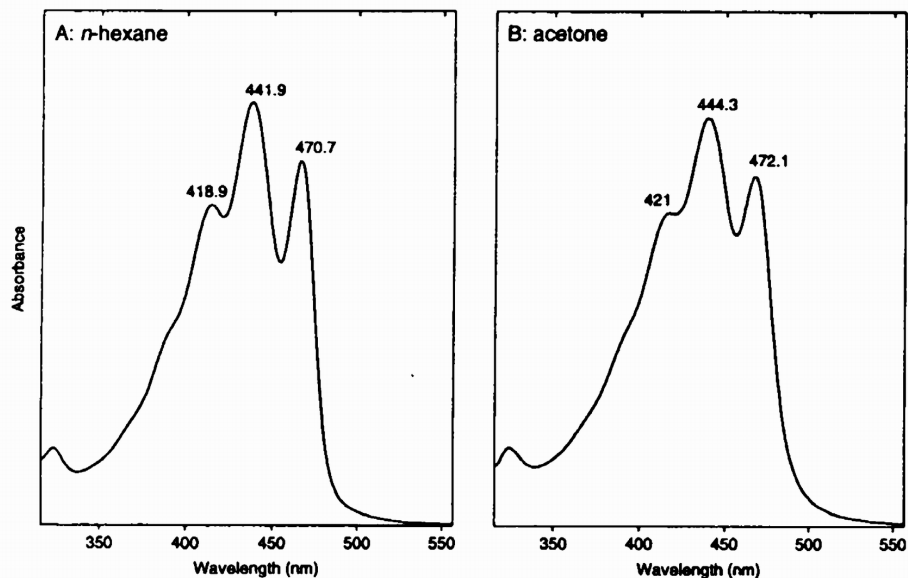


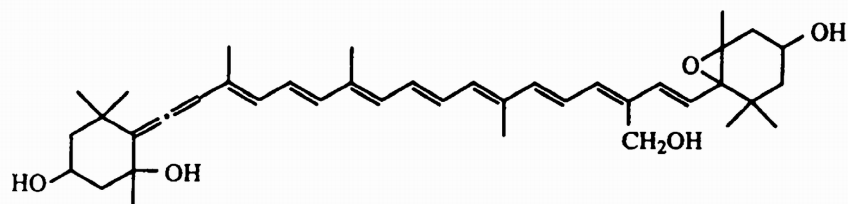
Vaucherixanthin (ester)

HPLC peak V

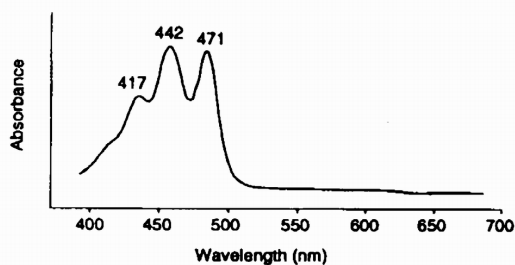
Standard spectrum in reference solvents



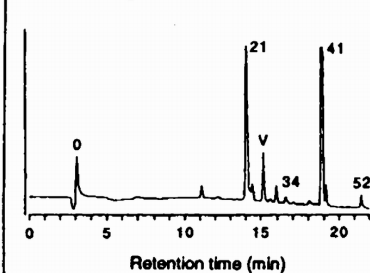
Molecular structure



Diode array spectrum in SCOR eluant



HPLC: Vaucherixanthin (ester), peak V *Nannochloropsis oculata*



Vaucherixanthin (ester)

Property

Data

Name:	(Trivial) (IUPAC)	Vaucherixanthin (ester) 5',6'-Epoxy-6,7-didehydro-5,6,5',6'- tetrahydro-β,β-carotene-3,5,3',19'-tetrol ester
SCOR abbreviation:		Vauch
Occurrence:		Major pigment in xanthophytes and eustigmatophytes
Colour:		Yellow
Molecular formula:		C ₄₀ H ₅₆ O ₅
Molecular weight:		616.88
Specific extinction coefficient: E _{1 cm} ^{1%} (100 ml g ⁻¹ cm ⁻¹)		2500 (at 444 nm in acetone) Not determined; use E _{1 cm} ^{1%} for β,β-carotene (Davies, 1976)
Molar extinction coefficient: ε (l mol ⁻¹ cm ⁻¹)		154 x 10 ³ (at 444 nm in acetone) Calculated from E _{1 cm} ^{1%} above

UV-vis spectra:

Solvent	Maxima (nm)			Band ratio %III:II	Reference
	I	II	III		
Acetone	421	444	472	50	SCOR WG 78 data
Acetone	420	441	467		Norgård <i>et al.</i> (1974)
<i>n</i> -Hexane	419	442	471	64	SCOR WG 78 data
Ethanol	418	441	470		Whittle & Casselton (1975) – non-esterified
Ethanol	419	442	471		Whittle & Casselton (1975) – esterified
Ethanol	419	443	470		Antia & Cheng (1982)
HPLC Eluant	417	442	471	92	SCOR WG 78: Wright <i>et al.</i> (1991) method

Alteration products: *Cis*-isomers; (probably) furanoids

Culture from which SCOR data were obtained: *Nannochloropsis oculata* (eustigmatophyte)

Additional reference(s): Norgård *et al.* (1974); Whittle & Casselton (1975); Volkman *et al.* (1993)