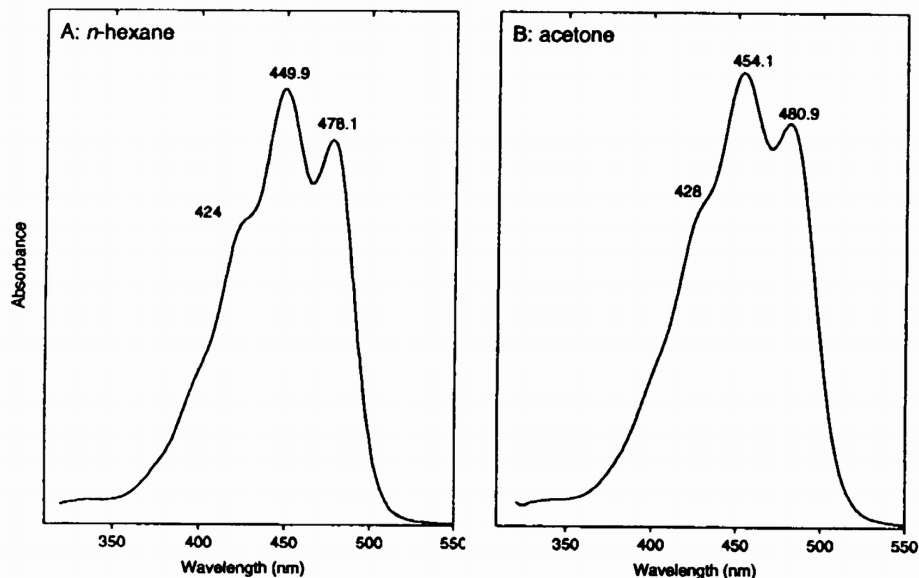
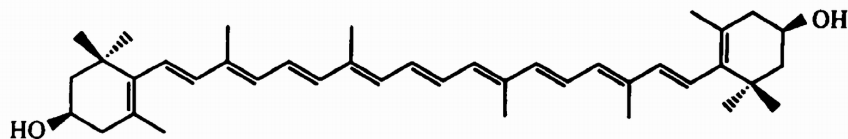


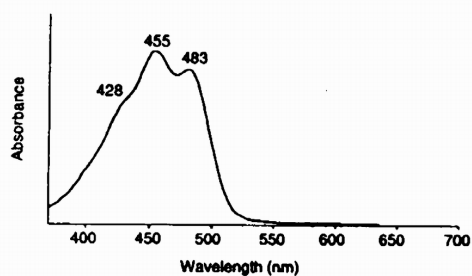
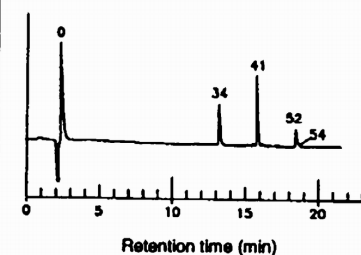
Standard spectrum in reference solvents



Molecular structure



Diode array spectrum in SCOR eluant

HPLC: Zeaxanthin, peak 34
Synechococcus sp.

Property

Data

Name:	(Trivial) (IUPAC)	Zeaxanthin (3 <i>R</i> ,3' <i>R</i>)- β , β -Carotene-3,3'-diol
SCOR abbreviation:		Zea
Occurrence:		Major or minor pigment in prochlorophytes, cyanobacteria (coccoid), green algae, most chrysophytes, raphidophytes
Colour:		Yellow-orange
Molecular formula:		$C_{40}H_{56}O_2$
Molecular weight:		568.88
Specific extinction coefficient:		2340 (at 452 nm in acetone) Aasen & Liaaen-Jensen (1966b) 2540 (at 450 nm in ethanol) Strain (1938) 2350 (at 452 nm in petroleum ether) Davies (1976)
Molar extinction coefficient:		133×10^3 (at 452 nm in acetone) 145×10^3 (at 450 nm in ethanol) 134×10^3 (at 452 nm in petroleum ether) Calculated from $E_{1\%}^{1\text{cm}}$ above

UV-vis spectra:

Solvent	Maxima (nm)			Band ratio %III:II	Reference
	I	II	III		
Acetone	(428)	454	481	33	SCOR WG 78 data
Acetone	(425)	450	478		Withers <i>et al.</i> (1981)
Ethanol	(428)	450	478	26	Stransky & Hager (1970a)
n-Hexane	(424)	450	478	46	SCOR WG 78 data
n-Hexane	(426)	450	480		Valadon & Mummery (1967)
Methanol	422	450	481		Karrer & Jucker (1948)
HPLC Eluant	(426)	453	479	33	SCOR WG 78: Mantoura & Llewellyn (1983) method
HPLC Eluant	(428)	455	483	23	SCOR WG 78: Wright <i>et al.</i> (1991) method

Alteration products:

Cis-isomers

Culture from which SCOR data were obtained:

Synechococcus sp. (DC-2)(blue-green algae)

Additional reference(s):

Guillard *et al.* (1985); Krinsky *et al.* (1989)