Supplementary information
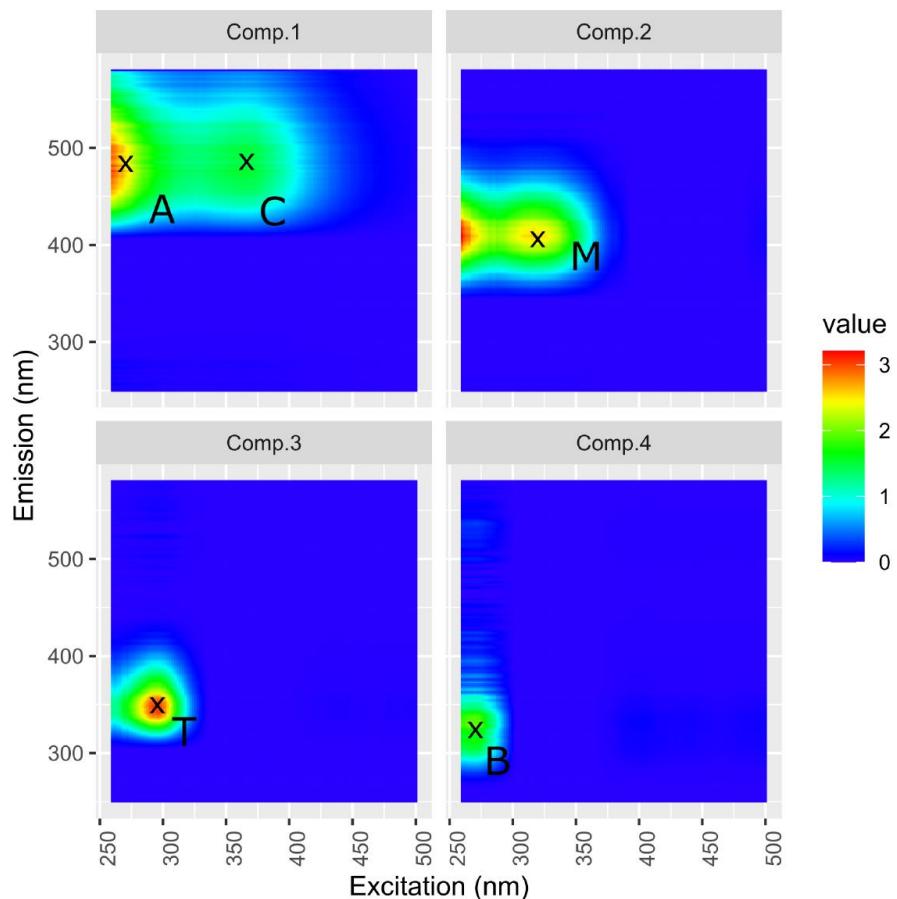
Figure S1: Contour plots that describe emission intensities as a function of excitation wavelengths for the four components of the PARAFAC model. The approximate location of the five Coble peaks are overlaid (Coble et al., 1998, 1990).

Table S1: Partial least squares (PLS) model VIP scores and coefficients for variables identified as highly (VIP $\geq$ 1.0) or moderately (0.8 $\leq$ VIP < 1.0) influential in predicting median CO_2 saturation at a site.

Variable	VIP score	Coefficient
Specific conductivity	3.03	-0.43
Sulfate	1.86	0.10
Calcium	2.04	0.68
DOC	0.77	-0.09
Total suspended solids	1.66	-0.82
Elevation	2.67	0.48
Watershed area	1.73	-0.53
Runoff	1.45	0.74
Watershed glacier cover	1.95	-0.31
Watershed vegetation cover	1.31	-0.45