>>**Entry Name: Titanium hydride (TiH_2),** 11Cl

CAS Registry Number: 7704-98-5

TiH_2

Molecular Formula: H_2Ti
Molecular Weight: 49.896
Accurate Mass: 49.963597
Percentage Composition: H 4.04%; Ti 95.96%

in the tetrahedral sites. The stoichiometric phase has a distorted fluorite struct. which is stable at lower temps. Matrix-isolated molecules are probably linear
Source/Synthesis: Manuf. by degassing Ti in vacuum and heating in 1 atm H_2 at =450°. A complex thermal cycle is needed to attain stoichiometry
Use/Importance: Catalyst; foaming agent for metals; component of pyrotechnics

Aldrich: 20927-9
Fluka: 89500

References:

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Crane, R.L. *et al.*, *J. Less-Common Met.*, 1972, **26**, 327, *(polymorphs)*
Bale, H.D. *et al.*, *Solid State Commun.*, 1972, **11**, 1143, *(phase trans)*
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