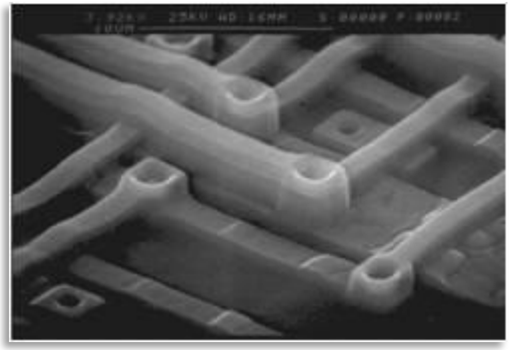
Oxford Instruments Plasma Technology

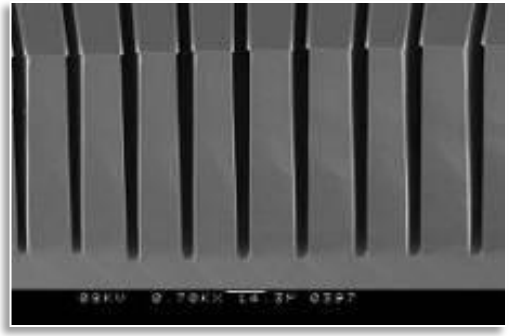
A Part of Oxford Instruments plc

About Us

Plasma & Ion Beam Etch & Deposition

- One of the world's leading manufacturers of configurable process tools
- Providers of leading-edge processes
- Precise, controllable and repeatable etching, deposition and growth of micro- and nano-structures





About Us

- **Plasma Technology**
  - Over 360 employees worldwide
  - Established in 1982
  - Offices in Europe, Asia & the USA
  - ISO 9001:2000,18001& 14001 certified

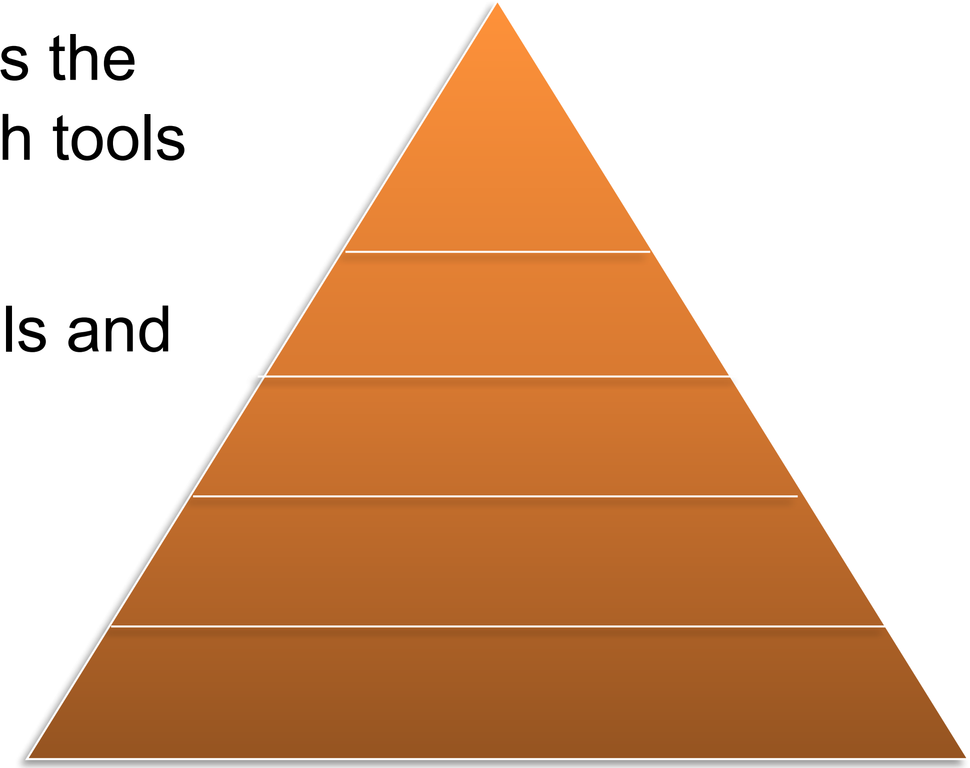
  - **Applications include:** High Brightness LEDs, MEMS, 3rd generation photovoltaics, next generation semiconductor technology

- **Oxford Instruments plc**
  - Established in 1959
  - £360.1 million in sales in 2013-14
  - Over 1,800 employees worldwide

Our Strategy

Partnering with customers and suppliers to:

- Strengthen our position as the market leader for research tools
- Provide world leading tools and process solutions to the production market



Our Primary Markets

Semiconductor Electronics

Displays & Lighting

Customer Service

MEMS

Research

Our Products

The Business of Science®

Plasma Etch & Deposition

- Inductively coupled plasma (ICP) etch and deposition
- Reactive ion etching (RIE)
- Switched RIE/PE etch modes
- Plasma-enhanced chemical vapour deposition (PECVD)

Our Products

Plasma Etch & Deposition

- Open Load or Load Lock
- Single-wafer, batch and cassette-to-cassette handling
- Up to 300mm wafers

Our Products

Atomic Layer Deposition (ALD)

- Thermal and low temperature Remote Plasma
- Open Load or Load Lock
- Single-wafer, batch and cassette-to-cassette handling
- Up to 200mm wafer

Our Products

Ion Beam Deposition & Etch

- Dedicated etch or deposition tools
- Etch or Deposition in a single tool
- Up to 200mm wafer (300 series)
- 4 x 250mm substrates (500 series)

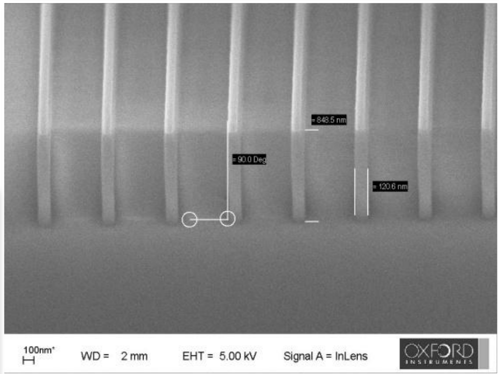
Ion Beam Deposition & Etch

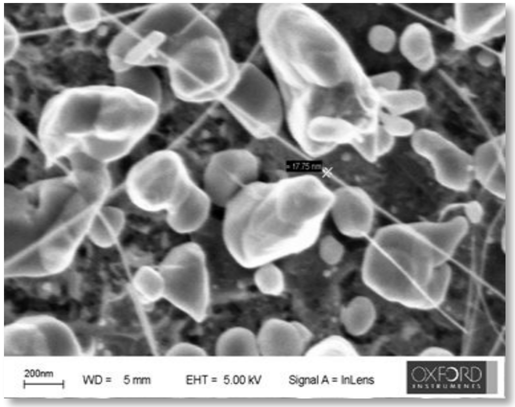
- IBE, RIBE, CAIBE
- IBD, RIBD
- White light optical monitor
- Crystal monitor
- SIMS for etch endpoint

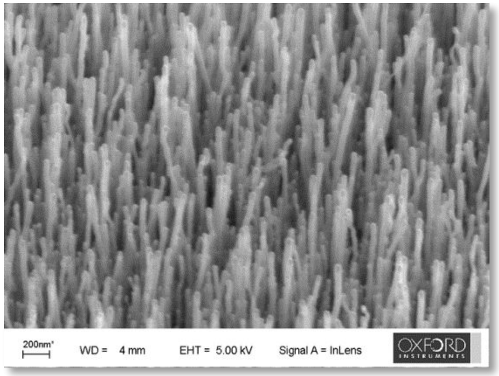
Our Products

Nanostructure Growth Tools

- Nanotubes, nanowires and nanoscale thin films
- Sample sizes up to 200mm
- Flexible temperature range up to 1000°C
- High speed ramping and cooling
- PECVD capability







Our Processes

Etch, Deposition, Growth

Etch	
RIE	Standard etch
ICP	High rate, selectivity, low damage
DRIE (Bosch & Cryo)	High rate and selectivity (MEMS)
RIE / PE	Failure Analysis
Ion Beam	High quality

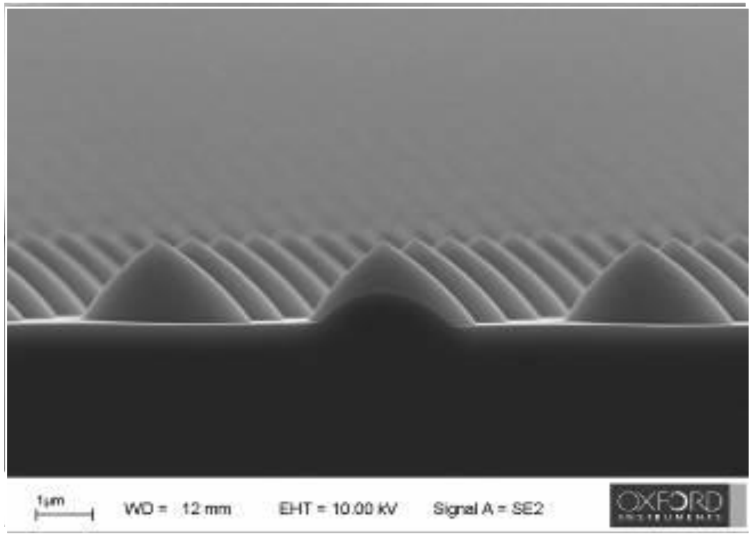
Deposition	
PECVD	Standard deposition
ICP CVD	Low temperature, high quality
Nanofab	High temp. PECVD
PE ALD	Specialist deposition
PVD	High rate deposition
Ion Beam	High quality

Growth	
Nanofab	High temp. PECVD

Our Processes

Over 6,000 Recipes

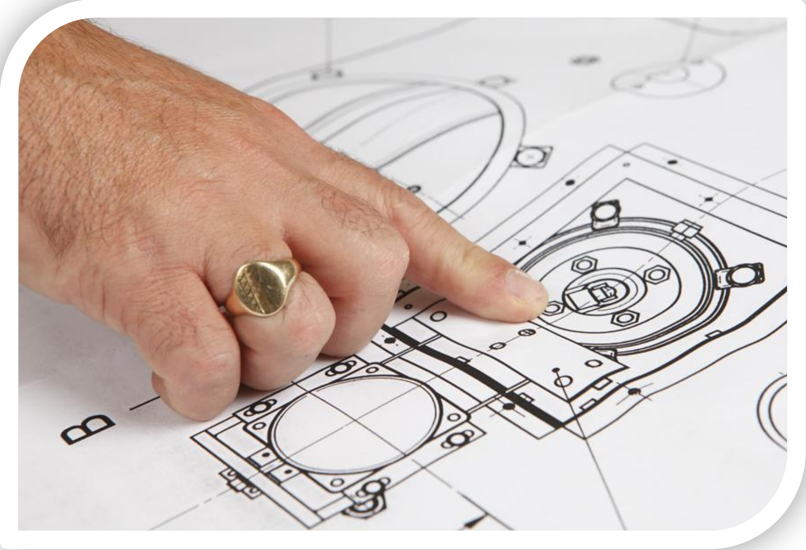
- We have a process library with over 6,000 recipes backed by process guarantees for key parameters and repeatability such as rate and uniformity
  - Compound Semi (III-V) processes
  - Micro/Nano applications
  - Si Front-end processes
  - Si Back-end processes



Quality

Quality Vision

- World class quality in all our products, systems, processes and services
- We continuously monitor and improve our procedures and business activities in order to exceed customer expectations



Support

Global Support

- Our Customer Support network offers worldwide service, spares and techn support
- As part of the Oxford Instruments group, we have a global sales and service support network with offices in the UK, Germany, Japan, China, Singapore, Taiwan and the USA

OI Service reaches our customers worldwide

○ Service Centre ● Parts Centre