



Tech Note (7)
Ref. (7)

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CVD/ALD Applications

Thermal Behavior:

- Melting point: -20°C
- Boiling point: 103°C
- Vapor pressure: 23 Torr/20°C; 38,7 Torr/30°C; 63 Torr/40°C; 100 Torr/50°C [1]

Technical Notes:

1. Room temperature CVD precursor for thin iron film deposition
2. Used in for the preparation of vapor grown carbon nanotubes [9-12]

| Target Deposit | Deposition Technique | Delivery Temperature | Pressure | Co-reactants | Deposition Temperature | Ref. |
|-------------------------------------|----------------------|----------------------|------------|----------------------|------------------------|------|
| α-Fe ₂ O ₃ | AP-CVD | RT | AP | Si(OEt) ₄ | 415°C | 2 |
| | AP-CVD | RT | AP | - | 400°C | 3 |
| | PE-CVD | RT | 2 mTorr | PLO ₂ | RT | 4 |
| | CVD | 0°C | 0.1 mTorr | NH ₃ | 130-225°C | 5 |
| Ti:α-Fe ₂ O ₃ | AP-CVD | RT | AP | TiCl ₄ | 500°C | 6 |
| β-FeSi ₂ | CVD | RT | 0.45 mTorr | SiH ₄ | 750°C | 7 |
| FeSe | CVD | - | - | H ₂ Se | 260°C | 8 |

References:

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