



>>Entry Name: Bis(η^5 -2,4-cyclopentadien-1-yl)dimethyltitanium, 9CI

Synonym(s): Dimethyltitanocene

CAS Registry Number: 1271-66-5

As Dibromobis(η^5 -2,4-cyclopentadien-1-yl)titanium, BQF36-E with
X = Me

Molecular Formula: C₁₂H₁₆Ti

Molecular Weight: 208.138

Accurate Mass: 208.073147

Percentage Composition: C 69.25%; H 7.75%; Ti 23.00%

Source/Synthesis: Synth. from TiCp₂Cl₂ and MeLi in Et₂O

Use/Importance: Catalyst for alkene polym.; polym. of Me₃SiSiHMe₂; alkene metathesis; ROMP of nbd. Methylenating agent for ketones, aldehydes, esters, lactones, amides. Catalyses the hydroboration of alkenes by catecholborane with good to exclusive anti-Markovnikov regioselectivity

Physical Description: Air-sensitive orange-yellow needles (pentane)

Melting Point: Mp 97 dec.°

Solubility: Sol. most aprotic org. solvs.

References:

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Waters, J.A. *et al.*, *J. Polym. Sci., Part A*, 1972, **10**, 1827, (*use, alkene polym*)
Erskine, G.J. *et al.*, *J. Organomet. Chem.*, 1976, **114**, 119, (*synth, props*)
Cardoso, A.M. *et al.*, *J.C.S. Dalton*, 1980, 1156, (*synth*)
Tsuji, J. *et al.*, *Tet. Lett.*, 1980, **21**, 2955, (*use, alkene metathesis*)
McQuillan, G.P. *et al.*, *J. Organomet. Chem.*, 1986, **312**, 183, (*ir*)
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