



Ta(OEt)₅

Tantalum pentaethoxide

Chemical formula	Ta(OC ₂ H ₅) ₅		
CAS No.	[6074-84-6]	Formula weight	406.25
Physical form	Colorless liquid	Melting point	21°C
Density	1.56g/cm ³		
Degree of association	2.20 (in benzene solution)		
Viscosity	14.7cSt/30°C 3.60cSt/100°C 1.55cSt/160°C		
Solubility (at25°C)	1600g/1 ℓ EtOH , 750g/1 ℓ THF miscible with toluene and hexane		
Typical impurities (ppm)	Na <1	K <1	Mg <1
	Ca <1	Cr <1	Fe <1
	Cu <1	Ni <1	

air sensitive

Vapor pressure (as dimer)
measured by gas saturation method
(temperature : 100~160°C)

118°C/0.1Torr

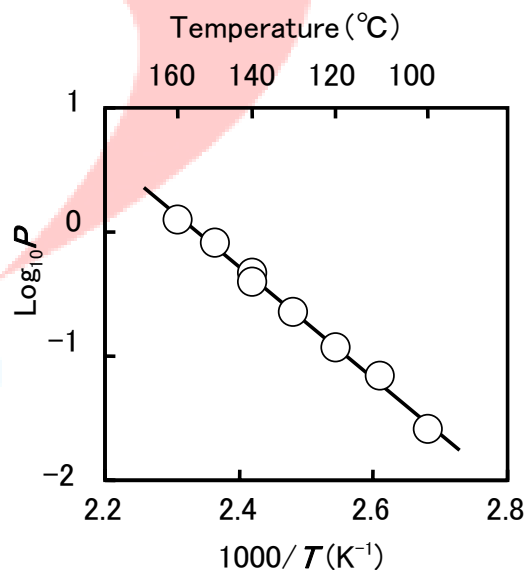
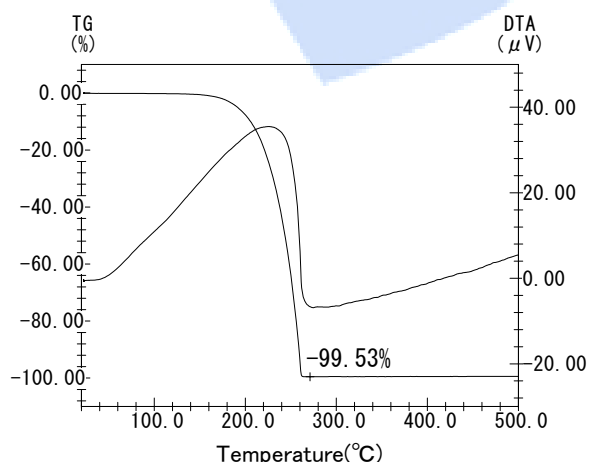
Clausius-Clapeyron equation

$$\log_{10} P = - \frac{4505}{T} + 10.52$$

P :Torr T :K

Heat of vaporization 20.6kcal/2mol

Heat of fusion 7.69kcal/mol

Fig. Clausius-Clapeyron plots for Ta(OEt)₅Fig. TG-DTA of Ta(OEt)₅ (1atm , in Ar)