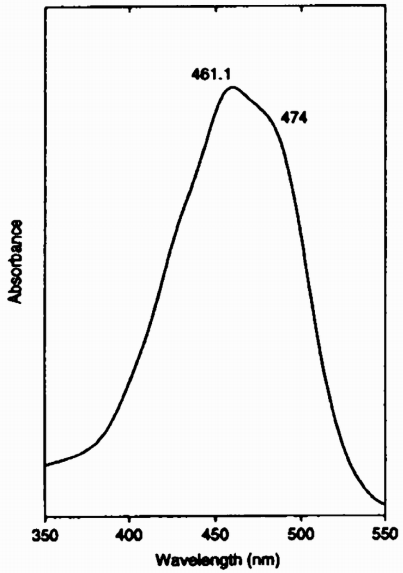
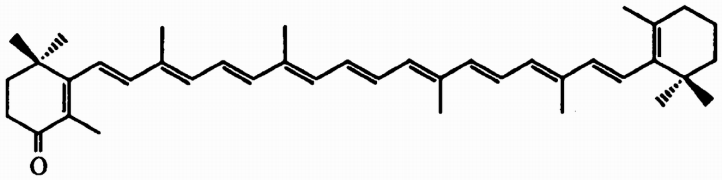
Echinenone

HPLC peak 43

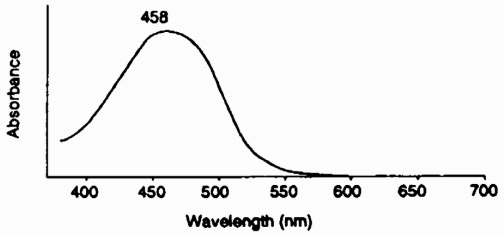
Standard spectrum in reference solvent: acetone



Molecular structure

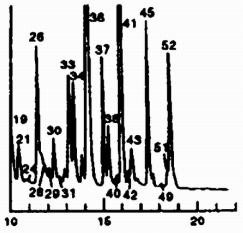


Diode array spectrum in SCOR eluant



HPLC: Echinenone, peak 43

Pigment mixture



Echinenone

Property		Data
Name:	(Trivial)	**Echinenone**
	(IUPAC)	β,β-Caroten-4-one
SCOR abbreviation:		Echin
Occurrence:		Major carotenoid of freshwater & estuarine cyanobacteria (blue-green algae); minor or trace carotenoid in some green algae and euglenophytes.
Colour:		Red-orange
Molecular formula:		$C_{40}H_{54}O$
Molecular weight:		550.87
Specific extinction coefficient: $E^{1\%}_{1\ cm}$ (100 ml g^{-1} cm^{-1})		2158 (at 458 nm in petroleum ether) Davies (1965)
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})		119 x 10^3 (at 458 nm in petroleum ether) Calculated from $E^{1\%}_{1\ cm}$ above

UV-vis spectra:

Solvent	Maxima (nm) I	II	III	Band ratio %III:II	Reference
Acetone		461	(474)	0	SCOR WG 78 data
Acetone		460			Francis & Halfen (1972)
Ethanol		461		0	Stransky & Hager (1970b)
Hexane	(432)	459	(483)		Davies (1976)
HPLC Eluant		458			SCOR WG 78: Wright *et al.* (1991) method

Alteration products:	
Culture from which SCOR data were obtained:	*Oscillatoria agardhii* (*rubescens*) (blue-green alga)
Additional reference(s):	Nichols (1973)