

# CONSULTA

In Partnership with Oxford Instruments

Consultancy Services

neutral beam  
magnet systems  
fusion  
high temperature  
superconductors  
production  
consultancy solutions  
partnership  
analysis  
development  
modeling  
design  
feasibility  
project management  
gyrotron  
technical  
authority  
manufacture  
cryogenics  
spherical tokamak  
reputation  
mutual success  
metals  
systems  
prototyping  
advanced technology  
high toroidal field



Intellect, Insight, Innovation



The Business of Science®

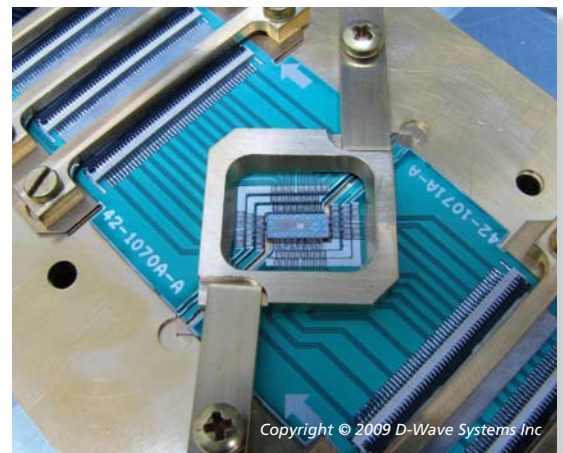


# Turning smart science into world-class products

Oxford Instruments turns smart science into world-class technology for customers in industrial and research sectors. Our engineering know-how is used across the globe to tackle the grand challenges of the 21<sup>st</sup> Century in energy, healthcare, information processing and security.

## Shaping the future

We are proud of our first class heritage, pioneering technologies such as MRI and NMR. Our expertise and experience are unrivalled. Today we focus on developing high technology tools and systems for the manipulation of matter at the smallest scale. With our customers and partners we are engineering the future, from nanomaterials to quantum information processing and fusion science.



## Intellect, Insight & Innovation

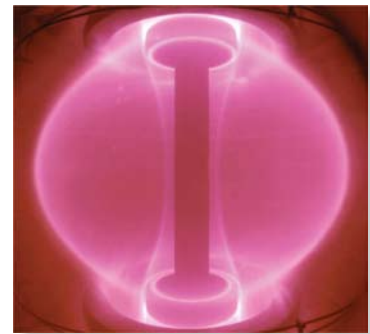
Innovation is at the heart of our business and recognised in eleven Queen's awards for leadership in the advancement and commercialisation of technology.

By choosing Oxford Instruments as your development partner you access the immense personal experience of our multidisciplinary team, many recognised as leading experts in their own right. With over 50 years of design and manufacturing experience, we will bring unique knowledge and insight to add value to your project.

# What we do



- We **listen** to your needs; from feasibility studies, concept and engineering design to project management
- We **deliver** world leading expertise; with the highest standards of competence and integrity
- We **partner** with you all the way; developing requirements, agreeing specifications and ensuring quality plans



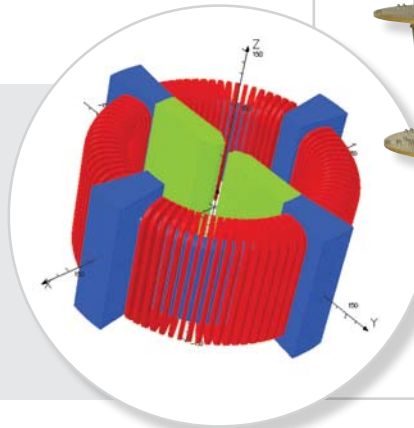
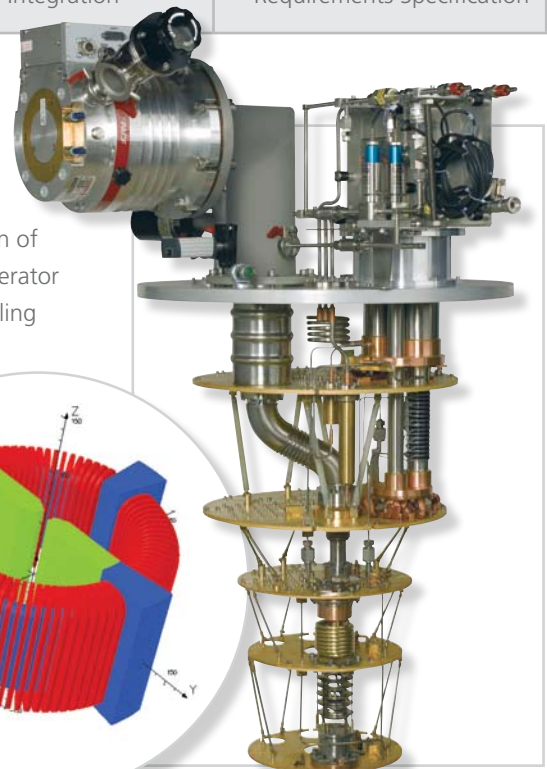
*Fusion Plasma in START, courtesy of the Culham Centre for Fusion Energy.*

## Our Services

Technology Evaluation	Design Projects	Prototyping & Test	Programme Management
<ul style="list-style-type: none"> <li>• Feasibility Assessments</li> <li>• Selection, Costing</li> </ul>	<ul style="list-style-type: none"> <li>• Concept &amp; Engineering Design</li> <li>• Design for Manufacture</li> </ul>	<ul style="list-style-type: none"> <li>• Materials Characterisation</li> <li>• System Integration</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Authority</li> <li>• Requirements Specification</li> </ul>

## Architects of low temperature and high magnetic field environments

We specialise in the creation of unique and controlled environments at low temperature and high magnetic field. Our capabilities range from the design of compact laboratory research instruments to large scale applications in accelerator and fusion science. Our recent developments include new cryogen-free cooling solutions, design tools for high temperature superconductors and high frequency connectivity for sub-100 mK refrigerators.



- Magnet Engineering
  - Quench Analysis
- Cryogenic System Design
  - **Cryofree®** technologies
- Mechanical Design
  - Advanced Materials
- ULT Environments
  - Instrumentation

# CONSULT

## First class heritage

### Experience to rely on, integrity to trust

Oxford Instruments has a rich heritage of innovation and scientific excellence, leading the market in superconducting materials and magnets, typically customised to the needs of the laboratory or industrial OEM. More than 6000 magnets have been installed throughout the world by the company. Oxford Instruments is involved in the full cycle of product development including design modelling analysis, fabrication, testing, verification, installation and maintenance.

<b>1959</b>	First spin-off company from Oxford University
<b>1962</b>	First commercial superconducting magnet
<b>1966</b>	First commercial dilution refrigerator
<b>1984</b>	First commercial MRI
<b>1997</b>	First commercial low vibration cryocycle sorption fridge
<b>2005</b>	First commercial 950 MHz NMR magnets
<b>2009</b>	First commercial 15T integrated Cryofree Dilution Refrigerator (DR) and magnet system
<b>2009</b>	World's highest field all-superconducting magnet (22.5T)
<b>2010</b>	Queen's Award for Enterprise: Innovation for an integrated Cryofree DR and magnet system

#### Oxford Instruments NanoScience

Please email:

[consultancy@oxinst.com](mailto:consultancy@oxinst.com)

Tel: +44 (0) 1865 393 200

[www.oxford-instruments.com/consultancy](http://www.oxford-instruments.com/consultancy) for more information

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