**Table 1.** The mass absorption efficiency at 365 nm and Absorption Ångström exponent (AAE, calculated between 300 - 400 nm) of BrC and HULIS at SETS. The mass absorption efficiency of BC (MAEBC) is calculated at wavelength 632 nm. All the data are reported as mean ± standard deviation (S.D.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Summer | | | Winter | | |
| Daytime  (n=15) | Nighttime  (n=15) | Total  (n=30) | Daytime  (n=15) | Nighttime  (n=15) | Total  (n=30) |
| MAEWS-BrC | 0.28 ± 0.11 | 0.27 ± 0.08 | 0.27 ± 0.10 | 0.93 ± 0.14 | 0.80 ± 0.17 | 0.86 ± 0.17 |
| MAEMeS-BrC | 0.36 ± 0.11 | 0.32 ± 0.12 | 0.34 ± 0.12 | 0.59 ± 0.43 | 0.59 ± 0.45 | 0.59 ± 0.44 |
| MAEHULIS | 0.30 ± 0.17 | 0.34 ± 0.17 | 0.32 ± 0.17 | 0.95 ± 0.32 | 0.88 ± 0.41 | 0.91 ± 0.37 |
| MAEBC | 4.57 ± 1.55 | 5.33 ± 2.35 | 4.99 ± 2.07 | 9.24 ± 3.28 | 10.5 ± 3.24 | 9.82 ± 3.32 |
| AAEWS-BrC | 7.54 ± 1.41 | 6.90 ± 1.38 | 7.22 ± 1.45 | 6.03 ± 0.40 | 5.81 ± 0.44 | 5.92 ± 0.43 |
| AAEMeS-BrC | 5.92 ± 0.71 | 5.10 ± 1.16 | 5.53 ± 1.04 | 6.08 ± 0.89 | 6.38 ± 1.48 | 6.24 ± 1.24 |
| AAEHULIS | 7.15 ± 1.76 | 7.41 ± 2.26 | 7.28 ± 2.03 | 6.62 ± 0.86 | 5.96 ± 1.10 | 6.29 ± 1.04 |

**Table 2.** Concentrations (μgC m-3) and ratios of various carbonaceous species at SETS, TP (mean ± S.D.).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Summer | | | Winter | | |
| Daytime | Nighttime | Total | Daytime | Nighttime | Total |
| **Abundance and ratios** | | | | | | |
| OC | 3.84 ± 1.09 | 3.45 ± 0.59 | 3.73 ± 0.89 | 5.10 ± 1.83 | 2.48 ± 0.85 | 3.79 ± 1.93 |
| EC | 0.33 ± 0.23 | 0.39 ± 0.22 | 0.36 ± 0.23 | 1.33 ± 0.71 | 0.59 ± 0.17 | 0.96 ± 0.63 |
| WSOC | 1.89 ± 0.57 | 1.44 ± 0.42 | 1.67 ± 0.55 | 1.97 ± 0.68 | 1.42 ± 0.49 | 1.70 ± 0.65 |
| MeSOC | 3.32 ± 0.97 | 2.76 ± 0.79 | 3.03 ± 0.93 | 4.76 ± 2.08 | 2.19 ± 0.75 | 3.61 ± 2.07 |
| HULIS | 1.02 ± 0.39 | 0.64 ± 0.19 | 0.83 ± 0.36 | 0.94 ± 0.36 | 0.71 ± 0.26 | 0.82 ± 0.33 |
| OC/EC | 15.9 ± 9.7 | 12.3 ± 5.6 | 14.1 ± 8.2 | 4.92 ± 2.88 | 4.22 ± 0.98 | 4.57 ± 2.18 |
| WSOC/OC | 0.50 ± 0.12 | 0.40 ± 0.10 | 0.45 ± 0.12 | 0.42 ± 0.17 | 0.59 ± 0.15 | 0.51 ± 0.18 |
| MeSOC/WSOC | 1.83 ± 0.38 | 1.63 ± 0.43 | 1.74 ± 0.42 | 2.11 ± 0.85 | 1.93 ± 0.54 | 2.02 ± 0.72 |
| MeSOC/OC | 0.87 ± 0.11 | 0.65 ± 0.18 | 0.77 ± 0.19 | 0.89 ± 0.24 | 0.93 ± 0.11 | 0.91 ± 0.20 |
| HULIS/OC | 0.27 ± 0.08 | 0.18 ± 0.05 | 0.22 ± 0.08 | 0.20 ± 0.06 | 0.30 ± 0.12 | 0.25 ± 0.11 |
| HULIS/WSOC | 0. 53 ± 0.07 | 0.45 ± 0.09 | 0.49 ± 0.09 | 0.48 ± 0.10 | 0.51 ± 0.13 | 0.49 ± 0.12 |