

MOCVD system

Liquid delivery MOCVD system

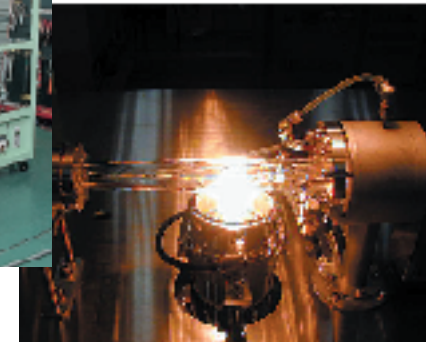
MOCVD System Specifications

Model	SV2001/SV3001/SV4001 (SV2003)	SH2001/SH3001/SH4001 (SV2003)
Reactor type	Vertical, Made of Quartz	Horizontal, Made of stainless steel
Substrate (wafer) size	1 × φ2", 1 × φ3", 1 × φ4" (3 × φ2")	1 × φ2", 1 × φ3", 1 × φ4" (3 × φ2")
Wafer face	Face up	Face up
Heating system	Resistance heating	Resistance heating
Rotation system	0 to 30rpm	0 to 30rpm
Substrate temperature (standard)	900°C	1300°C
Vacuum exhaust system for process	Rotary pump (standard) *Dry pump (optional)	Rotary pump (standard) *Dry pump (optional)
Load lock Chamber	Vacuum exhaust system for load-lock system	Turbo Molecular Pump + Rotary pump (standard) *Dry pump (optional)
	Substrate stock stage (for up to 3 trays)	Standard
Transfer system	Transfer Rod or Rail transfer system	Transfer Rod or Rail transfer system
Source material supply control system (Available on request)	Metal-organic: 6 lines	Metal-organic: 6 lines
	Hydride gas: 3 lines	Hydride gas: 3 lines
	Carrier gas: 2 lines	Carrier gas: 2 lines
	Vent gas: 2 lines	Vent gas: 2 lines
	Dummy gas line	Dummy gas line
Cylinder cabinet (Available on request)	Purging gas line	Purging gas line
	Three(3) 47-liter(10-liter)cylinders (2 cylinders for gas and one for N ₂)	Three(3) 47-liter(10-liter)cylinders (2 cylinders for gas and one for N ₂)
Control system	Operation panel	Standard
	Alarm system	Standard
	Inter lock system	Standard
	Automatic Growth system	Standard
	Power supply for back up	Standard
Others	Safety system (Detection and Warning and Inter-lock system of gas leakage, earthquake, abnormal temperature and pressure)	Standard
	H ₂ gas purifier	Optional
	N ₂ gas purifier	Optional
	Exhaust gas treatment system	Optional
	In-Situ monitoring system	Optional

MPC1100V



Liquid delivery MOCVD system (MPC1100V) supplied to National Institute of Advanced Industrial Science and Technology



- Reactor : Horizontal type, Made of quartz
- Substrate size : 1 × φ 1"
- Substrate heating : Lamp heating type
- Maximum heating : 800°C temperature (T.C. Value for control)
- Flow control : Liquid mass flow control
- Vaporizer : Heating type
- Applications : Oxidize, etc.

MPC2100H



Liquid delivery MOCVD system (MPC2100H) supplied to National Institute of Advanced Industrial Science and Technology

- Reactor : Vertical type, Made of stainless steel
- Substrate size : 1 × φ 2"
- Substrate heating : Resistance heating type
- Maximum heating : 800°C(T.C. Value for control) temperature
- Flow control : Liquid mass flow control
- Vaporizer : Heating type
- Applications : Oxidize, etc.

Exhaust gas treatment system for Ammonia



Features

This system uses a high performance catalyst to promote reaction of ammonia and hydrogen with oxygen from the atmosphere at low temperature (about 300°C) to decompose them into environmentally friendly water. The system is small in size and requires low running cost.

Specifications

- Throughput : 5 SLM of ammonia
20 SLM of hydrogen
The actual value of throughput may be selected through consultation.
- Concentration in exhaust gas : NH₃ <25 ppm

MPC6100



Liquid delivery MOCVD system (MPC6100) supplied to Nara Institute of Science and Technology

- Reactor : Vertical type, Made of stainless steel
- Load-lock system : With transfer rod
- Substrate size : 1 × φ 6"
- Substrate heating : Resistance heating type
- Maximum heating : 800°C(T.C. Value for control) temperature
- Flow control : Liquid mass flow control
- Vaporizer : Heating type
- Applications : Oxidize including PZT, etc.