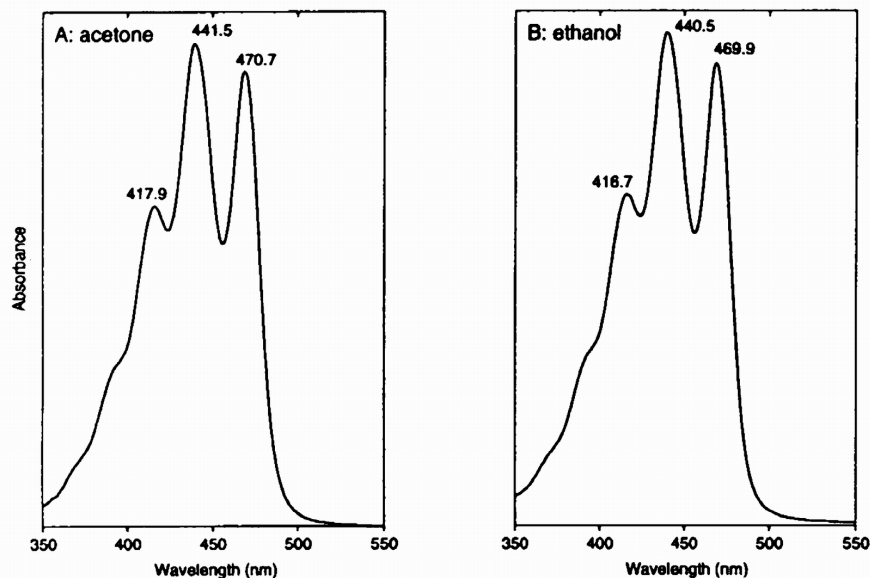


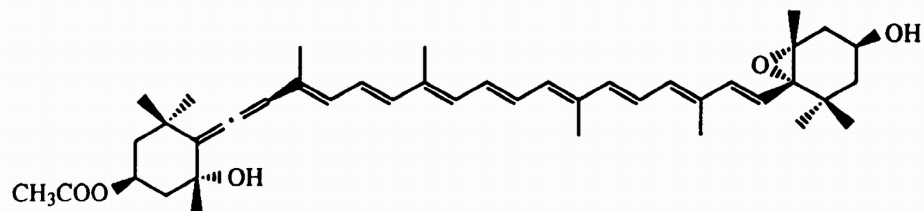
Dinoxanthin

HPLC peak 23

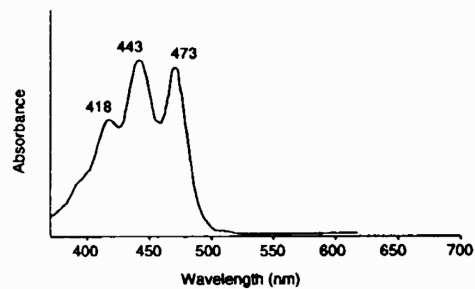
Standard spectrum in reference solvents



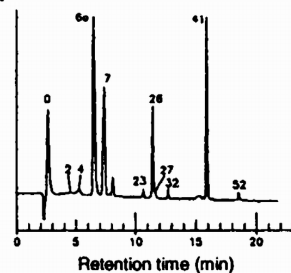
Molecular structure



Diode array spectrum in SCOR eluant



HPLC: Dinoxanthin, peak 23 *Amphidinium carterae*



Dinoxanthin

Property

Data

Name: (Trivial)
(IUPAC)

Dinoxanthin
(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 3-acetate

SCOR abbreviation:

Dino

Occurrence:

Minor pigment in dinoflagellates, except those containing endosymbionts of other algal classes

Colour:

Bright yellow

Molecular formula:

C₄₂H₅₈O₅

Molecular weight:

642.92

Specific extinction coefficient:

2100 (at 442 nm in acetone)

E₁^{1%}_{cm} (100 ml g⁻¹ cm⁻¹)

Not determined; recommended by Johansen *et al.* (1974)

Molar extinction coefficient:

135 x 10³ (at 442 nm in acetone)

ϵ (l mol⁻¹ cm⁻¹)

Calculated from E₁^{1%}_{cm} above

UV-vis spectra:

Solvent	Maxima (nm)			Band ratio %III:II	Reference
	I	II	III		
Ethanol	417	441	470	85	SCOR WG 78 data
Ethanol	(416)	440	470		Jeffrey <i>et al.</i> (1975)
Ethanol	(419)	441	470		Loeblich & Smith (1968)
Acetone	418	442	471	86	SCOR WG 78 data
Hexane	416	439	469	83	Loeblich & Smith (1968)
Methanol	416	438	467	76	Loeblich & Smith (1968)
HPLC Eluant	418	443	473	87	SCOR WG 78: Wright <i>et al.</i> (1991) method

Alteration products:

Cis-isomers; (probably) furanoids (dinochromes)

Culture from which SCOR data were obtained:

Amphidinium carterae (dinoflagellate)

Additional reference(s):

Johansen *et al.* (1974); Jeffrey *et al.* (1975)