

Supplementary Table 1.  $std_{rel,med}$  of AOD,  $std_{med}$  of Angstrom exponent and  $r$  of both, for the Alaska (top table) and Canada (bottom) phases.

Alaska	$std_{rel}$ or $std$							$r$						
	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km
AOD at 354 nm	0.2% (0.0%-0.5%)	0.3% (0.0%-0.7%)	0.6% (0.3%-1.2%)	0.8% (0.4%-1.6%)	1.0% (0.5%-2.0 %)	1.2% (0.7%-3.4 %)	1.5% (1.0%-4.2 %)	1.00	1.00	1.00	0.99	0.99	0.97	0.95
AOD at 380 nm	0.3% (0.0%-0.7%)	0.3% (0.0%-0.8%)	0.7% (0.3%-1.4%)	1.1% (0.5%-2.0%)	1.3% (0.7%-2.6 %)	1.9% (1.1%-3.8 %)	2.8% (1.5%-5.6 %)	1.00	1.00	1.00	0.99	0.98	0.95	0.93
AOD at 451 nm	0.3% (0.0%-0.7%)	0.3% (0.0%-0.8%)	0.7% (0.3%-1.5%)	1.1% (0.5%-2.2%)	1.4% (0.8%-2.8 %)	2.1% (1.1%-4.5 %)	3.1% (1.6%-6.0 %)	1.00	1.00	0.99	0.98	0.97	0.92	0.89
AOD at 499 nm	0.3% (0.0%-0.7%)	0.3% (0.0%-0.8%)	0.7% (0.3%-1.3%)	1.1% (0.5%-2.2%)	1.3% (0.7%-2.3 %)	1.9% (1.0%-3.1 %)	2.5% (1.5%-5.3 %)	1.00	1.00	1.00	0.99	0.98	0.95	0.92
AOD at 520 nm	0.3% (0.0%-0.8%)	0.3% (0.0%-0.9%)	0.8% (0.3%-1.6%)	1.2% (0.6%-2.5%)	1.5% (0.8%-3.1 %)	2.2% (1.2%-4.8 %)	3.2% (1.6%-6.3 %)	1.00	1.00	0.99	0.98	0.96	0.91	0.88
AOD at 606 nm	0.3% (0.0%-0.7%)	0.4% (0.0%-0.8%)	0.7% (0.3%-1.5%)	1.2% (0.6%-2.4%)	1.5% (0.7%-2.6 %)	2.1% (1.1%-4.5 %)	2.9% (1.6%-6.3 %)	1.00	1.00	0.99	0.98	0.97	0.92	0.89
AOD at 675 nm	0.3% (0.0%-0.8%)	0.4% (0.0%-0.9%)	0.8% (0.3%-1.7%)	1.3% (0.6%-2.7%)	1.6% (0.8%-2.9 %)	2.4% (1.2%-5.1 %)	3.2% (1.8%-7.2 %)	1.00	1.00	0.99	0.97	0.96	0.90	0.86
AOD at 779 nm	0.4% (0.0%-0.9%)	0.4% (0.2%-1.0%)	0.8% (0.4%-1.9%)	1.3% (0.6%-2.8%)	1.7% (0.8%-3.3 %)	2.6% (1.3%-6.6 %)	3.5% (1.8%-7.4 %)	1.00	1.00	0.98	0.96	0.93	0.84	0.81
AOD at 865 nm	0.4% (0.0%-1.1%)	0.5% (0.2%-1.2%)	0.9% (0.4%-2.3%)	1.5% (0.7%-3.7%)	2.0% (0.9%-4.4 %)	3.0% (1.4%-7.6 %)	4.2% (2.0%-8.2 %)	1.00	0.99	0.98	0.95	0.92	0.83	0.77
AOD at 1019 nm	0.5% (0.0%-1.3%)	1.0% (0.2%-1.3%)	1.6% (0.4%-2.8%)	2.4% (0.7%-4.5%)	3.4% (0.9%-5.6 %)	4.3% (1.5%-10.2%)	4.3% (2.0%-10.2%)	1.00	0.99	0.96	0.93	0.89	0.76	0.70
AOD at 1241 nm	0.4% (0.0%-1.0%)	0.5% (0.2%-1.1%)	0.8% (0.4%-2.1%)	1.2% (0.6%-3.3%)	1.4% (0.7%-3.4 %)	2.4% (1.1%-5.9 %)	3.3% (1.4%-8.4 %)	1.00	0.99	0.97	0.92	0.90	0.76	0.72
AOD at 1559 nm	1.0% (0.3%-2.6%)	1.0% (0.4%-2.7%)	1.7% (0.8%-4.9%)	2.4% (1.1%-7.2%)	2.8% (1.3%-9.4 %)	4.0% (1.7%-15.6%)	4.7% (2.4%-13.5%)	0.99	0.98	0.92	0.84	0.81	0.66	0.58
AOD at 2139 nm	0.6% (0.0%-2.2%)	0.7% (0.3%-2.2%)	1.3% (0.6%-4.8%)	2.0% (0.8%-8.0%)	2.3% (0.9%-10.3%)	3.5% (1.4%-16.7%)	3.9% (2.0%-16.0%)	0.99	0.98	0.90	0.77	0.75	0.58	0.47
Column Å at 354 nm	0.017 (0.0 -0.1 )	0.030 (0.0 -0.1 )	0.048 (0.0 -0.1 )	0.057 (0.0 -0.1 )	0.054 (0.0 -0.1 )	0.058 (0.0 -0.1 )	0.059 (0.0 -0.1 )	0.97	0.97	0.97	0.96	0.94	0.92	0.92
Column Å at 380 nm	0.016 (0.0 -0.1 )	0.028 (0.0 -0.1 )	0.045 (0.0 -0.1 )	0.053 (0.0 -0.1 )	0.051 (0.0 -0.1 )	0.054 (0.0 -0.1 )	0.056 (0.0 -0.1 )	0.98	0.97	0.97	0.96	0.94	0.92	0.92
Column Å at 451 nm	0.014 (0.0 -0.1 )	0.023 (0.0 -0.1 )	0.038 (0.0 -0.1 )	0.045 (0.0 -0.1 )	0.043 (0.0 -0.1 )	0.047 (0.0 -0.1 )	0.049 (0.0 -0.1 )	0.98	0.98	0.98	0.96	0.94	0.92	0.92
Column Å at 499 nm	0.012 (0.0 -0.1 )	0.020 (0.0 -0.1 )	0.034 (0.0 -0.1 )	0.041 (0.0 -0.1 )	0.038 (0.0 -0.1 )	0.042 (0.0 -0.1 )	0.045 (0.0 -0.1 )	0.98	0.98	0.98	0.96	0.94	0.91	0.92
Column Å at 520 nm	0.012 (0.0 -0.1 )	0.019 (0.0 -0.1 )	0.033 (0.0 -0.1 )	0.039 (0.0 -0.1 )	0.036 (0.0 -0.1 )	0.040 (0.0 -0.1 )	0.043 (0.0 -0.1 )	0.98	0.98	0.98	0.96	0.94	0.91	0.91
Column Å at 606 nm	0.010 (0.0 -0.0 )	0.016 (0.0 -0.0 )	0.027 (0.0 -0.0 )	0.033 (0.0 -0.0 )	0.030 (0.0 -0.1 )	0.034 (0.0 -0.1 )	0.036 (0.0 -0.1 )	0.99	0.98	0.98	0.96	0.94	0.91	0.91
Column Å at 675 nm	0.009 (0.0 -0.0 )	0.014 (0.0 -0.0 )	0.023 (0.0 -0.0 )	0.028 (0.0 -0.0 )	0.026 (0.0 -0.0 )	0.030 (0.0 -0.1 )	0.030 (0.0 -0.1 )	0.99	0.99	0.98	0.95	0.94	0.90	0.90
Column Å at 779 nm	0.008 (0.0 -0.0 )	0.011 (0.0 -0.0 )	0.017 (0.0 -0.0 )	0.022 (0.0 -0.0 )	0.020 (0.0 -0.0 )	0.025 (0.0 -0.1 )	0.024 (0.0 -0.1 )	0.99	0.99	0.98	0.95	0.93	0.89	0.88
Column Å at 865 nm	0.007 (0.0 -0.0 )	0.009 (0.0 -0.0 )	0.014 (0.0 -0.0 )	0.017 (0.0 -0.0 )	0.016 (0.0 -0.1 )	0.021 (0.0 -0.1 )	0.020 (0.0 -0.1 )	0.99	0.99	0.98	0.94	0.92	0.88	0.86
Column Å at 1019 nm	0.005 (0.0 -0.0 )	0.006 (0.0 -0.0 )	0.010 (0.0 -0.0 )	0.012 (0.0 -0.0 )	0.012 (0.0 -0.1 )	0.017 (0.0 -0.1 )	0.016 (0.0 -0.1 )	1.00	0.99	0.97	0.93	0.91	0.86	0.84
Column Å at 1241 nm	0.007 (0.0 -0.0 )	0.007 (0.0 -0.0 )	0.010 (0.0 -0.0 )	0.013 (0.0 -0.1 )	0.014 (0.0 -0.1 )	0.019 (0.0 -0.1 )	0.016 (0.0 -0.1 )	0.99	0.99	0.96	0.92	0.89	0.85	0.82
Column Å at 1559 nm	0.012 (0.0 -0.0 )	0.014 (0.0 -0.0 )	0.018 (0.0 -0.0 )	0.022 (0.0 -0.1 )	0.023 (0.0 -0.1 )	0.027 (0.0 -0.1 )	0.026 (0.0 -0.1 )	0.99	0.98	0.95	0.92	0.88	0.83	0.79
Column Å at 2139 nm	0.018 (0.0 -0.1 )	0.023 (0.0 -0.1 )	0.032 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.039 (0.0 -0.1 )	0.043 (0.0 -0.1 )	0.040 (0.0 -0.1 )	0.98	0.97	0.94	0.91	0.86	0.82	0.77

Canada	<i>std<sub>rel</sub></i> or <i>std</i>							<i>r</i>						
	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km
AOD at 354 nm	1.7% (0.3%-9.9 %)	2.4% (0.5%-11.9%)	4.5% (0.9%-21.5%)	8.1% (1.3%-36.1%)	13.8% (2.0%-50.6%)	16.4% (2.3%-67.5%)	17.7% (2.7%-82.2%)	0.98	0.95	0.85	0.73	0.60	0.37	0.31
AOD at 380 nm	1.7% (0.3%-10.0%)	2.3% (0.5%-12.0%)	4.4% (0.9%-21.7%)	8.2% (1.3%-36.1%)	14.0% (2.0%-50.4%)	16.8% (2.3%-65.9%)	17.7% (2.7%-80.3%)	0.98	0.95	0.84	0.72	0.59	0.37	0.31
AOD at 451 nm	1.8% (0.3%-10.4%)	2.4% (0.5%-12.4%)	4.7% (0.9%-22.4%)	8.6% (1.3%-36.4%)	15.3% (2.1%-50.3%)	17.9% (2.4%-65.0%)	19.0% (2.8%-81.5%)	0.98	0.94	0.83	0.71	0.58	0.36	0.32
AOD at 499 nm	2.1% (0.4%-11.2%)	2.8% (0.6%-12.8%)	5.4% (1.1%-22.8%)	9.3% (1.5%-37.4%)	16.2% (2.4%-50.9%)	19.3% (2.8%-66.0%)	20.9% (3.1%-83.3%)	0.98	0.94	0.83	0.71	0.59	0.37	0.33
AOD at 520 nm	1.7% (0.3%-10.7%)	2.4% (0.5%-12.5%)	4.6% (0.9%-22.4%)	8.7% (1.4%-36.1%)	15.7% (2.0%-49.7%)	18.7% (2.5%-64.5%)	19.1% (2.9%-80.7%)	0.98	0.94	0.83	0.71	0.59	0.37	0.34
AOD at 606 nm	1.8% (0.3%-11.2%)	2.5% (0.5%-12.9%)	4.9% (0.9%-22.4%)	9.1% (1.4%-36.2%)	15.6% (2.1%-49.0%)	20.5% (2.6%-63.8%)	21.6% (2.8%-79.0%)	0.97	0.93	0.82	0.71	0.58	0.37	0.34
AOD at 675 nm	2.0% (0.4%-11.1%)	2.6% (0.6%-12.9%)	5.1% (1.1%-22.5%)	9.1% (1.6%-35.3%)	15.6% (2.4%-47.9%)	21.3% (2.8%-62.8%)	22.1% (3.3%-75.7%)	0.97	0.93	0.81	0.71	0.58	0.37	0.36
AOD at 779 nm	2.0% (0.4%-11.4%)	2.6% (0.6%-12.8%)	5.6% (1.0%-22.4%)	9.6% (1.4%-35.3%)	15.9% (2.2%-47.1%)	22.5% (2.6%-60.7%)	23.3% (3.1%-71.2%)	0.96	0.92	0.80	0.70	0.58	0.38	0.37
AOD at 865 nm	1.8% (0.4%-10.9%)	2.4% (0.6%-12.5%)	5.0% (1.0%-21.8%)	8.9% (1.3%-34.1%)	15.5% (2.0%-44.8%)	22.1% (2.4%-57.8%)	22.9% (2.8%-66.5%)	0.95	0.90	0.79	0.69	0.58	0.40	0.39
AOD at 1019 nm	2.0% (0.4%-11.2%)	2.6% (0.6%-12.3%)	5.4% (1.1%-21.8%)	9.7% (1.4%-34.3%)	16.0% (2.2%-45.0%)	23.7% (2.5%-56.7%)	23.2% (3.0%-65.2%)	0.94	0.87	0.75	0.67	0.56	0.40	0.40
AOD at 1241 nm	1.6% (0.3%-10.2%)	2.0% (0.5%-10.4%)	4.2% (0.8%-19.4%)	7.4% (1.1%-29.8%)	14.5% (1.6%-41.1%)	19.5% (1.8%-54.0%)	21.2% (2.1%-57.8%)	0.90	0.81	0.67	0.59	0.49	0.36	0.35
AOD at 1559 nm	3.0% (0.6%-12.2%)	3.6% (1.1%-12.6%)	6.7% (1.7%-21.0%)	10.6% (1.9%-30.1%)	16.1% (2.6%-40.0%)	21.8% (3.1%-56.1%)	21.8% (3.5%-56.6%)	0.86	0.73	0.57	0.49	0.42	0.35	0.33
AOD at 2139 nm	2.5% (0.6%-10.8%)	3.0% (0.9%-10.1%)	5.1% (1.5%-17.8%)	8.5% (2.0%-29.0%)	13.2% (2.7%-40.2%)	17.9% (3.0%-61.2%)	20.4% (3.4%-69.1%)	0.81	0.65	0.46	0.37	0.30	0.24	0.23
Column Å at 354 nm	0.013 (0.0 -0.1 )	0.015 (0.0 -0.1 )	0.025 (0.0 -0.1 )	0.042 (0.0 -0.1 )	0.063 (0.0 -0.2 )	0.095 (0.0 -0.2 )	0.105 (0.0 -0.2 )	0.98	0.96	0.93	0.89	0.85	0.71	0.64
Column Å at 380 nm	0.012 (0.0 -0.0 )	0.014 (0.0 -0.0 )	0.023 (0.0 -0.1 )	0.041 (0.0 -0.1 )	0.063 (0.0 -0.2 )	0.101 (0.0 -0.2 )	0.099 (0.0 -0.2 )	0.98	0.96	0.93	0.87	0.83	0.67	0.59
Column Å at 451 nm	0.010 (0.0 -0.0 )	0.011 (0.0 -0.0 )	0.020 (0.0 -0.1 )	0.038 (0.0 -0.1 )	0.062 (0.0 -0.2 )	0.094 (0.0 -0.2 )	0.087 (0.0 -0.2 )	0.98	0.96	0.92	0.84	0.77	0.57	0.44
Column Å at 499 nm	0.008 (0.0 -0.0 )	0.011 (0.0 -0.0 )	0.019 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.062 (0.0 -0.2 )	0.091 (0.0 -0.2 )	0.077 (0.0 -0.2 )	0.98	0.96	0.92	0.83	0.75	0.52	0.37
Column Å at 520 nm	0.008 (0.0 -0.0 )	0.010 (0.0 -0.0 )	0.019 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.061 (0.0 -0.2 )	0.087 (0.0 -0.2 )	0.074 (0.0 -0.3 )	0.98	0.96	0.92	0.83	0.74	0.51	0.34
Column Å at 606 nm	0.008 (0.0 -0.0 )	0.011 (0.0 -0.0 )	0.018 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.066 (0.0 -0.2 )	0.090 (0.0 -0.2 )	0.076 (0.0 -0.3 )	0.98	0.96	0.92	0.83	0.72	0.48	0.32
Column Å at 675 nm	0.009 (0.0 -0.0 )	0.011 (0.0 -0.0 )	0.020 (0.0 -0.1 )	0.039 (0.0 -0.1 )	0.068 (0.0 -0.2 )	0.095 (0.0 -0.2 )	0.079 (0.0 -0.3 )	0.98	0.96	0.92	0.83	0.72	0.49	0.35
Column Å at 779 nm	0.011 (0.0 -0.0 )	0.013 (0.0 -0.1 )	0.023 (0.0 -0.1 )	0.045 (0.0 -0.2 )	0.071 (0.0 -0.2 )	0.098 (0.0 -0.3 )	0.080 (0.0 -0.3 )	0.98	0.96	0.92	0.84	0.73	0.52	0.43
Column Å at 865 nm	0.012 (0.0 -0.1 )	0.015 (0.0 -0.1 )	0.025 (0.0 -0.1 )	0.049 (0.0 -0.2 )	0.077 (0.0 -0.3 )	0.105 (0.0 -0.3 )	0.086 (0.0 -0.4 )	0.98	0.96	0.93	0.85	0.74	0.55	0.48
Column Å at 1019 nm	0.015 (0.0 -0.1 )	0.019 (0.0 -0.1 )	0.030 (0.0 -0.1 )	0.058 (0.0 -0.2 )	0.089 (0.0 -0.3 )	0.123 (0.0 -0.3 )	0.102 (0.0 -0.4 )	0.98	0.96	0.93	0.86	0.76	0.59	0.56
Column Å at 1241 nm	0.019 (0.0 -0.1 )	0.024 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.069 (0.0 -0.2 )	0.108 (0.0 -0.3 )	0.147 (0.0 -0.4 )	0.126 (0.0 -0.4 )	0.98	0.97	0.93	0.88	0.78	0.64	0.62
Column Å at 1559 nm	0.023 (0.0 -0.1 )	0.030 (0.0 -0.1 )	0.047 (0.0 -0.2 )	0.081 (0.0 -0.2 )	0.126 (0.0 -0.3 )	0.170 (0.0 -0.4 )	0.155 (0.0 -0.4 )	0.98	0.97	0.94	0.89	0.80	0.67	0.68
Column Å at 2139 nm	0.029 (0.0 -0.1 )	0.037 (0.0 -0.1 )	0.060 (0.0 -0.2 )	0.103 (0.0 -0.3 )	0.154 (0.0 -0.4 )	0.209 (0.0 -0.5 )	0.206 (0.1 -0.5 )	0.98	0.97	0.94	0.90	0.82	0.71	0.72

The *std<sub>rel</sub>* and *std* values at the 16th and 84th percentiles are given in the parentheses, below the median value.

Supplementary Table 2. Number of samples that entered the statistics for  $std_{rel,med}$ ,  $std_{med}$  and  $r$  for the Alaska (top table) and Canada (bottom) phases.

Alaska	$std_{med}$ or $std_{rel,med}$							$r$						
	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km
AOD at 354 nm	751	554	540	304	235	112	68	751	624	578	345	327	267	158
AOD at 380 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
AOD at 451 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
<b>AOD at 499 nm</b>	1626	1388	1303	988	504	392	382	1626	1385	1102	1069	796	638	444
AOD at 520 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
AOD at 606 nm	2438	2045	2088	1652	885	683	702	2438	2115	1695	1517	1263	984	677
AOD at 675 nm	2105	1798	1761	1342	709	539	564	2105	1858	1419	1340	1057	845	594
AOD at 779 nm	2166	1770	1838	1433	795	612	626	2166	1910	1478	1349	1157	919	619
AOD at 865 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
AOD at 1019 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
AOD at 1241 nm	1907	1560	1587	1189	693	500	537	1907	1654	1317	1201	956	776	538
AOD at 1559 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
AOD at 2139 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 354 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 380 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 451 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
<b>Column A at 499 nm</b>	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 520 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 606 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 675 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 779 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 865 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 1019 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 1241 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 1559 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Column A at 2139 nm	2750	2257	2368	1874	1054	802	782	2750	2402	1927	1728	1402	1117	770
Canada	$std_{med}$ or $std_{rel,med}$							$r$						
	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km	cons.	1 km	3 km	6 km	10 km	20 km	35.2 km
AOD at 354 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 380 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 451 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
<b>AOD at 499 nm</b>	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 520 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 606 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 675 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 779 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 865 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 1019 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 1241 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 1559 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
AOD at 2139 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 354 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 380 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 451 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
<b>Column A at 499 nm</b>	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 520 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 606 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 675 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 779 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 865 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 1019 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 1241 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 1559 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681
Column A at 2139 nm	6064	5376	5690	4550	3682	2565	1564	6064	6568	5554	4671	3717	2735	1681

The segments identified for  $std_{rel}$  and  $std$  are slightly different from those for  $r$  for two reasons. The former includes the entire 3-second sampling time, while the latter is measured between the mid points of the two measurements. To avoid bias due to data gaps, we only calculate  $std$  and  $std_{rel}$  for segments that have at least half of the potential maximum number of data points.