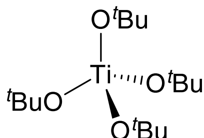
Catalog # 22-1170 Titanium(IV) t-butoxide (99.95%-Ti)



Thermal Behavior:

- Boiling point: 70°C/0.2 Torr; 82-83°C/2 Torr [1]
- Vapor pressure: 0.93 Torr/67 Torr [5]

Technical Notes:

1. Precursor for thin titanium film deposition.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
TiO_2	PE-CVD ALD	90-100°C 65°C	4.5-15 Torr -	$^{PL}O_2$ H_2O	50-120°C 70°C	2 3
$Al:TiO_2$	ALD	70-90°C	0.5-2 Torr	O_3; TMA/H_2O	150-240°C	4
$PbTO_3$	ALD	67°C	0.8-1.5 Torr	Pb(dmamp)$_2$; H_2O	150-350°C	5
ZrTixOy	ALD ALD	EtCy Solution -	- -	Zr(O^{t}Bu)$_4$, O_3 Zr(O^{t}Bu)$_4$, H_2O	300°C 225°C	6 7
$ZrSn_xTi_yO_z$	CVD	Direct Liquid Injection	2 Torr	Zr(O^{t}Bu)$_4$, Sn(O^{t}Bu)$_4$,O_2	350°C-430°C	8

References:

1. *Russ. J. Gen. Chem.* **2006**, *76*, 235.
2. *Chem. Vap. Deposition* **2000**, *6*, 16.
3. *J. Am. Chem. Soc.* **2019**, *141*, 414.
4. *J. Vac. Sci. Technol. A*, **2012**, *30*, 01A152.
5. *J. Electrochem. Soc.* **2007**, *154*, G69.
6. *ECS Trans.* **2006**, *1*, 153.
7. *J. Electrochem. Soc.* **2009**, *156*, *G13*.
8. *J. Cryst. Growth*, **2004**, *261*, 309.