

Supporting Information for:

Effect of aerosol composition on the performance of low-cost optical particle counter correction factors

Leigh R. Crilley^{1,#}, Ajit Singh¹, Louisa J. Kramer¹, Marvin D. Shaw², Mohammed S. Alam¹, Joshua S. Apte³, William J. Bloss¹, Lea Hildebrandt Ruiz³, Pingqing Fu^{4,5}, Weiqi Fu⁵, Shahzad Gani³, Michael Gatari⁶, Evgenia Ilyinskaya⁷, Alastair C. Lewis², David Ng'ang'a⁶, Yele Sun⁵, Rachel C. W. Whitty⁷, Siyao Yue⁵, Stuart Young² and Francis D. Pope¹

¹School of Geography, Earth and Environmental Sciences, University of Birmingham, Birmingham, UK

²National Centre for Atmospheric Science, Wolfson Atmospheric Chemistry Laboratories, University of York, York, UK

³Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, Austin, Texas, USA

⁴Institute of Surface-Earth System Science, Tianjin University, Tianjin, China

⁵Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China

⁶Institute of Nuclear Science and Technology, University of Nairobi, Nairobi, Kenya

⁷School of Earth and Environment, University of Leeds, Leeds, UK

#now at: Department of Chemistry, York University, Toronto, Canada.

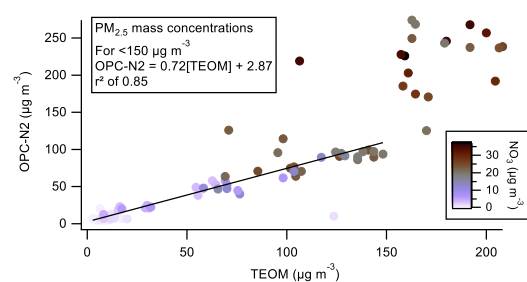


Figure S1: Uncorrected PM_{2.5} by OPC-N2 against TEOM measurements coloured by nitrate concentration in Beijing.

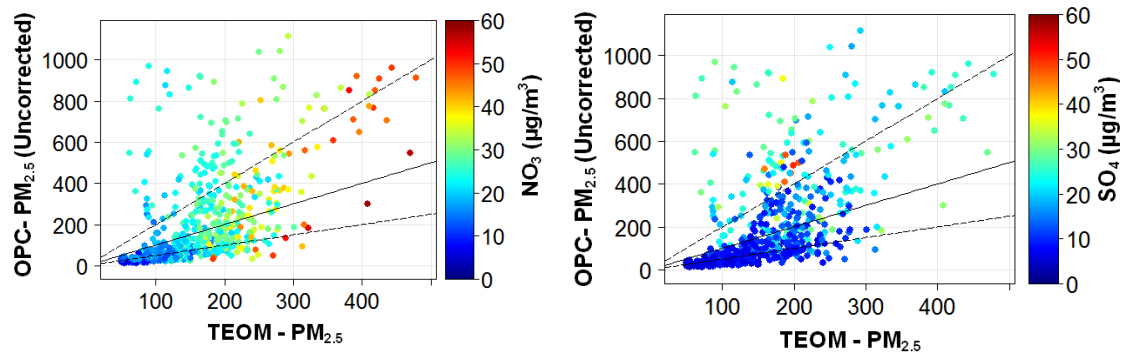


Figure S2: Uncorrected PM_{2.5} by OPC-N2 against TEOM measurements coloured by nitrate and sulphate concentration in Delhi.

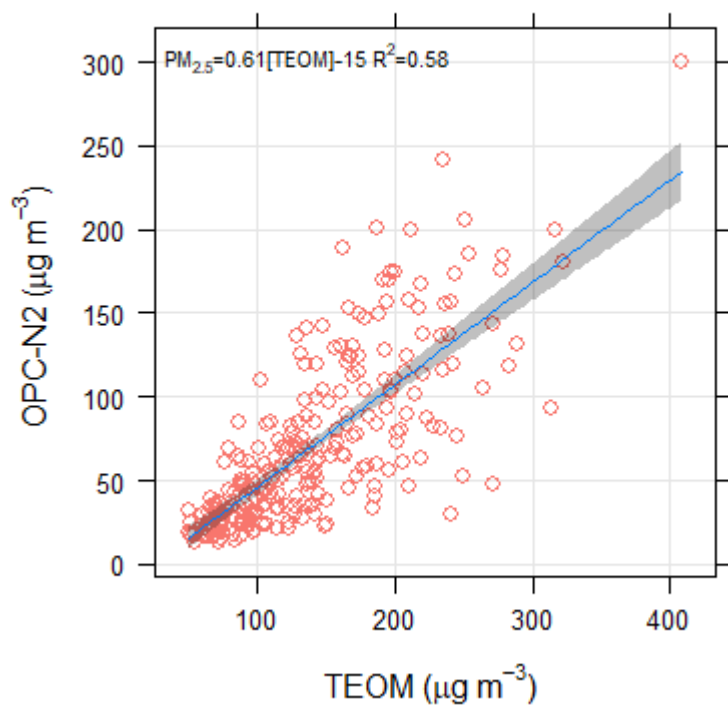


Figure S3: Scatterplot of uncorrected OC-N2 vs TEOM $\text{PM}_{2.5}$ measurements in Delhi for when the ambient RH was less than 60%.

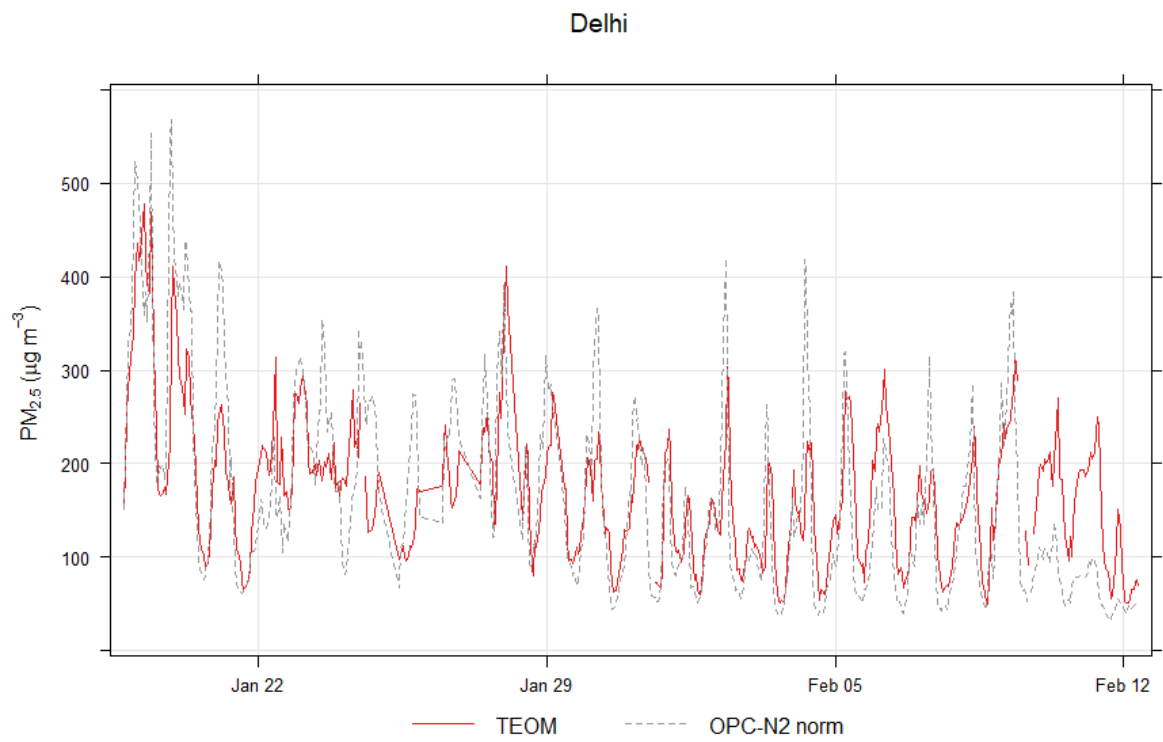


Figure S4: Time series of measured PM_{2.5} mass concentrations at Delhi by TEOM-FDMS and OPC-N2 corrected by the two-stage approach (Section 3.1.1)