



>>Entry Name: Yttrium carbides

Molecular Formula: [CY]

>>Variant: Yttrium carbide (YC₂)

CAS Registry Number: 12071-35-1

Molecular Formula: C₂Y

Molecular Weight: 112.928

Accurate Mass: 112.905849

Percentage Composition: C 21.27%; Y 78.73%

Use/Importance: Catalyst for hydrogenation of acetylenes. Used to make conductive ceramics

Physical Description: Yellow microcryst.

Melting Point: Mp 2145°

Other Data: Dec. by H₂O, largely to ethylene. $\alpha \rightarrow \beta$ transition temp. 1320°

References:

Spedding, F.H. *et al.*, *J.A.C.S.*, 1958, **80**, 4499, (*synth, struct*)

Vickery, R.C. *et al.*, *J.C.S.*, 1959, 498; 505, (*synth*)

Atoji, M., *J. Chem. Phys.*, 1961, **35**, 1950, (*struct*)

Potter, P.E., *MTP Int. Rev. Sci.: Inorg. Chem., Ser. Two*, 1975, **7**, 257, (*rev*)

Male, G., *Rev. Int. Hautes Temp. Refract.*, 1977, **14**, 179, (*synth*)

Hajek, B. *et al.*, *Coll. Czech. Chem. Comm.*, 1984, **49**, 936; 944, (*synth, hydrol*)

Jones, D.W. *et al.*, *J. Solid State Chem.*, 1984, **53**, 376, (*struct*)

Japan. Pat., 1985, 60 51 661; *CA*, **103**, 41442, (*use*)

McKee, D.W., *Carbon*, 1986, **24**, 331, (*use*)

Karen, P. *et al.*, *Coll. Czech. Chem. Comm.*, 1986, **51**, 1411, (*hydrol*)