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Intercomparison of nitrous acid (HONO) measurement techniques in a megacity (Beijing)

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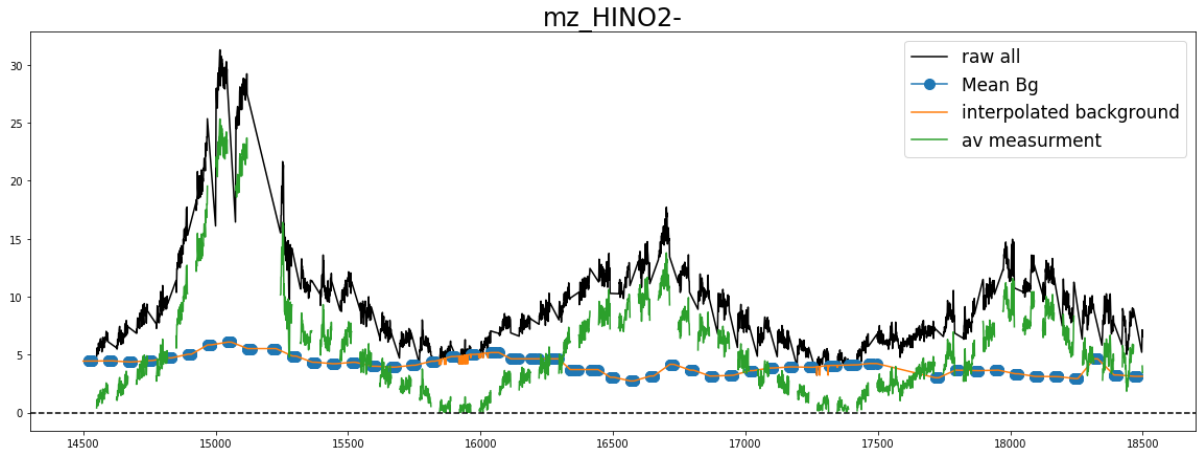

Figure S1: Illustration of the backgrounding procedure used in the CIMS instrument

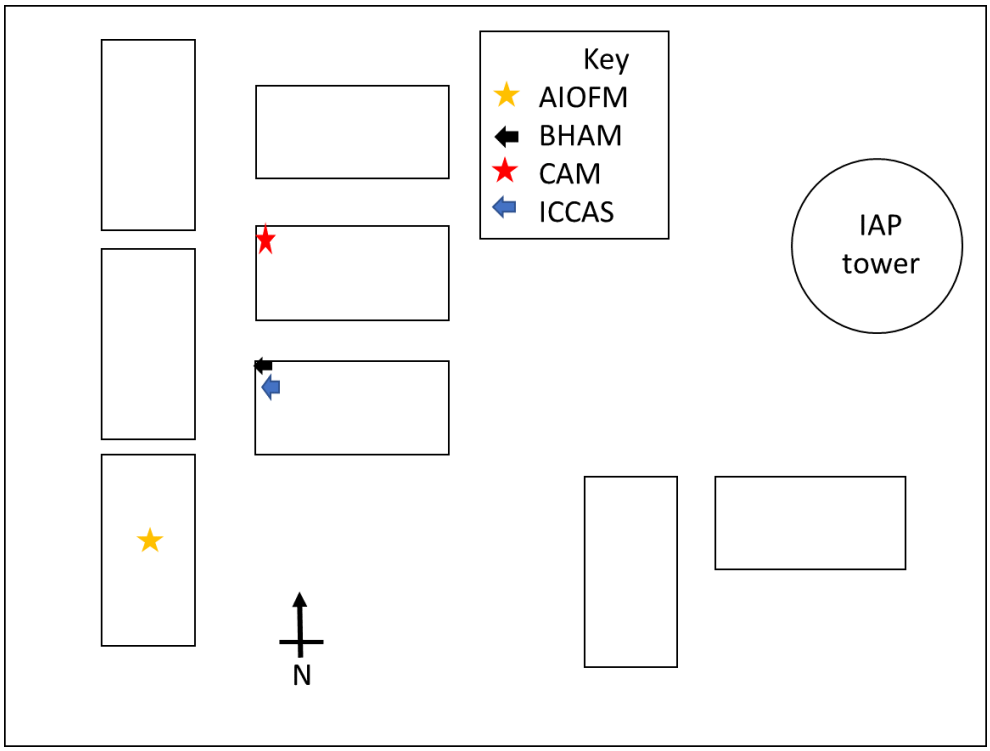

Figure S2: Schematic indicating the relative position of each instrument inlet during the winter inter-comparison. Each rectangle represents a shipping container laboratory. Note not to scale.

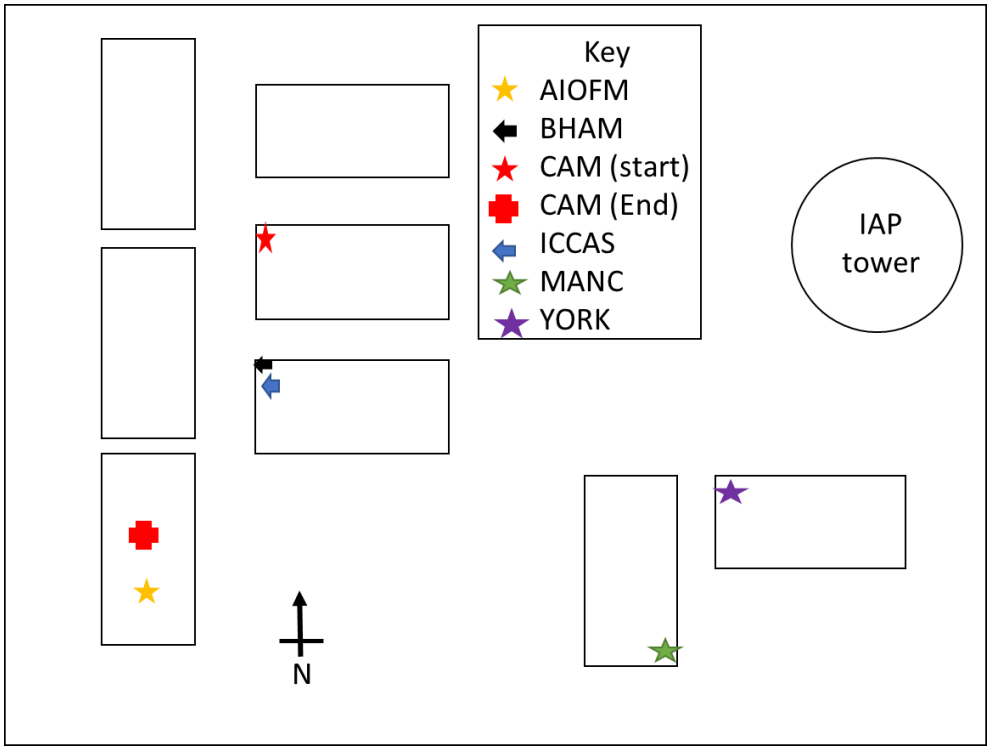

Figure S3: Schematic indicating the relative position of each instrument inlet during the summer measurements. Note the CAM instrument moved on 30th May to the position closer to the AIOFM instrument. Each rectangle represents a shipping container laboratory. Note not to scale.

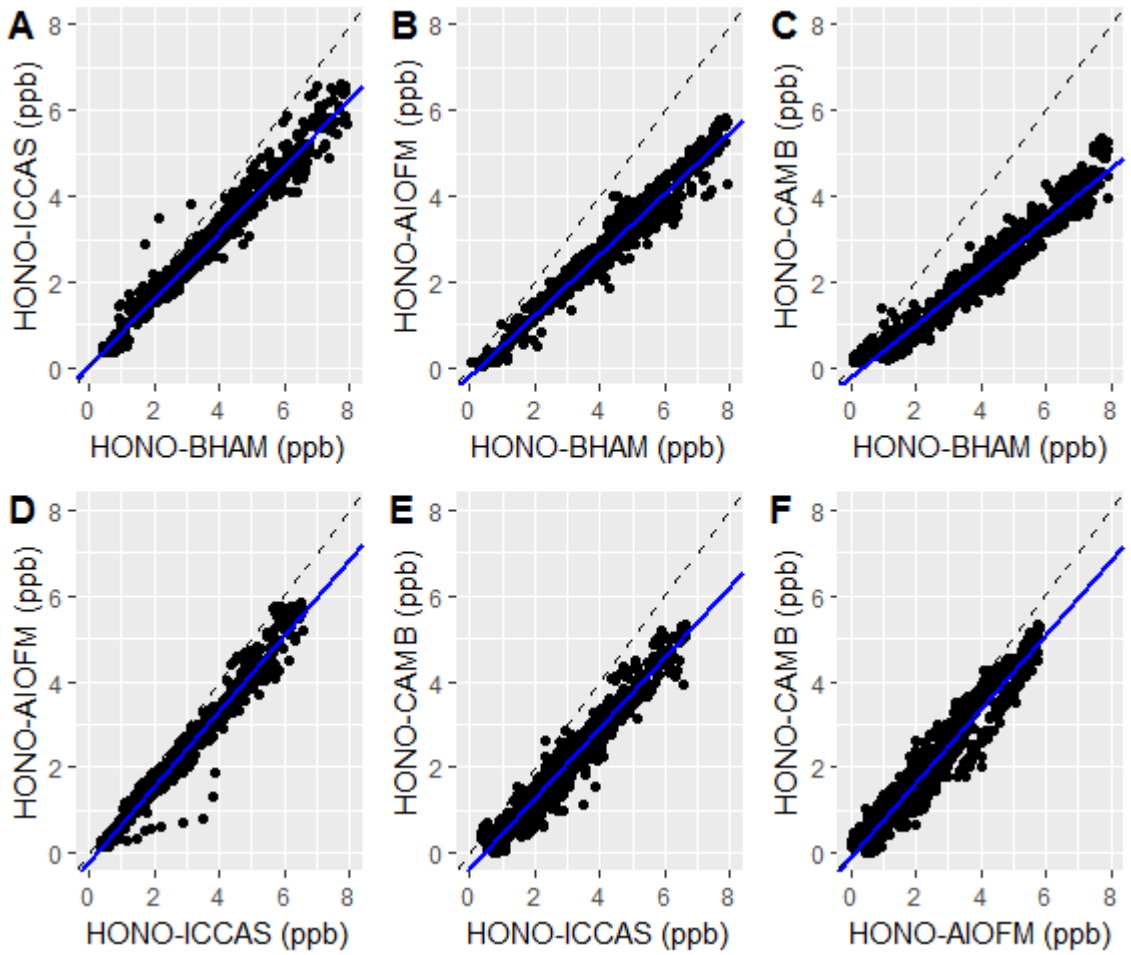

Figure S4: Regression relationships of HONO measured by different instruments from the formal winter inter-comparison period (10 – 14 Nov 2016) at IAP, Beijing. The blue line is the RMA regression and the black dashed line the 1:1 relationship.

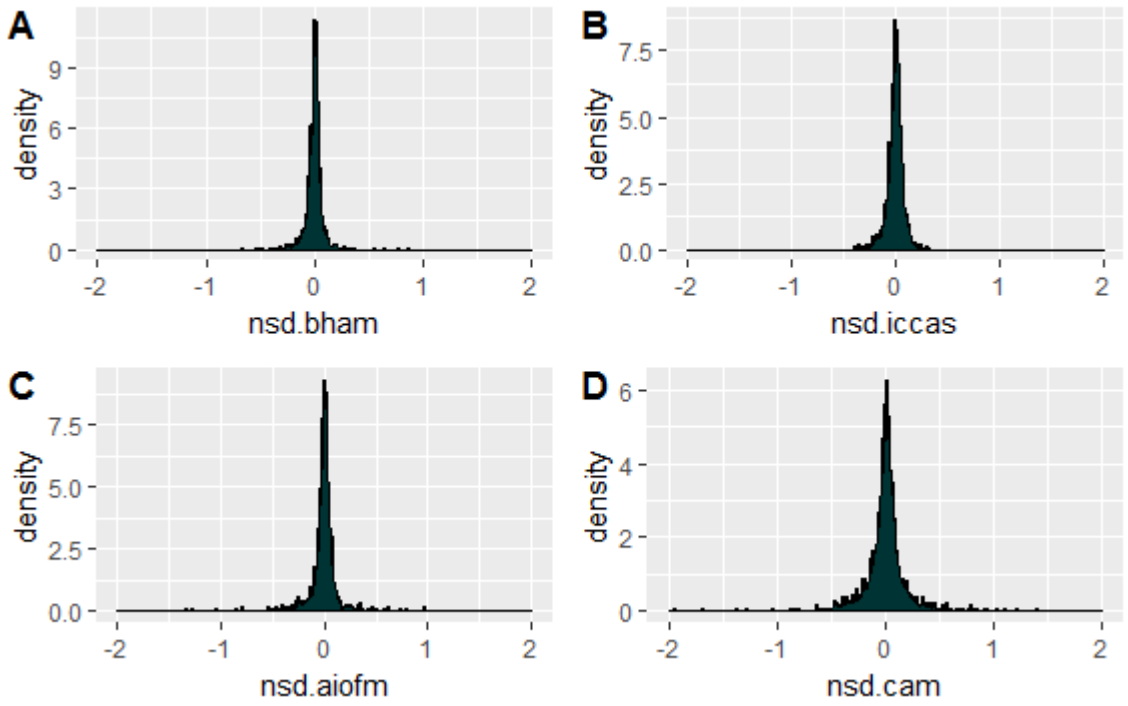

Figure S5: Normalised Sequential Difference (NSD) for each instrument during the winter inter-comparison

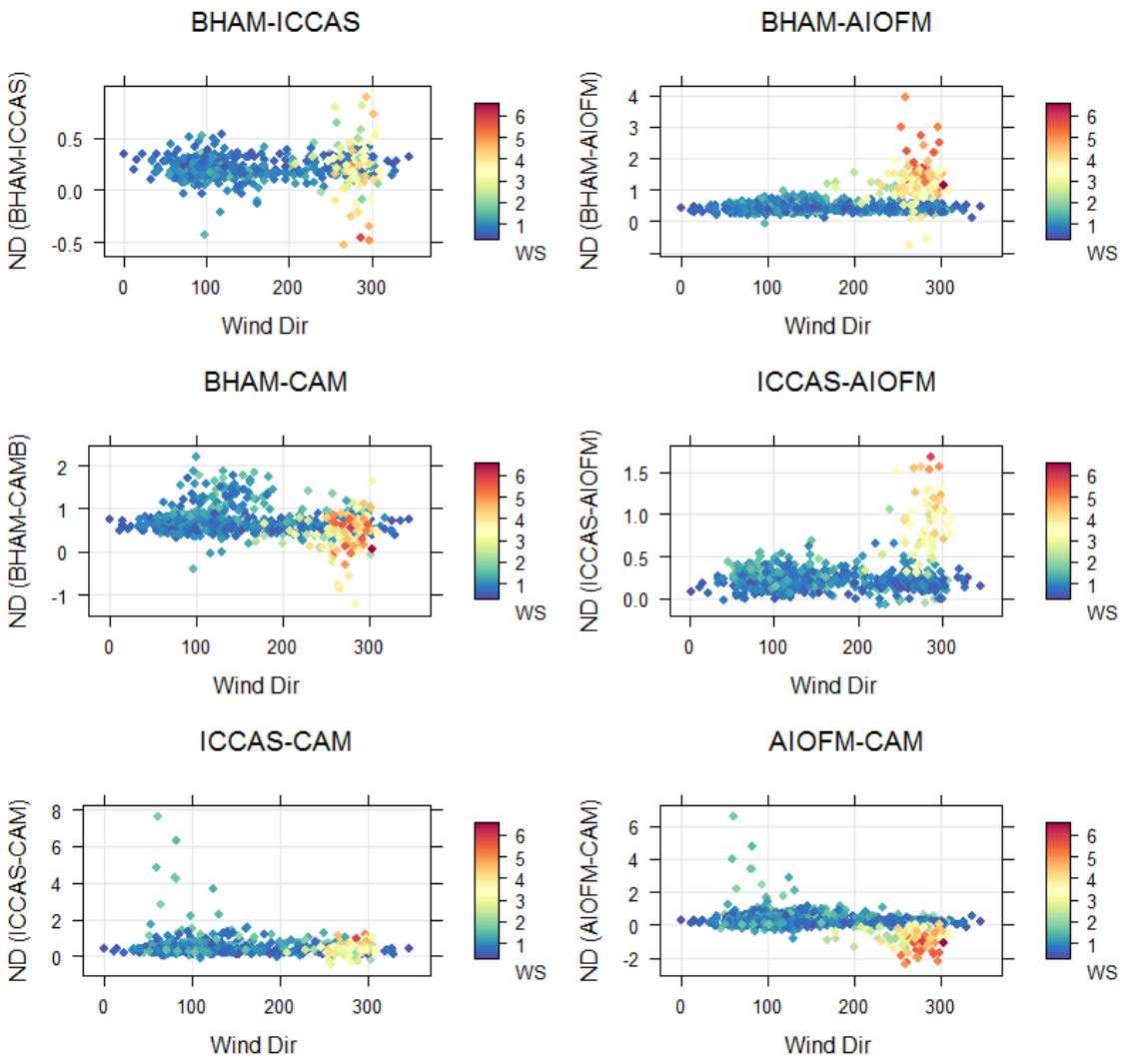

Figure S6: Normalised Differences (ND) for each instrument pair as a function of wind direction, coloured by wind speed during the winter inter-comparison.

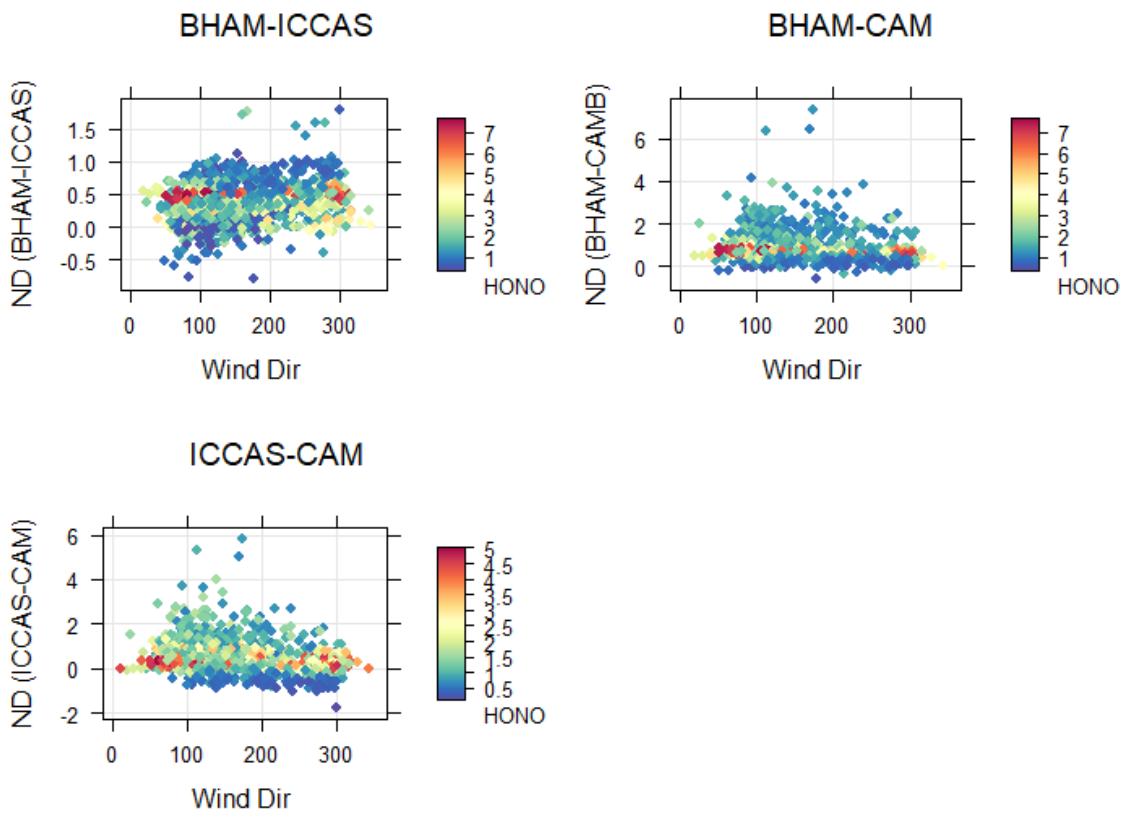

Figure S7: Normalised Differences (ND) for each instrument pair as a function of wind direction, coloured by HONO measurements during the start of the summer campaign, when only BHAM, ICCAS and CAM were measuring.

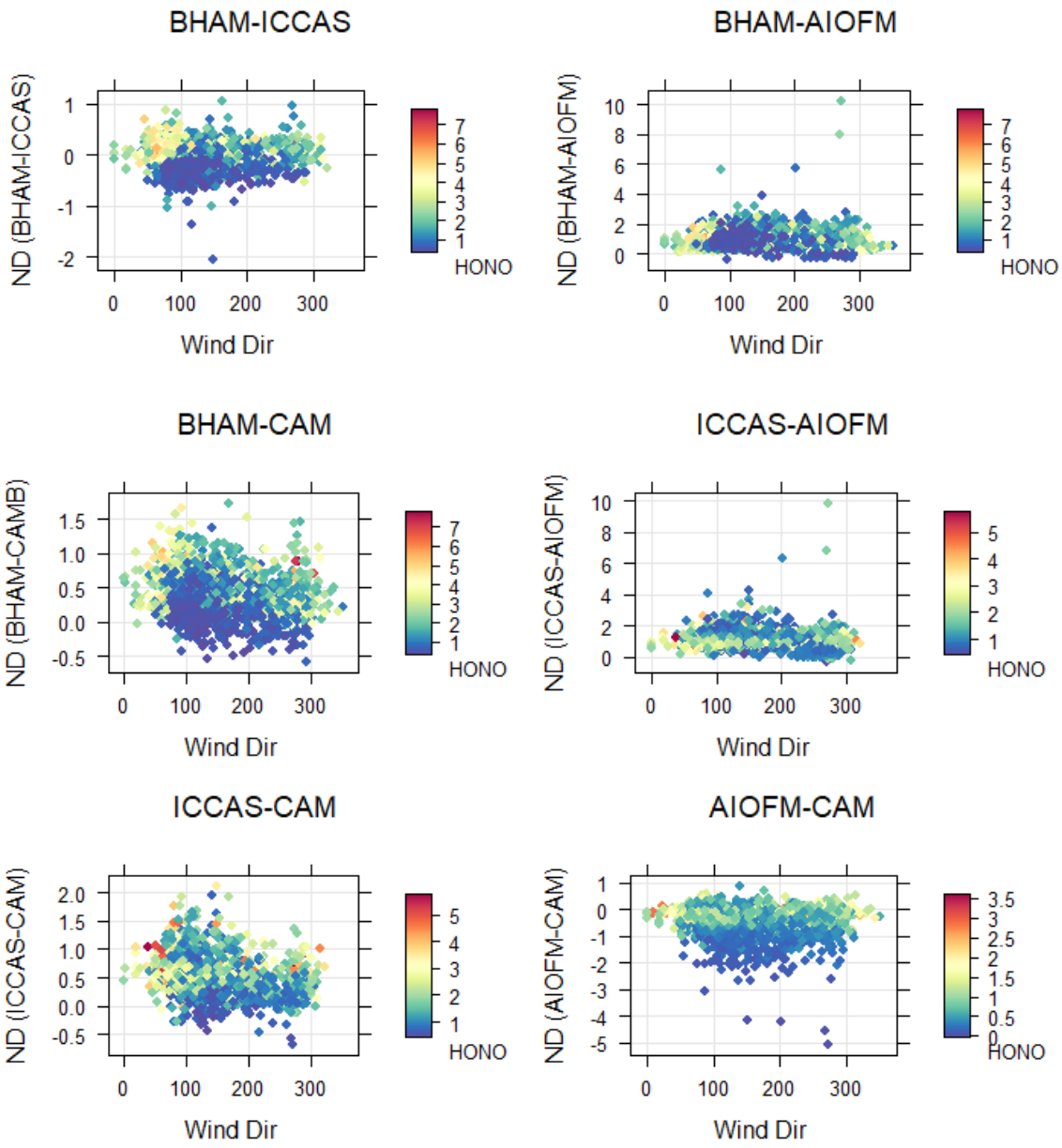

Figure S8: Normalised Differences (ND) for each instrument pair as a function of wind direction, coloured by HONO measurements during the middle of the summer campaign (7th-14th June 2017), when all four instruments were measuring.

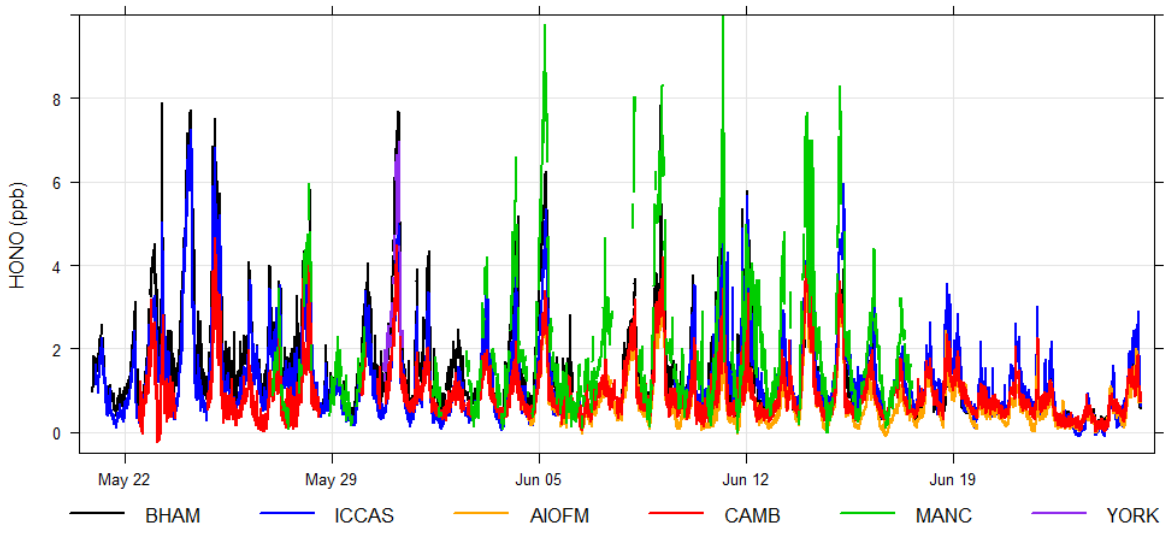

Figure S9: Time series of ground level summer measurements at IAP for all instruments measuring HONO.