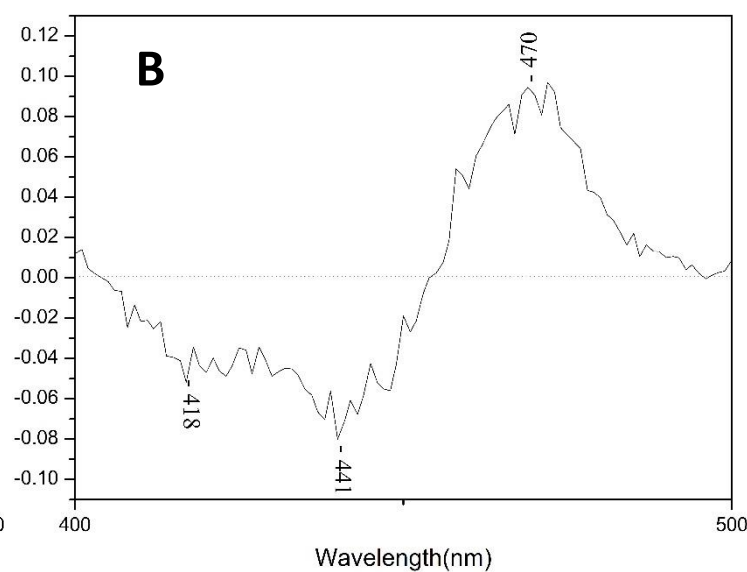
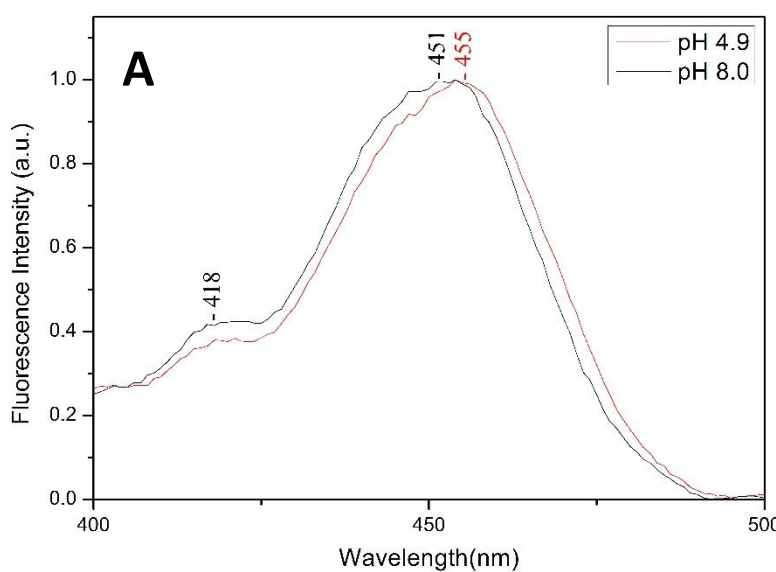
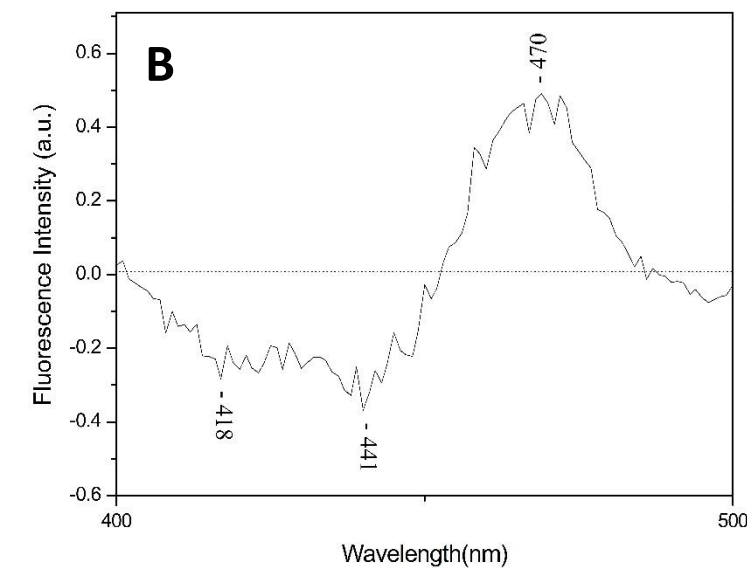
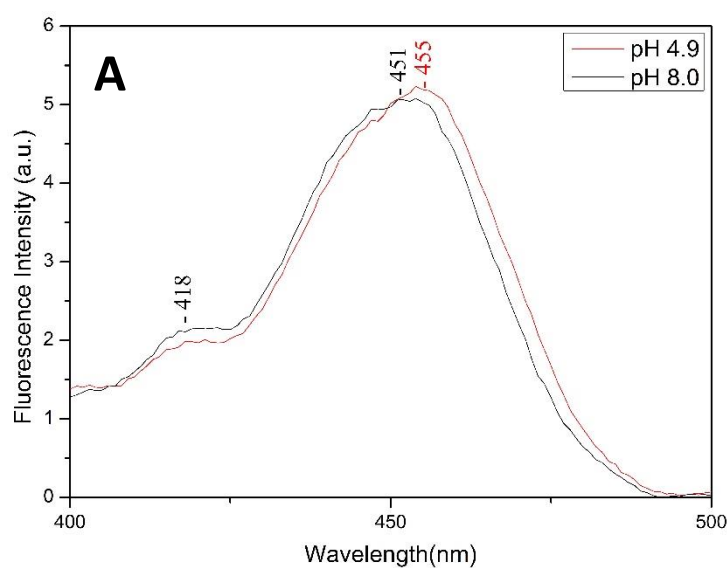


**Supplemental Figure S1:** A) Absorption spectra of at room temperature of FCPs of *Fragilariopsis* sp without normalization. pH8 (blue line) and pH4.9 (red line). Initial baseline position was fixed at zero. B) Difference absorption spectra obtained by subtracting the spectra measured at pH 8 from pH 4.9. No corrections were made.



**Supplemental Figure S2:** A) Fluorescence excitation spectra of *Fragilariopsis* sp from the spontaneous emission from Chl-c1/c2 at 640 nm at pH 8 (black line) and pH 4.9 (red line) normalized at maxima. B) Difference fluorescence spectra obtained by subtracting the spectra measured at pH 8 from pH 4.9. No corrections were made.



**Supplemental Figure S3:** A) Fluorescence excitation spectra of *Fragilariopsis* sp from the spontaneous emission from Chl-c1/c2 at 640 nm at pH 8 (black line) and pH 4.9 (red line) without normalization. B) Difference fluorescence spectra obtained by subtracting the spectra measured at pH 8 from pH 4.9. No corrections were made.