

## **Mobile measurements for distribution and attribution of particulate matter in urban environments**

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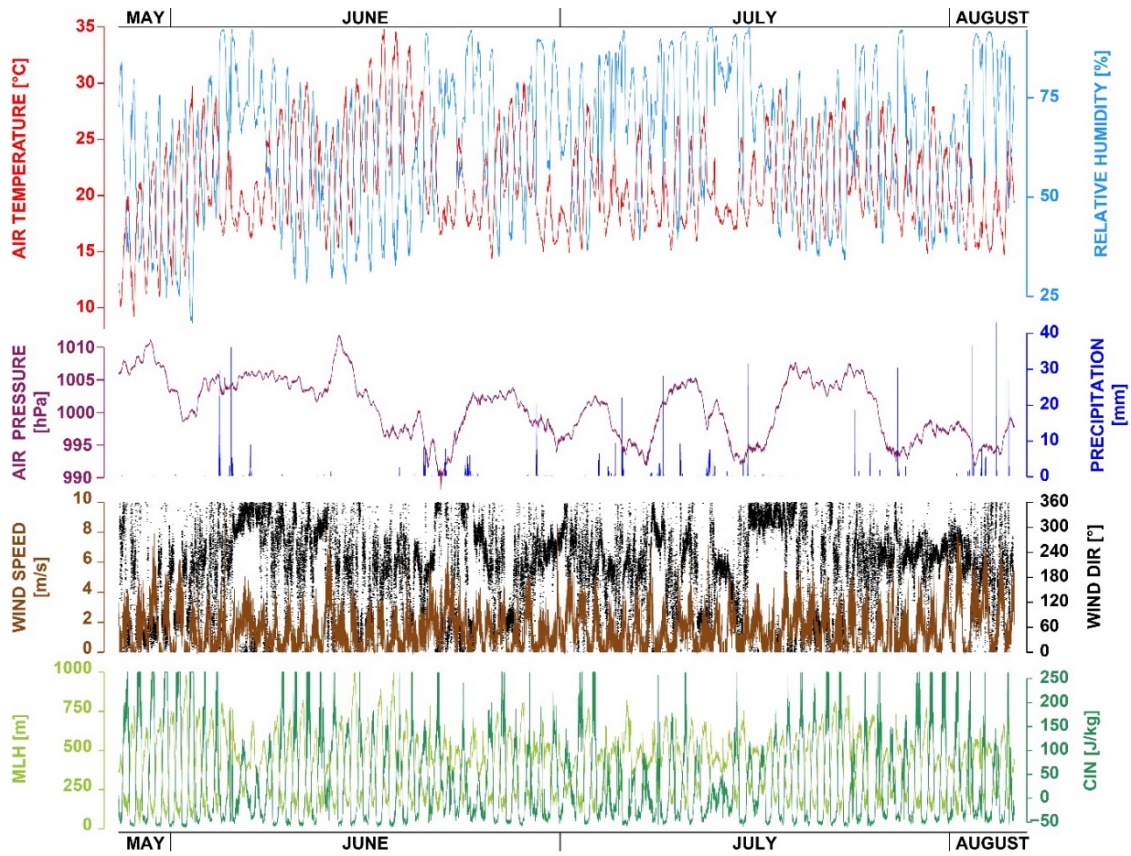
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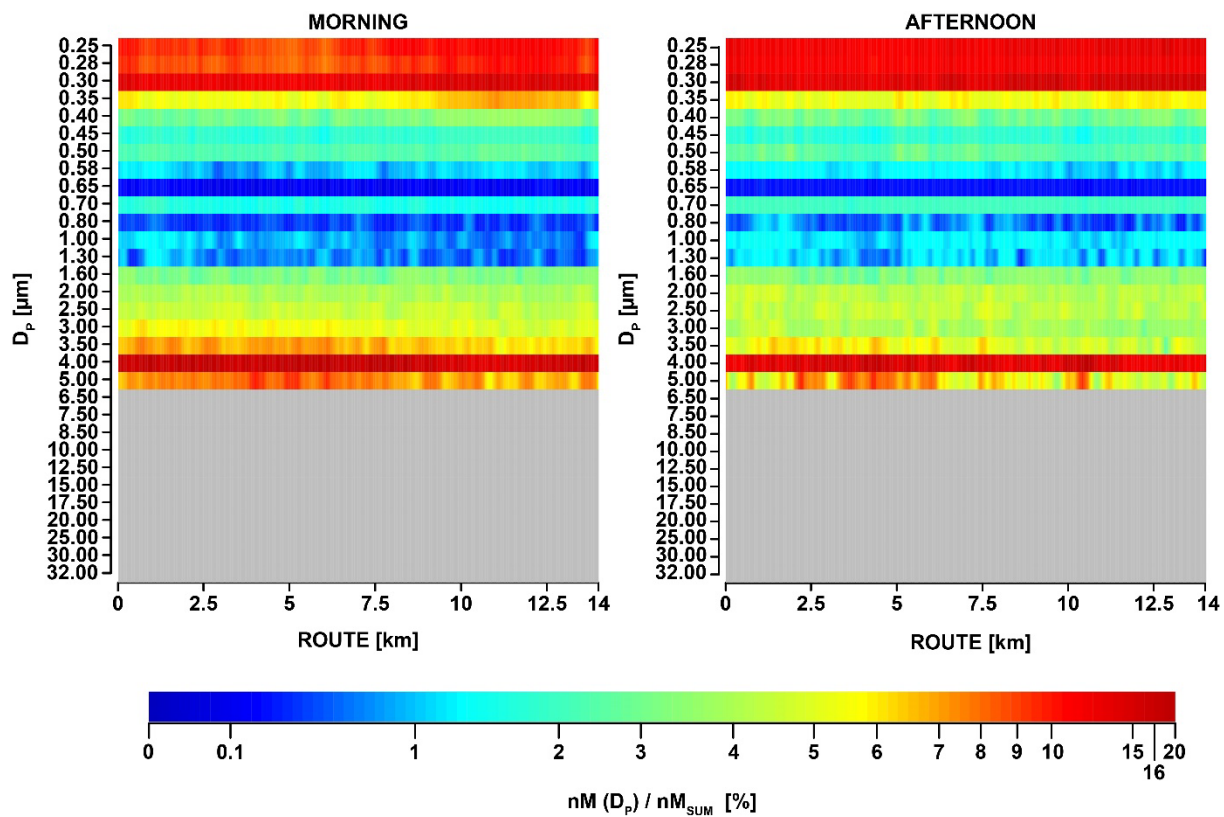
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**Figure S1** Weather conditions from May – August 2021. Air temperature, relative humidity and air pressure were measured at 2m a.g.l. at the measurement station Mainz-Zitadelle, wind speed and direction 10m a.g.l and precipitation 2m a.g.l. at Institute for Atmospheric Physics at the Johannes Gutenberg-University. Mixing layer height (MLH) and the convective inhibition (CIN) were measured at the headquarter of the state office for environment in downtown Mainz.



**Figure S2** Relative differences between normalized mass concentration of each  $D_p$  and the sum of all continuously measured  $D_p$  normalized mass concentration at each track point ( $n=1403$ ). Labels of the y-axis show the upper limit of the  $D_p$  per bin.