



>>Entry Name: Tetrachlorobis(cyclohexanethiol)titanium(IV), ¹³Cl

CAS Registry Number: 149391-23-1

Ti(SCyH)₂Cl₄

Molecular Formula: C₁₂H₂₄Cl₄S₂Ti

Molecular Weight: 422.144

Accurate Mass: 419.955295

Percentage Composition: C 34.14%; H 5.73%; Cl 33.59%; S 15.19%; Ti 11.34%

Source/Synthesis: Synth. from TiCl₄ and CySH in an unspecified solv.

Use/Importance: Candidate for CVD of TiS₂ films as cathodes in Li batteries (sufficiently volatile and yields excellent thin-film cathodes)

Physical Description: Moisture-sensitive yellow cryst.

Melting Point: Mp 78 dec.°

Boiling Point: Subl._{0.1} 60°

Other Data: Corresp. cyclopentanethiol complex also reported. More volatile thiols do not form stable complexes

References:

Winter, C.H. *et al.*, *Inorg. Chem.*, 1993, **32**, 3807, (*synth, cryst struct, pmr, cmr, cvd*)