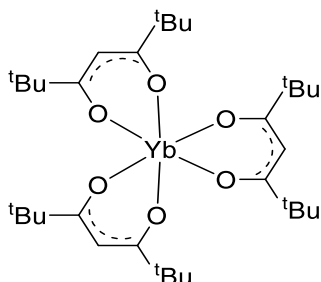


Catalog # 70-0100 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato)ytterbium(III), 99% (99.9%-Yb) (REO)
[Yb(TMHD)3]



Thermal Behavior:

- Melting point: 166-169°C [1]; 165-167°C [2]; 163°C [3]
- Vapor pressure measurements in ref [4]

Technical Notes:

1. ALD/CVD precursor for deposition and dopant of Yb thin films.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Yb ₂ O ₃	ALD	170°C	-	O ₃	250-400°C	5
YbMn _x O _y	ALD	123°C	1.5-2 Torr	Mn(thd) ₃ , O ₃	275°C	6
LnYb _x Ti _y O _z	ALD	-	-	Ln(thd) ₃ , O ₃ TiCl ₄ , H ₂ O	300°C	7
Yb:YVO ₄	ALD	128°C	-	Y(thd) ₃ , V(thd) ₂ , O ₃	260°C	8
(Yb,Er) ₂ O ₃	ALD	130°C	1.5-3 Torr	Er(thd) ₃	300°C	9
Al ₂ O ₃ :Yb	ALD	195°C	-	Me ₃ Al, O ₃	350°C	10

References:

1. [J. Am. Chem. Soc. 1965, 87, 5254.](#)
2. [Anal. Chim. Acta, 1968, 40, 101.](#)
3. [J. Therm. Anal. Cal., 2004, 75, 591.](#)
4. [J. Am. Chem. Soc. 1969, 91, 3476.](#)
5. [Appl. Surf. Sci. 2009, 256, 847.](#)
6. [Chem. Mater. 2011, 23, 1835.](#)
7. [J. Vac. Sci. Technol. A, 2016, 34, 01A130.](#)
8. [J. Mater. Chem. C, 2017, 5, 8572.](#)
9. [Phys. Status Solidi RRL, 2017, 11, 1700076.](#)
10. [Scripta Mater. 2018, 151, 1.](#)