

1 **SUPPLEMENTAL MATERIAL**

2 Table S1 Aeroqual SM-50 Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Slope</i>	<i>Pre-Denver Intercept</i>	<i>Pre-Denver r<sup>2</sup></i>	<i>Post-Denver Slope</i>	<i>Post-Denver Intercept, ppb</i>	<i>Post-Denver r<sup>2</sup></i>
Aeroqual 1	1.2	1.1	0.9996	0.53	0.25	0.9913
Aeroqual 2	1.2	1.3	0.9998	0.63	-1.00	0.9987
Aeroqual 3	1.2	3.8	0.9997	0.57	2.78	0.993

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4 Table S2 TSI Air Assure Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Zero (µg/m<sup>3</sup>)</i>	<i>Post-Denver Zero (µg/m<sup>3</sup>)</i>
Air Assure 1	5	4.46
Air Assure 2	3	2.54
Air Assure 3	1	0.64

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6 Table S3 AirCasting Airbeam Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Zero<sup>1</sup></i>	<i>Post-Denver Zero (hppcf)</i>
Airbeam 1	NA	0
Airbeam 2	NA	0
Airbeam 3	NA	0

<sup>1</sup>Pre-Denver Audits were not performed for Airbeam units

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8 Table S4 Cairpol CairClip Calibration O<sub>3</sub> Audit Results

<i>Unit</i>	<i>Pre-Denver Slope<sup>1</sup></i>	<i>Pre-Denver Intercept<sup>1</sup></i>	<i>Pre-Denver r<sup>2</sup></i>	<i>Post-Denver Slope</i>	<i>Post-Denver Intercept, ppb</i>	<i>Post-Denver r<sup>2</sup></i>
CairClip 1	NA	NA	NA	1.22	-0.47	0.9984
CairClip 2	NA	NA	NA	1.03	5.59	0.9994
CairClip 3	NA	NA	NA	1.29	-20.8	0.9991

<sup>1</sup>Pre-Denver Audits were not performed for CairClip units

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10 Table S5 Cairpol CairClip Calibration NO<sub>2</sub> Audit Results

<i>Unit</i>	<i>Pre-Denver Slope<sup>1</sup></i>	<i>Pre-Denver Intercept<sup>1</sup></i>	<i>Pre-Denver r<sup>2</sup></i>	<i>Post-Denver Slope</i>	<i>Post-Denver Intercept, ppb</i>	<i>Post-Denver r<sup>2</sup></i>
CairClip 1	NA	NA	NA	0.93	0	0.9993
CairClip 2	NA	NA	NA	0.88	0	0.9941
CairClip 3	NA	NA	NA	1.01	0	0.9988

<sup>1</sup>Pre-Denver Audits were not performed for CairClip units

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12 Table S6 Dylos DC-1100/DC-1100 Pro Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Zero (particle count)</i>	<i>Post-Denver Zero (particle count)</i>
Dylos 1	0	0
Dylos 2	0	0
Dylos 3	0	0

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14 Table S7 Alphasense OPC-N2 Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>	<i>Post-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>
OPC 1	0	0
OPC 2	0	0
OPC 3	0	0

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16 Table S8 Shinyei PMS-SYS-1 Calibration Audit Results

<i>Unit</i>	<i>Pre-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>	<i>Post-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>
Shinyei 1	0	0
Shinyei 2	0	0
Shinyei 3	0	0

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18 Table S9 AirViz Speck Calibration Audit Results

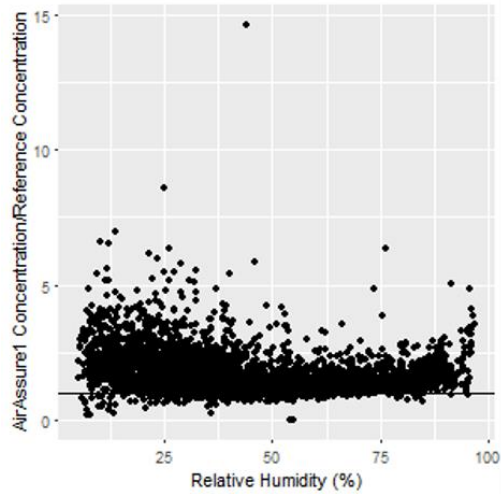
<i>Unit</i>	<i>Pre-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>	<i>Post-Denver Zero (<math>\mu\text{g}/\text{m}^3</math>)</i>
Speck 1	0	0
Speck 2	0	10
Speck 3	0	4

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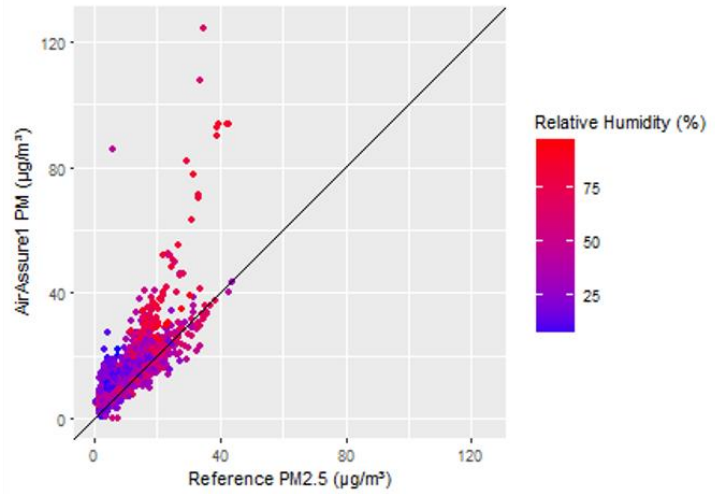
Table S10 Correlation Results for CAIRSENSE sensors at different time intervals

Sensor	Pollutant	5-minute	1-hour	12-hour	24-hour
Aeroqual SM-50	O <sub>3</sub> , ppb	0.93	0.93	0.91	0.86
		0.92	0.92	0.98	0.83
		0.96	0.96	0.97	0.95
TSI Air Assure	PM, µg/m <sup>3</sup>	0.78	0.8	0.55	0.39
		0.77	0.78	0.52	0.37
		0.80	0.81	0.54	.39
AirCasting AirBeam	Particle Count, hundreds of particles per cubic foot (hppcf)	0.81	0.82	0.82	0.79
		0.83	0.84	0.83	0.82
		0.81	0.82	0.80	0.79
Cairpol Cairclip	O <sub>3</sub> , ppb	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
		-0.42	-0.06	-0.12	0.65
		0.40	0.46	0.47	-0.42
Cairpol Cairclip	NO <sub>2</sub> , ppb	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
		0.82	0.873	0.61	0.50
		0.83	0.84	0.79	0.77
Dylos DC1100/DC1100 Pro	"Small" Particle Count, hppcf	0.85	0.86	0.86	0.86
		0.77	0.78	0.77	0.75
		0.72	0.73	0.72	0.70
Dylos DC1100/DC1100 Pro	"Large" Particle Count, hppcf	0.38	0.40	0.57	0.69
		0.34	0.33	0.34	0.40
		0.28	0.27	0.27	0.32
Alphasense OPC-N2	PM <sub>2.5</sub> , µg/m <sup>3</sup>	0.41	0.45	0.51	0.51
		0.32	0.34	0.34	0.36
		0.11	0.11	0.07	0.00
Alphasense OPC-N2	PM <sub>10</sub> , µg/m <sup>3</sup>	0.40	0.47	0.69	0.74
		0.63	0.68	0.70	0.70
		0.20	0.20	0.15	0.16
Shinyei PMS- SYS-1	PM <sub>2.5</sub> , µg/m <sup>3</sup>	0.71	0.71	0.69	0.64
		0.70	0.72	0.71	0.70
		0.01	0.01*	0.05	0.10
AirViz Speck	PM <sub>2.5</sub> , µg/m <sup>3</sup>	0.24	0.24	0.21	0.26
		0.40	0.40	0.38	0.40
		0.36	0.35	0.31	0.31
TZOA PM Research Sensor	Particle Count, hppcf	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
		0.50	0.66	0.64	0.57
		0.68	0.72	0.71	0.67

20 <sup>1</sup>Correlations were not performed



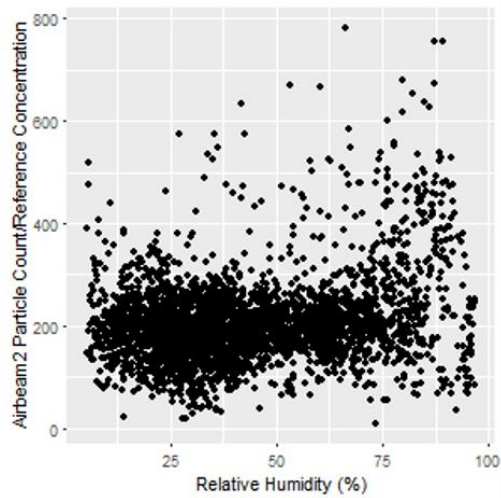
(a)



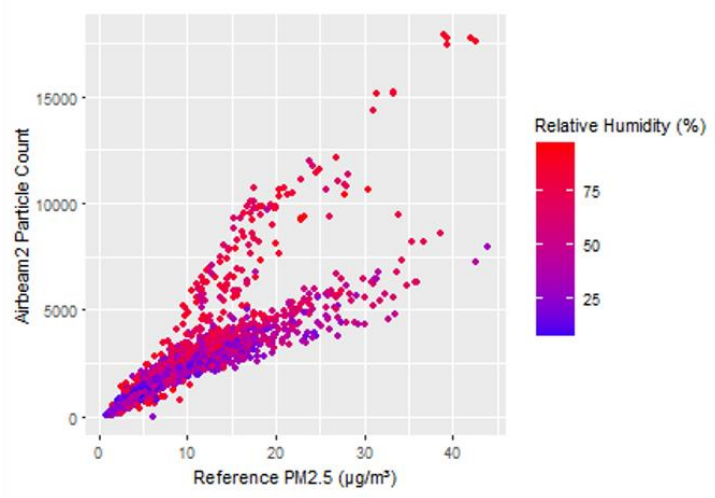
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 22 Figure S1 AirAssure1 PM<sub>2.5</sub> to reference concentration ratio and Relative Humidity (a) and Hourly  
 23 Average FRM PM<sub>2.5</sub> concentration and AirAssure1 PM concentration stratified by Relative Humidity (b)

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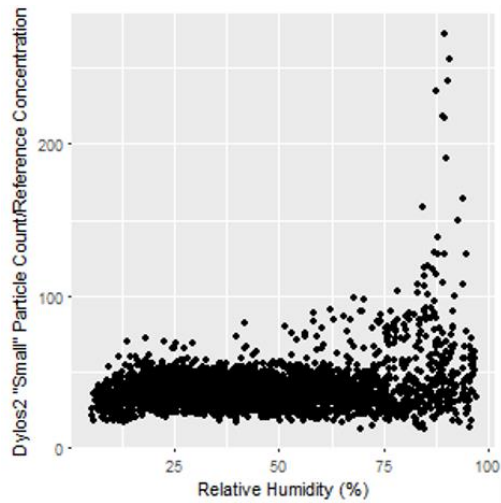
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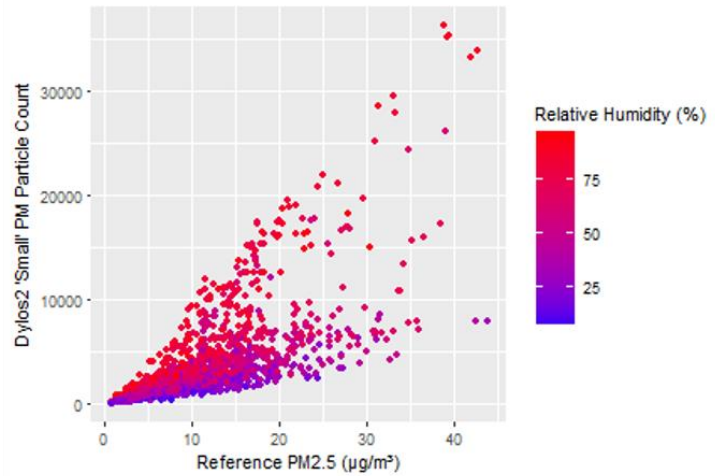
(b)

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 26 Figure S2 Airbeam2 Particle Count to reference concentration ratio and Relative Humidity (a) and Hourly  
 27 Average FRM PM<sub>2.5</sub> concentration and Airbeam2 Particle Count stratified by Relative Humidity (b)

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(a)

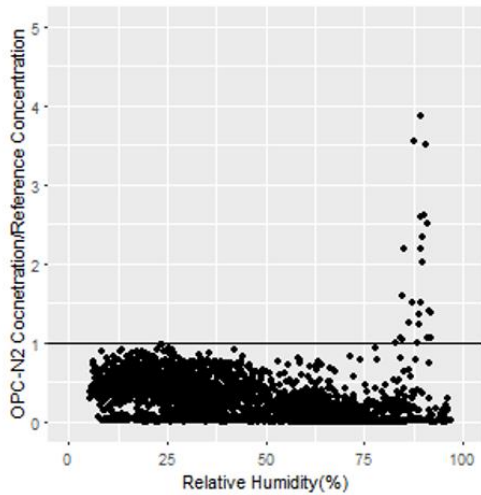


(b)

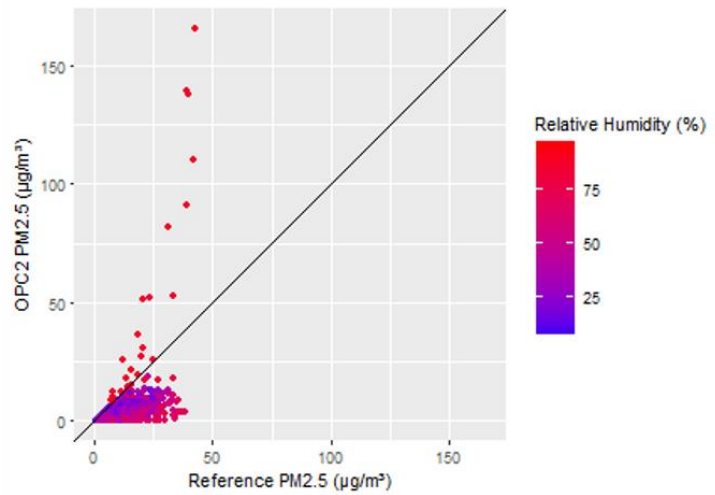
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30 Figure S3 Dylos2 "Small" Particle Count to reference concentration ratio and Relative Humidity (a) and  
 31 Hourly Average FRM PM<sub>2.5</sub> concentration and Dylos2 "Small" Particle Count stratified by Relative  
 32 Humidity (b)

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(a)

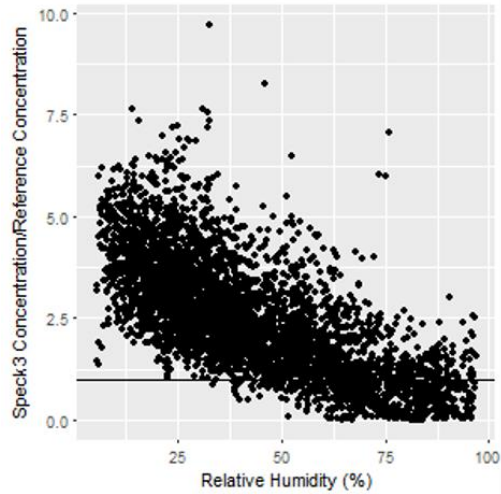


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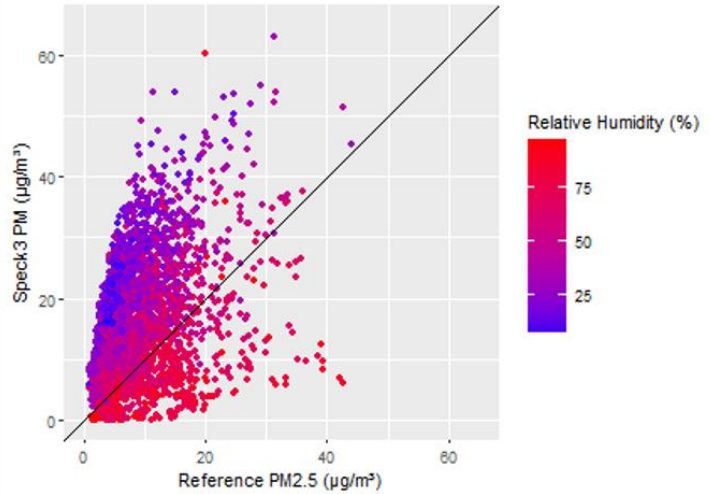
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35 Figure S4 OPC2 PM<sub>2.5</sub> to reference concentration ratio and Relative Humidity (a) and Hourly Average  
 36 FRM PM<sub>2.5</sub> concentration and OPC2 PM concentration stratified by Relative Humidity (b)

37



(a)



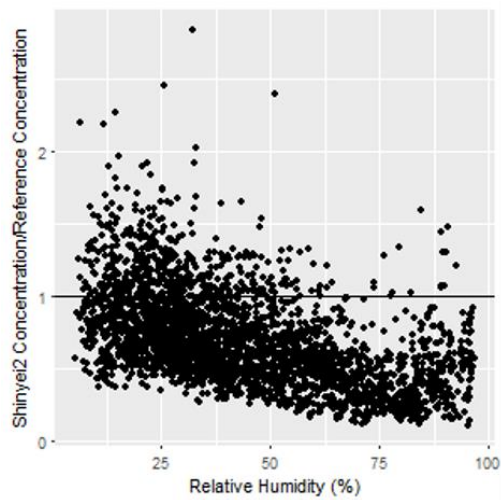
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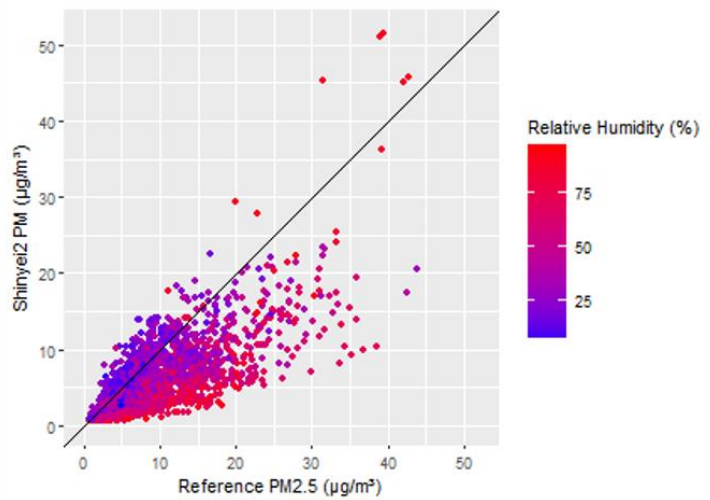
39 Figure S5 Speck3 PM<sub>2.5</sub> to reference concentration ratio and Relative Humidity (a) and Hourly Average

40 FRM PM<sub>2.5</sub> concentration and Speck3 PM concentration stratified by Relative Humidity (b)

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(a)



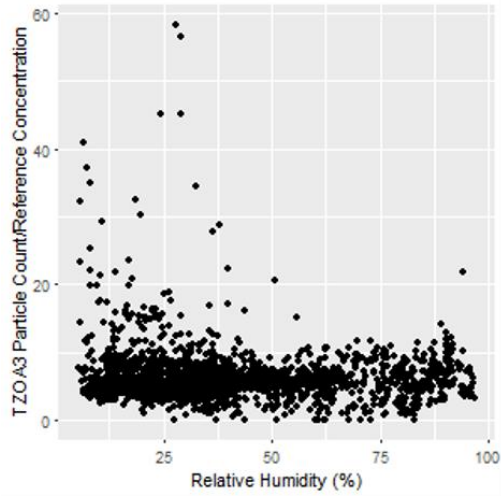
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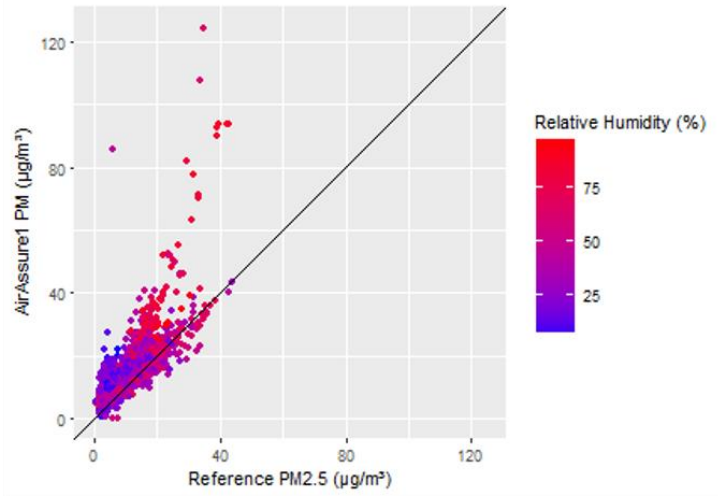
43 Figure S6 Shinyei2 PM<sub>2.5</sub> to reference concentration ratio and Relative Humidity (a) and Hourly Average

44 FRM PM<sub>2.5</sub> concentration and Shinyei2 PM concentration stratified by Relative Humidity (b)

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(a)



(b)

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47 Figure S7 TZO A3 Particle Count to reference concentration ratio and Relative Humidity (a) and Hourly

48 Average FRM PM<sub>2.5</sub> concentration and TZO A3 Particle Count stratified by Relative Humidity (b)

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