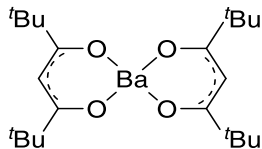


Catalog # 56-8500 Bis(2,2,6,6-tetramethyl-3,5-heptanedionato)barium hydrate [Ba(TMHD)2];



## Thermal Behavior:

- Melting point 172°C [1]; 182-188°C [4, 6]
- Sublimation temperature 222°C (0.5 Torr) [4, 6]
- TGA curves and data are available in [2, 4, 7]
- Vapour pressure at 220°C is about 0.4 Torr [9]

## Technical Notes:

1. CVD and ALD  $\beta$ -diketonate precursor for preparation of barium thin films

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
BaS	ALD	RT (Hthd+Ba(OH) <sub>2</sub> )	7.5 Torr	H <sub>2</sub> S	300-350°C	5
(Ba <sub>x</sub> Sr <sub>y</sub> )TiO <sub>3</sub>	MOCVD	237°C	15 Torr	Sr(DPM) <sub>2</sub> ; Ti(O-C <sub>3</sub> H <sub>7</sub> ) <sub>4</sub> ; O <sub>2</sub>	600°C	8, 11
BaTiO <sub>3</sub>	(P)CVD	250°C	30 Torr	[Ti(Pr) <sub>2</sub> (TMHD) <sub>2</sub> ] Ti(OiPr) <sub>4</sub> ; O <sub>2</sub> ;	350, 375, 400°C	9, 13
YBa <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub>	MOCVD	201°C	3-5 Torr	Y(dpm) <sub>3</sub> ; Cu(dpm) <sub>2</sub> ; O <sub>2</sub> or N <sub>2</sub> O	220-650°C 800-830°C	10, 12, 14
BaTi <sub>2</sub> O <sub>5</sub>	CVD	290, 295°C	3-5 Torr	Ti(OiPr) <sub>2</sub> (dpm) <sub>2</sub> O <sub>2</sub>	500°C, 645-820°C	15, 17
BaNb <sub>2</sub> O <sub>6</sub>	CVD	120°C	-	[Nb(Eto) <sub>1</sub> (TMHD) <sub>4</sub> ] O <sub>2</sub>	350-400°C	16

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