

# 四族磊晶(RDT005)標準製程

## Si<sub>0.8</sub>Ge<sub>0.2</sub> film:

Wafer Size: 8 inch

H<sub>2</sub>: 20 slm

DCS: 130 sccm

GeH<sub>4</sub>(10% in H<sub>2</sub>): 23 sccm

Growth Temperature: 700°C

Growth pressure: 20Torr

Growth rate: 6nm/min

Thickness range: 10~200nm

## Ge film:

Wafer Size: 8 inch

H<sub>2</sub>: 15 slm

GeH<sub>4</sub>(10% in H<sub>2</sub>): 250 sccm

Growth Temperature: 375~400°C

Growth pressure: 40Torr

PDA: 825°C, 5min (depends)

Growth rate: 22nm/min

Thickness range: 20nm~2.0μm

## Ge<sub>1-x</sub>Sn<sub>x</sub> film:

Wafer Size: 8 inch

Growth Temperature: ~325°C

Growth pressure: 40Torr

Thickness ≤ 100nm

Sn fraction ≤ 10%

## Si film:

Wafer Size: 8 inch

H<sub>2</sub>: 20 slm

DCS: 75 sccm

HCl: 56 sccm

Growth Temperature: 825°C

Growth pressure: 60Torr

Growth rate: 30nm/min

Thickness range: 10nm~1.0 μm