



ASGARD

Advanced Fuels for Gen IV Reactors: Reprocessing and Dissolution




Contract Number: 295825

DELIVERABLE D 1.3.6 SECOND INTERNATIONAL WORKSHOP

NNL

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Mark Sarsfield	Version:	1.1

WP Leader	DM Leader	Coordinator
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Dissemination level			
PU	Public	X	
RE	Restricted for specific group		
CO	Confidential (only for ASGARD partners)		

Version control table

Version number	Date of issue	Author(s)	Brief description of changes made
1	13/07/2016	T. Retegan	Draft 1
1.1	19/07/2016	P. Kořán	AMO check and release

Relevant domain(s) and workpackage(s)

Tick **ALL** or select in the following table:

DM	WP
DM 1 <input checked="" type="checkbox"/>	WP 1.1 <input type="checkbox"/> WP 1.2 <input type="checkbox"/> WP 1.3 <input checked="" type="checkbox"/>
DM 2 <input type="checkbox"/>	WP 2.1 <input type="checkbox"/> WP 2.2 <input type="checkbox"/> WP 2.3 <input type="checkbox"/>
DM 3 <input type="checkbox"/>	WP 3.1 <input type="checkbox"/> WP 3.2 <input type="checkbox"/> WP 3.3 <input type="checkbox"/>
DM 4 <input type="checkbox"/>	WP 4.1 <input type="checkbox"/> WP 4.2 <input type="checkbox"/> WP 4.3 <input type="checkbox"/>

Project information

Project full title:	Advanced fuels for Generation IV Reactors: Reprocessing and Dissolution
Acronym:	ASGARD
Funding scheme:	Large scale collaborative project
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Coordinator:	Christian Ekberg
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Start date – End date:	01/01/12 – 30/06/16 i.e. 54 months
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EXECUTIVE SUMMARY

As planned in the updated Initial training programme (Deliverable D1.2.1), lectures on commercial and developmental nuclear fuel were delivered at the 2nd ASGARD International Workshop and accomplished as a joint session with PELGRIMM project during the TopFuel 2015 conference (13–17 September 2015, Zurich), where all the work packages were present with contributions. Other contributions emerging from ASGARD project have been presented during the conference, thus the dissemination was extended beyond the dedicated session.

It has been well received session and in good collaboration with the PELGRIMM project as well as with the organizers of TopFuel.

1 INTRODUCTION

As planned in the updated Initial training programme (Deliverable D1.2.1), lectures on commercial and developmental nuclear fuel were delivered at the 2nd ASGAR International Workshop and accomplished as a joint session with PELGRIMM project during the TopFuel 2015 conference (13–17 September 2015, Zurich), see image 1.

The Workshop has been conceived as a joint activity with the PELGRIMM project. Each of the projects presented the results achieved so far in a dedicated session. The ASGAR session presented a series of talks giving the overview of the work done in the individual ASGAR workpackages. After negotiating the speakers and collecting and submitting the abstracts in the previous semester, the full papers were drafted and submitted. CTU was involved in all these activities starting from the concept of the Workshop, through the negotiation with PELGRIMM, negotiating with the TopFuel 2015 organisers and the speakers, to the collection of the abstracts and full papers.



Image 1. The presentation of the 2nd ASGAR International seminar under the TopFuel conference 2015.

All ASGARD WPs have been represented and the distribution between the projects have been almost in equal share. Also other contributions were presented in different sections of the conference.

2. CONTENT OF THE 2ND ASGARD INTERNATIONAL SEMINAR

The program of the seminar is illustrated in the following tables, where the ASGARD session is largely presented, image 2.

Wed 8.30 - 10.30 Parallel Session:

ASGARD I

Chair: C. Ekberg, Chalmers, Sweden; Co-chair: F. Delage, CEA, France

TopFuel2015-A0249	CONVERSION OF ACTINIDES INTO OXIDE PRE-CURSORS FOR INNOVATIVE FUEL FABRICATION	Schreinemachers, C. (1); Middendorp, R. (1); Bukaemskiy, A. (1); Modolo, G. (1); Brykala, M. (2); Rogowski, M. (2); Deptula, A. (2); Čuba, V. (3); Pavelková, T. (3); Šebesta, F. (3); John, J. (3) 1 - Institute of Energy and Climate Research, IEK-6, Forschungszentrum Jülich GmbH, Germany 2 - Institute of Nuclear Chemistry and Technology, Poland 3 - Department of Nuclear Chemistry, Czech Technical University, , Czech Republic
TopFuel2015-A0247	DISSOLUTION BEHAVIOUR OF INERT MATRIX FUELS	De Visser - Týnová, E. (1); Ebert, E. (2); Cheng, M. (3); Ménard, G. (1); Mareš, K. V. (4); Geist, A. (5) 1 - Nuclear Research and consultancy Group, Netherlands 2 - Forschungszentrum Jülich GmbH, Germany 3 - Leibniz University Hannover , Germany 4 - Czech Technical University , Czech Republic 5 - Karlsruhe Institute of Technology , Germany
TopFuel2015-A0255	DISSOLUTION OF FRESH AND IRRADIATED (Pu,Zr)N FUELS WITHIN THE ASGARD PROJECT	Aneheim, E. (1); Menard, G. (2); Potthast, H.-D. (3) 1 - Chalmers University of Technology, Sweden 2 - NRG, Netherlands 3 - Paul Scherrer Institute, Switzerland
TopFuel2015-A0257	PRODUCTION AND CHARACTERIZATION OF NITRIDE BASED MATERIALS FOR NUCLEAR FUEL APPLICATIONS	Hedberg, M. (1); Johnson, K. (2); Wallenius, J. (2); Ekberg, C. (1) 1 - Chalmers University of Technology, Sweden 2 - Royal Institute of Technology, Sweden
TopFuel2015-A0248	SYNTHESIS OF URANIUM CARBIDES FROM SALT-POLYMER PRECURSORS	Saravia, A. (1); Deschanel, X. (2); Szenknect, S. (2); Fiquet, O. (1); Brothier, M. (1) 1 - CEA, DEN, DEC, SPUA, LCU, France 2 - ICSM, UMR 5257 CEA/CNRS/UM2/ENSCM, France
TopFuel2015-A0256	DISSOLUTION OF URANIUM CARBIDE FUEL PELLETS IN NITRIC ACID	Sarsfield, M. (1); Griffiths, T. (1); Maher, C. (1) 1 - National Nuclear Laboratory, United Kingdom

Wed 11.00 - 13.00 Parallel Session:**ASGARD II**

Chair: F. Delage, CEA, France; Co-chair: C. Ekberg, Chalmers, Sweden

TopFuel2015-A0250	OUTCOMES FROM INVESTIGATIONS OF OXIDE SPHEREPACKED FUELS SYNTHESIS	Somers, J. (1); Cozzo, C. (2); Delage, F. (3); Freis, D. (1); Picart, S. (3); Pouchon, M. (2) 1 - JRC ITU, Germany 2 - PSI, Switzerland 3 - CEA, France
TopFuel2015-A0253	OUTCOMES FROM THE IMPLEMENTATION OF IRRADIATION TESTS ON MINOR ACTINIDES BEARING OXIDE FUELS	Béjaoui, S. (1); D'Agata, E. (2); Hania, R. (3); Somers, J. (4); Freis, D. (4); Delage, F. (1) 1 - CEA, France 2 - JRC/IE, Netherlands 3 - NRG, Netherlands 4 - JRC/ITU, Germany
TopFuel2015-A0252	MODELING AND SIMULATION OF FAST REACTOR MINOR ACTINIDE BEARING OXIDE FUELS IN SUPPORT OF MABB AND MADF CONCEPTS	Lemehov, S. (1); Calabrese, R. (2); Delage, F. (3); Fedorov, A. (4); Pouchon, M. (5); Van Uffelen, P. (6) 1 - SCK•CEN, Belgium 2 - ENEA, Italy 3 - CEA, France 4 - NRG, Netherlands 5 - PSI, Switzerland 6 - JRC-ITA, Germany
TopFuel2015-A0251	SIMPLIFIED DESIGN AND SAFETY PERFORMANCE ASSESSMENT OF AN ADVANCED SPHERE-PAC (U,PU,MA)O ₂ SFR CORE	Maschek, W. (1); Andriolo, L. (1); Matzerath Boccaccini, C. (1); Delage, F. (2); Parisi, C. (3); Del Nuevo, A. (3); Abbate, G. (3); Schmitt, D. (4) 1 - KIT, Germany 2 - CEA, France 3 - ENEA, Italy 4 - EDF, France
TopFuel2015-A0061	EVALUATION OF CARBIDE FUEL PROPERTY MODELS USING LOW BURNUP IRRADIATION DATA	Choi, H. (1) 1 - General Atomics, United States
TopFuel2015-A0042	BENCHMARK ON BEHAVIOR OF MOX FUEL PIN UNDER POWER OPERATION IRRADIATION IN SODIUM FAST REACTOR	Kriventsev, V. (1); Rineiski, A. (1); Pfrang, W. (1); Perez-Martin, S. (1); Mikityuk, K. (2); Zhang, Y. (2); Suzuki, M. (3); Ishizu, T. (4) 1 - Karlsruhe Institute of Technology (KIT), Germany 2 - Paul Scherrer Institute (PSI), Switzerland 3 - Japan Atomic Energy Agency (JAEA), Japan 4 - Nuclear Regulation Authority (NRA), Japan

Image 2. The ASGARD seminar sessions.

CONCLUSIONS

The 2nd workshop of ASGARD has been well received session and in good collaboration with the PELGRIMM project as well as with the organizers of TopFuel. Even more, other contributions emerging from ASGARD project have been presented during the conference, thus the dissemination was extended beyond the dedicated session.