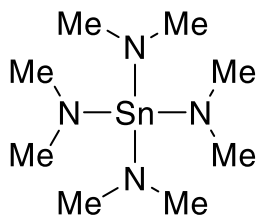


Catalog # 50-1815 Tetrakis(dimethylamino)tin(IV), 99% (99.99%-Sn) TDMASn PURATREM



Thermal Behavior:

- Boiling point 51°C (0.1 Torr)
- Evaporation temperature: 150°C [1]
- Decomposition temperature: 230°C [1]
- TGA curve is available in [1]
- Vapor pressure: ~0.04 Torr/40°C [6]

Technical Notes:

1. ALD/CVD precursor for thin oxide based film deposition, that is widely used in the new generation dye sensitized solar cells (Perovskite Solar Cells) [2-5]

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
SnO ₂	ALD	40°C; 45°C; 80°C	1 Torr; 0.1 Torr;	O ₃ ; H ₂ O; H ₂ O ₂	50-300°C 30-200°C	6-8
SnS _x	ALD	50°C	0.56 Torr 1.27 Torr	H ₂ S	60-180°C 100-300°C	9-10
SnN _x	ALD	40°C	0.3 Torr	NH ₃	70-200°C	11
SnO _x N _y	ALD	40°C	0.1 Torr	H ₂ O; ^p N ₂	200°C	12
SnO _x -PO _x	ALD	40°C	0.2 Torr	H ₂ O; O ₃	200-250°C	13
BaSnO ₃ SrSnO ₃	ALD	40°C	1.0 Torr	[Ba(^p Pr ₃ Cp) ₂] [Sr(^p Pr ₃ Cp) ₂]	180°C	14
In ₂ O ₃ /SnO ₂ (ITO)	ALD	70°C	0.1 Torr	InMe ₃ , O ₃	100-200°C	15
Sn _{1-x} Ga _x O _y	ALD	40°C	3.75 Torr	Ga(NMe ₂) ₃	105-195°C	16
SnO _x :ZnO	ALD	45°C	-	Et ₂ Zn, H ₂ O	150°C	17

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