

Table S3. The slope and its statistics in factorial relationships between the specific growth rate of measured biomass and pigments measured with HPLC. N.S.: not significant, N.A.: not available due to low concentration of pigment.

	>10 μm chl- <i>a</i>	<10 μm chl- <i>a</i>	Diatom	NanoE	PicoE	<i>Synechococcus</i>
MR15-exp.						
Peridinin	0.88 \pm 0.16 ($R^2 = 0.66, p < 0.001$)	1.02 \pm 0.41 ($R^2 = 0.26, p = 0.025$)	0.63 \pm 0.12 ($R^2 = 0.64, p < 0.001$)	1.04 \pm 0.15 ($R^2 = 0.76, p < 0.001$)	N.S.	1.07 \pm 0.19 ($R^2 = 0.67, p < 0.001$)
19'-butanoyloxy- fucoxanthin	0.55 \pm 0.18 ($R^2 = 0.37, p = 0.007$)	0.78 \pm 0.34 ($R^2 = 0.22, p = 0.039$)	0.42 \pm 0.12 ($R^2 = 0.41, p = 0.004$)	0.61 \pm 0.20 ($R^2 = 0.35, p = 0.010$)	N.S.	0.66 \pm 0.22 ($R^2 = 0.35, p < 0.010$)
Fucoxanthin	0.98 \pm 0.08 ($R^2 = 0.91, p < 0.001$)	1.43 \pm 0.28 ($R^2 = 0.63, p < 0.001$)	0.70 \pm 0.07 ($R^2 = 0.88, p < 0.001$)	1.10 \pm 0.09 ($R^2 = 0.90, p < 0.001$)	N.S.	1.12 \pm 0.14 ($R^2 = 0.81, p < 0.001$)
19'-hexanoyloxy- fucoxanthin	1.24 \pm 0.11 ($R^2 = 0.89, p < 0.001$)	1.78 \pm 0.38 ($R^2 = 0.58, p < 0.001$)	0.92 \pm 0.06 ($R^2 = 0.94, p < 0.001$)	1.39 \pm 0.14 ($R^2 = 0.87, p < 0.001$)	N.S.	1.53 \pm 0.12 ($R^2 = 0.91, p < 0.001$)
Prasinolanthin	-0.53 \pm 0.13 ($R^2 = 0.52, p = 0.001$)	-0.79 \pm 0.26 ($R^2 = 0.36, p = 0.009$)	-0.34 \pm 0.11 ($R^2 = 0.38, p = 0.007$)	-0.63 \pm 0.14 ($R^2 = 0.58, p = 0.007$)	N.S.	-0.56 \pm 0.18 ($R^2 = 0.36, p = 0.008$)
Violaxanthin	0.59 \pm 0.09 ($R^2 = 0.75, p < 0.001$)	0.81 \pm 0.23 ($R^2 = 0.45, p = 0.004$)	0.42 \pm 0.06 ($R^2 = 0.78, p < 0.001$)	0.68 \pm 0.10 ($R^2 = 0.77, p < 0.001$)	N.S.	0.72 \pm 0.11 ($R^2 = 0.76, p < 0.001$)
Alloxanthin	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Zeaxanthin	N.S.	N.S.	-0.19 \pm 0.08 ($R^2 = 0.23, p = 0.040$)	N.S.	N.S.	-0.32 \pm 0.15 ($R^2 = 0.21, p = 0.048$)
Chlorophyll- <i>b</i>	0.67 \pm 0.07 ($R^2 = 0.87, p < 0.001$)	0.98 \pm 0.20 ($R^2 = 0.60, p < 0.001$)	0.49 \pm 0.04 ($R^2 = 0.90, p < 0.001$)	0.75 \pm 0.08 ($R^2 = 0.86, p < 0.001$)	N.S.	0.79 \pm 0.09 ($R^2 = 0.82, p < 0.001$)

Table S3. *Continued.*

	>10 μm chl- <i>a</i>	<10 μm chl- <i>a</i>	Diatom	NanoE	PicoE	<i>Synechococcus</i>
MR16-exp.						
Peridinin	1.15 \pm 0.29 ($R^2 = 0.39, p < 0.001$)	1.43 \pm 0.43 ($R^2 = 0.31, p = 0.003$)	0.91 \pm 0.20 ($R^2 = 0.47, p < 0.001$)	N.S.	N.S.	0.45 \pm 0.16 ($R^2 = 0.24, p = 0.010$)
19'-butanoyloxy- fucoxanthin	0.48 \pm 0.15 ($R^2 = 0.29, p = 0.005$)	0.89 \pm 0.17 ($R^2 = 0.55, p < 0.001$)	0.44 \pm 0.10 ($R^2 = 0.48, p < 0.001$)	N.S.	0.65 \pm 0.20 ($R^2 = 0.30, p = 0.004$)	0.22 \pm 0.07 ($R^2 = 0.25, p = 0.008$)
Fucoxanthin	1.17 \pm 0.14 ($R^2 = 0.75, p < 0.001$)	0.89 \pm 0.17 ($R^2 = 0.55, p < 0.001$)	0.91 \pm 0.07 ($R^2 = 0.87, p < 0.001$)	N.S.	0.83 \pm 0.34 ($R^2 = 0.19, p = 0.022$)	0.47 \pm 0.09 ($R^2 = 0.52, p < 0.001$)
19'-hexanoyloxy- fucoxanthin	0.65 \pm 0.17 ($R^2 = 0.39, p < 0.001$)	0.76 \pm 0.26 ($R^2 = 0.26, p = 0.007$)	0.54 \pm 0.11 ($R^2 = 0.52, p < 0.001$)	N.S.	N.S.	0.25 \pm 0.09 ($R^2 = 0.24, p = 0.010$)
Prasinolanthin	0.66 \pm 0.27 ($R^2 = 0.19, p = 0.023$)	1.50 \pm 0.27 ($R^2 = 0.58, p < 0.001$)	0.49 \pm 0.20 ($R^2 = 0.20, p = 0.020$)	1.50 \pm 0.36 ($R^2 = 0.42, p < 0.001$)	1.41 \pm 0.26 ($R^2 = 0.57, p < 0.001$)	N.S.
Violaxanthin	0.56 \pm 0.17 ($R^2 = 0.32, p = 0.003$)	1.07 \pm 0.17 ($R^2 = 0.65, p < 0.001$)	0.43 \pm 0.12 ($R^2 = 0.36, p = 0.002$)	0.68 \pm 0.30 ($R^2 = 0.17, p = 0.031$)	1.76 \pm 0.22 ($R^2 = 0.34, p = 0.002$)	0.28 \pm 0.08 ($R^2 = 0.36, p = 0.002$)
Alloxanthin	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Zeaxanthin	0.63 \pm 0.29 ($R^2 = 0.14, p = 0.042$)	1.27 \pm 0.35 ($R^2 = 0.36, p = 0.002$)	0.57 \pm 0.20 ($R^2 = 0.25, p = 0.009$)	N.S.	1.01 \pm 0.36 ($R^2 = 0.24, p = 0.010$)	N.S.
Chlorophyll- <i>b</i>	0.80 \pm 0.14 ($R^2 = 0.58, p < 0.001$)	1.35 \pm 0.10 ($R^2 = 0.90, p < 0.001$)	0.61 \pm 0.10 ($R^2 = 0.64, p < 0.001$)	0.74 \pm 0.32 ($R^2 = 0.17, p = 0.029$)	0.92 \pm 0.21 ($R^2 = 0.44, p < 0.001$)	0.33 \pm 0.08 ($R^2 = 0.43, p < 0.001$)