

Supplemental Table S1. Running parameters of the VOAG and GP50.

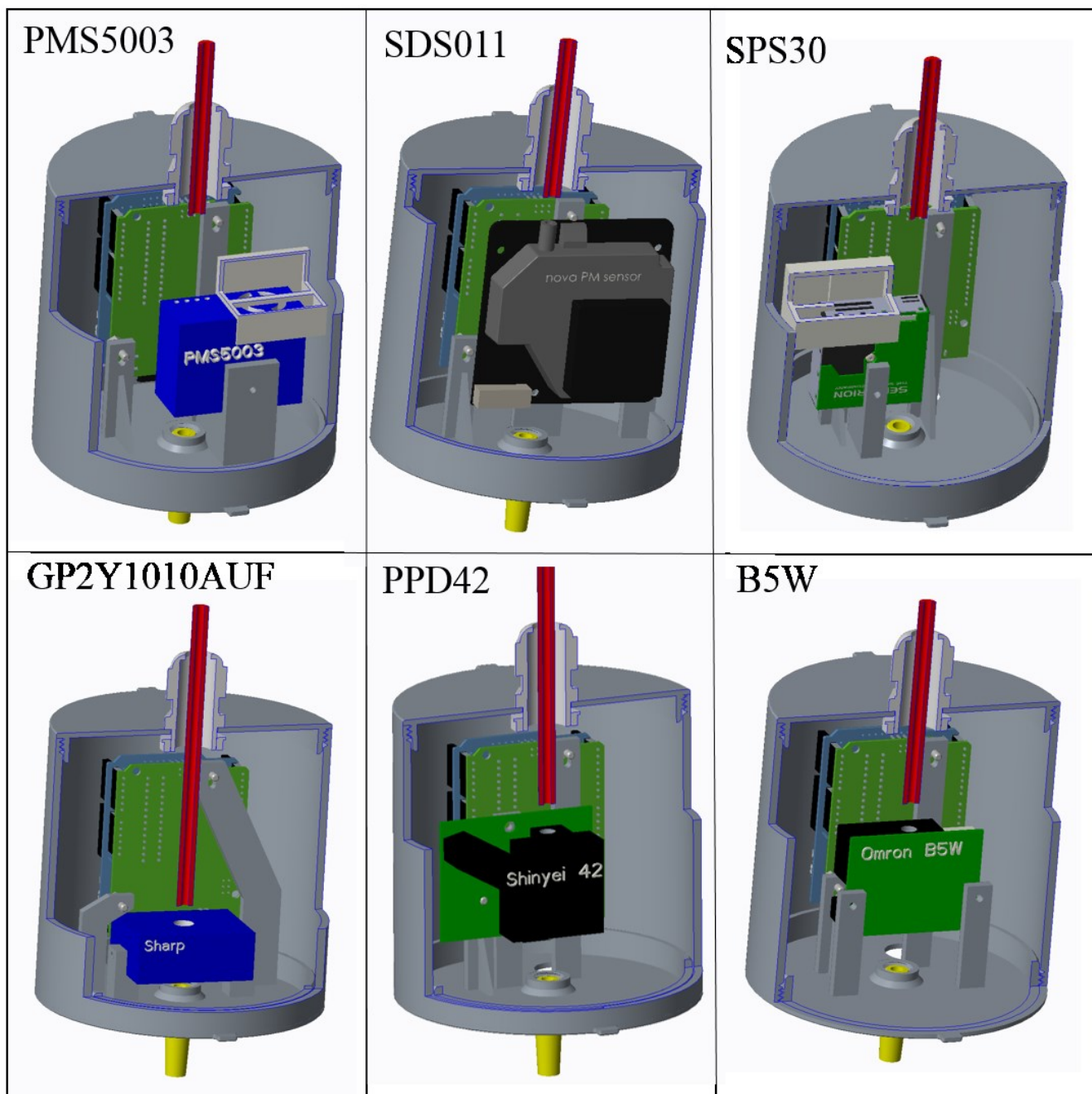
Parameter	Value
Dilution air flow rate	20 L min ⁻¹
Dispersion air flow rate	1.5 L min ⁻¹
Liquid feed rate	0.12 mL min ⁻¹
Disturbance frequency	45 kHz
VOAG orifice diameter	20 μm
2-Propanol impurity	< 1 ppm
DOS concentration A	1:100 (9.14 g L ⁻¹)
DOS concentration B	1:1,500 (0.609 g L ⁻¹)
DOS concentration C	1:10,000 (0.0914 g L ⁻¹)
DOS concentration D	Pure 2-propanol

Supplemental Table S2. Running steps and respective blending ratios of the GP50 dispensing program. Use of three eluent channels was sufficient for this study.

Step	Channel A	Channel B	Channel C	Elapsed time (min)	Particle size (μm)
1	0.00	0.00	1.00	0	0.45
2	0.00	0.02	0.98	5	0.63
3	0.00	0.07	0.93	10	0.89
4	0.00	0.22	0.78	15	1.25
5	0.00	0.63	0.37	20	1.76
6	0.02	0.00	0.98	25	2.48
7	0.05	0.00	0.95	30	3.49
8	0.14	0.00	0.86	35	4.91
9	0.39	0.00	0.61	40	6.92
10	1.00	0.00	0.00	45	9.73



Supplemental Figure S1. Optical detection configurations. The dashed red arrow points out the particle stream pathway.



Supplemental Figure S2. A cross-section view of the used inlet arrangements. The inlet pipe of the air-tight enclosure is colored red and the outlet connector, which was attached to the external pump, is colored yellow. The exhaust flow deflectors (also viewed as cross-sections) of the PMS5003 and SPS30 are shown as white in their respective figure panels. Data logging hardware was positioned behind the sensor.