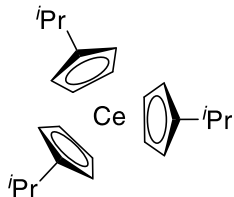


Catalog # 58-8000 Tris(i-propylcyclopentadienyl)cerium(III) (99.9%-Ce) (REO)



Thermal Behavior:

- Melting point 51°C [1]
- Evaporation under reduced pressure around is ~130°C/20 Torr
- Evaporation at atmospheric pressure is ~210-220°C
- TGA curves and data available in [1]

Technical Notes:

1. Low melting point MOCVD, ALD precursor for preparation of cerium thin films

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
CeO <sub>2</sub>	PE-ALD	135°C	20 Torr	O <sub>2</sub> plasma	250°C	1
CeO <sub>2</sub>	ALD	110°C, 140°C	0.15 Torr; 5 Torr	H <sub>2</sub> O, O <sub>2</sub> , O <sub>3</sub>	175-250°C	2-5
Ce-Al-O	MOCVD	180°C	0.75 Torr	Al(NEt <sub>2</sub> ) <sub>3</sub> , Ar/O <sub>2</sub>	400°C	6

References:

1. [J. Electrochem. Soc., 2011, 158, G169](#)
2. [Jpn. J. Appl. Phys., 2011, 50, 10PA06](#)
3. [J. Electrochem. Soc., 2017, 164, A6236](#)
4. [ACS Omega 2018, 3, 906](#)
5. [ACS Appl. Mater. Interfaces 2019, 11, 46651](#)
6. [Thin Solid Films 2013, 536, 68](#)