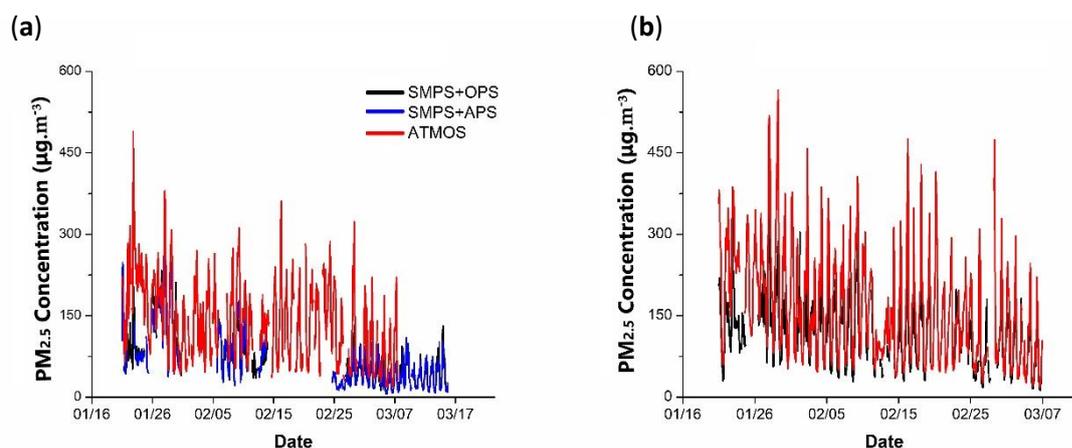


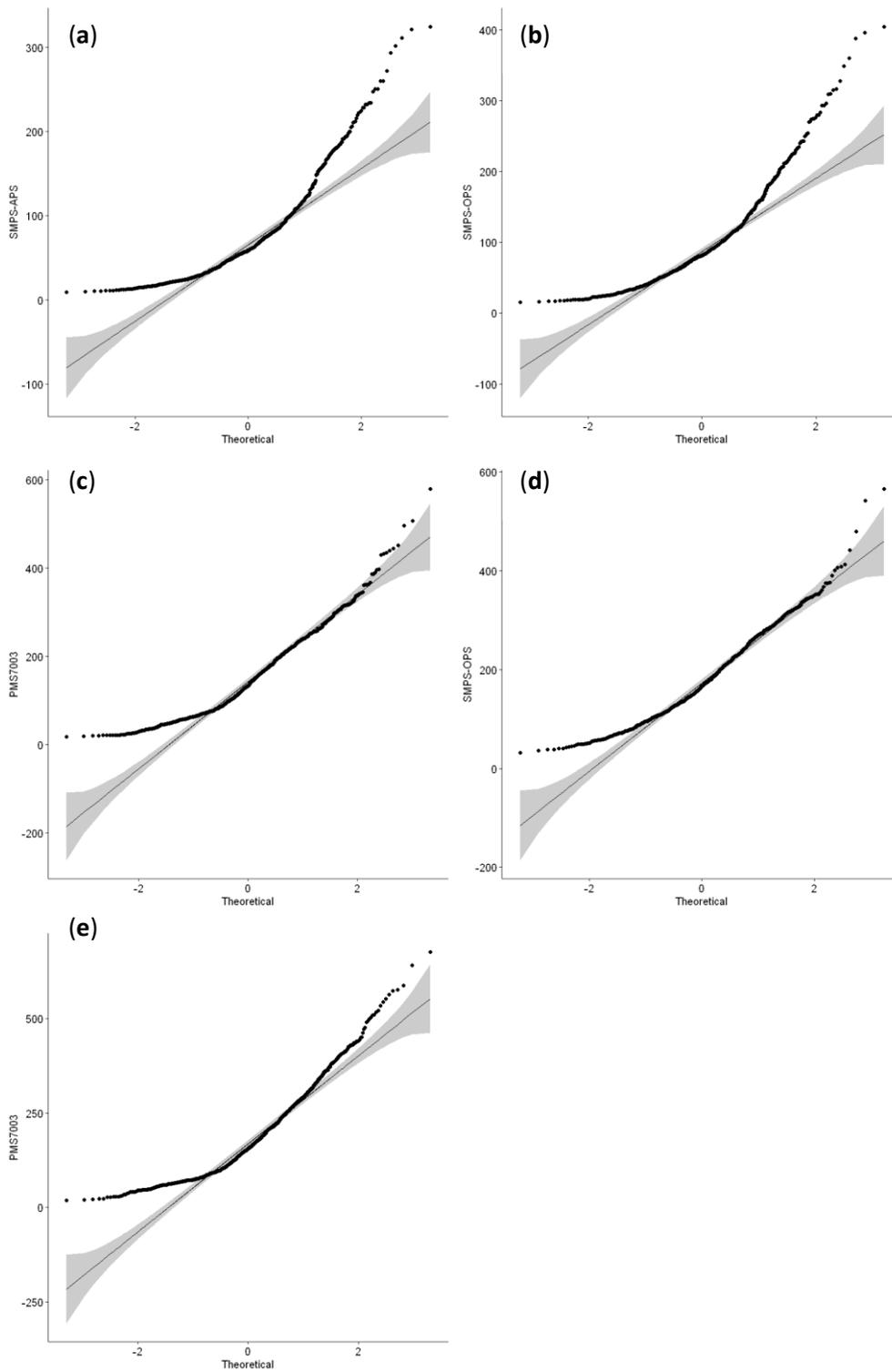
**Supporting Information** for “Validation of low-cost sensors in measuring real-time PM<sub>10</sub> concentrations at two sites in Delhi National Capital Region.”

**Supplementary Table S1.** Technical specification of the Plantower PM sensor used in the present study.

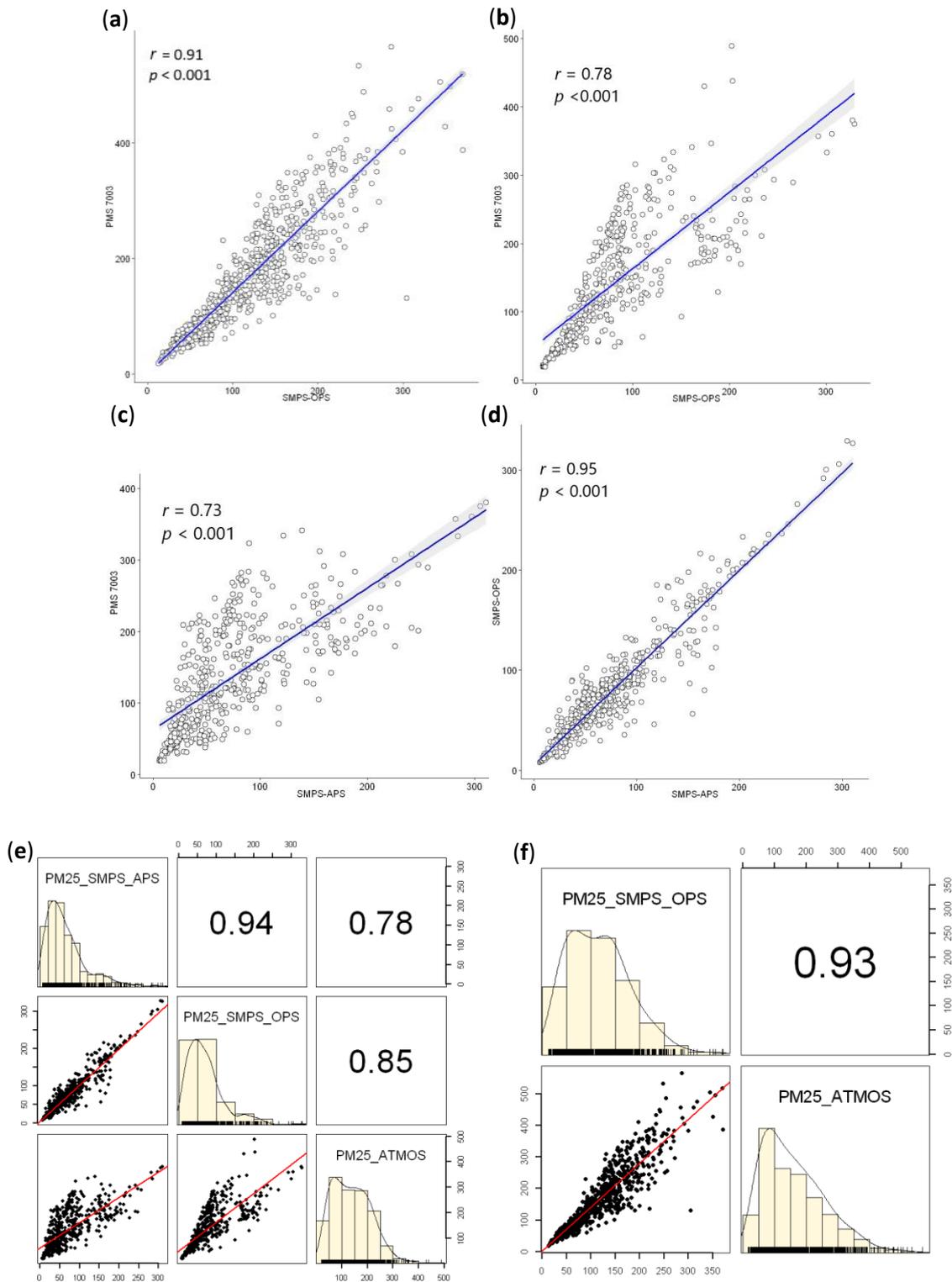
Parameter	Index	Unit
Range of measurement	0.3~1.0,1.0~2.5, 2.5~10	μm
Counting Efficiency	50% at 0.3μm 98% at >= 0.5μm	%
Effective Range	0~500	μg·m <sup>-3</sup>
Maximum Range	≥1000	μg·m <sup>-3</sup>
Resolution	1	μg·m <sup>-3</sup>
Standard Volume	0.1	L
Single Response Time	< 1	s
Total Response Time	≤ 10	s
Working Temperature Range	-10 to + 60	°C
Working Humidity Range	0~99	%
Minimum distinguishable particle dia	0.3	μm
Physical Size	48 × 37 × 12	mm <sup>3</sup>



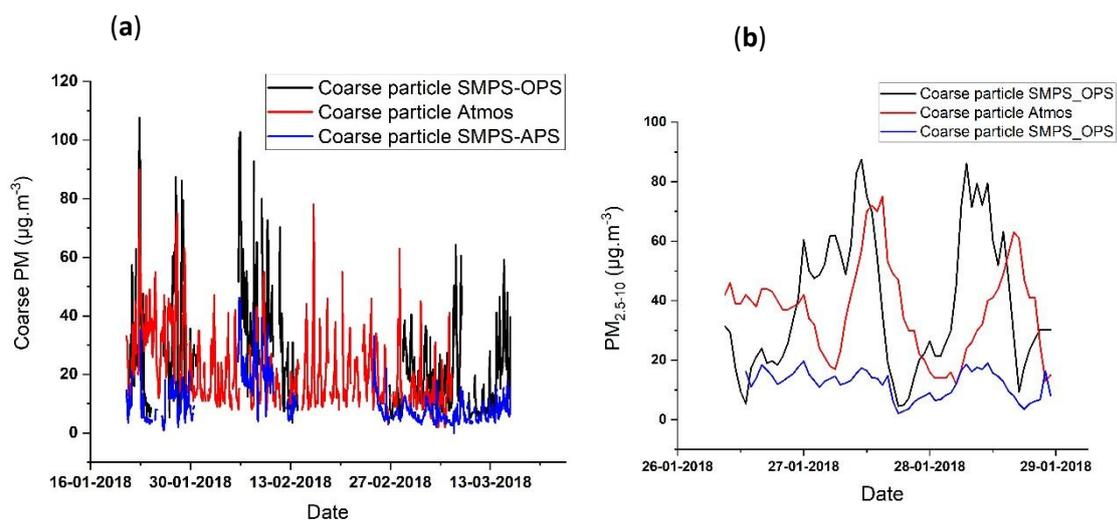
**Supplementary Figure S1.** Time series of ambient PM<sub>2.5</sub> concentrations (μg·m<sup>-3</sup>) data collected from Atmos PMS7003 sensor and reference instruments (merged PM<sub>2.5</sub> from SPMP-OPS and SMPS-APS) during the deployment period at (a) Manav Rachna International Institute of Research and Studies, Faridabad (MRIU) and (b) Indian Institute of Technology Delhi (IITD) monitoring sites.



**Supplementary Figure S2.** (a–c) from left to right represents Quantile-Quantile (QQ)-plots for measured PM<sub>10</sub> from merged SMPS–APS , merged SMPS–OPS, and un-calibrated Plantower PMS7003 sensor, respectively at Manav Rachna International Institute of Research and Studies, Faridabad (MRIU) and (d,e) represents the QQ-plots for merged SMPS–OPS and un-calibrated PMS7003 from Indian Institute of Technology Delhi (IITD), respectively.



**Supplementary Figure S3.** (a–d) Scatter plots for measured PM<sub>2.5</sub> between (a) SMPS-OPS and Atmos at Indian Institute of Technology Delhi (IITD) and Manav Rachna International Institute of Research and Studies, Faridabad (MRIU) between, (b) SMPS-OPS and PMS 7003, (c) SMPS-APS and SMPS-OPS, and (d) SMPS-APS and Atmos, respectively with their respective  $r_s$  and  $p$ -values, (e) pairwise correlation and data distribution of measured PM<sub>2.5</sub> between SMPS-OPS, SMPS-APS, and Atmos at MRIU site, and (f) pairwise correlation and data distribution of SMPS-OPS and Atmos at IITD site. The grey area along the black line represents the 95% confidence interval of regression. Numeric values in upper halves represent the Spearman's coefficients.



**Supplementary Figure S4.** Time series of coarse particle  $PM_{2.5-10}$  measured from merged SMPS–APS, merged SMPS–OPS, and Atmos at (a) Manav Rachna International Institute of Research and Studies, Faridabad (MRIU), Faridabad during the whole study period and (b) for a small section of time series with common collocated data points.