

# Minutes of NMI3 PN JRA (WP19) meeting

## 20th April 2009, TU Delft, Delft, the Netherlands

### Attendees:

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|----------------------|-------------------------------|
| 1. A.Gukassov, CEA   | 10. A. van Well TUD           |
| 2. S.Longeville, CEA | 11. M.Monkenbusch FZJ         |
| 3. A. Ioffe FZJ      | 12. W.Häussler, TUM           |
| 4. E.Babcock FZJ     | 13. G.Badurek, ATI            |
| 5. P.Willendrup, DTU | 14. E.Jericha, ATI            |
| 6. S.Grigoriev PNPI  | 15. W.Kraan, TUD              |
| 7. N.Grigorieva PNPI | 16. J.Könings, TUD            |
| 8. R.Georgij, TUM    | 17. Th. Rekveldt, TUD,        |
| 9. W.Bowmann TUD     | 18. V.Hutanu, RWTH (observer) |

1. Welcome and presentation of the participants
2. Introductions to the Tasks, status of the JRA (A.Ioffe)
3. Discussions of tasks:

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

CEA (A.Gukassov) - coordinating partner,  
FZJ (A. Ioffe/E.Babcock),  
RWTH (V.Hutanu)

Wide-angle polarisers are an essential one of the most important parts of all polarized neutron instruments to be developed/modernized in the frame of this JRA.

During the first year we will organize a special discussion on this problem with participation of representatives of commercial firms producing super mirror polarisers to consider all possible options.

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

TUD (W.Bowmann/ A. van Well) - coordinating partner,  
FZJ (M.Monkenbusch)

Partners discussed different aspects of the present-day status of the OFFSPEC reflect meter in ISIS. Instrument will go into neutron tests within few months. Participation of the ISIS observers in the next JRA meeting is anticipated.

The program for developments of most advanced correction elements for the NSE spectrometer with  $\tau=1\mu\text{s}$  was discussed.

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

FZJ (A.Ioffe) - coordinating partner,  
TUD (W.Bowmann/ A. van Well),

*TUM (R.Georgii)*  
*TUD (Th.Rekveldt)*

Partners discussed the present day status of problems and agreed on a possible cooperation. It was pointed out that it is necessary to keep in mind the fact that the smaller the angles of scattering the smaller is energy transfer and the higher energy resolution is required (S.Longeville).

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

*TUM (W.Häussler) - coordinating partner*  
*CEA (S.Longeville)*

There are two approaches for the design of such machine. Magnétique landscape simulations are required. They can be filled by a common postdoc. FZJ will purchase the necessary software. There is a certain cross talk between tasks 2 and 5 – the wide-angle analyzer.

#### **Task 6. Development of new polarized neutron techniques**

*ATI (G.Badurek/ E.Jericha) - coordinating partner*  
*FZJ (A.Ioffe);*  
*TUD (W.Bowmann/A. Van Well),*  
*PNPI (S.Grigoriev)*

Partners discussed the present day status of problems and agreed on a possible cooperation. New magnetic foils studied by USANSPOL method can be useful for Task 4 (thin spin turners). The cooperation is envisaged.

A new method for measurements of three/many point correlation functions is very promising. However, a thorough theoretical analysis for the correct data treatment is required. A theorist will be working on this stuff in PNPI.

4. W.Kraan has reported about latest experiments with SESANS showing that one should take into the account the geometrical phase effects that may blur the NSE signal.

5. P.Willendrup (DTU/RISO) reported on the planned developments of new polarization components. As many of them already exist in VITESS, they are very useful for the crosscheck of packages.

#### **6. Management issues**

- The JRA website will be organized at the NMI3 one. We should upload meeting minutes, reports, publications etc. should be uploaded.
- Some information should be treated confidentially. Therefore, a limited access directory will be arranged (JRA presentations containing unpublished ideas and data, designs, drawings etc.)
- Observers – may get access to the information, but probably has sign a “copyright” agreement with the JRA.
- J-PARC expressed their wish to cooperate, but there some legal issues from their side.
- The 8<sup>th</sup> international workshop on Polarised Neutrons in Condensed Matter Investigations (PNCFI 2010) will be held in Delft, 5 - 8 July 2010

Preceding the conference a polarized neutron school aimed for PhD-students and post-docs will be organized. The school will be at the Reactor Institute Delft from 28<sup>th</sup> of June till the 2<sup>nd</sup> of July. Lectures and hands on experiments will be done at the polarized neutron instruments. PN JRA will provide a logistic and financial support (fellowships for young researches/students).

- Next meeting – depends on the solution on the NMI3 General Meeting.