

Minutes of NMI3 PN JRA (WP19) meeting

18-19 October 2011 in Heraklion

Attendees:

1. A.Ioffe
2. E.Babcock
3. S.Longeville
4. A. van Well
5. E.Jericha
6. A.Gukassov

Agenda:

1. Welcome
 2. Discussions of tasks
 3. Management issues
1. Participants have been welcomed by Alexander Ioffe, JRA coordinator.

Unfortunately, the general strike announced in Greece on 19-20 October affected the flight plans of three participants, so that R.Georgii, W. Häussler and M.Monkenbusch could not come as it was planned. However, they sent their presentations to be presented by A.Ioffe and were available for on-line questions/discussions if necessary.

2. Discussions of tasks

Task 2: Development of wide-angle polarization analysis in neutron diffraction and spectroscopy

Thorough comparison of super-mirror and ^3He analyzers/wide-angle polarizers is required, using both analytical and MC methods.

LLB bought the SM polarizer for up to 1.4Å neutrons. Thorough comparison of super-mirror and ^3He analyzers/wide-angle polarizers is required, using both analytical and MC methods. First estimates, as well

as published simulations of analyzer for HYSPEC at SNS showed it rather poor performance, that makes the case for ^3He -based analyzer for 1A neutrons rather solid. LLB will further look in developments carried out in FZJ that are attractive and have a certain potential.

Concerning with the sub-task 19.2.2 - Large solid angle magnetic environment friendly spin-handling devices – it is going well, however new developments in the frame of the task 2, namely related to new ^3He analyzers changed the schedule and require further developments to fit new ^3He devices.

Actually, the sub-task itself has evolved towards design of spin-handling devices integrated with ^3He analyzers. Moreover, a more solid approach based upon the use of magnetic field simulating software that has been developed in the frame of Task 1 and Task 4, is definitely very promising in this case as well.

Indeed, it makes sense to prolong this activity beyond its expiration date (24 months) and consider it now more widely, including magnetic field holding systems of ^3He analyzers.

Task 3: Further developments of Larmor labelling methods for inelastic neutron spectroscopy

No actions are required as everything goes as planned. TUD has fully used the man-power assigned for this Task and will finish it till the end of the year.

Task 4: Further developments of Larmor labelling methods for SANS and reflectometry.

Partners discussed the present day status of the task: no actions required. FZJ is successfully using the software «MagNet» from Infolytica.com. As a kind of test, it was used to calculate the field

distribution from a complicate device and to simulate the neutron spin dynamic in it that very well fits to the experimental results.

Two scientists supported by the JRA are working with software and are ready to work with JRA partners on their tasks.

Task 5. Developments of wide-angle neutron resonance spin-echo.

No actions are required as everything goes as planned.

Task 6. Development of new polarized neutron techniques

Partners discussed the present day status of problems: no actions required. Samples used at experiments at USANSPOL will now be tested at SESANS in Delft.

5. Management issues

- The JRA website is running. Presentations at this meeting will be uploaded (restricted access).
- The 8th international workshop on Polarised Neutrons in Condensed Matter Investigations (PNCMI 2010) has been held in Delft, 5 - 8 July 2010

Preceding the conference a polarized neutron school (from 28th of June till the 2nd of July) aimed for PhD-students and post-docs has been organized. PN JRA financially supported young participants, about 6000 Euro from the management fund.

- Next meeting – in a year.