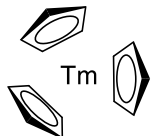


Catalog # 69-6000 Tris(cyclopentadienyl)thulium (99.9%-Tm) (REO)



Thermal Behavior:

- Melting point: 278°C [1], 248-249°C [2]

Technical Notes:

1. ALD/CVD precursor for thulium containing thin films

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Tm ₂ O ₃	ALD	140°C	-	H ₂ O	200-300°C	2-3

References:

1. [J. Organomet. Chem. 1965, 3, 181](#)
2. [J. Electrochem. Soc. 2013, 160, D538](#)
3. [IEEE Trans. Electron Devices 2015, 62, 934](#)