



# Hf(NMe<sub>2</sub>)<sub>4</sub>

Hafnium tetrakis(dimethylamide)

Tetrakis(dimethylamino)hafnium

Chemical formula	Hf[N(CH <sub>3</sub> ) <sub>2</sub> ] <sub>4</sub>		
CAS No.	19782-68-4	Formula weight	354.8
Physical form	White (colorless) solid	Melting point	28°C
Density	1.48g/cm <sup>3</sup> (ca.50°C)		
Viscosity(40°C)	2~3cP (estimate from viewing)		
Degree of association	1 (in benzene solution)		
Solubility	miscible with toluene , hexane and octane		
air and moisture sensitive			
Typical impurities (ppm)	Na<1 K<1 Mg<1 Ca<1 Cr<1 Fe<1 Cu<1 Ni<1 Zr<500		

Vapor pressure (as monomer)  
measured by gas saturation method  
(temperature : 30~60°C)

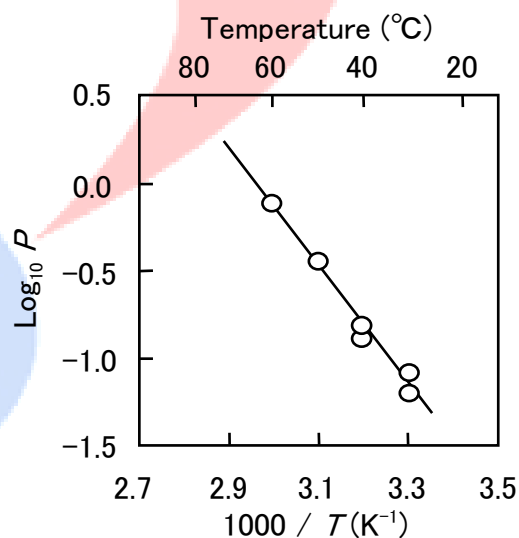
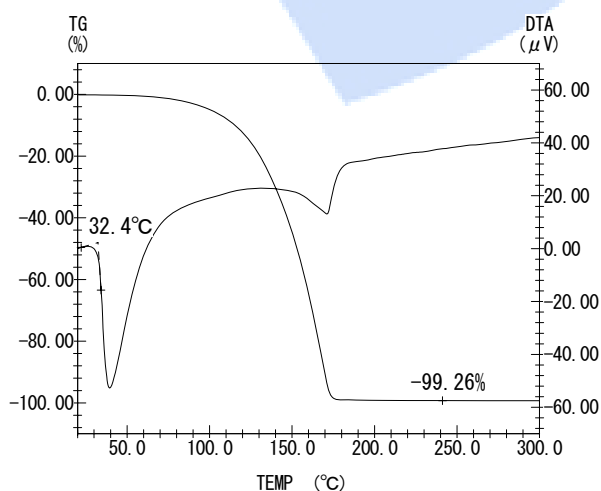
34°C/0.1Torr

Clausius-Clapeyron equation

$$\log_{10} P = - \frac{3377}{T} + 9.99$$

$P$ : Torr       $T$ : K

Heat of vaporization : 15.5 kcal/mol

Fig. Clausius-Clapeyron plots for Hf[N(CH<sub>3</sub>)<sub>2</sub>]<sub>4</sub>Fig. TG-DTA of Hf(NMe<sub>2</sub>)<sub>4</sub> (1atm , in Ar)