KOJUNDO CHEMICAL LABORATORY CO.,LTD
High Purity Materials

KJC-MOCVD-34 Last modified : 2004.3.12

Ta(NtAm)(NMe2)3

Tantalum t-amylimide tris(dimethylamide)
Tertiaryamylimidotris(dimethylamido)tantalum
"Taimata"

Chemical formula $Ta[NC(CH_3)_2C_2H_5][N(CH_3)_2]_3$
CAS No. [440081-38-9] Formula weight 398.3
Physical form White (colorless) solid Melting point 36℃
Degree of association 1 (in benzene solution)
Solubility miscible with toluene , hexane and octane
Viscosity 3.0cSt/50℃ 1.8cSt/75℃
Density 1.43g/cm^3
air and moisture sensitive
Typical impurities (ppm) Na <1 K <1 Mg <1 Ca <1 Cr <1 Fe <1 Cu <1 Ni <1
Vapor pressure (as monomer)
measured by gas saturation method
(temperature : 60～100℃)
61℃/0.1Torr
Clausius-Clapeyron equation

$$\log_{10} P = -\frac{3233}{T} + 8.67$$

P: Torr T: K
Heat of vaporization : 14.8 kcal/mol

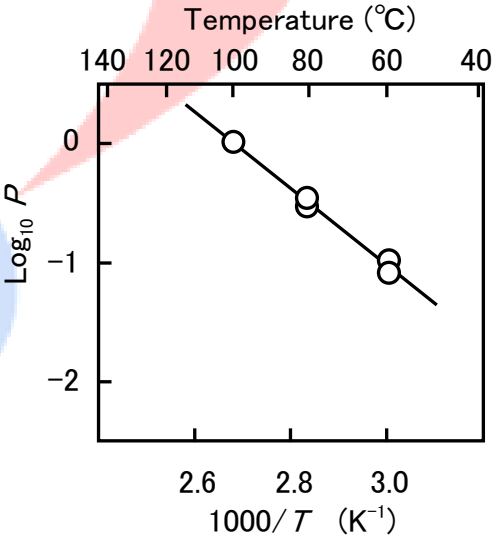

Fig. Clausius-Clapeyron plots for $Ta(NtAm)(NMe_2)_3$

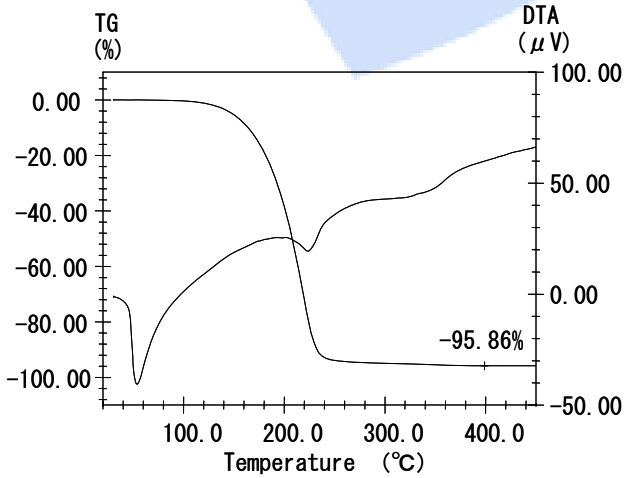

Fig. TG-DTA of Ta(NtAm)(NMe2)3 (1atm , in Ar)

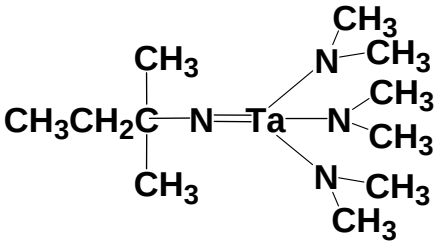

Fig. Stractural formula of $Ta(NtAm)(NMe_2)_3$

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