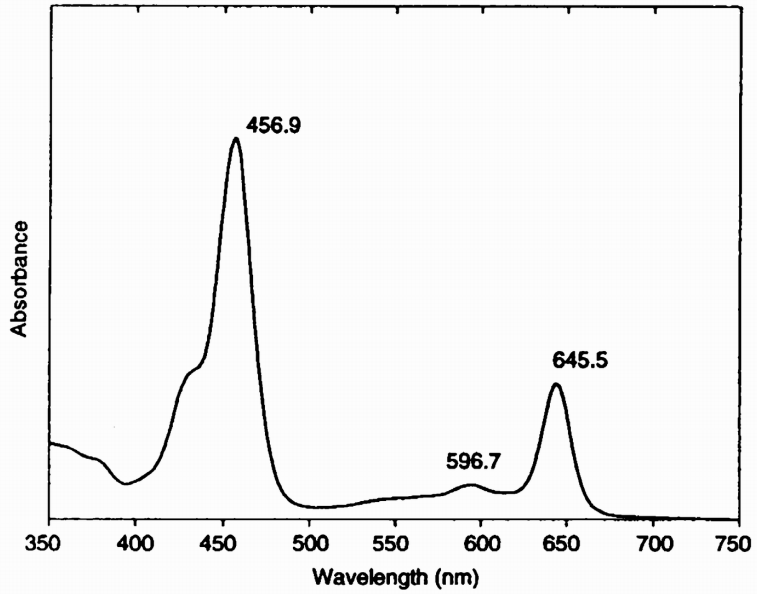
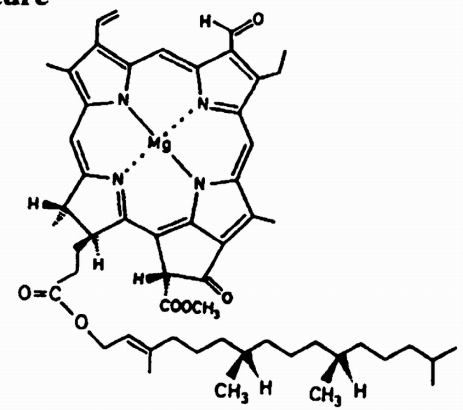
Chlorophyll *b*

HPLC peak 37

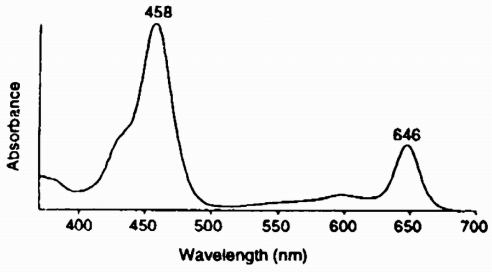
Standard spectrum in reference solvent: acetone (100%)



Molecular structure

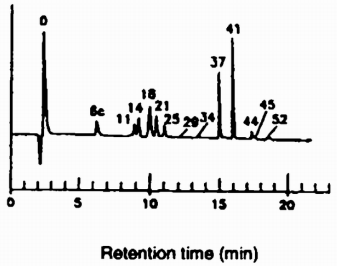


Diode array spectrum in SCOR eluant



HPLC: Chl *b*, peak 37

Micromonas pusilla



Property		Data
Name:	(Trivial)	**Chlorophyll *b***
	(IUPAC)	Trivial name sufficient, see Hynninen (1991)
SCOR abbreviation:		Chl *b*
Occurrence:		Higher plants, green algae, symbiotic prochlorophytes
Colour:		Olive green (TLC); emerald green (concentrated solution)
Molecular formula:		$C_{55}H_{70}N_4O_6Mg$
Molecular weight:		907.49
Specific extinction coefficient: α (l g^{-1} cm^{-1})		51.36 (at 646.8 nm in 90% acetone) 62.00 (at 643.3 nm in diethyl ether) Jeffrey & Humphrey (1975)
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})		46.61 x 10^3 (at 646.8 nm in 90% acetone) 56.26 x 10^3 (at 643.3 nm in diethyl ether) Calculated from α above

UV-vis spectra:

Solvent	Absorbance maxima (nm)			Band ratio*	Reference
100% Acetone	456.9	596.7	645.5	2.82	SCOR WG 78 data
Diethyl ether	455	595	644	2.81	Smith & Benitez (1955)
Diethyl ether	453	593	642	2.77	Hynninen & Lötjönen (1983)
Ethanol	464		649		Griffiths (1991)
HPLC Eluant	458	596	646	2.83	SCOR WG 78: Wright *et al.* (1991) method

*Soret (blue maximum): red ratio

Fluorescence spectra:

Solvent	Excitation (nm)	Emission (nm)	Reference
Diethyl ether	453	646	Boardman & Thorne (1971)
100% Acetone	459	652, 710	Jeffrey (1972)
100% Acetone	453	652	SCOR WG 78 data

Alteration products:	Chlorophyllide *b*, pheophytin *b*, pheophorbide *b*, epimers, allomers, pyro-pheophytin *b*
Culture from which SCOR data were obtained:	*Dunaliella tertiolecta* (chlorophyte), *Micromonas pusilla* (prasinophyte)
Additional reference(s):	Scheer (1991)