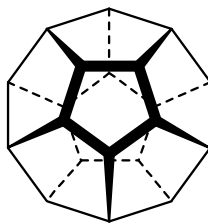




>>Entry Name: Dodecahedrane

Synonym(s): Hexadecahydro-5,2,1,6,3,4-[2,3]butanediyl[1,4]diylidenedipentaleno[2,1,6-*cde*:2',1',6'-*gha*]pentalene, 9Cl. Undecacyclo[9.9.0.0^{2,9}.0^{3,7}.0^{4,20}.0^{5,18}.0^{6,16}.0^{8,15}.0^{10,14}.0^{12,19}.0^{13,17}]eicosane, 9Cl. Pentagonal dodecahedrane



CAS Registry Number: 4493-23-6

Molecular Formula: C₂₀H₂₀

Molecular Weight: 260.378

Accurate Mass: 260.1565

Percentage Composition: C 92.26%; H 7.74%

Use/Importance: The structurally most complex symmetric member of the C_nH_n convex polyhedra

Physical Description: Cryst.

Melting Point: Mp 450°

>>Derivative: C₆H₆ complex

CAS Registry Number: 97350-56-6

Physical Description: Cryst. powder (C₆H₆)

Melting Point: Mp 280 dec.°

References:

- Eaton, P.E., *Tetrahedron*, 1979, **35**, 2189, (*rev*)
Paquette, L.A. *et al.*, *J.A.C.S.*, 1982, **104**, 4503; 1986, **108**, 1716, (*synth, spectra*)
Fessner, W.-D. *et al.*, *Angew. Chem., Int. Ed.*, 1987, **26**, 452, (*synth*)
Olah, G.A. *et al.*, *J.A.C.S.*, 1988, **110**, 1304, (*props*)
Paquette, L.A. *et al.*, *J.A.C.S.*, 1988, **110**, 8591, (*synth*)
Prinzbach, H. *et al.*, *Angew. Chem., Int. Ed.*, 1994, **33**, 2239, (*rev, synth*)
Bertau, M. *et al.*, *Tetrahedron*, 1997, **53**, 10029-10040, (*synth, pmr, cmr, ms, cryst struct*)