SpectromagPT
A magneto-optical Cryofree® superconducting magnet system

Flexible: Experimental inserts to suit many applications
Fast experiment: Quick sample change via top-loading probe
Excellent optical access: Parallel and perpendicular to magnetic field
Easy to use: Enables full sample rotation for measurements
Why choose *Spectromag* PT?

*Spectromag* PT is a split pair, horizontal field magneto-optical *Cryofree* superconducting magnet system. It provides optical access to a sample in a variable magnetic field and low temperature environment.

- 7 T magnetic field in a compact geometry
- The sample can be changed while the system is cold. No need for a complicated load-lock mechanism
- Sealed circulation loop reduces the risk of contamination and blockages, increasing the continuous running period of this system
- Excellent optical access in the horizontal plane (both parallel and perpendicular to the magnetic field)
- Uses the highest specification magnet superconducting wire available on the market and advanced construction techniques to ensure ultimate performance and reliability

### Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature range</td>
<td>1.6 K to 300 K</td>
</tr>
<tr>
<td>Standard sample probe temperature stability</td>
<td>± 0.1 K</td>
</tr>
<tr>
<td>System cooldown</td>
<td>~ 40 hours from room temperature to 4 K</td>
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<tr>
<td>Standard sample probe cooldown</td>
<td>~ 90 minutes from room temperature to &lt; 2 K (probe loaded into cold variable temperature insert)</td>
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<tr>
<td>Continuous system operation</td>
<td>Typically &gt; 4 weeks</td>
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<td>Magnet ramp to full field</td>
<td>≤ 60 minutes</td>
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<tr>
<td>Variable temperature insert sample space diameter</td>
<td>30 mm nominal</td>
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</tbody>
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### A typical system comprises of:

- Cryostat
- Optical Windows
- Magnet and Power Supply
- Variable Temperature Insert and Controller
- Sample Probe
- Cryocooler and Compressor
- Accessories and Manuals

### Applications:

- Magneto circular dichroism
- Raman spectroscopy
- Photoluminescence
- Faraday effect measurements
- Optical characterisation of nano-devices / quantum dots

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Main service locations: UK, USA, Germany, China, Japan and India

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