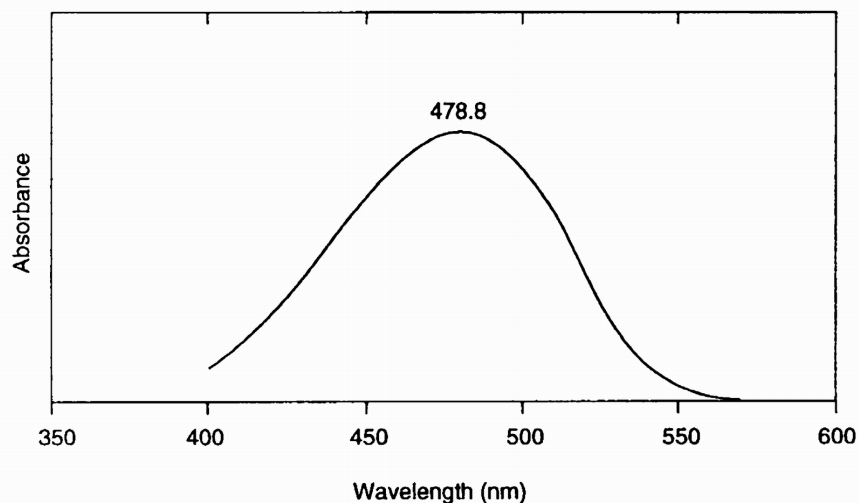
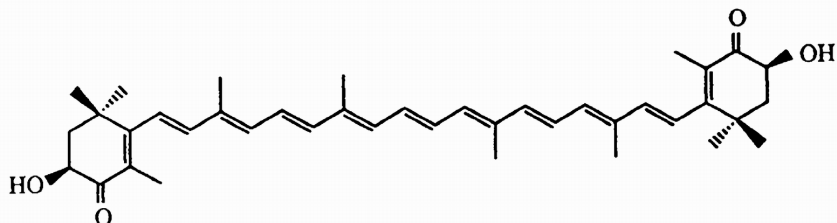


Astaxanthin

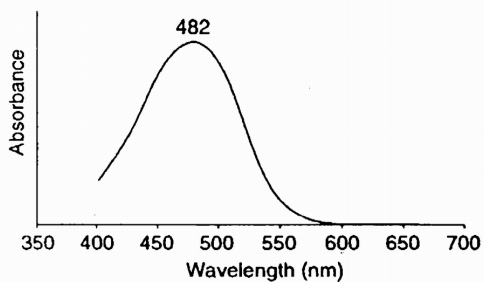
Standard spectrum in reference solvent: methanol



Molecular structure



Diode array spectrum in Repeta eluant*



HPLC: Astaxanthin

No data available

* see section IV.1.7

Astaxanthin

Property

Data

Name:	(Trivial) (IUPAC)	Astaxanthin (3S,3'S)-3,3'-Dihydroxy- β,β -carotene-4,4'-dione	
SCOR abbreviation:		Asta	
Occurrence:		Some green algae (minor pigment; becomes major during nutrient limitation in some species). Transformation product in marine animals. Frequently present together with its mixed fatty acid mono- and diesters.	
Colour:		Salmon pink	
Molecular formula:		$C_{40}H_{52}O_4$	
Molecular weight:		596.85	
Specific extinction coefficient: $E_{1\text{ cm}}^{1\%}$ (100 ml g ⁻¹ cm ⁻¹)		2100 (at 468 nm in hexane) Withers <i>et al.</i> (1977)	
Molar extinction coefficient: ϵ (l mol ⁻¹ cm ⁻¹)		125×10^3 (at 468 nm in hexane) Calculated from $E_{1\text{ cm}}^{1\%}$ above	
UV-vis spectra:			
Solvent	Maxima (nm)	Band ratio	Reference
	I II III	% III:II	
Hexane	468		Withers <i>et al.</i> (1977)
Ethanol	472		Withers <i>et al.</i> (1977)
Petroleum ether	468		Katayama <i>et al.</i> (1970)
Acetone	480		Francis <i>et al.</i> (1972)
Methanol	478.8		Repeta (unpublished)
HPLC Eluant	482		SCOR WG 78 data; Repeta eluant (see Section IV.1.7)
Alteration products:			Astacene (oxidation product)
Origin:			Synthetic (Hoffman La Roche)
Additional reference(s):			Katayama <i>et al.</i> (1970)