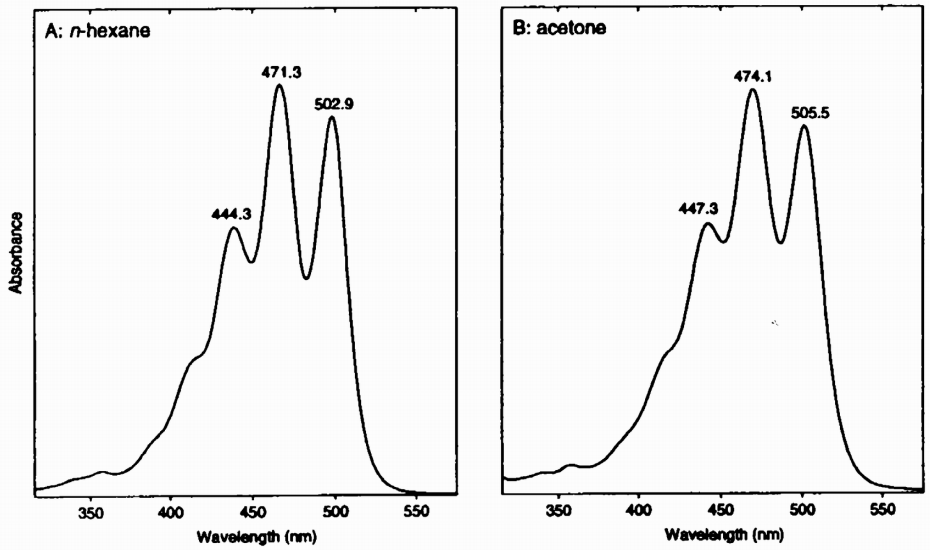
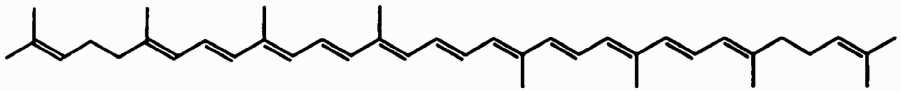
Lycopene

HPLC peak 45

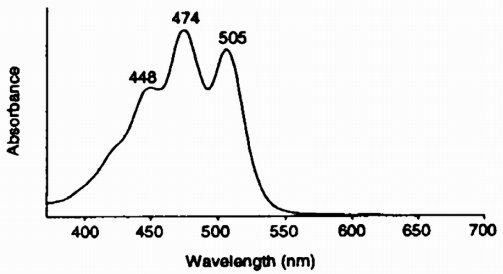
Standard spectrum in reference solvents



Molecular structure

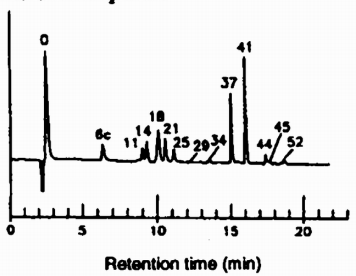


Diode array spectrum in SCOR eluant



HPLC: Lycopene, peak 45

Micromonas pusilla



Lycopene

Property		Data
Name:	(Trivial)	**Lycopene**
	(IUPAC)	ψ,ψ-Carotene
SCOR abbreviation:		Lyco
Occurrence:		Minor pigment in prasinophytes, trace pigment in cyanophytes
Colour:		Red
Molecular formula:		$C_{40}H_{56}$
Molecular weight:		536.88
Specific extinction coefficient: $E^{1\%}_{1\ cm}$ (100 ml g^{-1} cm^{-1})		3446 (at 474 nm in acetone) Aasen & Liaaen-Jensen (1966a) 3470 (at 472 nm in *n*-hexane) Zechmeister (1944)
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})		185 x 10^3 (at 474 nm in acetone) 186 x 10^3 (at 472 nm in *n*-hexane) Calculated from $E^{1\%}_{1\ cm}$ above

UV-vis spectra:

Solvent	Maxima (nm) I	II	III	Band ratio %III:II	Reference
Acetone	447	474	506	77	SCOR WG 78 data
Acetone	448	474	505		Hertzberg & Liaaen-Jensen (1967)
n-Hexane	444	471	503	83	SCOR WG 78 data
n-Hexane	448	473	504		Bindl *et al.* (1970)
Ethanol	446	472	503		Davies (1976)
HPLC Eluant	448	474	505	67	SCOR WG 78: Wright *et al.* (1991) method

Alteration products:

Culture from which SCOR data were obtained:	*Micromonas pusilla* (prasinophyte)
Additional reference(s):	Goodwin (1980); Krinsky *et al.* (1989)