

MLFへの要望
～海外施設利用経験者から～

フランス、LLBの熱中性子三軸分光器
2T1 を利用して

池内和彦
総合科学研究機構 東海事業センター

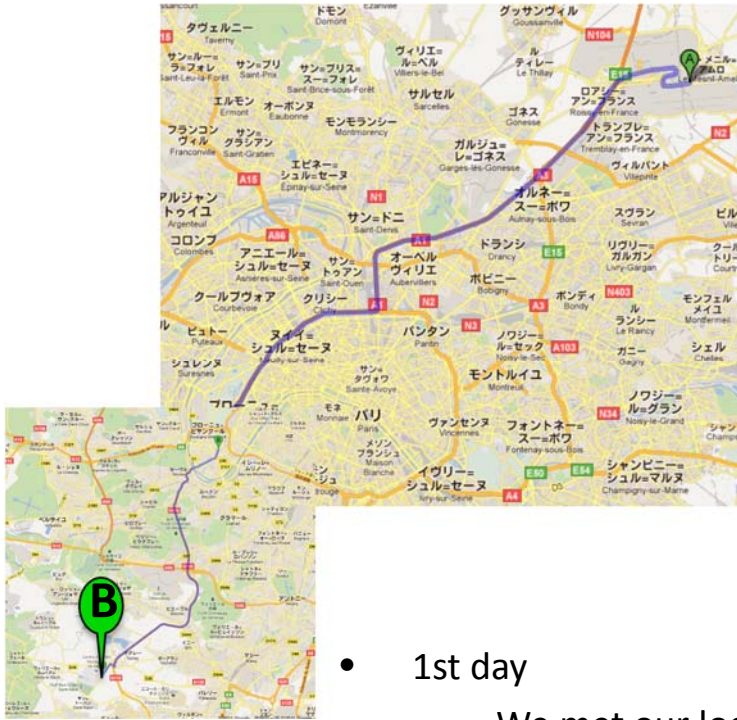


FeAs系中性子非弾性散乱実験を行うため、フランス Saclay にあるLLBの三軸分光器、2T1を利用した。

実験者
池内和彦 梶本亮一

実験期間
2011年11月27日 - 12月9日

LLBへの道のり



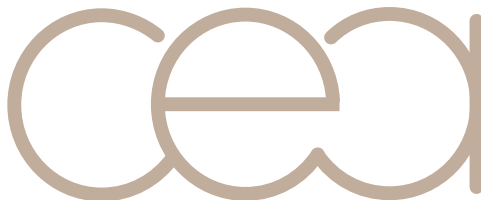
Nov. 27, 2011

439 € / 12 日
avis

Guest house はヨーロッパ人のみ利用可
右走行 左ハンドル
高速料金無料

LLB: Entering the site

- 1st day
 - We met our local contact, Dr. Philippe Bourges, at the main gate.
 - We received the entrance cards, submitted declarations of our laptops with us, and deposited our passports.
 - We entered in the site accompanied by the local contact.
 - We received two kinds of dosimeters and yellow clothes from a secretary. One of the dosimeter doubles as an entrance key to the Orphée reactor.
- From 2nd day
 - We could enter the site from an another gate with the entrance cards.
- Weekend
 - We could enter the site accompanied by the local contact.



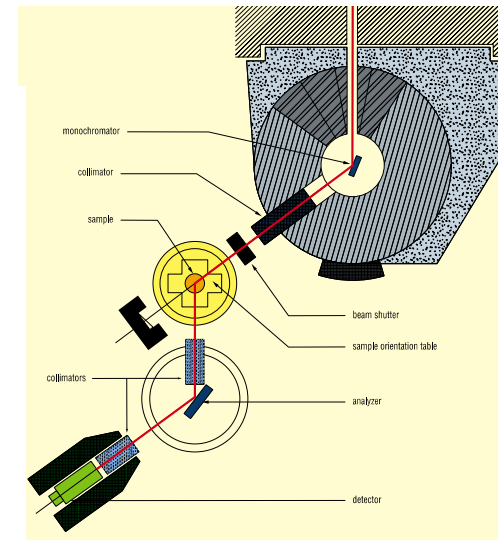
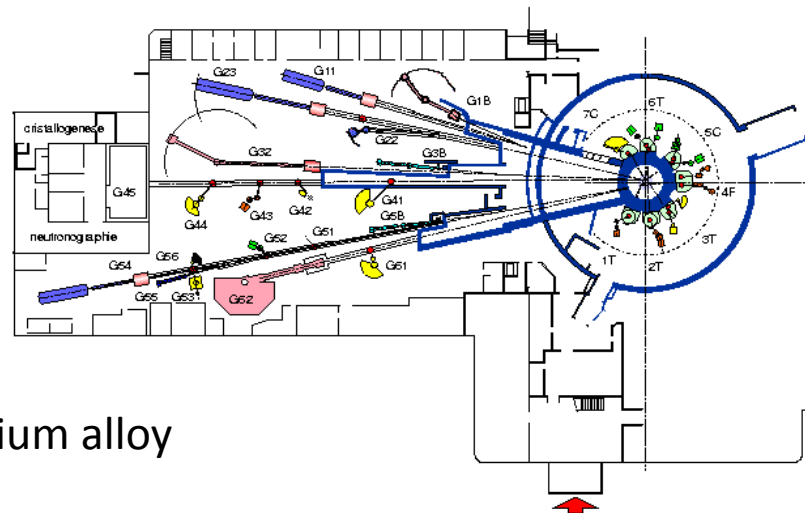
LLB: Experiment

- T2 triple-axis spectrometer
 - Old-fashioned/mature instrument
 - Horizontal and vertical focusing of the analyzer
 - Though several kinds of Soller collimators are prepared, they are seldom used. Probably because most of the measurements measure weak magnetic excitations?



7 BLs in Main hall
6 BLs in Guide hall
14 MW
 3×10^{14} n/cm²/s
²³⁵U enriched uranium alloy

IMPLANTATION GENERALE DES SPECTROMETRES



(quoted from LLB HP)



LLB: Experiment

- One local contact (Philippe) and a small number of technicians.
The local contact does everything!
- CUI based control software, which is run on Unix
Remote control is possible.
- Most of the labels, displays, signs are written in French.
- Remote access from outside of the lab is possible via a special server.
The access is recorded, and an alert is sent to the user once a week.
- Software for calculating the resolution function and for fitting the data convoluted with the resolution are available.
 - The convolution assumes one-dimensional resolution function
 - The manual is written in French. English memo is available.

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EN MAXI  LARGEUR(FWHM)  BRUIT DE FOND
19.405 +/- 0.0921  4.1247 +/- 0.2182  1225.4 +/-
13.260 +/- 0.1314  6.9030 +/- 0.2926  555.29 +/- 12.488
***** FIN PILOTAGE  12/12/2011 10H30
12/12/2011 10H30
***** INSTRUCTION NUMERO 90 LIGNE NUMERO 90
***** PILOTAGE RUN(S) 44
12/12/2011 10H30      RUN NUMERO 44
DATASET = 307      pnpt01 - Ca-Fe-Pt-As (Tc=33K)
QH  QK  QL  EN  DH  DK  DL  DE  NP  M
0.5000 0.5000 2.0000 20.5000 0.00000 0.00000 0.0000
KF CONSTANT = 2.6620 A1 = 192.26 A2 = 122.23
Q CONSTANT = 1.6542 A-1
M CONSTANT = 20000.
NP  QH  QK  QL  EN  KI  M1  M2  E1  E2
1  0.5000 0.5000 2.0000 20.5000 4.1206 33.29 26.13
2  0.5000 0.5000 2.0000 21.0000 4.1498 33.20 25.94
3  0.5000 0.5000 2.0000 21.5000 4.1788 33.10 25.75
    
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Feed back to MLF



Into English

Fin

Au revoir