Writing
Beamtime
Applications

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ISIS Muons
The Proposal Process

- 40-50 proposals submitted per round
- Oversubscription ~1.8

- 2 calls per year
  (deadlines 16 April and 16 October)
- All submissions via ISIS website
- 6 weeks after the deadline, the selection panel meets
- Results a few weeks after that (with comments)
- Instrument scientist will then ask for preferred dates
- Schedule produced, local contacts assigned
http://www.isis.rl.ac.uk/applying/
Step 3 of 10: Facility Access and Funding

The proposed access route is* [Select Access Route]

RB number of previous proposal* [Enter RB Number]

The proposal falls under the following science programmes (select multiple, if required - Ctrl+Click)*

- Biology and Bio-materials
- Chemistry
- Energy
- Engineering
- Environment
- Materials

Is this proposal part of a UK sponsored research grant? [Yes/No]

Do you wish to apply for access to ISIS sponsored under the EU FP6 Programme? (Only researchers working in the EU member states or associated states other than the UK are eligible) [Yes/No]

Has this or a similar proposal been submitted to another facility recently? [Yes/No]
Step 6b of 10: Sample Environment

Standard ISIS SE equipment (choose multiple if applicable - Ctrl+Click)*

- None
- Do Not Know
- Helium Cryostat
- CCR
- T < 1K cryostat

Temperature range: 5 to 100 K
Pressure range: 0 to 10 MPa
Magnetic field strength: 20 to 100 gauss

Details of any specialist equipment or user supplied equipment:

**Please note:** Special equipment must be discussed in advance with Zoe Bowden

z.a.bowden@rl.ac.uk
**MuSR**
- Longitudinal fields up to 2500G
- Transverse fields up to around 600G
- Dilution fridge (40mK - 300K)
- Sorption cryostat (350mK - 50K)
- $^4$He cryostat (1.5K - 400K)
- CCR (12K - 400K)
- Flow cryostats (4K - 600K)
- Resistive furnace (300K - 1000K)

**EMU**
- Longitudinal fields up to 4500G
- Transverse fields up to 100G
- Sorption cryostat (350mK - 50K)
- $^4$He cryostat (1.5K - 400K)
- Flow cryostats (4K - 400K)
- CCR (12K - 600K)
- Resistive furnace (300K - 1000K)
- Optical furnace (300K - 1500K)
- ‘Fly-past’ mode for small samples

**HiFi (from 2009)**
- Longitudinal fields up to 5 T
- Transverse fields up to 100 G
- Dilution fridge (30mK - 300K)
- $^4$He cryostat (1.5K - 400K)
- CCR (10K - 600K)

**More details of equipment, sample mountings, etc, on the ISIS muon web pages:**
[www.isis.rl.ac.uk/muons](http://www.isis.rl.ac.uk/muons)

**Tell us well in advance if you want to change equipment - last-minute changes are often NOT possible**
Science Case

- Proposals judged on science - but new users looked on favourably
- Upload a 2-page scientific case.
- Don’t use colour
- Will be reduced to 70%: don’t use fonts <12pt size.
- PDF format (online PDF converter if needed)
- Self-contained (but can include references)
- Explain the background (timeliness, technological relevance, etc)
- What question(s) are you trying to answer?
- How will muons help - what information will you get? Why muons?
- Describe the measurements (no. samples, temp. / field scans)
- Justify the time you are asking for (be specific)
- Samples - do you have them? Have they been characterised?
- Demonstrate you’ve used previous beamtime well
Muon Facility Access Panel Members December 2007:

Sue Kilcoyne (Salford, UK) - Chair
Nigel Clayden (UEA, UK)
Gillian Gehring (Sheffield, UK)
Roderich Macrae (Marian College, USA)

Steve Cottrell (ISIS) - Secretary
Adrian Hillier (ISIS) - ISIS Representative

Tei Matsuzaki (RIKEN, Japan)
Mauro Ricco (Parma, Italy)
Robert Scheuermann (PSI, Switzerland)
Paul Wood (Cambridge, UK)
Things to avoid . . .

‘we will search for the multi-spitoon excitations’

‘CsNiBr$_3$ is isomorphic to CsNiBr$_3$ [2]’

‘we will probe the two mango dispersion’

‘the burst of muons, rather than one muon at a time, will simulate hydrogen diffusion and encourage competition for traps . . .’

‘In the past, several of these systems have been studied by means of muSR. Reanalysing the data shows that substantial parts of the data are missing . . . .’

‘I am overwhelmed by the feeling that I have spent longer reading this proposal than the author spent writing it’
**ISIS instrument scientists are here to help!**

We:
- can advise on what is possible technically
- can help with choice of instrument
- can help with choice of sample environment equipment
- can read through proposals before submission
- may know of relevant papers in your subject area

So . . . do get in contact (but do it well in advance of the proposal deadline)

Practical details of coming to ISIS (accommodation, etc) are all dealt with by the ISIS User Office