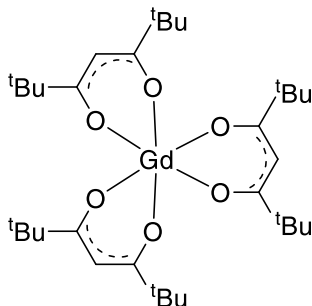


Catalog # 64-5000 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato)gadolinium(III), 99% (99.9%-Gd) (REO)  
[Gd(TMHD)3]



Thermal Behavior:

- Melting point 182-184°C [1]
- Sublimation temperature 138°C/1.5-2.25 Torr [3]
- boiling point dec. 295°C

Technical Notes:

1. ALD/CVD precursor for Gd thin film deposition

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Gd <sub>2</sub> O <sub>3</sub>	ALD	140°C	1.5-2.25 Torr	O <sub>3</sub>	225-400°C	2
GdScO <sub>3</sub>	ALD	140°C	1.5-2.25 Torr	Sc(thd) <sub>3</sub> ; O <sub>3</sub>	300°C	3
GdYBCO	MOCVD	300-310°C	Atm	M(tmhd) <sub>x</sub> M=Zr, Y, Ba, Cu O <sub>2</sub> , N <sub>2</sub> O	500°C	4
GdCo <sub>x</sub> O <sub>y</sub> GdCa <sub>x</sub> Co <sub>y</sub> O <sub>z</sub>	ALD	140°C	2 Torr	M(tmhd) <sub>x</sub> M=Co, Ca; O <sub>3</sub>	300°C	5

References:

1. [J. Am. Chem. Soc. 1965, 87, 5254](#)
2. [J. Cryst. Growth, 2005, 285, 191](#)
3. [J. Mater. Chem., 2010, 20, 4207](#)
4. [Ceram. Int. 2018, 44, 12125](#)
5. [Materials , 2020, 13, 24](#)