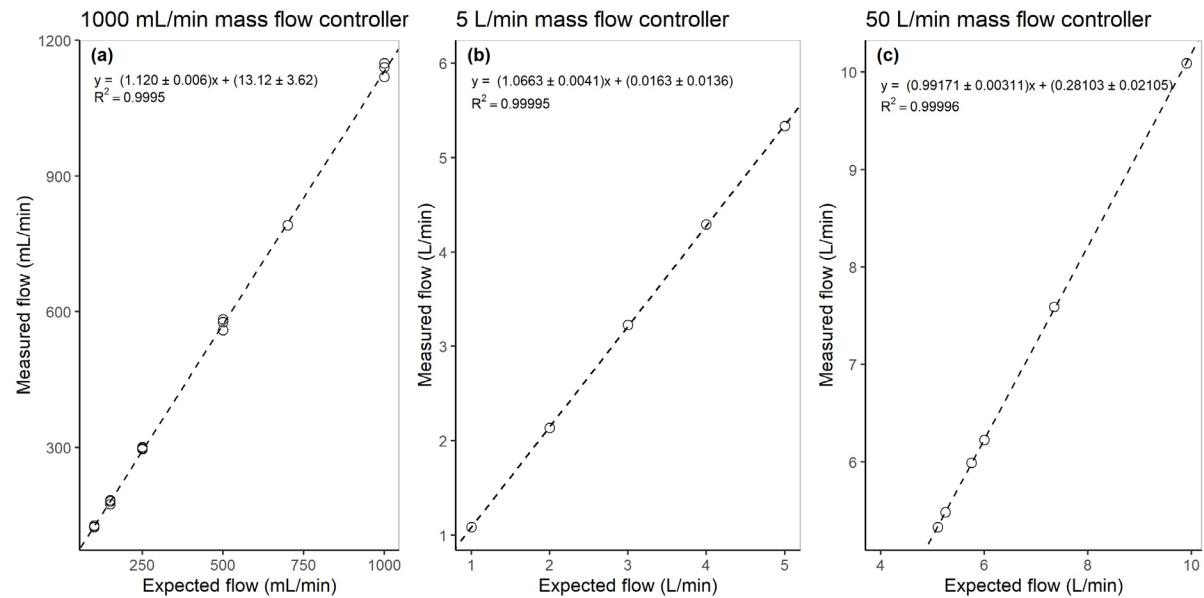


Figure S2: Mass flow controller calibrations. The calibration was done with (a) a bubble column in triplicates, (b), and (c) a previously calibrated flow meter. The dashed line represents the best-fitted linear model.

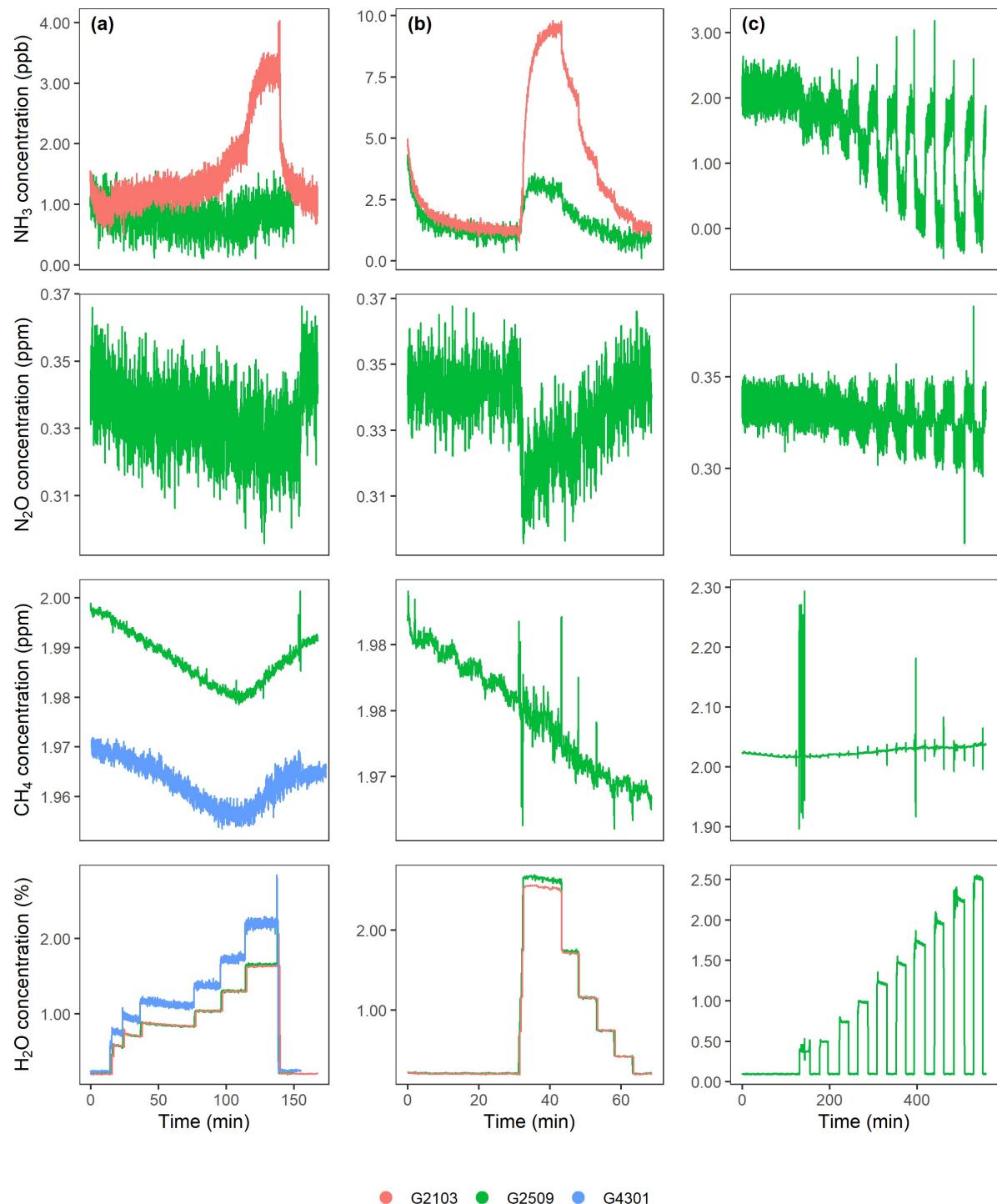


Figure S3: CRDS raw data for (from top to bottom) NH₃, N₂O, CH₄, and H₂O; a) Test 1, b) Test 2, and c) Test 3

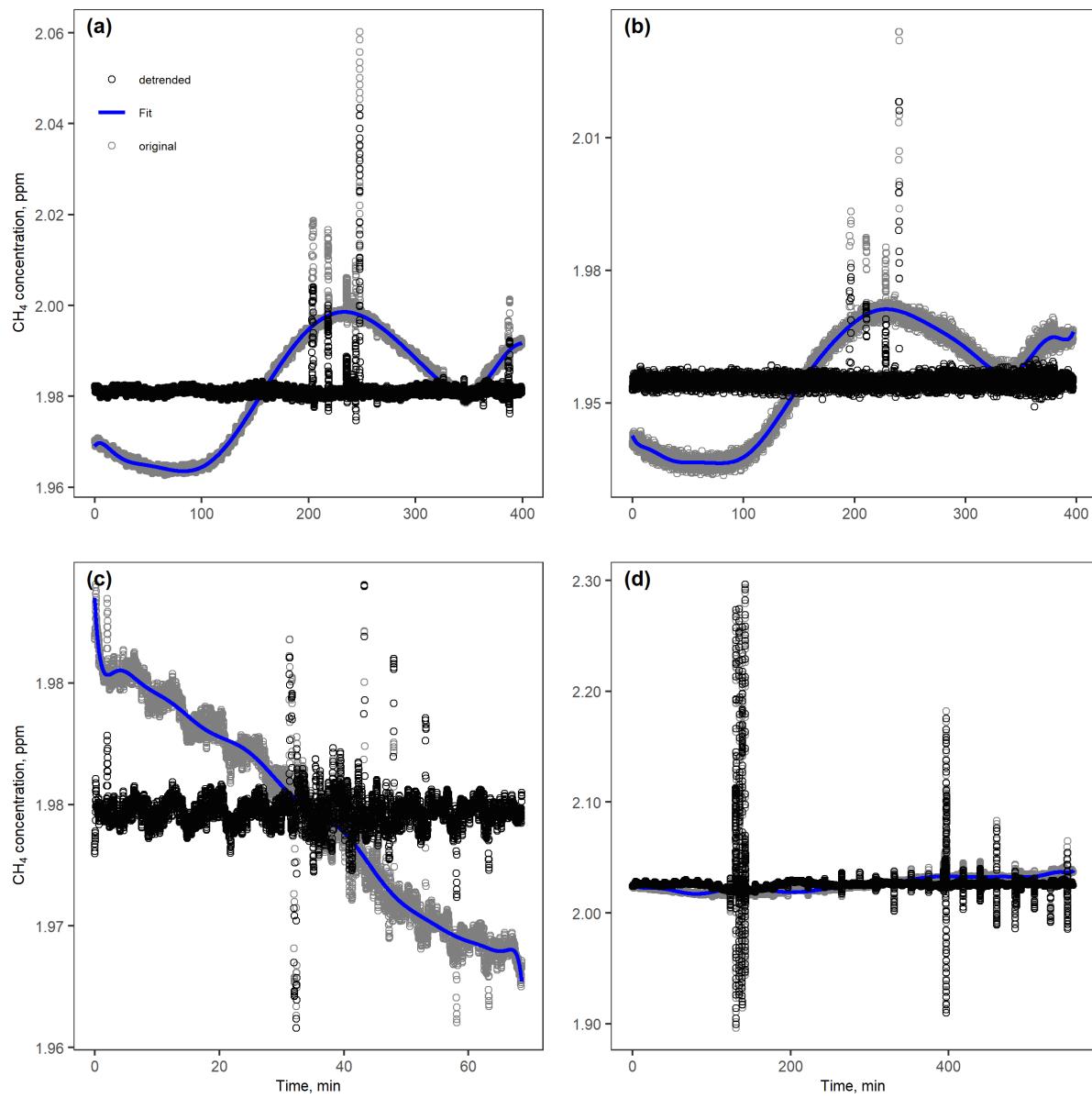


Figure S4: Original raw data by Picarro (grey dots), 18 degree polynomial fit (blue) and detrended data (black dots) for a) Test 1 on G2509; b) Test 1 on G4301; c) Test 2; d) Test 3 on humidity interferences

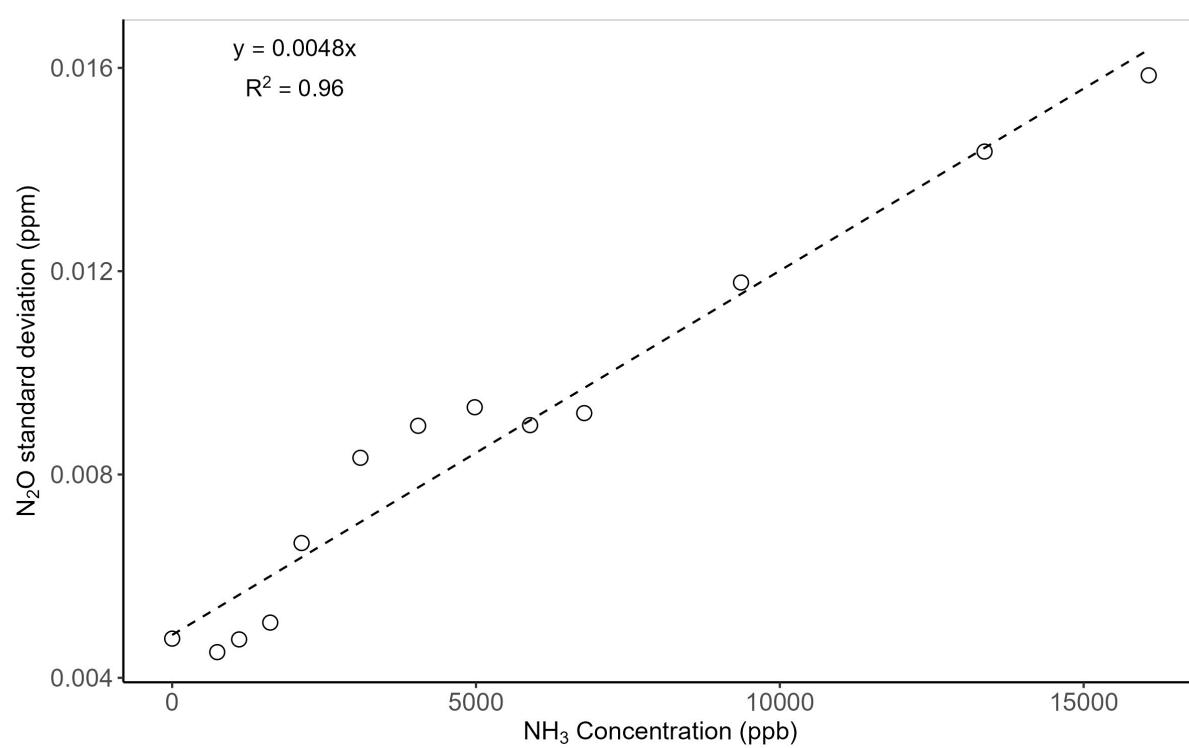


Figure S5: N_2O background standard deviation with increasing NH_3 concentration

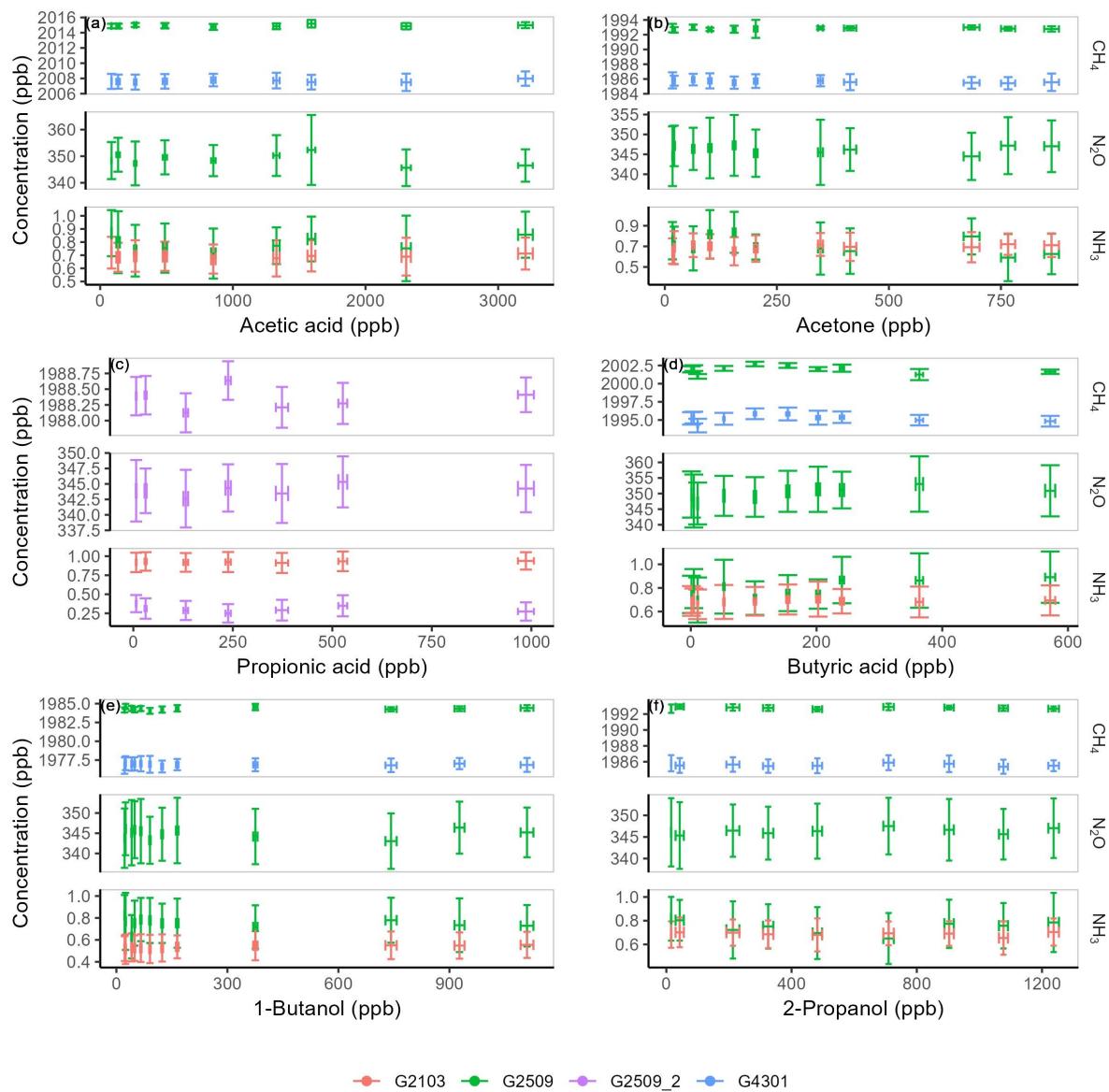


Figure S6: Interferences of a) acetic acid; b) acetone; c) propionic acid, d) butyric acid, e) 1-butanol, and f) 2-propanol on CH_4 , N_2O and NH_3 . Vertical and horizontal error bars are the standard deviation of the target gas and the tested VOC respectively.