

TABLE 2. Maximum cell content of the main carotenoids and chlorophyll of *Dunaliella bardawil*.

Culture conditions	Maximum β -carotene content (pg \cdot cell ⁻¹)	Maximum chlorophyll content (pg \cdot cell ⁻¹)	Maximum violaxanthin content (pg \cdot cell ⁻¹)	Maximum zeaxanthin content (pg \cdot cell ⁻¹)
PAR	4.5 \pm 0.2 (60% <i>all-trans</i>)	5.41 \pm 0.27	0.04 \pm 0.02	0.02 \pm 0.01
PAR + (-N)	21.7 \pm 1.1 (60% <i>all-trans</i>)	-	0.04 \pm 0.02	0.13 \pm 0.01
PAR + UV-A	7.9 \pm 0.4 (75% <i>all-trans</i>)	6.85 \pm 0.34	0.05 \pm 0.02	0.03 \pm 0.01
PAR + UV-A + (-N)	51.5 \pm 2.6 (75% <i>all-trans</i>)	-	0.04 \pm 0.02	0.25 \pm 0.01

D. bardawil cells were incubated for 24 days under the conditions indicated. Content of the main carotenoids was determined by HPLC (see Materials and methods). Maximum content per cell of each of the main carotenoids occurred at the following times: PAR, 24 days; PAR + UV-A, 20 days; PAR + (-N) and PAR + UV-A + (-N), 24 days for β -carotene and violaxanthin, and 6 days for zeaxanthin. Light intensity: PAR, 250 W \cdot m⁻²; UV-A, 8.7 W \cdot m⁻². PAR, photosynthetic active radiation; UV-A, ultraviolet A radiation; (-N), nitrogen starvation. Values are averages \pm SD of three independent experiments.