JRA 2 “ActILab”

T. Stora

23rd Nov. 2011

2nd Coordination meeting, PSI

Thursday, 24th November 2011

ActILab Meeting at PSI

Meeting room OHLD/011

Time	Topic	Speaker
10.00 - 10.20	Introduction	Th. Stora
10.20 - 10.40	ActILab Activities at GANIL	H. Franberg
10.40 - 11.00	ActILab Activities at INFN	S. Coradetti
11.00 - 11.30	coffee break	
11.30 - 11.50	ActILab Activities at IPNO	C. Lau
11.50 - 12.10	ActILab Activities at CERN	A. Gottberg
12.10 - 12.30	ActILab Activities at PSI	I. Günther
12.30 - 14.00	Lunch / Steering Committee meeting	
14.00 - 14.30	Discussion, planning, miscellaneous	Th. Stora
14.30 - 15.00	Research Activities at PSI	PSI representative
15.00 - 16.30	Guided Hotlab Tour at PSI (optional)	I. Günther

Participants:

CERN	Thierry Stora, Alexander Gottberg, Joao Pedro Ramos
GANIL	Hanna Franberg, Pierre Delahaye
IPNO	Christoph Lau, Said Essabaa
INFN	Stefano Coradetti, Gianfranco Prete
PSI	Ines Günther …

Milestones and Deliverables

D-JRA02-1	Novel synthesis of actinide targets (Task 1: Synthesis of new actinide targets)	41 jan 2014
M-JRA02-1.1	Synthesis of actinide targets by sol-gel method - 'chimie douce'	38 oct 2013
M-JRA02-1.2	Synthesis of nanostructured actinide targets	38 oct 2013
D-JRA02-2	Characterization of new actinide targets (Task 2: Characterization of new actinide targets)	41 jan 2014
M-JRA02-2.1	Characterization of structures	38 oct 2013
M-JRA02-2.2	Characterization of thermal properties	38 oct 2013
D-JRA02-3	Characterization of irradiated targets in hot cell (Task 3:Actinide targets properties after irradiation)	46 jun2014
M-JRA02-3.1	Characterization of irradiated materials in hot cell	44 apr2014
D-JRA02-4	Isotope release properties and modelling Task 4: Online Tests of Actinide Targets	46 jun2014
M-JRA02-4.1	Analysis of online tests of new actinide targets	44 apr2014
M-JRA02-4.2	Effect of beam time structure on online tests	44 apr2014

As reported at 2nd PCC May 2011

JRA02-ActLab Leader T.Stora
Actinide ISOL Target R&D Laboratory

5 partners

Participant short name [11]	Person-months per participant
GANIL	8.00
INFN	20.00
CERN	21.50
CNRS	19.00
PSI	7.00
Total	75.50

- Task 1: Synthesis of new actinide targets CERN+INFN+CNRS
- Task 2: Characterisation of new actinides targets GERN+INFN
- Task 3: Actinide target properties after irradiation CERN+PSI
- Task 4: Online tests of Actinide Targets CERN+ GANIL+CNRS

JRA02 - ActiLab Leader T.Stora

List of deliverables

Delive-rable Number [61]	Deliverable Title	Lead benefi-ciary number	Estimated indicative person-months	Nature [62]	Dissemi-nation level [63]	Delivery date [64]
D8.1	Novel synthesis of actinide targets	6	19.00	P	PU	41
D8.2	Characterisation of new actinide targets	6	19.00	R	PU	41
D8.3	Characterisation of irradiated targets in hot cell	6	19.00	R	PU	46
D8.4	Isotope release properties and modelling	6	18.50	R	PU	46
		Total	75.50			

Kick-off meeting 20th May

CERN :

A. Gottberg hired, will be paid from ENSAR funds in 2012-2013 (approx 13m.months);

Lab equipments foreseen (in 2011): milling machine, glovebox

GANIL :

Post-doc (8m.months) to be hired in 2012; equipment for gamma analysis

IPNO :

Lab equipment or upgrade of existing equipments

INFN :

24 months post-doc in sept 2012

PSI :

7mmonths (permanent staff) shared between hot cell laboratory and analytical group

- JRA02 develops without any major deviation from original plans

				CERN	GANIL	INFN	IPNO	PSI
D-JRA02-1	Novel synthesis of actinide targets (Task 1: Synthesis of new actinide targets)	41 jan 2014		x		x	**x (Lead) C. Lau**	
M-JRA02-1.1	Synthesis of actinide targets by sol-gel method - 'chimie douce'	38 oct 2013	jun13 (INFN)					
M-JRA02-1.2	Synthesis of nanostructured actinide targets	38 oct 2013	mid12 (CERN)					
D-JRA02-2	Characterization of new actinide targets (Task 2: Characterization of new actinide targets)	41 jan 2014		x		**x (Lead) A. Andrighetto**		
M-JRA02-2.1	Characterization of structures	38 oct 2013	oct13 (infn)					
M-JRA02-2.2	Characterization of thermal properties	38 oct 2013						
D-JRA02-3	Characterization of irradiated targets in hot cell (Task 3:Actinide targets properties after irradiation)	46 jun2014		x				**x (Lead) I. Guenther**
M-JRA02-3.1	Characterization of irradiated materials in hot cell	44 apr2014	if hot cell mid12-end12	procedure for cutting container				
D-JRA02-4	Isotope release properties and modelling Task 4: Online Tests of Actinide Targets	46 jun2014		x	**x (Lead) H. Franberg-Delahaye**			
M-JRA02-4.1	Analysis of online tests of new actinide targets	44 apr2014	1st online tests end12					
M-JRA02-4.2	Effect of beam time structure on online tests	44 apr2014	2nd online tests (jan14)					

Report to 3rd PCC

Executive Board

MINUTES

DATE:	11/10/11	OBJECT:	3rd PCC Meeting – 2011/10/11
N/REF:	ENSAR/2011.02	PLACE:	Phone meeting

Dear Dolores,
Here is the report from ActILab:
- Poster of online tests done at ISOLDE on High-Density Uranium Carbide target was presented at ARIS.
- 2 non irradiated High-Density UC pellets were shipped to PSI, and feasibility tests on micro-scale chemical analysis at the Swiss Light Source (SLS) was done.
- Application for additional beam time at SLS for irradiated UCx targets was done.
- Procedure and meeting with Hot-Lab staff and CERN radioactive shipping services done to organize the shipping of an irradiated UCx target unit from ISOLDE and to extract UCx pellets for foreseen analysis at PSI in 2012/2013.
- Letter of Intent submitted to the November2011 ISOLDE scientific committee (INTC) for online tests at ISOLDE in 2012.
- Market survey to acquire a milling machine to produce nano-UCx at CERN done.
- The request for the post-doc position has been sent to the INFN (the beginning is planned for September 2012)
- Procedures to get authorization to resume UCx synthesis at INFN and at U. di Padova in 2012 has started.
- 2nd ENSAR-ActILab coordination meeting planned at PSI on 24th November 2011.

Kind regards,
Thierry.

Next items

Start synthesis of material

Publication on HD-UC tests at CERN (others?)

Next steering committee in May-June 2012 at INFN

Reserve

Collaborating institutes:

CERN (T. Stora) (coord)

GANIL (H. Franberg-Delahaye) lead Task 4

INFN (A. Andrighetto) lead Task 2

IPNO (C. Lau) lead Task 1

PSI (I. Guenther) lead Task 3

Same people as steering committee members

Kick-off meeting organized 20th May 2011 (@IPNO)

http://indico.cern.ch/conferenceDisplay.py?confId=117413

Details of foreseen resources:

CERN :

A. Gottberg hired, will be paid from ENSAR funds in 2012-2013 (approx 13m.months);

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PSI :

7mmonths (permanent staff) shared between hot cell laboratory and analytical group

1st activities (main ressources will be allocated later, besides CERN institute) as of May 2011:

- Analysis of high density uranium carbide tests done online at CERN-ISOLDE in 2010. Will be presented (poster, A. Gottberg) at ARIS conference

- Shipping of High-Density UC pellets to PSI, beam time at Swiss Light Source for μXRD/μXSAF

- Procedure to extract irradiated UCx pellets from ISOLDE target containers