

Catalog # 93-5862 Cerium(III) chloride, anhydrous (H₂O < 0.5%) (99.9%-Ce) (REO)

CeCl₃

Thermal Behavior:

- Melting point 848°C
- Boiling point 1727°C
- Vapor pressure calculations in [1]

Technical Notes:

1. CVD precursor for preparation of cerium nanoparticles.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
CeO ₂ , Ce _x Y _{1-x} O _{2-δ}	CVD Thermophoresis	700-950°C	0.75-15 Torr	O ₂ , YCl ₃	700-950°C	2
CeB ₆ Nanowires	CVD	1125°C 850°C	100 mTorr	BCl ₃ , H ₂	1125°C 1000°C	3-4
CeO ₂ :ZrO ₂	ALD	-	-	ZrOCl ₂ , H ₂ O, ROH	300°C, then 600°C	5

References:

1. [J. Chem. Eng. Data 2000, 45, 823.](#)
2. [Solid State Ionics 1999, 116, 225.](#)
3. [J. Am. Chem. Soc. 2005, 127, 8002.](#)
4. [Chem. Mater. 2011, 23, 2606.](#)
5. [J. Phys. Chem. C, 2019, 123, 12851.](#)