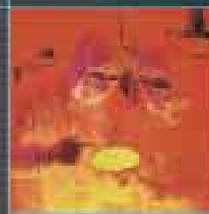
SiC Epitaxial Reactors M8 - M10

M8

M10



ACiS

ACiS Key Features

- ◉ **Hot wall CVD concept**
  - LPE Proprietary Design Chamber
  - Excellent gradient temperature control

- ◉ **Induction heating**
  - Power consumption @ 1550°C: 20kW
  @ 2000°C: 36kW

- **High throughput & Low CoO**
  - Batch Load: M8 6x2″ - 3x3″ - 1x4″
    M10 9x2″ - 5x3″ - 3x4″
- **High vacuum**
  - $< 1 \times 10^{-7}$ mbar
- **Low and controllable background doping**
  - $\leqq 1 \times 10^{14}$ cm^{-3}
- **Advanced process control**
  - Complete control of tool operations
  - Full recipe management
- **High reliability and uptime**
  - Minimal maintenance

M8 M10

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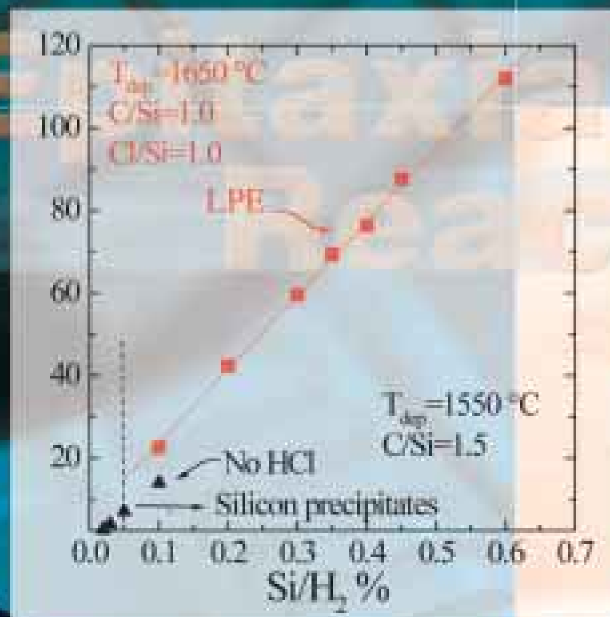
Process data

- Silicon precursor: SiH_4
- Carbon precursor: C_2H_4 - C_3H_8
- Dopant: N type (N_2)
- Dopant: P type $Al_2(CH_3)_3$
- RP capability (50-400 mbar)
- Process temperature 1500 - 1600°C
- Typical growth rate : 6 µm/h up to 100 µm/h



SiC Epitaxial Reactors

ACiS

ACiS performance

	Thk Uniformity typical	Thk Uniformity guaranteed	Doping Uniformity typical	Doping Uniformity guaranteed
Within Wafer	2.5%	5%	8%	12%
Within Run	3%	5.5%	10%	14%
Run to Run	1.4%	2%	9%	12%

Calculation method: uniformity=(max-min) / (max+min)

ACiS batch load

ACiS M8	ACiS M10
6 x 2″ wafer	9 x 2″ wafer
3 x 3″ wafer	5 x 3″ wafer
1 x 4″ wafer	3 x 4″ wafer

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