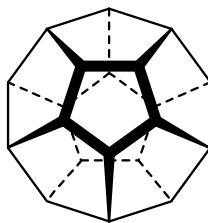




>>Entry Name: Dodecahedrane

**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<sup>2,9</sup>.0<sup>3,7</sup>.0<sup>4,20</sup>.0<sup>5,18</sup>.0<sup>6,16</sup>.0<sup>8,15</sup>.0<sup>10,14</sup>.0<sup>12,19</sup>.0<sup>13,17</sup>]eicosane, 9Cl. Pentagonal dodecahedrane



**CAS Registry Number:** 4493-23-6

**Molecular Formula:** C<sub>20</sub>H<sub>20</sub>

**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<sub>n</sub>H<sub>n</sub> convex polyhedra

**Physical Description:** Cryst.

**Melting Point:** Mp 450°

>>Derivative: C<sub>6</sub>H<sub>6</sub> complex

**CAS Registry Number:** 97350-56-6

**Physical Description:** Cryst. powder (C<sub>6</sub>H<sub>6</sub>)

**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*)