



Supplement of

Comparison of particle number concentrations measured with AQ Urban sensors in two different environments in Helsinki, Finland

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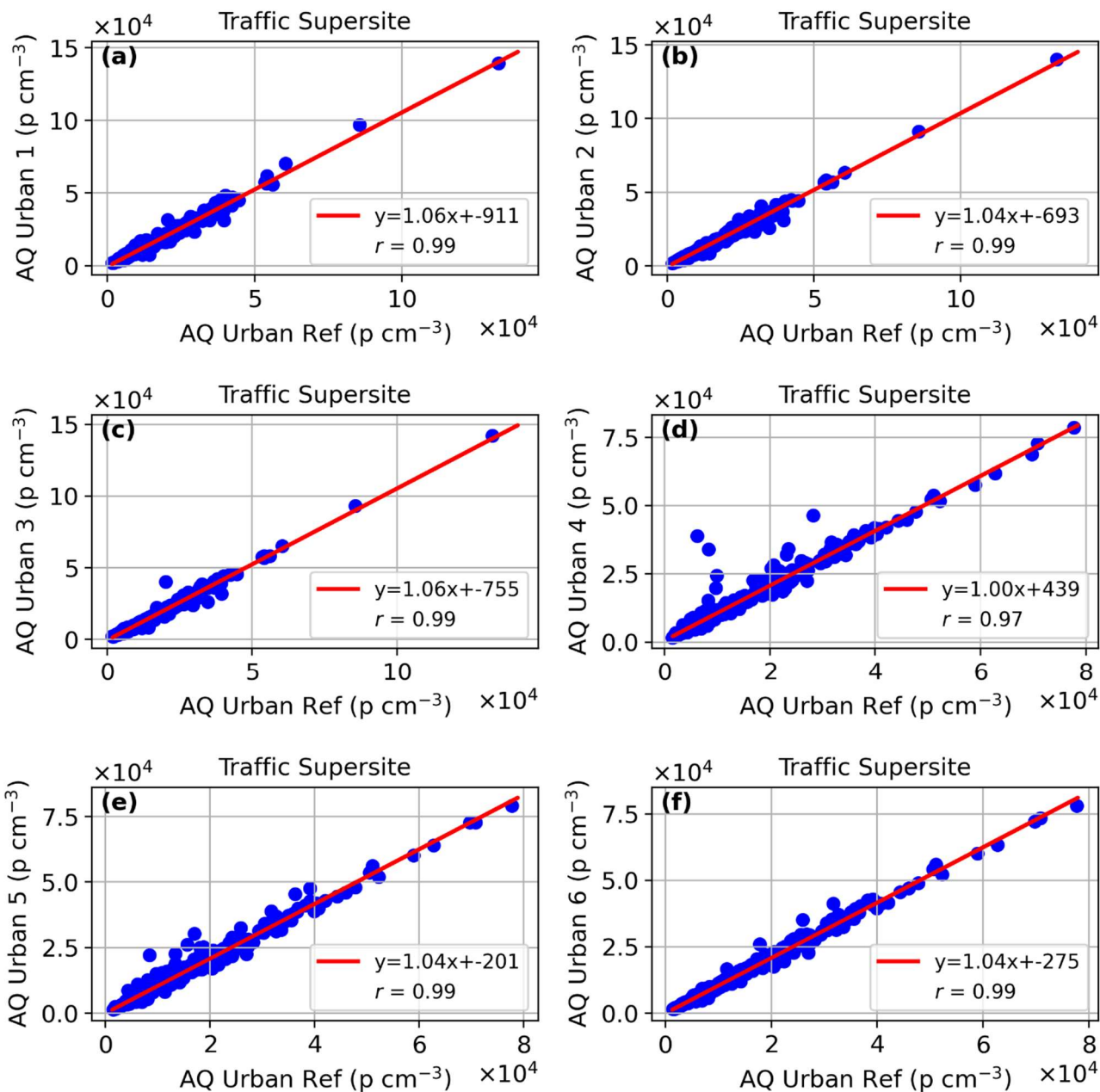


Figure S1. Linear regressions of the hourly-averaged PNC measured with AQ Urban sensors 1-6 against the reference AQ Urban sensor during the 6-week comparison period at the Traffic Supersite.

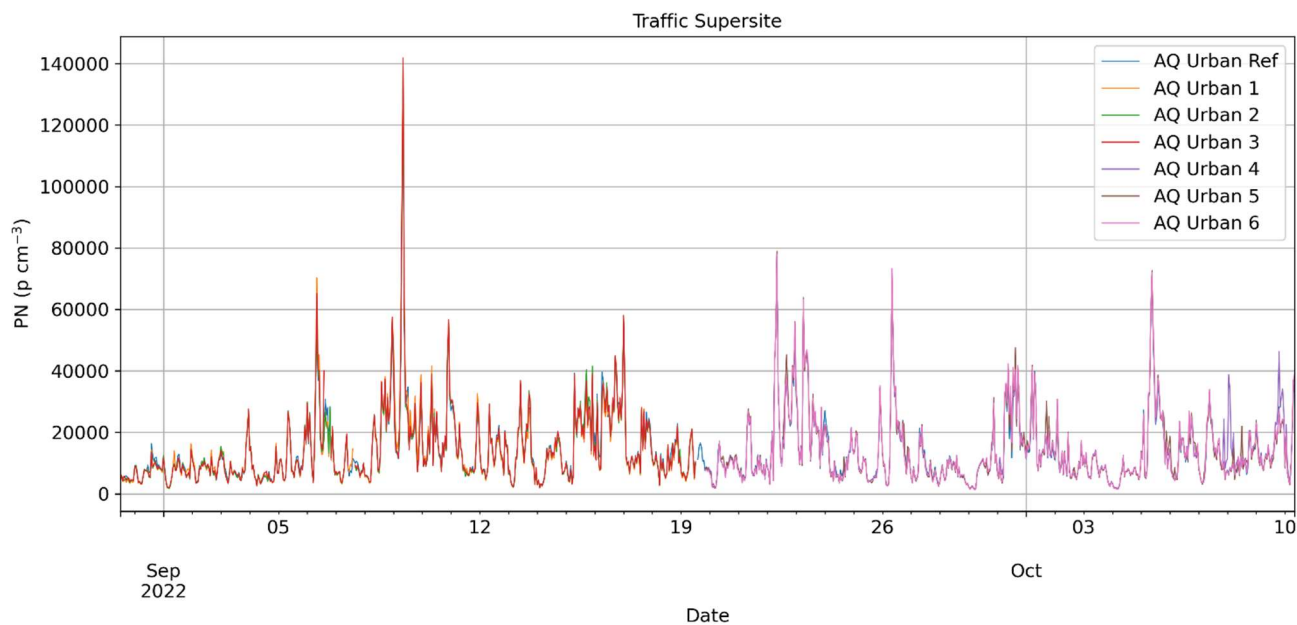


Figure S2. Time series of hourly averaged PNC measured with different AQ Urban sensors during the 6-week comparison period at the Traffic Supersite.

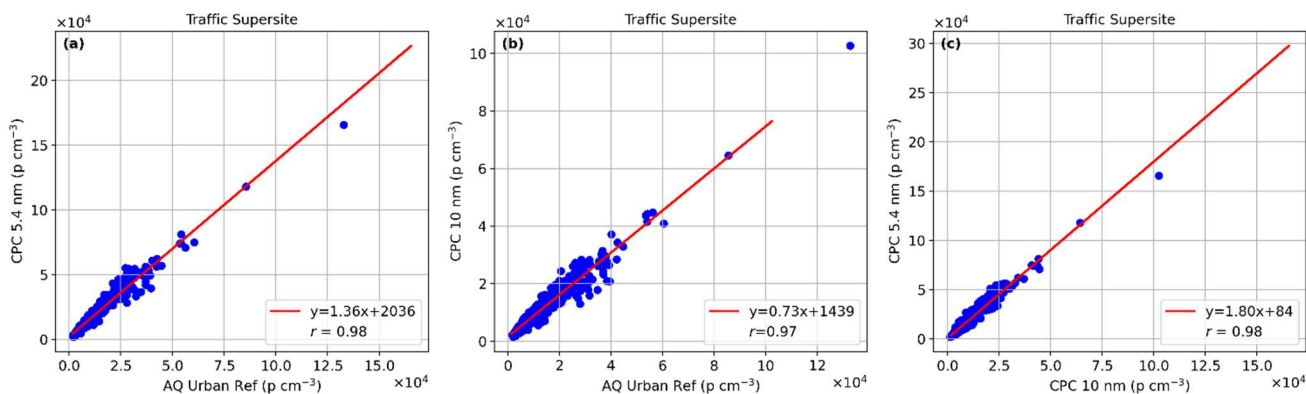


Figure S3. Linear regressions between the hourly averaged PNC measured with the reference AQ Urban sensor and the CPCs having a 5.4 nm cut-size (a) and 10 nm cut-size (b), and between the two CPCs during the 6-week comparison period at the Traffic Supersite.

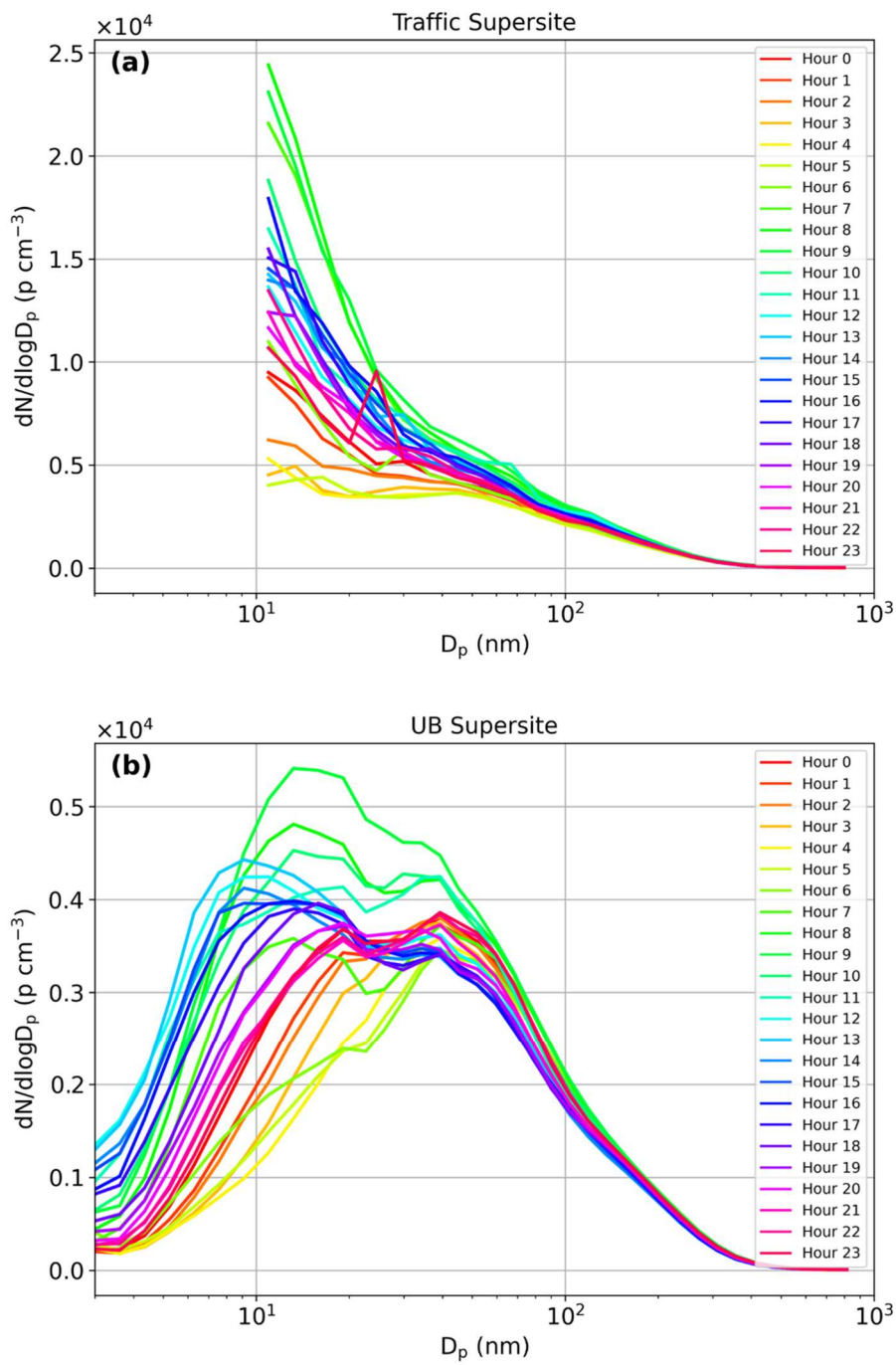


Figure S4. Hourly-averaged particle number size distributions at the Traffic Supersite (a) and at the UB Supersite (b) for different hours of the day during the 7.5-month measurement period. The time is the start hour.

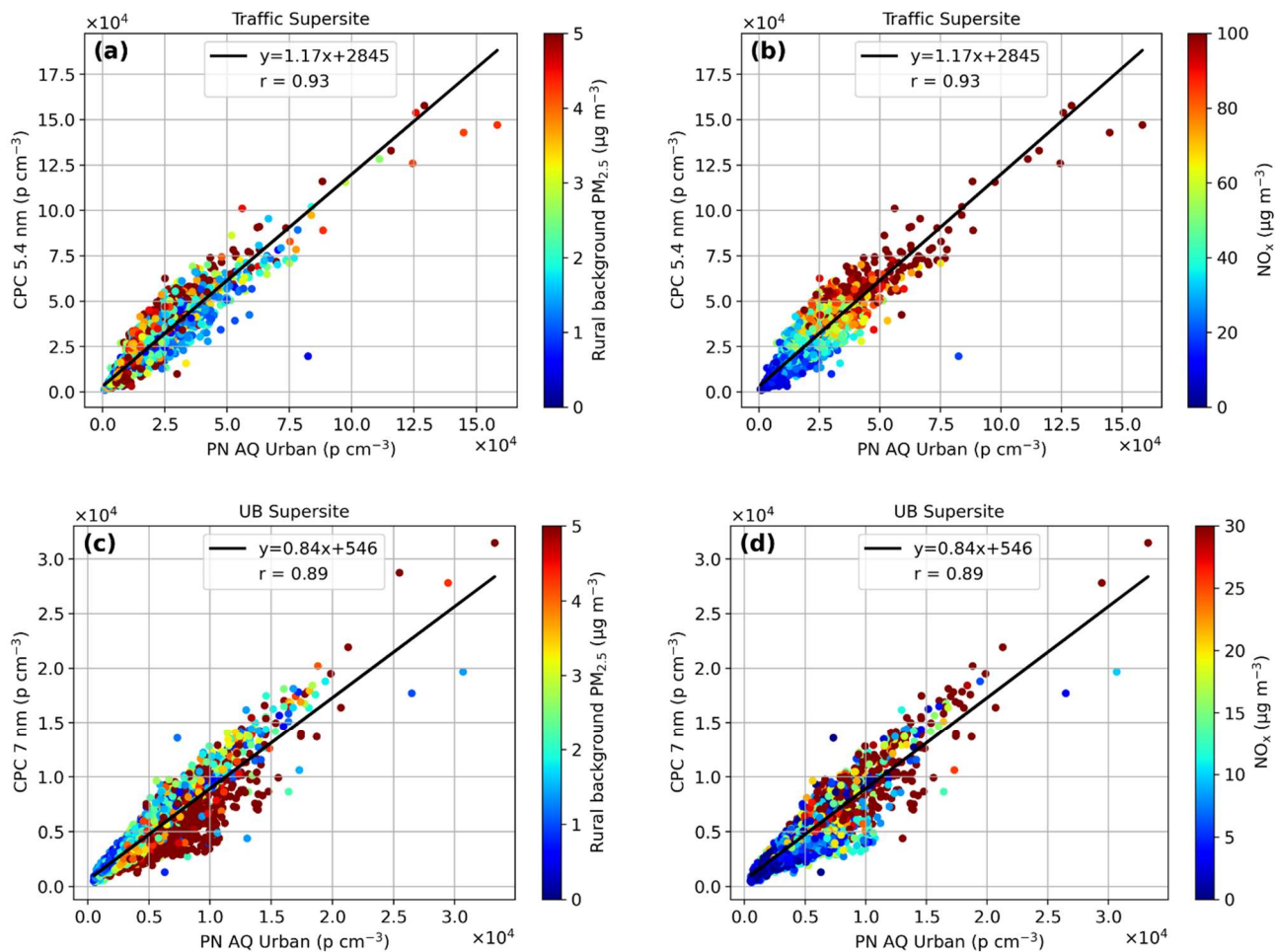


Figure S5. Linear regressions of PNC measured with the AQ Urban sensors and CPCs at the Traffic Supersite (a and b) and at the UB Supersite (c and d) during the 7.5-month measurement period. The color of the markers indicates the concentration of PM_{2.5} at the Urban remote site (a and c) and the concentration of NO_x at the Traffic Supersite (b) and at the UB Supersite (d).

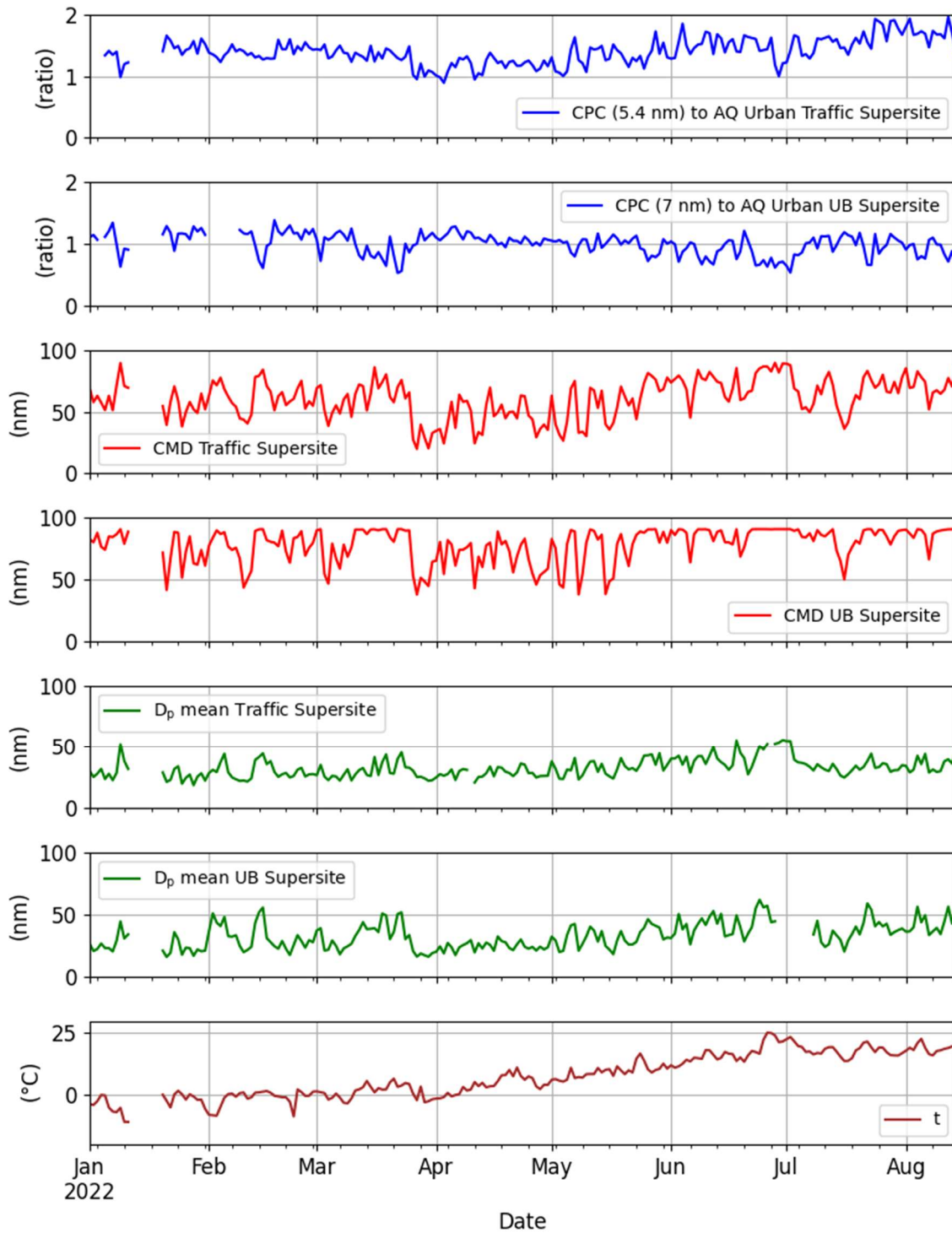


Figure S6. Ratio of the PNC measured with CPCs and AQ Urban sensors at the Traffic Supersite and at the UB Supersite together with CMD (count median diameter) obtained from AQ Urban sensors, mean particle diameter (D_p) calculated from DMPS measurements, and temperature during the 7.5-month measurement period. The temperature is measured at the Pasila weather station which is 1-2 km distance from the Traffic Supersite and UB Supersite. The time series are plotted from daily averages.

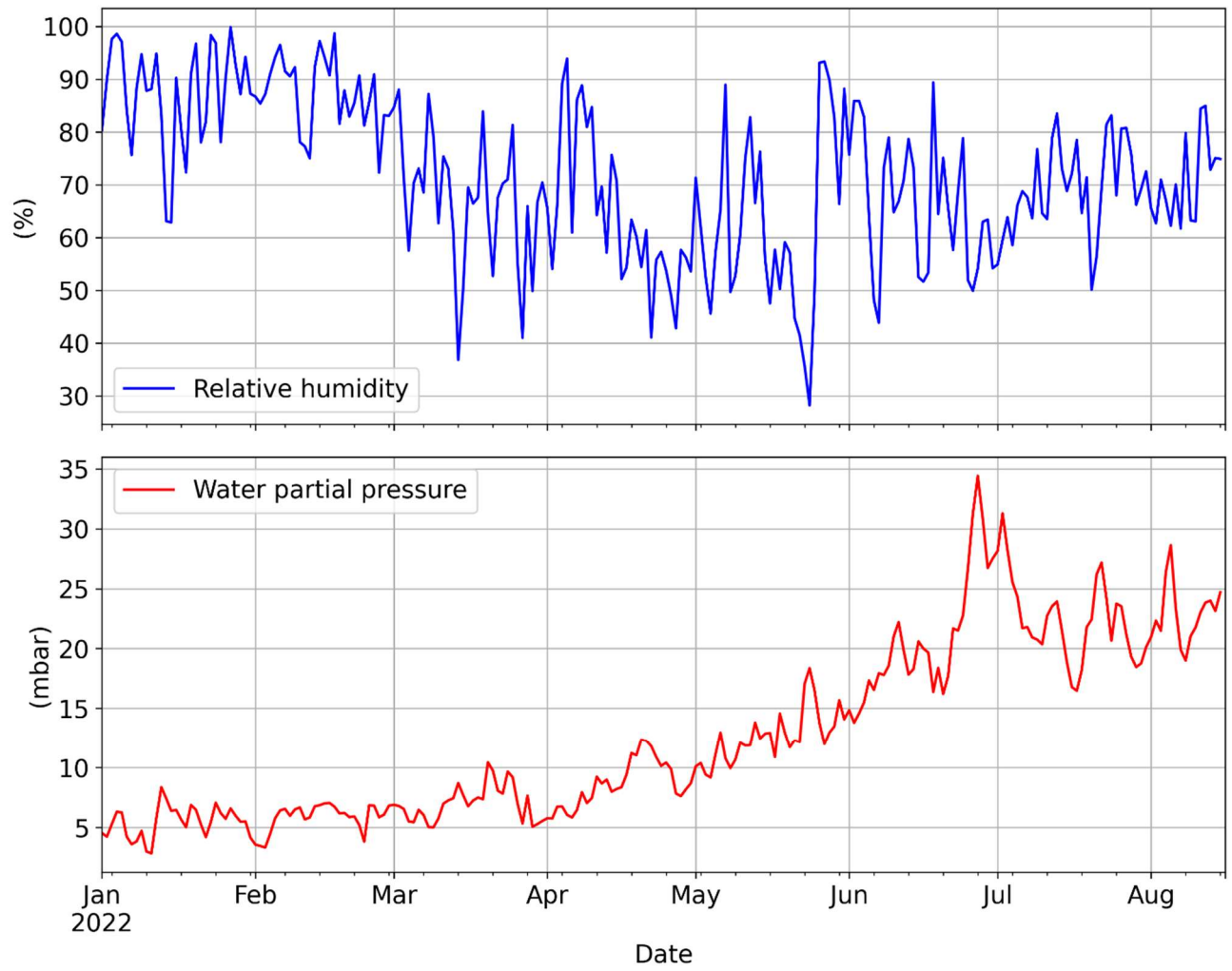


Figure S7. Daily averaged relative humidity and calculated water partial pressure during the measurement period. The relative humidity is measured at the Pasila weather station which is 1-2 km distance from the Traffic Supersite and UB Supersite

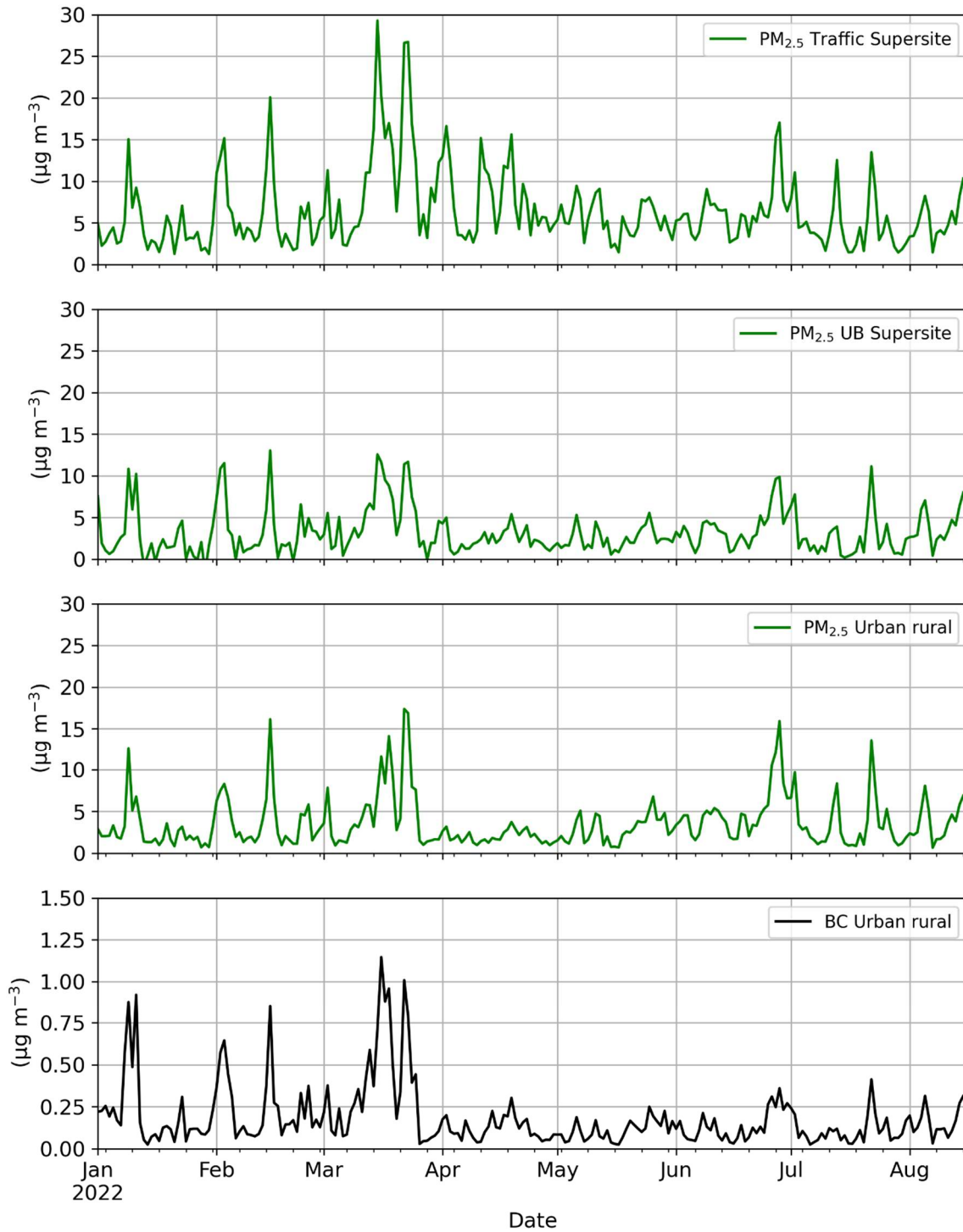


Figure S8. Daily averaged PM_{2.5} concentrations at Traffic Supersite, UB Supersite and UB remote site and BC concentration at Urban remote site during the 7.5-month measurement period.

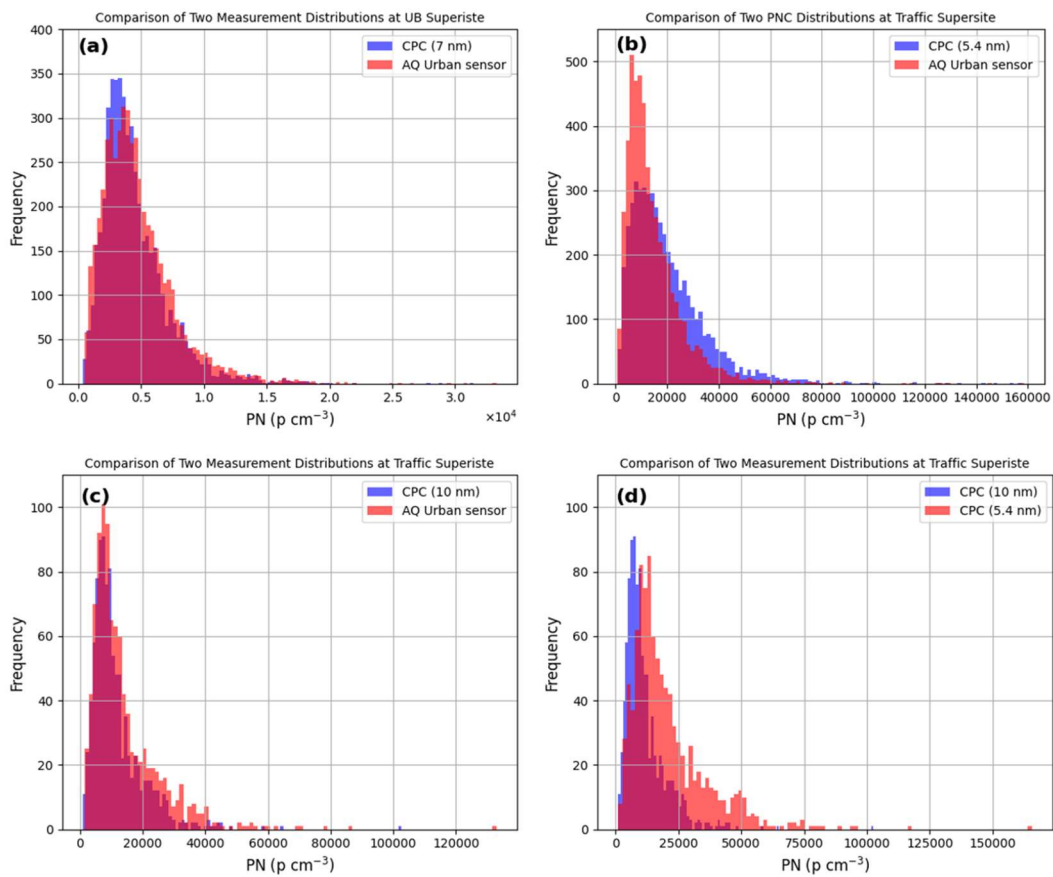


Figure S9. Comparison of measured PNC distributions between CPC and AQ Urban sensor at UB Supersite (a) and Traffic Supersite (b) and comparison of measured PNC distributions between CPC (10 nm) and AQ Urban sensor (c) and two CPCs (d) during the 6-week comparison period.