

P-Type Amorphous Oxide Semiconductor Atomic Layer Deposition System

Deposition Process Library

- Al_2O_3
- HfO_2
- SnO_x ($x=1\sim 2$)* *: still under R&D stage

Thickness

- $10\text{\AA} \sim 200\text{\AA}$

Process parameters

- Film: Al_2O_3
- Precursor: TMA
- Oxygen source: H_2O
- Pressure(hPa): $5\sim 10$
- Carrier gas: N_2
- Purge gas: N_2
- Temperature ($^\circ\text{C}$): $250\text{ }^\circ\text{C}$
- Substrate size: 6, 8 inch, chip

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- Film: HfO_2
 - Precursor: TMAHf
 - Oxygen source: H_2O
 - Pressure(hPa): $5\sim 10$
 - Carrier gas: N_2
 - Purge gas: N_2
 - Temperature ($^\circ\text{C}$): $250\text{ }^\circ\text{C}$
 - Substrate size: 6, 8 inch, chip

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- Film: SnO_x
 - Precursor: Sn precursor
 - Oxygen source: H_2O
 - Pressure(hPa): $5\sim 10$
 - Carrier gas: N_2
 - Purge gas: N_2
 - Temperature ($^\circ\text{C}$): $200\text{ }^\circ\text{C}$
 - Substrate size: 6, 8 inch, chip