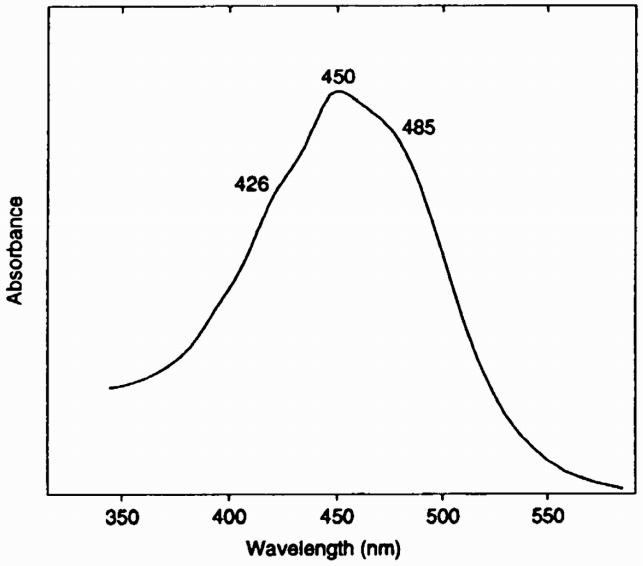
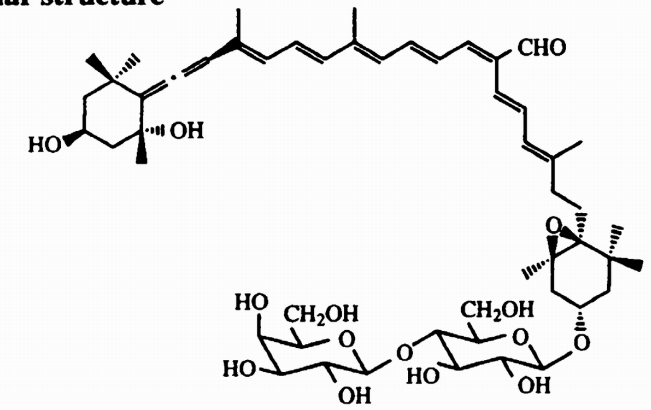
Standard spectrum in reference solvent: methanol

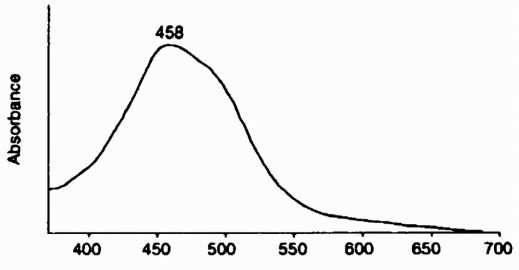


Data from Johansen *et al.* (1974)

Molecular structure

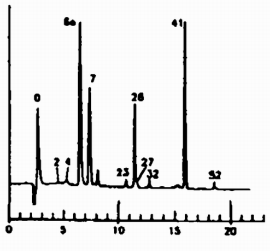


Diode array spectrum in SCOR eluant



HPLC: P-457, peak 4

Amphidinium carterae



Property	Data
Name: (Trivial)	**P-457**
Semi-systematic name	7',8'-dihydroneoxanthin-20'-al 3'-β-lactoside
SCOR abbreviation:	P-457
Occurrence:	Minor pigment in photosynthetic peridinin-containing dinoflagellates; P457 = fraction 9, present in 23 dinoflagellate species (Jeffrey *et al.*, 1975)
Colour:	Pink
Molecular formula:	$C_{52}H_{76}O_{15}$
Molecular weight:	941.16
Specific extinction coefficient: $E^{1\%}_{1\ cm}$ (100 ml g^{-1} cm^{-1})	1640 (at 457 nm in acetone) Not determined; use $E^{1\%}_{1\ cm}$ = 2500 for the free xanthophyll $[\equiv 2500 \times \frac{616}{940} = 1638 \equiv 1640]$
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})	154×10^3 (at 457 nm in acetone) Calculated from $E^{1\%}_{1\ cm}$ above

UV-vis spectra:

Solvent	Maxima (nm) I	II	III	Band ratio %III:II	Reference
Acetone		457			Johansen *et al.* (1974)
Methanol		454.5			Johansen *et al.* (1974)
HPLC Eluant		458			SCOR WG 78: Wright *et al.* (1991) method

Alteration products:	
Culture from which SCOR data were obtained:	*Amphidinium carterae* (dinoflagellate)
Additional reference(s):	Johansen *et al.* (1974); Jeffrey *et al.* (1975); Liaaen-Jensen (1990b)