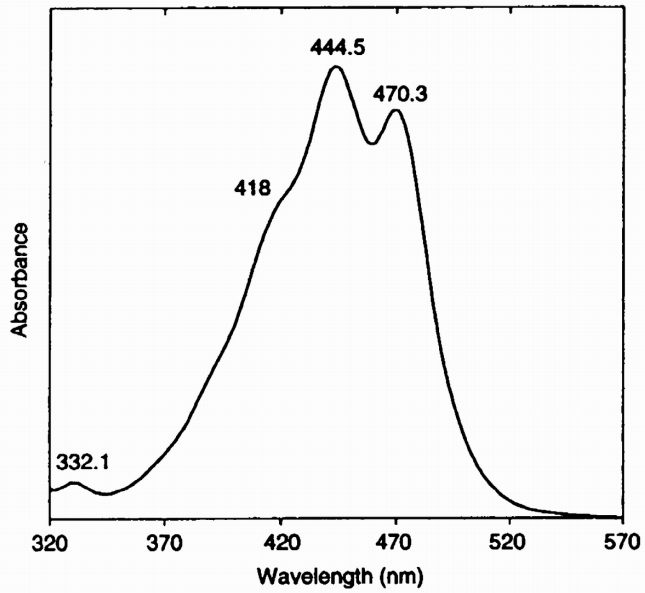
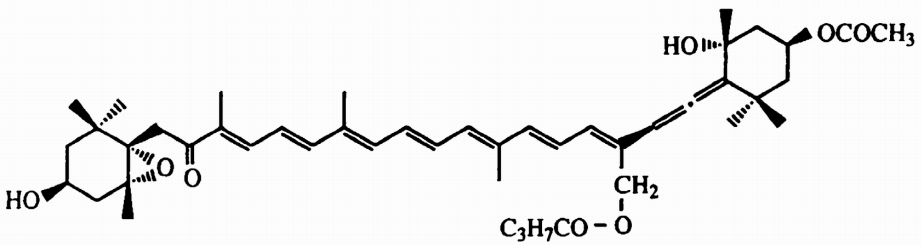
19'-Butanoyloxyfucoxanthin

HPLC peak 9

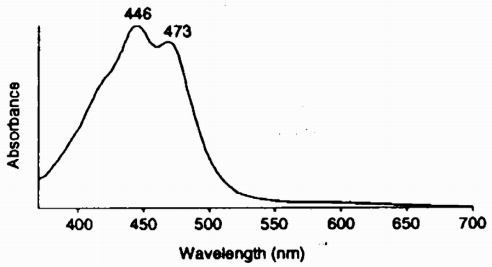
Standard spectrum in reference solvent: acetone



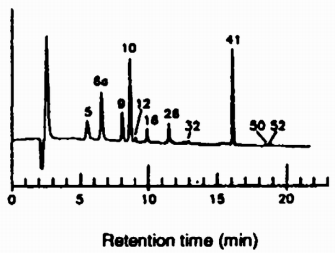
Molecular structure



Diode array spectrum in SCOR eluant



HPLC: 19'-Butanoyloxyfucoxanthin
Pelagococcus subviridis, **peak 9**



19'-Butanoyloxyfucoxanthin

Property		Data
Name:	(Trivial)	**19'-Butanoyloxyfucoxanthin**
	(IUPAC)	(3*S*,5*R*,6*S*,3'*S*,5'*R*,6'*S*)-5,6-Epoxy-3,3',5',19'-tetrahydroxy-6',7'-didehydro-5,6,7,8,5',6'-hexahydro-β,β-caroten-8-one 3'-acetate 19'-butanoate
SCOR abbreviation:		But-fuco
Occurrence:		Major pigment in some prymnesiophytes (eg *Phaeocystis*), marine chrysophytes (eg *Pelagococcus*) and 3 dinoflagellates. Trace pigment in other prymnesiophytes (e.g. *Emiliania*)
Colour:		Yellow-orange
Molecular formula:		$C_{46}H_{64}O_8$
Molecular weight:		745.01
Specific extinction coefficient: $E^{1\%}_{1\,cm}$ (100 ml g^{-1} cm^{-1})		1470 (at 445 nm in acetone) Calculated from ε for fucoxanthin, Haugan & Liaaen-Jensen (1989)
Molar extinction coefficient: ε (l mol^{-1} cm^{-1})		109×10^3 (at 445 nm in acetone) Assume ε But-fuco = ε for fucoxanthin (Haugan & Liaaen-Jensen, 1989); see Preamble

UV-vis spectra:

Solvent	Maxima (nm) I	II	III	Band ratio %III:II	Reference
Acetone	(418)	444.5	470.3	44	SCOR WG 78 data
Acetone		445	471	40	Vesk & Jeffrey (1987)
Ethanol		446	470	18	Wright & Jeffrey (1987)
n-Hexane	(426)	446	473	57	Bjørnland *et al.* (1989)
HPLC Eluant		448	469	21	SCOR WG 78: Mantoura & Llewellyn (1983) method
HPLC Eluant		446	473	25	SCOR WG 78: Wright *et al.* (1991) method

Alteration products:	*Cis*-isomers
Culture from which SCOR data were obtained:	*Pelagococcus subviridis* (chrysophyte)
Additional reference(s):	Vesk & Jeffrey (1987); Bjørnland *et al.* (1989); Bjørnland & Liaaen-Jensen (1989); Jeffrey & Wright (1994)