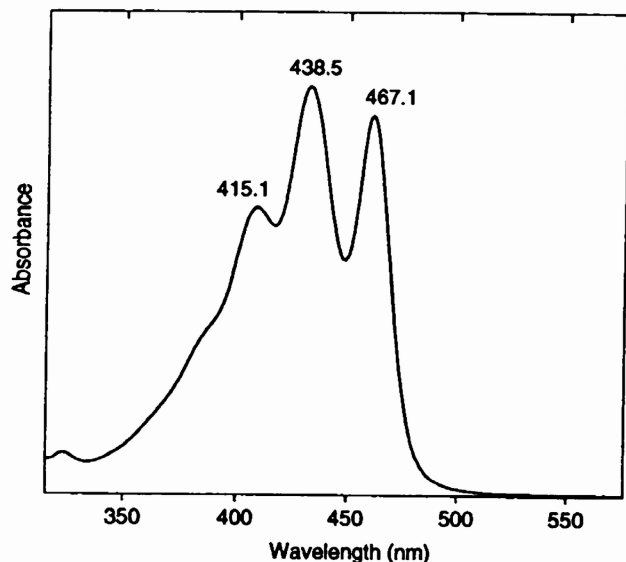


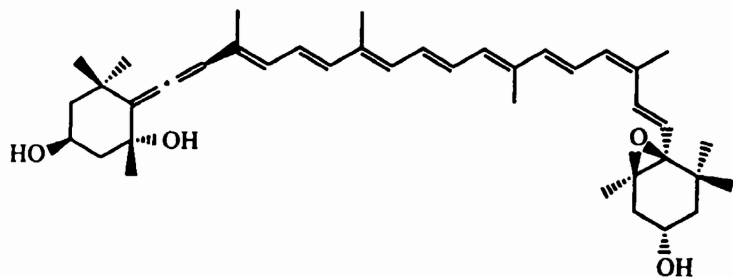
Neoxanthin

HPLC peak 14

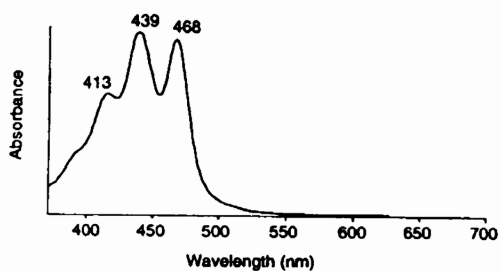
Standard spectrum in reference solvent: acetone



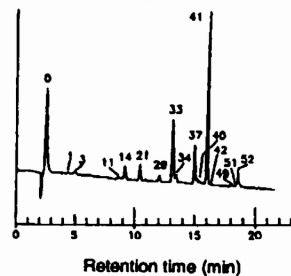
Molecular structure



Diode array spectrum in SCOR eluant



HPLC: Neoxanthin, peak 14 *Dunaliella tertiolecta*



Neoxanthin

Property

Data

Name: (Trivial)
(IUPAC)

Neoxanthin

(9'-*cis*)(3*S*,5*R*,6*R*,3'*S*,5'*R*,6'*S*)-5',6'-Epoxy-6,7-didehydro-5,6,5',6'-tetrahydro-β,β-carotene-3,5,3'-triol

SCOR abbreviation:

Neo

Occurrence:

9'-*cis* isomer is minor to major pigment in green algae, euglenophytes, higher plants; all-*trans* form in brown seaweeds, chrysophytes

Colour:

Yellow

Molecular formula:

C₄₀H₅₆O₄

Molecular weight:

600.88

Specific extinction coefficient:

2270 (at 438 nm in ethanol)

E₁^{1%}_{1 cm} (100 ml g⁻¹ cm⁻¹)

Banthorpe *et al.* (1972)

2243 (at 439 nm in ethanol)

Cholnoky *et al.* (1966)

Molar extinction coefficient:

136 x 10³ (at 438 nm in ethanol)

ε (l mol⁻¹ cm⁻¹)

Calculated from mean of E₁^{1%}_{1 cm} above

UV-vis spectra:

Solvent	Maxima (nm)			Band ratio %III:II	Reference
	I	II	III		
Acetone	415	439	467	83	SCOR WG 78 data
Acetone	413	438	466	90	Bjørnland <i>et al.</i> (1987)
Ethanol	415	438	467		Mallams <i>et al.</i> (1967)
<i>n</i> -Hexane	411	435	463	97	Bjørnland (pers. comm.)
<i>n</i> -Hexane	416	440	469	94	Bjørnland (pers. comm.); all <i>trans</i> isomer
HPLC Eluant	414	437	466	90	SCOR WG 78: Mantoura & Llewellyn (1983) method
HPLC Eluant	413	439	468	87	SCOR WG 78: Wright <i>et al.</i> (1991) method

Alteration products:

Cis-trans isomers; furanoids (neochromes)

Culture from which SCOR data were obtained:

Dunaliella tertiolecta (green flagellate)
(9'-*cis* isomer)

Additional reference(s):

Bjørnland *et al.* (1987); Bjørnland (1990a)