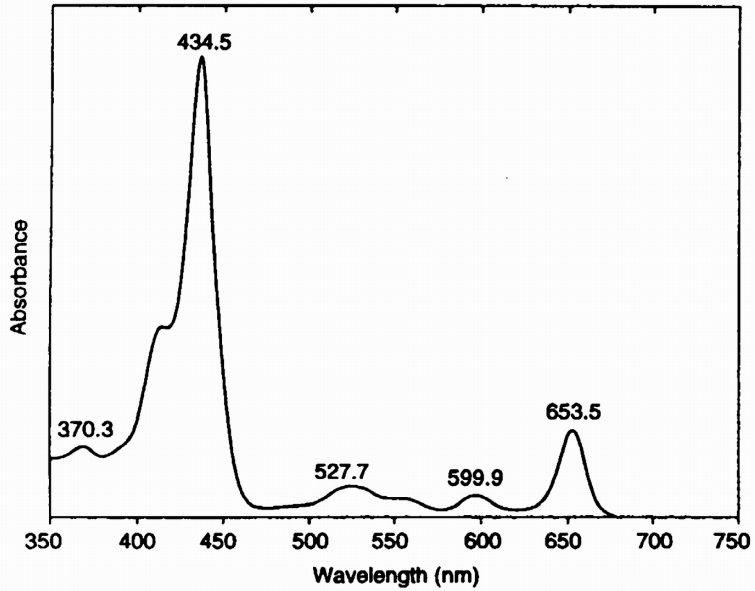
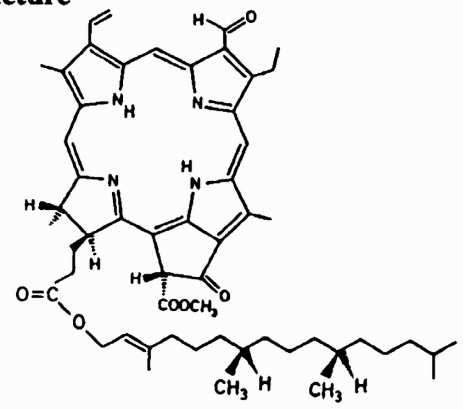
Pheophytin *b*

HPLC peak 46

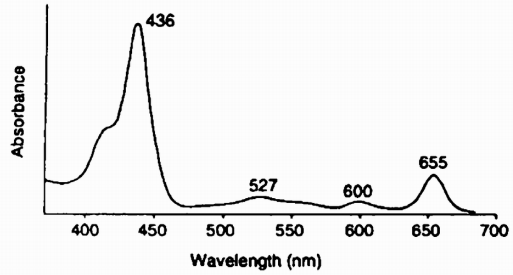
Standard spectrum in reference solvent: acetone (100%)



Molecular structure

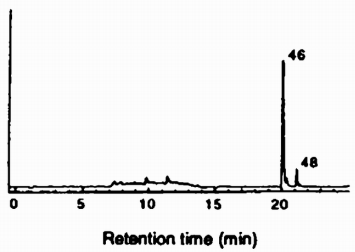


Diode array spectrum in SCOR eluant



HPLC: Pheophytin *b*, Peak 46

Acidified chlorophylls from *Dunaliella*



Property		Data
Name:	(Trivial)	**Pheophytin *b***
	(IUPAC)	Trivial name sufficient; see Hynninen (1991)
SCOR abbreviation:		Phytin *b*
Occurrence:		Terrestrial plant detritus
Colour:		Grey (red fluorescence) on TLC; yellow-grey (concentrated solution)
Molecular formula:		$C_{55}H_{72}N_4O_6$
Molecular weight:		885.20
Specific extinction coefficient: α (l g^{-1} cm^{-1})		42.1 (at 655 nm in diethyl ether) Smith & Benitez (1955) 31.8 (at 657 nm in 90% acetone) N. Welschmeyer, pers. comm.
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})		37.3×10^3 (at 655 nm in diethyl ether) 28.1×10^3 (at 657 nm in 90% acetone) Calculated from α above

UV-vis spectra:

Solvent	Absorbance maxima (nm)				Band ratio*	Reference
100% Acetone	434.5	527.7	599.9	653.5	5.30	SCOR WG 78 data
Diethyl ether	434	525	599	655	5.13	Smith & Benitez (1955)
HPLC Eluant	436	527	600	655	5.23	SCOR WG 78: Wright *et al.* (1991) method
Tetrahydro-furan	435	525	599	654	4.92	Hynninen & Lötjönen (1983)

*Soret (blue maximum): red ratio

Fluorescence spectra:

Solvent	Excitation (nm)	Emission (nm)	Reference
Diethyl ether	434	661	Smith & Benitez (1955)
Diethyl ether	434	658	Boardman & Thorne (1971)
100% Acetone	432	659	SCOR WG 78 data

Alteration products: Epimers and allomers

Origin: Acidification of chlorophyll *b* preparation

Additional reference(s): Scheer (1991)