Veeco | CNT
Atomic Layer Deposition

Fiji G2 Plasma ALD System

Fiji is designed for handling the most demanding films and applications with turbo assisted ICP plasma and automated load lock.

ALD Films

Veeco scientists continuously add to the list of standard ALD recipes. Contact us for your specific needs.

Films Deposited on Fiji Systems (shortlist):

- **Oxides:** Al_2O_3, HfO_2, Nb_2O_5, NiO, SiO_2, Ta_2O_5, TiO_2, ZnO, ZrO_2, Li_2O, LiPON, La_2O_3, SnO_2, In_2O_3, ITO, Ga_2O_3, MgO, $Mg_xZn_{1-x}O$
- **Nitrides:** AlN, Hf_3N_4, SiN, TiN, GaN, InN, AlGaN, BN, NbN, NbTiN, VN, TiVN, WN, WCN, TaN, CoN
- **Metals:** Ni, Pt, Ru
- **Sulfides:** ZnS, SnS, Cu_2S, In_2S_3, Cu_2ZnSnS_4,PbS, CoS, ZnOS
- **Doped Films:** Al:ZnO, Al:HfO_2, Hf: ZrO_2, Hf:SiO_2

Fiji Produces the Most Sophisticated Films Available

Easy to Operate but Sophisticated Design

Easy to use recipe driven Graphical User Interface (GUI) that allows users to run either Thermal or Plasma assisted ALD.

Featuring

- Proprietary Chamber Turbo Pumping System
- Best-in-class ICP Plasma Design
- Ergonomic Operator Interface
- In-Situ Ellipsometry
- In-Situ Quartz Crystal Microbalance
- Integrated Ozone
- Glove Box Interface
- And More!

Fiji G2 Technical Specifications

SYSTEM SPECIFICATIONS	
Operational Modes	Continuous Mode™ (Traditional Thermal ALD)
	Exposure Mode™ (High Aspect Ratio ALD)
	Plasma Mode™ (Plasma-Enhanced ALD)
Substrate Size	Up to 200 mm
Substrate Temperature	500°C 200mm substrate heater standard
	800°C 100mm substrate heater optional
Deposition Uniformity	1σ Uniformities
	Thermal Al_2O_3 – 1.5%
	Plasma Al_2O_3 – 1.5%
Precursors	4 precursor lines standard
	Up to 6 optional
	Accommodates gas, liquid, or solid precursors
	Individually heatable to 200°C
	Industry standard high speed ALD valves (10ms minimum pulse time)
	Widely available 50cc (25mL fill max) stainless steel precursor cylinders
Gases	100 sccm Ar precursor carrier gas MFC
	500 sccm Ar Plasma gas MFC
	100 sccm N_2 plasma gas MFC
	100 sccm O_2 plasma gas MFC
	100 sccm H_2 plasma gas MFC
Automated Hine Load Lock	Standard
Trap	Integrated, heated, thin foil ALD trap
Compatibility	Clean Room Class 100 Compatible
Compliance	CE, FCC
Dimension Fiji G2	1845 x 715 x 1920 mm
Power	220-240 VAC, 4200 W per reactor (excludes pump)
Control	Microsoft Windows™ 7 Laptop PC, LabView based system control
Vacuum Pump	>50 CFM dry pump required
System Options	H_2S compatibility kit
	Spectroscopic Ellipsometer Ports
	Quartz Crystal Microbalance
	RGA Port
	Optical Emission Spectrometer
	Wafer Plus for sample height up to 57mm
	Ozone Generator
	Low Vapor Pressure Delivery
	Glove box Interface
	Substrate bias

Find out more at
www.veeco.com
or call **781.907.8900**

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