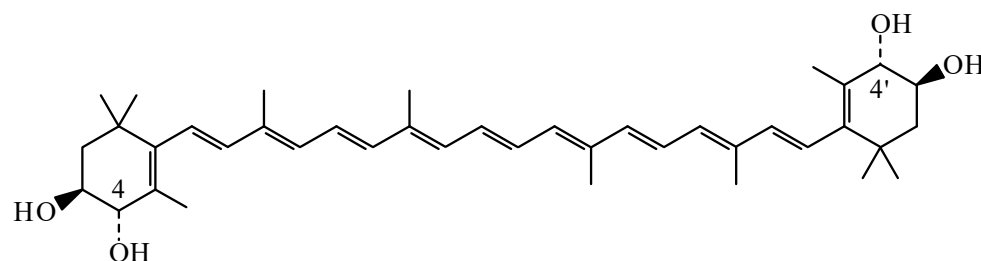




>>Entry Name: Crustaxanthin

Synonym(s): β,β -Carotene-3,3',4,4'-tetrol



CAS Registry Number: 6094-35-5

Molecular Formula: $C_{40}H_{56}O_4$

Molecular Weight: 600.88

Accurate Mass: 600.41786

Percentage Composition: C 79.96%; H 9.39%; O 10.65%

General Statement: Abs. config. of natural compd. uncertain; *cis,cis*- and *trans,trans*-isomers have been synthesized

Biological Source: Isol. from the crustacean *Arctodiaptomus salinus*, also from the copepod *Euchaeta russelli* and in aplanospores of *Haematococcus pluvialis* and fish skins

Melting Point: Mp 172-173°

>>Derivative: 4,4'-Diketone

see Astaxanthin, [LMC61-X](#)

>>Derivative: Tetraketone

Synonym(s): Astacene. β,β -Carotene-3,3',4,4'-tetrone. Astacin. Euglenarhodone

CAS Registry Number: 514-76-1

Molecular Formula: $C_{40}H_{48}O_4$

Molecular Weight: 592.817

Accurate Mass: 592.35526

Percentage Composition: C 81.04%; H 8.16%; O 10.80%

Biological Source: Found in fish, crustaceans, bacteria (*Mycobacterium laticolum*) and algae (*Euglena*)

Physical Description: Purple-red cryst. (Py)

Melting Point: Mp 243°

References:

- Bodea, C. *et al.*, *Annalen*, 1963, **666**, 189, (*ir*)
Bartlett, L. *et al.*, *J.C.S.(C)*, 1969, 2527, (*ord*)
Andrewes, A.G. *et al.*, *Acta Chem. Scand., Ser. B*, 1974, **28**, 730, (*synth, struct, uv*)
Kienzle, F. *et al.*, *Helv. Chim. Acta*, 1975, **58**, 198, (*derivs*)
Englert, G. *et al.*, *Helv. Chim. Acta*, 1975, **58**, 2367; 1977, **60**, 1209, (*cmr, pmr*)
Cooper, R.D.G. *et al.*, *J.C.S. Perkin 1*, 1975, 2195, (*synth*)
Andrewes, A.G. *et al.*, *Phytochemistry*, 1976, **15**, 1003, (*biosynth*)
Hall, E.A.H. *et al.*, *Chem. Comm.*, 1978, 387
Widmer, E. *et al.*, *Helv. Chim. Acta*, 1981, **64**, 2405; 1982, **65**, 671, (*synth*)
Bandaranayake, W.M. *et al.*, *Comp. Biochem. Physiol., B: Comp. Biochem.*, 1982, **72**, 409; *CA*, **98**, 14534n, (*isol*)
Straub, O. *et al.*, *Key to Carotenoids*, 2nd edn., Birkhauser Verlag, Basel and Boston, 1987, 197; 398; 406, (*bibl*)
Buschor, D.J. *et al.*, *Helv. Chim. Acta*, 1990, **73**, 1002, (*synth, pmr, cmr, cd, uv*)