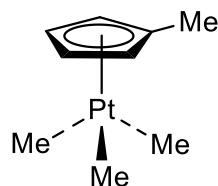


Catalog # 98-1350 (Trimethyl)methylcyclopentadienylplatinum(IV), 99% (99.999%-Pt) PURATREM



Thermal behaviour

- Vapour pressure: 0.052 Torr (20 °C) [2]; 0.054 Torr (23 °C) [3]; 0.4 Torr (50°C) [3];
- Thermal decomposition at 310 °C (deposition).
- Melting point 30-31 °C
- TGA data available in [15]

Technical Notes

Mixed alkyl-cyclopentadienyl precursor for the deposition of **platinum** thin films by CVD, ALD and FEBID due, in part, to its simplicity (only C, H and Pt), volatility and moderate decomposition temperatures.:

Film	Technique	Reactants	Pressure	Temperature	Growth Rate	Substrate	Ref.
Pt	CVD	H ₂	1 bar	120 °C		Si (100)/glass	[1, 2]
Pt(C, Ga)	FEBID		8 10 ⁻¹³ bar	RT		Si, SiO ₂ , Al	[3, 13]
Pt	ALD	Air	10 mbar	300 °C	0.45 Å/cycle	Al ₂ O ₃ / borosilicate glass	[4]
Pt	ALD	O ₂	0.9 mbar	225-285 °C	~0.4 Å/cycle	Yttria stabilized zirconia (YSZ), Si	[5]
Pt, PtO _x	ALD PEALD	O ₂ O ₂ plasma	0.03 mbar 0.01 mbar	100-300 °C	0.45 Å/cycle 0.47 Å/cycle	Si, SiO ₂	[6]
Ir-Pt alloy	ALD	O ₂ , Ir(acac) ₃	1 mbar	300 °C	0.45-0.64 Å/cycle	Al ₂ O ₃ coated Si(100), fused SiO ₂ , glass	[7, 8]
Pt	ALD	O ₂	0.9 mbar	250 °C		CNT	[9]
Pt	ALD	O ₂	0.03-0.1 mbar	300 °C	0.45-0.56 Å/cycle	Pt/Si	[10]
Pt	PEALD	O ₂ plasma +H ₂ ; O ₂ + H ₂ plasma	0.01 mbar	30 °C	0.37 Å/cycle	Polymers (PEN, PET), paper, woven cotton fabric	[11]
Pt	FEBID	O ₂ post dep.		RT		Si	[12]
Pt	CVD	O ₂	0.3 mbar	300-450 °C	≤100 Å/min	SiO ₂ /Si	[14]

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