Supplementary Material

Table S1. (a). Absorption coefficients *a*(325) [m-1], spectral slopes *S*(275-295), [nm-1], DOC [mg L-1] and specific UV absorption at 254 nm SUVA254 [mg C L-1 m-1] in the ULW.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Station** | **Sample** | **a(325)[m-1]** | **S(275-295)[nm-1]** | **DOC[mg L-1]** | **SUVA254[mg C L-1 m—1]** |
| S1 | ulw | 0.28 | 0.025 | 1.01 | 1.05 |
| S2 | ulw | 0.21 | 0.034 | 0.83 | 1.50 |
| S2\_2 | ulw | 0.30 | 0.029 | 0.84 | 1.53 |
| S3 | ulw | 0.37 | 0.029 | 0.92 | 1.68 |
| S4 | ulw | 0.44 | 0.027 | 0.91 | 2.21 |
| S4\_2 | ulw | 0.39 | 0.029 | 0.73 | 2.31 |
| S6 | ulw | 0.30 | 0.028 | 0.81 | 1.63 |
| S7 | ulw | 0.71 | 0.021 | 0.84 | 2.66 |
| S7\_2 | ulw | 0.32 | 0.031 | 0.76 | 2.08 |
| S8 | ulw | 1.01 | 0.017 | 1.11 | 2.20 |
| S9 | ulw | 0.32 | 0.031 | 1.06 | 1.48 |
| S9\_2 | ulw | 0.39 | 0.029 | 1.12 | 1.58 |
| S10\_1 | ulw | 1.01 | 0.025 | 0.92 | 2.53 |
| S10\_2 | ulw | 1.47 | 0.022 | 0.96 | 2.29 |
| S10\_3 | ulw | 0.97 | 0.026 | 0.95 | 2.52 |
| S10\_4 | ulw | 1.24 | 0.028 | 1.16 | 2.63 |
| S11 | ulw | 0.30 | 0.023 | 0.81 | 2.79 |
| S12\_1 | ulw | 0.12 | 0.037 | 0.94 | 1.56 |
| S12\_2 | ulw | 0.07 | 0.043 | 0.88 | 1.46 |
| S12\_3 | ulw | 0.14 | 0.035 | 0.89 | 1.66 |
| S13\_1 | ulw | 0.14 | 0.030 | 0.87 | 1.81 |
| S13\_2 | ulw | 0.09 | 0.035 | 0.89 | 1.56 |
| S13\_3 | ulw | 0.21 | 0.028 | 1.09 | 1.65 |
| S14\_1 | ulw | 0.37 | 0.022 | 1.14 | 1.90 |
| S14\_2 | ulw | 0.35 | 0.025 | 1.17 | 1.93 |
| S15\_1 | ulw | 0.23 | 0.025 | 1.13 | 1.58 |
| S15\_2 | ulw | 0.32 | 0.024 | 1.24 | 1.82 |
| S15\_3 | ulw | 0.37 | 0.020 | 1.36 | 1.66 |
| S16\_1 | ulw | 0.35 | 0.023 | 0.95 | 2.32 |
| S16\_2 | ulw | 0.32 | 0.024 | 1.03 | 1.96 |
| S16\_3 | ulw | 0.30 | 0.025 | 1.05 | 1.89 |
| S17\_1 | ulw | 0.21 | 0.029 | 1.28 | 1.37 |
| S17\_2 | ulw | 0.28 | 0.026 | 1.15 | 1.80 |
| S19 | ulw | 0.16 | 0.032 | 1.16 | 1.31 |
| S19\_2 | ulw | 0.12 | 0.037 | 1.05 | 1.45 |
| S20 | ulw | 0.09 | 0.038 | 1.09 | 1.14 |
| S20\_2 | ulw | 0.07 | 0.040 | 1.19 | 1.12 |
| #1778 | ulw | 0.07 | 0.040 | 1.09 | 1.23 |

Table S1. (b). Absorption coefficients *a*(325) [m-1], spectral slopes *S*(275-295), [nm-1], DOC [mg L-1] and specific UV absorption at 254 nm SUVA254 [mg C L-1 m-1] in the SML.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Station** | **Sample** | **a(325)[m-1]** | **S(275-295)[nm-1]** | **DOC[mg L-1]** | **SUVA254[mg C L-1 m—1]** |
| S1 | sml | 0.37 | 0.021 | 1.22 | 1.13 |
| S2 | sml | 0.35 | 0.029 | 0.90 | 2.05 |
| S2\_2 | sml | 0.76 | 0.020 | 1.01 | 2.30 |
| S3 | sml | 0.41 | 0.030 | 0.99 | 1.93 |
| S4 | sml | 0.41 | 0.032 | 0.96 | 2.09 |
| S4\_2 | sml | 0.44 | 0.027 | 0.96 | 2.09 |
| S6 | sml | 0.41 | 0.027 | 0.90 | 1.89 |
| S7 | sml | 0.37 | 0.029 | 0.86 | 2.20 |
| S7\_2 | sml | 0.41 | 0.032 | 0.97 | 2.42 |
| S8 | sml | 0.37 | 0.033 | 1.05 | 2.28 |
| S9 | sml | 0.46 | 0.031 | 1.49 | 1.60 |
| S9\_2 | sml | 0.35 | 0.034 | 1.41 | 1.77 |
| S10\_1 | sml | 1.11 | 0.028 | 1.15 | 2.66 |
| S10\_2 | sml | 1.24 | 0.030 | 1.25 | 3.12 |
| S10\_3 | sml | 1.15 | 0.034 | 1.02 | 4.00 |
| S10\_4 | sml | 1.47 | 0.029 | 1.39 | 2.89 |
| S11 | sml | 0.12 | 0.038 | 0.90 | 2.10 |
| S12\_1 | sml | 0.12 | 0.036 | 0.97 | 1.57 |
| S12\_2 | sml | 0.09 | 0.038 | 0.95 | 1.60 |
| S12\_3 | sml | 0.23 | 0.029 | 0.96 | 2.05 |
| S13\_1 | sml | 0.09 | 0.036 | 0.96 | 1.54 |
| S13\_2 | sml | 0.14 | 0.031 | 0.97 | 1.75 |
| S13\_3 | sml | 0.18 | 0.029 | 1.14 | 1.69 |
| S14\_1 | sml | 0.44 | 0.024 | 1.20 | 2.19 |
| S14\_2 | sml | 0.48 | 0.020 | 1.21 | 2.35 |
| S15\_1 | sml | 0.37 | 0.025 | 1.26 | 1.97 |
| S15\_2 | sml | 0.35 | 0.024 | 1.25 | 1.99 |
| S15\_3 | sml | 1.01 | 0.012 | 1.47 | 2.54 |
| S16\_1 | sml | 0.32 | 0.024 | 1.07 | 1.94 |
| S16\_2 | sml | 0.37 | 0.024 | 1.13 | 2.07 |
| S16\_3 | sml | 0.35 | 0.025 | 1.15 | 2.05 |
| S17\_1 | sml | 0.25 | 0.026 | 1.24 | 1.72 |
| S17\_2 | sml | 0.23 | 0.030 | 1.28 | 1.62 |
| S19 | sml | 0.14 | 0.034 | 1.20 | 1.38 |
| S19\_2 | sml | 0.30 | 0.025 | 1.27 | 1.70 |
| S20 | sml | 0.23 | 0.031 | 1.26 | 1.35 |
| S20\_2 | sml | 0.12 | 0.036 | 1.34 | 1.23 |
| #1778 | sml | 0.09 | 0.037 | 1.20 | 1.27 |

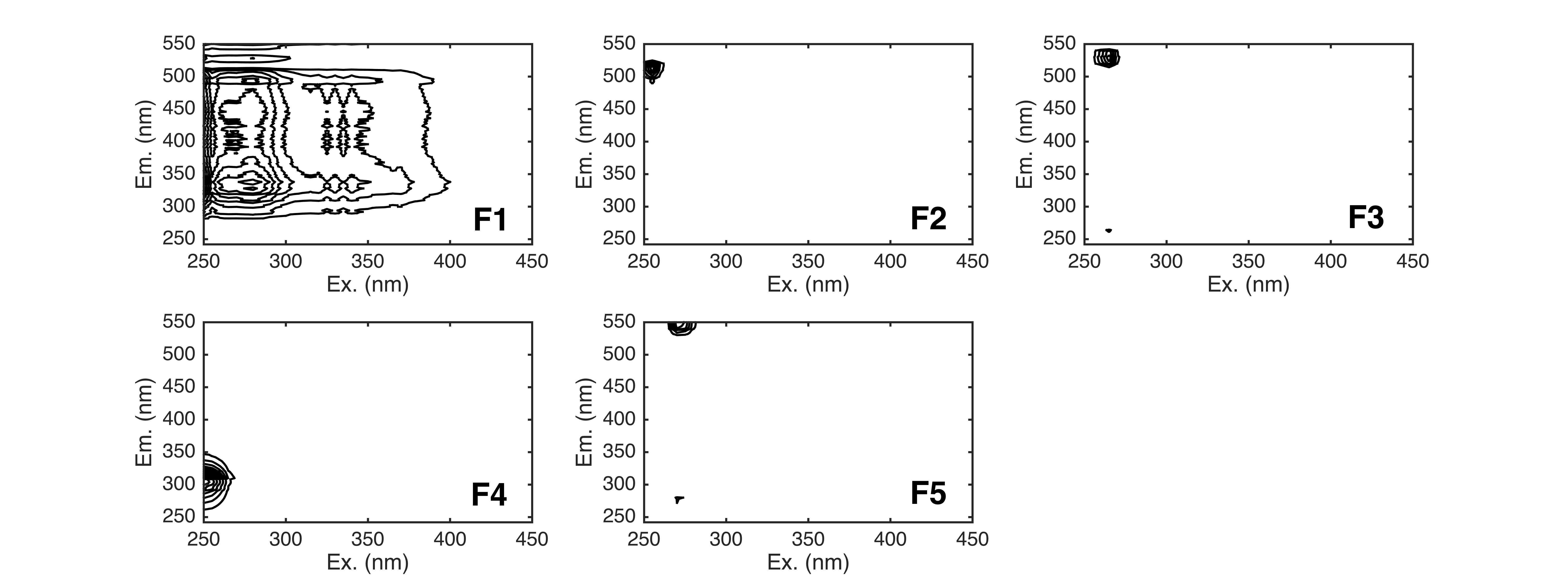


Figure S 1. Contour plots of the five fluorescent components identified in this study, visualized with their excitation/emission ranges in the full spectrum.