

$\text{Ru}(\text{EtCp})_2$

Bis(ethylcyclopentadienyl)ruthenium

Chemical formula $\text{Ru}(\text{C}_5\text{H}_4\text{C}_2\text{H}_5)_2$
 CAS No. [32992-96-4] Formula weight 287.37
 Physical form yellow liquid Melting point 6°C
 Density (25°C) $1.38\text{g}/\text{cm}^3$
 Viscosity $6.5\text{cSt}/25^\circ\text{C}$. $1.5\text{cSt}/100^\circ\text{C}$
 Degree of association 1 (in benzene solution)
 Solubility (at 25°C) $50\text{g}/100\text{mL}$ THF . $40\text{g}/100\text{mL}$ toluene . $40\text{g}/100\text{mL}$ hexane
 Insoluble in water

almost stable in air

Typical impurities (ppm) Na <1 K <1 Mg <1 Ca <1 Cr <1 Fe <1 Cu <1 Ni <1

Vapor pressure

measured by gas saturation method

(temperature : $50 \sim 120^\circ\text{C}$)

$73^\circ\text{C}/0.1\text{Torr}$

Clausius-Clapeyron equation

$$\log_{10} P = - \frac{3708}{T} + 9.75$$

P : Torr T : K

Heat of vaporization 17.0 kcal/mol

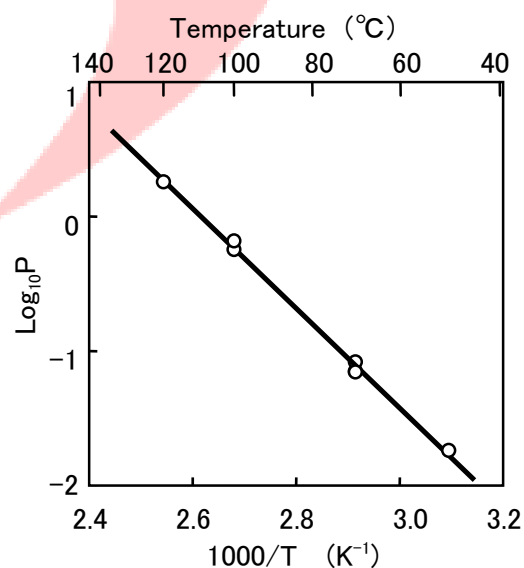


Fig. Clausius-Clapeyron plots for $\text{Ru}(\text{EtCp})_2$

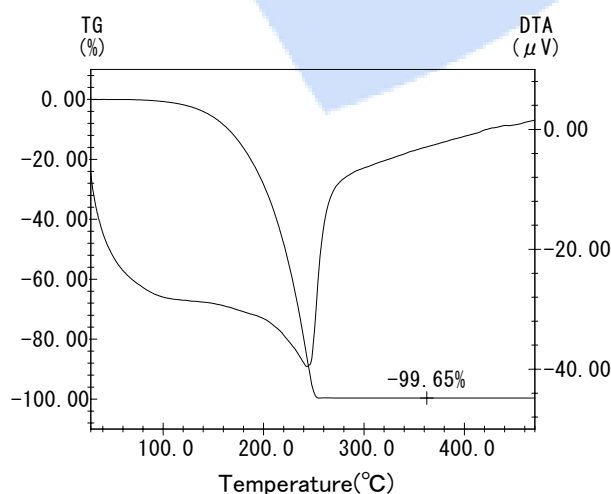


Fig. TG-DTA of $\text{Ru}(\text{EtCp})_2$ (1atm , in Ar)