



# Positive Spin : the shutdown issue

The Newsletter of the ISIS Muon Group

Volume 4, Issue 1

September 2014

## News

### WELCOME

"Welcome! It may be a long ISIS shutdown but there is a lot happening in the ISIS muon group. I'm sure the muon meetings, lab refurbishment and modifications to the beam line will greatly enhance your research programmes in 2015. Enjoy the newsletter. I look forward to reading your proposals in the FAP. Best wishes, Don"

### ISIS Access

Spring and Summer 2015

Next proposal deadline:  
16th Oct 2014

### BIGGEST ISIS MUON TRAINING SCHOOL YET!

In May 2014 we held our biennial muon spectroscopy training school. It was attended by 22 full participants and 5 associ-

ates. Students came from as far away as Malaysia, and China. In five days they fitted in 19 hours of lectures and three practical sessions on the muon beam lines. Lecture notes are available from the school [website](#). Thanks to all the students, group members and lecturers for making such a successful school.



### FUTURE MUON SOURCES

A workshop will be held from 12-13th Jan 2015 at the University of Huddersfield to discuss the development and application of

future muon sources. Further details can be found [here](#)

### Christmas Resonates

The BRSg: Magnetic Resonance Group's Christmas Meeting 2014 will be held on **Monday 15th Dec 2014** at the Institute of Physics, London. This year the meeting will focus on complementary measurements with muons and other resonance techniques, such as NMR. For further information please see the [IOP/BRSg event page](#).

### CHANGES FOR ISIS USERS

Changes are in place which will affect ISIS users. These include changes to proposal access routes, consumables, travel and subsistence arrangements. For full details please click [here](#)

system which is now close to the completion.



### PREP LAB UPGRADE

Over the long shut down there are plans to expand and renovate the sample preparation lab on the south side of R55, by the muon area. The plans currently involve a segregated area for a wet chemistry lab at the back, which will include

facilities for the freeze-pump-thawing of samples as well as fume-hoods, a fridge and standard laboratory equipment. At the front will be a sample stick loading area, in addition to a glove box and an area for handling radiological samples. If you have any further questions, please contact [Fiona](#)

### DATA ANALYSIS WORKBOOK

A workbook to teach the basics of muon data reduction and analysis using the Mantid platform is now [available](#).

## Science highlights

PAPERS RESULTING FROM ISIS WORK ARE AN IMPORTANT OUTPUT AND INCREASINGLY USED AS A MEASURE OF THE VALUE OF THE FACILITY. PLEASE KEEP US UP TO DATE WITH YOUR PUBLICATIONS. WE HAVE COMPILED LISTS FOR RECENT YEARS THAT ARE NOW AVAILABLE AT [WWW.ISIS.STFC.AC.UK/GROUPS/MUONS/PUBLICATIONS](http://WWW.ISIS.STFC.AC.UK/GROUPS/MUONS/PUBLICATIONS) PLEASE INFORM US IF ANY ARE MISSING.

- CONTROLLING MAGNETIC ORDER AND QUANTUM DISORDER IN MOLECULE-BASED MAGNETS
- MUON SPIN SPECTROSCOPY OF FERROCENE: CHARACTERIZATION OF MUONIATED FERROCENYL RADICALS
- DETECTION OF TIME-REVERSAL SYMMETRY BREAKING IN THE NONCENTROSYMMETRIC SUPERCONDUCTOR RE6Zr USING MUON-SPIN SPECTROSCOPY
- EXOTIC MAGNETISM ON THE QUASI-FCC LATTICES OF THE D3 DOUBLE PEROVSKITES LA2NAB'O6" (B'=RU, OS)
- MUON DATA ANALYSIS WORKBOOK
- DIPOLAR ORDERING IN A MOLECULAR NANOMAGNET DETECTED USING MUON SPIN RELAXATION

## Instrumentation

### MuSES UPDATE

The photo-excitation muon project, MuSES ([muses.ph.qmul.ac.uk](http://muses.ph.qmul.ac.uk)) on the HiFi muon spectrometer started in Dec. 2012. After the completion of the laser cabin and laser transport system, the team performed a couple of photo-excited  $\mu$ SR experiments before the long ISIS shutdown. Most of the experiments have garnered interesting preliminary results which will be investigated further in the next beam cycle. In the meantime the MuSES team are developing a user-friendly working environment as well as final installation of the laser

## Any other business...

**PUBLICATIONS** Please inform your local contact and the ISIS User Office of publications arising from work on Muon instruments. A link to the work can then be included on the STFC publications database: <http://epubs.stfc.ac.uk>

**CO-AUTHORS** Please remember to include Muon Group staff as co-authors on publications when deemed appropriate

**CYCLE DATES** Forthcoming cycle dates

## Dates for your diary

- ISIS PROPOSAL DEADLINE: 16TH OCT 2014
- BRSg: MAGNETIC RESONANCE GROUP'S CHRISTMAS MEETING, 16 DEC 2014
- FUTURE MUON SOURCES, HUDDERSFIELD, 12-13 JAN 2015
- 6TH EUROPEAN CONFERENCE ON NEUTRON SCATTERING (ECNS2015), SPAIN, AUGUST 2015

Further information: [Muon Group Homepage](#) - [Group Members](#) - [HiFi](#) - [MuSR](#) - [EMU](#) - [ARGUS](#)

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