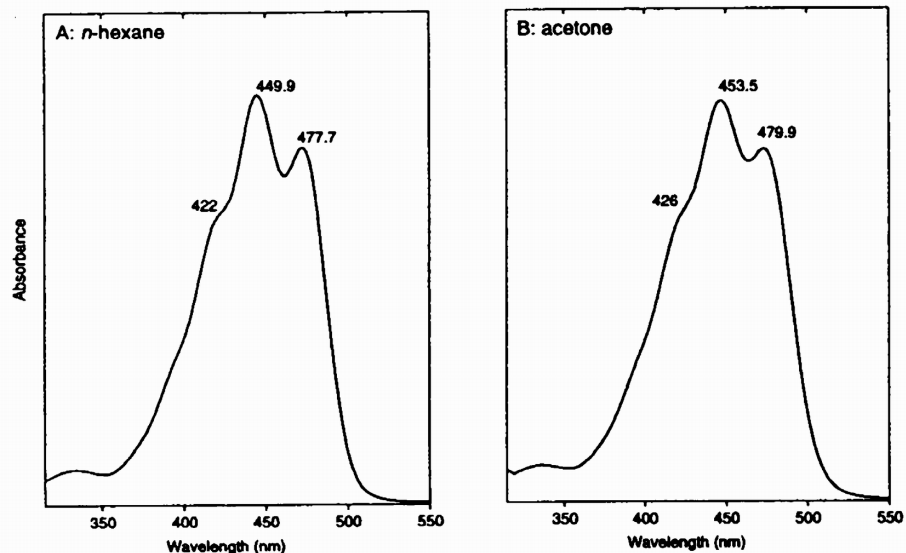
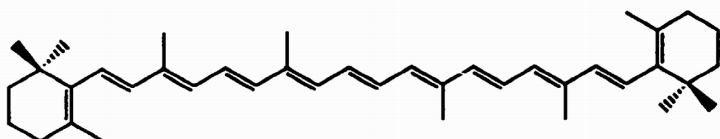


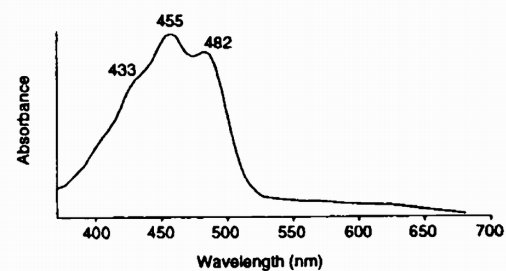
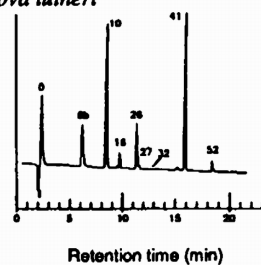
Standard spectrum in reference solvents



Molecular structure



Diode array spectrum in SCOR eluant

HPLC: β, β -carotene, peak 52*Pavlova lutheri*

Property

Data

Name:	(Trivial) (IUPAC)	β -Carotene β, β -Carotene
SCOR abbreviation:		$\beta\beta$ -car
Occurrence:		Major pigment in higher plants, green algae; minor or trace pigment in chromophyte algae
Colour:		Yellow-orange
Molecular formula:		$C_{40}H_{56}$
Molecular weight:		536.88
Specific extinction coefficient:		2500 (at 454 nm in acetone) Hiyama <i>et al.</i> (1969)
$E_{1\%}^{1\text{cm}}$ (100 ml g^{-1} cm^{-1})		2592 (at 453 nm in hexane) Isler <i>et al.</i> (1956) 2620 (at 453 nm in ethanol) Isler <i>et al.</i> (1956)
Molar extinction coefficient:		134×10^3 (at 454 nm in acetone) 139×10^3 (at 453 nm in hexane) 141×10^3 (at 453 nm in ethanol)
ϵ (1 mol^{-1} cm^{-1})		Calculated from $E_{1\%}^{1\text{cm}}$ above

UV-vis spectra:

Solvent	Maxima (nm)			Band ratio % III:II	Reference
	I	II	III		
Acetone	(426)	453.5	479.9	21	SCOR WG 78 data
Hexane	(422)	449.9	477.7	36	SCOR WG 78 data
Ethanol	(427)	449	475		Katayama <i>et al.</i> (1972)
HPLC Eluant	(425)	453	476	22	SCOR WG 78: Mantoura & Llewellyn (1983) method
HPLC Eluant	(433)	455	482	22	SCOR WG 78: Wright <i>et al.</i> (1991) method

Alteration products:

Cis-isomers

Culture from which SCOR data were obtained:

Pavlova lutheri (prymnesiophyte)

Additional reference(s):

Goodwin (1980)