International Conference on

FAST REACTORS AND RELATED FUEL CYCLES: Safe Technologies and Sustainable Scenarios

FR13

4–7 March 2013
Paris, France

PROGRAMME

Organized by the

IAEA
International Atomic Energy Agency

Hosted by the Government of France

Through the

French Alternative Energies and Atomic Energy Commission (CEA)

French Nuclear Energy Society (SFEN)

In cooperation with the

OECD Nuclear Energy Agency

CN-199

Conference:

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General Co-Chair:	A. Bychkov	IAEA
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Scientific Secretaries:	S. Monti, IAEA U. Basak, IAEA
Local Organizers:	P. Anzieu, France B. Jolly, France S. Delaplace, France H. Safa, France
Conference Coordination:	M. Khaelss, IAEA K. Morrison, IAEA
Administrative Support:	A. Toti, C. Angster J. Šegota, E. Bergo, IAEA
Editor:	J. Benbow, IAEA

Location of the Conference:

Le Palais des Congrès de Paris
2 place de la Porte Maillot
75017 Paris, France

Working Language: English

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

International Advisory Committee

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Z. Pasztory	IAEA
J. Gulliford	OECD-NEA

Track Leaders

Track 1.	Fast reactor designs: goals and paths of progress J.C. Garnier, France; Y. Kim, Korea, Rep of
Track 2.	Fast reactor technologies, components and instrumentation J.M. Hamy, France; P. Chellapandi, India, C. Grandy, United States of America
Track 3.	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors P. Mariteau, France, A. Yamaguchi, Japan
Track 4.	Fast reactor materials: achievements and new challenges P. Dubuisson, France, C. Fazio, Germany
Track 5.	Fast reactor fuels and transmutation targets: development and irradiation experiments M. Phelip, France; A J. Carmack, United States of America
Track 6.	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation D. Warin, France; R. Natarajan, India
Track 7.	Experimental tests, data and advanced simulation A. Zaetta, France, Y. Khomyakhov, Russian Federation
Track 8.	Fast reactors deployment, scenarios and economics H. Safa, France, V. Kagramanyan, Russian Federation
Track 9.	Fast reactor operation and decommissioning: international experience D. Settimo, France; G. Srinivasn, India
Track 10.	Skill capabilities, professional development, knowledge management J. Figuet, France, Z. Pasztory, IAEA

TIMETABLE

Sunday, 3 March 2013

16:00–19:00	Registration	
18:00–20:00	Welcome reception	

Monday, 4 March 2013

07:30	Registration (continued)	
08:00–10:00	Opening Session *(Amphitheatre Bordeaux*)	
10:00–10:30	Break	
10:30–12:00	Plenary Session *(Amphitheatre Bordeaux)*	National and international fast reactor programmes
12:00–13:30	Lunch break	
13:30–15:00	Plenary Session (continued) *(Amphitheatre Bordeaux)*	National and international fast reactor programmes
15:00–15:20	Break	
15:20–16:50	Plenary Session (continued) (*Amphitheatre Bordeaux)*	National and international fast reactor programmes
16:50–17:10	Break	
17:10–19:00	Panel 1 *(Amphitheatre Bordeaux*)	Safety design criteria

Tuesday, 5 March 2013

08:00–10:00	Technical Session 1.1 *(Room 342A)*	Fast reactor designs: goals and paths of progress
08:00–10:00	Technical Session 5.1 *(Room 351)*	Fast reactor fuels and transmutation targets: development and irradiation experiments
08:00–10:00	Technical Session 8.1 (*Room 352B)*	Fast reactors deployment, scenarios and economics
10:00–10:20	Break	
10:20–12:00	Technical Session 6.1 *(Room 342A)*	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation
10:20–12:00	Technical Session 4.1 *(Room 351*)	Fast reactor materials: achievements and new challenges
10:20–12:00	Technical Session 7.1 *(Room 352B)*	Experimental tests, data and advanced simulation
12:00–13:30	Lunch Break	
13:30–15:10	Technical Session 1.2 *(Room 342A)*	Fast reactor designs: goals and paths of progress
13:30–15:10	Technical Session 5.2 (*Room 351)*	Fast reactor fuels and transmutation targets: development and irradiation experiments
13:30–15:10	Technical Session 7.2 (*Room 352B)*	Experimental tests, data and advanced simulation
13:30–15:10	Technical Session 8.2 *(Room 341)*	Fast reactors deployment, scenarios and economics
13:30–15:10	Technical Session 4.2 *(Room 352A)*	Fast reactor materials: achievements and new challenges

Tuesday, 5 March 2013

13:30–15:10	Technical Session 6.2 *(Room 353)*	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation
15:10–15:30	Break	
15:30–17:30	Panel 2 (*Amphitheatre Havane)*	Sustainability of advanced fuel cycles
17:30–19:00	Poster Session 1 *(Hall Havane + Room 351)*	(Tracks 1,2,3,4)
20:00-23:30	Buffet Dinner (tickets must have been purchased online) (*360° Café at the top of Montparnasse Tower*)	

Wednesday, 6 March 2013

08:00–10:00	Technical Session 2.1 (*Room 342A)*	Fast reactor technologies, components and instrumentation
08:00–10:00	Technical Session 3.1 (*Room 351)*	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors
08:00–10:00	Technical Session 9.1 (*Room 352B)*	Fast reactor operation and decommissioning: international experience
10:00–10:20	Break	
10:20–12:00	Technical Session 1.3 *(Room 342A)*	Fast reactor designs: goals and paths of progress
10:20–12:00	Technical Session 3.2 *(Room 351*)	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors
10:20–12:00	Technical Session 7.3 (*Room 352B)*	Experimental tests, data and advanced simulation

Wednesday, 6 March 2013

10:20–12:00	Technical Session 2.2 *(Room 341)*	Fast reactor technologies, components and instrumentation
10:20–12:00	Technical Session 4.3 (*Room 352A)*	Fast reactor materials: achievements and new challenges
10:20–12:00	Technical Session 5.3 (*Room 353)*	Fast reactor fuels and transmutation targets: development and irradiation experiments
12:00–13:30	Lunch Break	
13:30–15:10	Technical Session 1.4 (*Room 342A)*	Fast reactor materials: achievements and new challenges
13:30–15:10	Technical Session 8.3 (*Room 351)*	Fast reactors deployment, scenarios and economics
13:30–15:10	Technical Session 7.4 (*Room 352B)*	Experimental tests, data and advanced simulation
13:30–15:10	Technical Session 2.3 (R*oom 341)*	Fast reactor technologies, components and instrumentation
13:30–15:10	Technical Session 9.2 (*Room 352A)*	Fast reactor operation and decommissioning: international experience
13:30–15:10	Technical Session 5.4 *(Room 353*)	Fast reactor fuels and transmutation targets: development and irradiation experiments
15:10–15:30	Break	
15:30–17:10	Technical Session 1.5 (*Room 342A)*	Fast reactor designs: goals and paths of progress
15:30–17:10	Technical Session 3.3 *(Room 351)*	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors
15:30–17:10	Technical Session 7.5 (*Room 352B)*	Experimental tests, data and advanced simulation

Wednesday, 6 March 2013

15:30–17:10	Technical Session 2.4 (*Room 341*)	Fast reactor technologies, components and instrumentation
15:30–17:10	Technical Session 4.4 (*Room 352A)*	Fast reactor materials: achievements and new challenges
15:30–17:10	Technical Session 6.3 (*Room 353)*	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation
17:10-17:30	Break	
17:30-19:00	Poster Session 2 (*Hall Havane*)	Tracks: 5,6,7,8,9

Thursday, 7 March 2013

08:00–10:00	Technical Session 10.1 (*Room 342A)*	Skill capabilities, professional development, knowledge management
08:00–10:00	Technical Session 3.4 (*Room 351)*	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors
08:00–10:00	Technical Session 6.4 (*Room 352B*)	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation
10:00–10:20	Break	
10:20–12:00	Technical Session 10.2 (*Room 342A)*	Skill capabilities, professional development, knowledge management
10:20–12:00	Technical Session 3.5 (*Room 351*)	Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors
10:20–12:00	Technical Session 6.5 (*Room 352B*)	Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation

Thursday, 7 March 2013

10:20–12:00	Technical Session 2.5 (*Room 341)*	Fast reactor technologies, components and instrumentation
10:20–12:00	Technical Session 7.6 (*Room 352A)*	Experimental tests, data and advanced simulation
12:00–13:30	Lunch break	
13:30–15:10	Young Generation's Event (*Amphitheatre Bordeaux)*	
15:10–15:30	Break	
15:30–17:30	Closing Session (*Amphitheatre Bordeaux)*	

Oral presentations

The duration of the oral presentations already include time for discussion. Speakers are requested to make available the following times for discussions:

Presentation type	**Presentation length**
Opening Session	30 min
Plenary Session	30 min including 5 min discussion
Technical Sessions	
Invited papers	20 min including 5 min discussion
Contributed papers	20 min including 3 min discussion

Display of posters

Posters will be on display throughout the conference in the Hall Havane. Poster sessions will be held on Tuesday and Wednesday from 17:30-19:00. Poster authors are requested to be at their posters during coffee breaks Monday to Thursday and during the poster sessions.

Commercial exhibits

Commercial exhibits will be shown in the Hall Havane from Monday to Thursday.

SUNDAY, 3 MARCH 2013

16:00–19:00	Registration and distribution of conference material
18:00-20:00	Welcome reception

MONDAY, 4 MARCH 2013

07:30	Registration and distribution of conference material (continued)	
08:00–10:00	**OPENING SESSION**	
	(*Amphitheatre Bordeaux)*	
Chairpersons:	**C. Behar, France** **S. Monti, IAEA**	
	L. Michel, France Director General French Ministry of Ecology, Sustainable Development and Energy	Opening address
	Y. Amano, IAEA Director General	Opening address (by video message)
	B. Bigot, France Chairman French Alternative Energies and Atomic Energy Commission (CEA)	Opening address
	Y. Sagayama, Japan Former GIF chairman Generation IV International Forum (GIF)	*Fast reactor development and world-wide cooperation in Generation IV International Forum*
10:00-10:30	Break	

MONDAY, 4 MARCH 2013

10:30–12:00 **PLENARY SESSION:**
National and international fast reactors programmes

(Amphitheatre Bordeaux)

Chairperson: **V. Pershukov, Russian Federation**

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
FRP-01	**D. Zhang**	China	Fast Reactor Development Strategy in China
FRP-02	**C. Behar**	France	French R&D program on SFR and the ASTRID prototype
FRP-03	**P.R. Vasudeva Rao**	India	A perspective on the Indian programme on Fast Reactors and associated fuel cycles

12:00–13:30 Lunch Break

MONDAY, 4 MARCH 2013

13:30–15:00 **PLENARY SESSION:**
National and international fast reactors programmes (continued)

(Amphitheatre Bordeaux)

Chairperson: **P.R. Vasudeva Rao, India**

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
FRP-04	**S. Kondo**	Japan	Deliberation of Post 3.11 Fast Reactor R&D Strategy in Japan
FRP-05	**V. Rachkov**	Russian Federation	Fast reactor development program in Russia
FRP-06	**P. Lyons**	United States of America	U.S. Research Program to Support Advanced Reactors and Fuel Cycle Options

15:00–15:20 Break

MONDAY, 4 MARCH 2013

15:20–16:50 **PLENARY SESSION:**
National and international fast reactors programmes (continued)

(Amphitheatre Bordeaux)

Chairperson: **C. Behar, France**

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
FRP-07	**T. Fanghänel**	EC	Euratom contributions in Fast Reactor research programmes
FRP-08	**T. Dujardin**	OECD-NEA	OECD Nuclear Energy Agency activities related to fast reactor development
OV	**F. Carre**	France	State-of-the-art, new trends and developments in the field of fast reactors and related fuel cycles
16:50–17:10	Break		

17:10–19:00 **PANEL 1:**
Safety Design Criteria

(*Amphitheatre Bordeaux*)

Chairperson: **P. Lyons, United States of America**

Panellists:

L. Ren	China
G. Bruna	France
P. Chellapandi	India
R. Nakai	Japan
I. Ashurko	Russia
T. Sofu	USA
J. Yllera	IAEA

TUESDAY, 5 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 1.1:**
Fast reactor designs:
goals and paths of progress

(Room 342A)

Chairpersons: **Y. Kim, Republic of Korea**
J.C. Garnier, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-037	**Y. Kim,** J. Chang Y. Lee C. Lee D. Hahn	Korea, Republic of	Status of SFR Development in Korea
INV-041	**K. Aoto** Y. Chikazawa T. Ohkubo K. Okada T. Ito	Japan	Reinforced JSFR Safety Design and Safety Criteria for GenIV Reactor
INV-050	**Y. Khomyakov** V.I. Matveev A.V. Moiseev	Russian Federation	Development of physical conceptions of fast reactors
INV-055	**H. A. Abderrahim**	Belgium	Future Advanced Nuclear Systems and Role of MYRRHA as Waste Transmutation R&D Facility
INV-062	**F. Gauche**	France	The French Fast Reactor Program - Innovations in Support to Higher Standards
INV-417	**Y. Wu** H. Chen Q. Huang Y. Bai Q. Zeng C. Liu Y. Song FDS Team	China	Lead-alloy cooled fast reactor development plan and R&D status in China

TUESDAY, 5 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 5.1: Fast reactor fuels and transmutation targets: development and irradiation experiments**

(Room 351)

Chairpersons: **M. Phelip, France**
J. Carmack, United States of America

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-020	**S. Maeda** M. Suzuki T. Kaito K. Tanaka T. Abe	Japan	Concept and development status of fast breeder reactor fuels in the FaCT project
INV-025	**A. Kumar**	India	Development, fabrication and characterization of fuels for Indian fast reactor programme
INV-042	**J. Somers**	EC	Recent Advances in Fuel for Fast Reactors: Synthesis, Properties, Safety Performance
INV-052	**C. B. Lee** B. O. Lee K. H. Kim S. H. Kim	Korea, Republic of	Status of SFR Metal Fuel Development
INV-058	**K. Pasamehmetoglu** J. Carmack F. Goldner	United States of America	U.S. DOE Advanced Nuclear Fuel Development Program Overview
INV-283	**F. Delage** S. Bejaoui J. M. Bonnerot N. Chauvin S. Pillon	France	Outcomes on oxide fuel developments for minor actinides recycling

TUESDAY, 5 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 8.1:**
Fast reactors deployment, scenarios and Economics

(Room 352B)

Chairpersons: **H. Safa, France**
T.K. Mitra, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-022	**J. Devezeaux de Lavergne** G. Mathonnière	France	A global assessment of fast reactors in the future
INV-031	**K. Ono** H. Shiotani A. Ohtaki K. Mukaida T. Abe	Japan	Japanese FR Deployment Scenario Study after the Fukushima Accident
INV-036	**T. K. Mitra**	India	Economics of fast reactors – an Indian perspective
INV-040	**V. Kagramanyan** V. Rachkov S. Kalyakin V. Usanov	Russian Federation	The concept of phased deployment and closure of the nuclear fuel cycle on the basis of fast reactors in the conditions of uncertainty of the scale of the future development of nuclear power
INV-069	**V. Kuznetsov** G. Fesenko M. Kriachko B. Dixon H. Hayashi V. Usanov	IAEA	Major findings of the INPRO collaborative project on Global Architecture of Innovative Nuclear Energy Systems with Thermal and Fast reactors and a Closed Nuclear Fuel Cycle (GAINS)
INV-436	**D. Fraser** A. Kouhestani J. Parmentola R.E. Prince R.S. Reynolds	United States of America	Commercial U.S. Vendors Focus on Reducing the Cost of Fast Reactors

10:00–10:20 Break

TUESDAY, 5 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 6.1: Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation**

(Room 342A)

Chairpersons: **D. Warin, France**
A. Ravisankar, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-038	**J. Brueziere** D Favet	France	Industrial maturity of FR fuel cycle processes and technologies
INV-065	**M. Regalbuto** I. Milton T. Taiwo R. Wigeland R. Price	United States of America	The United States Department of Energy Fuel Cycle Technologies Program
INV-053	**T. Fanghaenel** G. Cojazzi N. Erdmann D. Haas R. Konings V. Rondinella J. Somers P. van Uffelen	EC	Safety of Advanced Nuclear Fuel Cycles
INV-056	**H. Lee** J.W. Lee J.M. Hur J.G. Kim S. Park I.J. Cho W.I. Ko I.-T. Kim G.I. Park	Korea, Republic of	Progress in Pyroprocessing Technology at KAERI
INV-045	**A. Shadrin**	Russian Federation	Chemical and technological issues of fast reactors fuel cycle

TUESDAY, 5 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 4.1:**
Fast reactor structural materials: achievements and new challenges

(Room 351)

Chairpersons: **P. Dubuisson, France**
C. Fazio, Germany

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-028	**T. Asayama** T. Kaito	Japan	Development of Structural Materials for JSFR - Overview and Current Status
INV-032	**N. Saibaba**	India	Development of Structural Core Components for Breeder Reactors
INV-039	**K. Natesan** M. Li	United States of America	Materials Performance in Sodium-Cooled Fast Reactors: Past, Present, and Future
INV-051	**C. Fazio** P. Dubuisson	Germany	Achievement and new challenges for high performance materials
INV-198	**X. Fu** B. Long L.Q. Han B. Qin J.Q. Zhang S.X. Wang	China	Materials Options of Steam Generator For Sodium-Cooled Fast Reactor

TUESDAY, 5 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 7.1: Experimental tests, data and advanced simulation**

(Room 352B)

Chairpersons: **A. Zaetta, France**
Y. Khomyakov, Russian Federation

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-021	**T. Sofu** F. Varaine A. Zaetta C. De saint Jean J. C. Garnier P. Sciora B. Fontaine P. Marsault J. C. Bosq P. Finck G. Palmiotti M. Salvatores J. Bess T. Sumner T. Fanning H. Khalil	United States of America	DOE-CEA benchmark on SFR Astrid innovative core: neutronic and safety transients simulation
INV-043	**H. Ninokata** M. Pellegrini M. Ricotti H. Kamide	Japan	Modelling of Multi-Physics Phenomena in Fast Reactors Design/Safety and Experimental Validation
INV-057	**G. Padmakumar,** V. Vinod G. K. Pandey V. M. Mente S Krishnakumar I. Banerjee S. Chandramouli B K Nashine K. K. Rajan	India	Experimental Studies for Safety Grade Decay Removal System of Prototype Fast Breeder Reactor
INV-063	**D. Pointer** K. Bradley P. Fischer M. Smith T. Tautges R. Ferencz R. Martineau R. Jain A. Obabko J. Billings	United States of America	Developing a Comprehensive Software Suite for Advanced Reactor Performance and Safety Analysis

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-448	**N. Gulliford** S.M. Cornet I. Hill A. Yamaji	OECD-NEA	NEA activities in preserving, evaluating and applying data from fast reactor experiments
12:00-13:30	Lunch break		

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 1.2: Fast reactor designs: goals and paths of progress**

(Room 342A)

Chairpersons: **D. Verwaerde, France**
Y. Khomyakov, Russian Federation

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
261	**P. Le Coz** J.F. Sauvage J.M. Hamy V. Jourdain J.P. Biaudis H. Oota T. Chauveau P. Audouin D. Robertson R. Gefflot	France	The ASTRID Project : Status and Future Prospects
275	**P. Alphonse** J.L. Perrin P. Gama	France	Status of ASTRID architecture and pre-conceptual design
336	**A. Alemberti** L. Mansani G. Grasso D. Mattioli F. Roelofs D.De Bruyn	Italy	The European Lead Fast Reactor strategy and the Roadmap for the Demonstrator ALFRED
375	**S. Shepelev** B. Vasilev M. Ashirmetov V. Poplavsky	Russian Federation	BN-1200 reactor power unit design development

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
398	**C. Grandy** T. K. Kim E. Jin M. Farmer H. Belch J. Grudzinski T. Sumner Y. Momozaki L. Krajtl C. Gerardi Y. Tang T. Moran A. Moisseytsev R. Vilim T. Wei R. Seidensticker C. Youngdahl	United States of America	Advanced Fast Reactor - 100 - Design Overview

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 5.2: Fast reactor fuels and transmutation targets: development and irradiation experiments**

(Room 351)

Chairpersons: **H. Chichester, United States of America**
M. Kato, Japan

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
195	**R. Ramos** L. Buiront	Argentina	Minor Actinides Burn-up Enhancement in the European Sodium Fast Reactor Through Moderator Material Addition
282	**M. Zabiego** C. Sauder P. David C. Guéneau L. Briottet J.J. Ingremeau A. Ravenet C. Lorrette L. Chaffron P. Guédeney M. Le Flem J.L. Séran	France	Overview of CEA's R&D on GFR fuel element design: from challenges to solutions
350	**K. Inagaki** K. Nakamura T. Ogata	Japan	Progress in Understanding of Fuel-Cladding Chemical Interaction in Metal Fuel
366	**R. Mariani** D.L. Porter V.S. Blackwood Z.S. Jones D.L. Olson B. Mishra J.R. Kennedy S.L. Hayes	Unites States of America	New Fuel Alloys Seeking Optimal Solidus and Phase Behaviours for High Burn-up and TRU Burning
463	**A.M. Savchenko** A.V. Vatulin V.I. Sorokin G.V. Kulakov S.V. Maranchak	Russian Federation	New Concept of Designing Composite Fuel for Fast Reactors with Closing Fuel Cycle

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 7.2: Experimental tests, data and advanced Simulation**

(Room 352B)

Chairpersons: **N. Gulliford, OECD-NEA**
G. Padmakumar, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
141	**K. Sugino** K. Numata M. Ishikawa	Japan	Evaluation on Calculation Accuracy of the Sodium Void Reactivity for Low Void Effect Fast Reactor Cores with Experimental Analyses
142	**H. Ohira** Y. Xu U. Bieder K. Velusamy H. Mochizuki S. Choi Y. Shvetsov T. Sofu J. Thomas S. Monti S. Yoshikawa A. Stanculescu	Japan	Benchmark Analyses of Sodium Natural Convection in the Upper Plenum of the MONJU Reactor Vessel
187	**F. Roelofs** V.R. Gopala K. Van Tichelen X. Cheng E. Merzari W.D. Pointer	Netherlands	Status and Future Challenges of CFD for Liquid Metal Cooled Reactors
197	**B. Roque** P. Archier L. Buiron C. de Saint J.F. Gabriel V. Pascal G. Rimpault D. Schneider	France	APOLLO3® Roadmap : a new generation of simulation tools for the neutronic core calculation of the ASTRID prototype
254	**N. Stauff** T.K. Kim T. Taiwo L. Buiron F. Varaine J. Gullifordc	United States of America	Evaluation of Sodium-cooled Fast Reactor Neutronic Benchmarks

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 8.2: Fast reactors deployment, scenarios and Economics**

(Room 341)

Chairpersons: **C. Garzenne, France**
A. Chebeskov, Russian Federation

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
105	**M. Szieberth** M. Halász S. Fehér T. Reiss	Hungary	Fuel cycle studies on Minor Actinide burning in gas cooled fast reactors
133	**B. Shoai Tehrani** P. Da Costa	France	3 Investment Scenarios for Fast Reactors in Europe
152	**H. Safa** J.M. Borgard	France	Non-Electric Applications of Fast Reactors
344	**V.I. Usanov** V.S. Kagramanyan A.G. Kalashnikov V.V. Korobeinikov V.E. Korobitsyn A.L. Moseyev E.V. Poplavskaya	Russian Federation	Analysis of scenarios of the inclusion of fast reactors in the nuclear power of Russia in the context of sustainable development with the use of the INPRO methodology
358	**A. Kudryavtseva** K. Danilenko K. Dorofeev	Russian Federation	Fast reactors as a solution for future small-scale nuclear energy

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 4.2: Fast reactor materials: achievements and new challenges**

(Room 352A)

Chairpersons: **N. Saibaba, India**
Marion Le Flem, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
464	**M. Le Flem** M. Blat-Yrieix V. Garat J.L. Séran	France	French R&D on materials for the core components of Sodium Fast Reactors
190	**J. Hoffmann** M. Rieth M. Lorenz A. Möslang	Germany	Fabrication and characterization of aluminium-containing ferritic ODS alloys for improved corrosion resistance
240	**P. Gavoille** A. Courcelle J.L. Seran X. Averty B. Bourdiliau O. Provitina V. Garat D. Verwaerde	France	Mechanical Properties of Cladding and Wrapper Materials for ASTRID Fast-Reactor Project
252	**T. Kaito** S. Ohtsuka Y. Yano T. Tanno S. Yamashita R. Ogawa K. Tanaka	Japan	Irradiation Performance of Oxide Dispersion Strengthened (ODS) Ferritic Steel Claddings for Fast Reactor Fuels
380	**R. Logé** L. Toualbi E. Vanegas-Marquez K. Mocellin Y. de Carlan	France	Optimization of the Fabrication Route of Ferric/Martensitic Oxide Dispersion Strengthened Cladding Tubes: Mettallugical Approach and Pilgering Numerical Modeling

TUESDAY, 5 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 6.2: Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation**

(Room 353)

Chairpersons: **D. Favet, France**
J. Somers, European Commission

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
278	**S. Grandjean** C. Poinssot M. Masson D. Warin B. Boullis	France	French R&D Program for the Multi-Recycling of Plutonium
113	**R.B. Bhatt** A. Kumar A. Kulshrestha M. Afzal A. Kumar G.J.Prasad	India	Technological developments in safe and efficient fabrication of fast reactor fuel elements
199	**R. Fielding** K.H. Kim B. Grover J. King J. Smith K. Wendt D. Chapman L. Zirker	United States of America	Integrated Recycling Test Fuel Fabrication
296	**F. Jorion** T. Delahaye A. Gauthé S. Picart F. Lebreton E. Remy D. Horlait	France	Research and development for the fabrication of minor actinide-bearing fuel materials and technologies
388	**R. Fielding** J.Crapps C.Unal J.R. Kennedy	United States of America	Metallic Fuel Casting Development and Parameter Optimization Simulations

15:10–15:30 Break

TUESDAY, 5 MARCH 2013

15:30–17:30 **PANEL 2:**
Sustainability of advanced fuel cycles

(Amphitheatre Havane)

Chairperson: **R. Cameron, OECD-NEA**

Panellists:		
	B. Boullis	France
	P.R. Vasudeva Rao	India
	T. Abe	Japan
	G. IL Park	Korea, Rep of
	V. Kagramanyan	Russia
	M. Regalbuto,	USA
	D. Haas	EC
	V. Kuznetsov	IAEA

17:30–19:00 **POSTER SESSION 1: Tracks 1, 2, 3, 4**

(Hall Havane)

Chairpersons: **H. Safa, France**
J. Figuet, France

20:00 Buffet Dinner
(tickets must have been purchased online)
Location: 360° Café at the top of
Montparnasse Tower

WEDNESDAY, 6 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 2.1:**
Fast reactor technologies, components and instrumentation

(Room 342A)

Chairpersons: **P. Agostini, Italy**
C. Grandy, United States of America

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-024	**A. Alemberti** M. Frogheri L. Mansani	Italy	The Lead Fast Reactor: Demonstrator (ALFRED) and ELFR Design
INV-026	**B. Vasilyev** D.L. Zverev V.N. Yershov S.G. Kalyakin V.M. Poplavskiy V.I. Rachkov O.M. Sarayev	Russian Federation	Development of fast sodium reactor technology in Russia
INV-029	**P. Chellapandi** S.C. Chetal	India	Manufacture and Erection of SFR Components: Feedback from PFBR Experience
INV-046	**J.P. Serpantie** J.C. Lefèvre J.M. Hamy	France	Current trends for Sodium Fast Reactors design options - An industrial perspective
INV-049	**R. Hill**	United States of America	Overview of U.S. Fast Reactor Technology Program
INV-059	**H. Hayafune** A. Katoh Y. Chikazawa T. Ohkubo H. Sagawa Y. Shimakawa	Japan	Evaluation of severe external events on JSFR

WEDNESDAY, 6 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 3.1: Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors**

(*Room 351)*

Chairpersons: **P. Mariteau, France**
A Yamaguchi, Japan

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-033	**I. Ashurko** A.A. Kamayev V.M. Poplavsky B.A. Vasilyev S.L. Osipov A.I. Staroverov S.F Shepelev	Russian Federation	Modern Approaches to Safety Assurance of Sodium Fast Reactors of a New Generation
INV-035	**P. Kumar**	India	Safety Upgradation of PFBR in wake of Fukushima accident - Severe accident management strategies
INV-047	**A. Yamaguchi**	Japan	SFR Safety Consideration in Light of Fukushima Dai-ichi Accident
INV-048	**N. Devictor**	France	R&D challenges for SFR design and safety analysis – opportunities for international cooperations
INV-174	**M. Denman** T. Sofu B. Bari G. Flanagan J. LaChance R. Wigeland	United States of America	Sodium Fast Reactor Safety and Licensing Research Plan
INV-356	**K. Tucek** N. Tricot P. Chellapandi F. Reitsma	IAEA	IAEA Safety Standards for Fast Neutron Reactors and High Temperature Gas-cooled Reactors

WEDNESDAY, 6 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 9.1: Fast reactor operation and decommissioning: international experience**

(Room 352B)

Chairpersons: **D. Settimo, France**
B. Anandapadmanaban, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-023	**J. Sauvage**	France	Prototype and Industrial SFRs: Yesterday, Today, Tomorrow
INV-030	**S. Kondo** T.Deshimaru M.Konomura	Japan	Recent Progress and Status of Monju
INV-054	**J. Sackett** C. Grandy	United States of America	International Experience with Fast Reactor Operation and Maintenance
INV-060	**O. Potapov** M.V. Bakanov Y.V. Nosov	Russian Federation	Operating experience from the BN600 sodium-cooled fast reactor
INV-067	**B. Anandapad-manaban** M. Thangamani K.V. Suresh Kumar G. Srinivasan	India	Twenty six years of operating experience of FBTR and Feedback to Future Reactor Design
INV-459	**L.A. Kochetkov**	Russian Federation	Experience and solutions on the decommissioning of sodium-cooled fast reactors

10:00-10:20 Break

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 1.3:**
Fast reactor designs: goals and paths of Progress

(*Room 342A)*

Chairpersons: **P. Le Coz, France**
S. Shepelev, Russian Federation

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
127	**M. Saez** J.-C. Robin B. Riou A. Villedieu D. Deprest G. Prele	France	Status of ASTRID nuclear island pre-conceptual design
242	**M. Chenaud** N. Devictor G. Mignot F. Varaine C. Vénard L. Martin M. Phelip E. Brunon D. Lorenzo F. Serre F. Bertrand P. Richard M. Le Flem P. Gavoille R. Lavastre V. Garat D. Verrier D.Schmitt	France	Status of ASTRID core studies at the end of predesign phase 1
331	**A. Vasile** Ph. Dufour S. Bejaoui Ch. Latgé D. Verwaerde R. Stieglitz F. Badea A. Gerber R. Stainsby	France	The Collaborative Project for a European Sodium Fast Reactor

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
399	**A. Rineiski** B. Vezzoni D. Zhang M. Marchetti F. Gabrielli W. Maschek X.-N. Chen L. Buiron J. Krepel K. Sun K. Mikityuk F. Polidoro D. Rochman A.J. Koning D.F. DaCruz H. Tsige-Tamirat R. Sunderland	Germany	ESFR core optimization and uncertainty studies
461	**G. Gagan** S. Jalaldheen P. Chellapandi S.C. Chetal	India	Advanced Structural Mechanics Design of 500 MWe Commercial SFRs

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 3.2: Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors**

(*Room 351)*

Chairpersons: **B. Carluec, France**
W. Maschek, Germany

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
150	**S. Kubo** H. Yamano Y. Chikazawa Y. Shimakawa	Japan	Safety design approach for JSFR toward the realization of GEN IV Sodium cooled fast reactor
171	**N. Khrennikov** A. Sintsov	Russian Federation	Licensing support experience of the BN-600 operation
267	**P. Lo Pinto** R. Dousson B. Carluec S. Beils P. Mariteau F. Giffon S. Ehster-Vignoud	France	Safety orientations during ASTRID conceptual design phase
374	**S. Rogozhkin** S. Osipov V.Sobolev S. Shepelev A.Kozhaev M. Mavrin A.Ryabov	Russian Federation	Analytical and experimental study for validation of the device to confine BN reactor melted fuel
382	**C. Giacomazzi-Belot**	France	SFRs and GEN IV : ASN actions

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 7.3: Experimental tests, data and advanced Simulation**

(Room 352B)

Chairpersons: **H. Kamide, Japan**
K. Mikityuk, Switzerland

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
288	**G. Gerbeth** S. Eckert F. Stefani T. Gundrum	Germany	DRESDYN - A new platform for liquid thermodraulic studies and measurement technique developments
314	**I. Ashurko** A. Sorokin V. Privezentsev A. Volkov R. Khafizov E. Ivanov	Russian Federation	Activities on Experimental Substantiation of SFR Safety in Accidents with Sodium Boiling
346	**L. Briggs** C. Choi W. Hu L. Maas W. Maschek B. Merk K. Mikityuk H. Mochizuki S. Monti K. Morita A. Del Nevo H. Ohira A. Petruzzi U. Partha Sarathy A. Shin I. Shvetsov M. Stempniewicz G. Su D. Sui B. Truong	United States of America	Benchmark Analyses of the Shutdown Heat Removal Tests Performed in the EBR-II Reactor
363	**B. Farges** T. Sageaux N. Goreaud	France	STAR-CD / CATHARE coupling methodology for thermal-hydraulic calculations on primary loop and heat exchangers in sodium-cooled fast reactor

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
389	**M. Tarantino** I. Di Piazza P. Agostini P. Gaggini D. Martelli N. Forgione	Italy	Thermal-Hydraulic Assessment of HLM-cooled pin bundle in CIRCE pool facility

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 2.2:**
Fast reactor technologies, components and instrumentation

(Room 341)

Chairpersons: **C. Grandy, United States of America**
J.M. Hamy, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
106	**O. Matal** T. Šimo O. Matal junior	Czech Republic	Inverted Steam Generators for Sodium Cooled Fast Reactors
126	**M. Saez** S. Menou A. Allou F. Beauchamp C. Bertrand G. Rodriguez G. Prele	France	Sodium-water reaction approach and mastering for ASTRID steam generator design
262	**G. Laffont** L. Cachon V. Jourain J.M. Fauque	France	ASTRID power conversion system : assessment on steam and gas options
340	**M. Mito** N. Kisohara Y. Yamada K. Dozaki	Japan	Hydrodynamic stability analysis method of once-through sodium-heated steam generator with double-walled straight tube
407	**M.T. Farmer** C. Grandy	USA	Intermediate Heat Exchanger (IHX) Trade Study in Support of Advanced Fast Reactor Development

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 4.3:**
Fast reactor materials: achievements and new challenges

(Room 352A)

Chairpersons: **P. Dubuisson, France**
K. Natesan, United States of America

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
131	**T.L. Sham** L. Tan Y. Yamamoto	United States of America	Development of Advanced 9Cr Ferritic-Martensitic Steels and Austenitic Stainless Steels for Sodium-Cooled Faster Reactor
230	**R. Divakar** V. Karthik K. Gopal R.V. Kumar D. Ramachandran J. Jospeh T. Jayakumar	India	Irradiation experiment to determine effect of long-term low dose irradiation on FBTR grid plate material
287	**K. Ramanathapura Subbaraya** S. Raju S. Anthonysamy S. Murugan D. Sunil Kumar V. Rajan Babu S.C. Ravi Chandar C.N. Venkiteswaran S.C. Chetal	India	Experimental and Theoretical Investigations of Ferro Boron as In-vessel Shield Material in FBRs
305	**S.H. Kim** J.H. Baek J.H. Kim C.B. Lee	Korea, Republic of	Fabrication and Evaluation of SFR Cladding Tubes
404	**C. Cabet** F. Dalle M. Blat-Yrieix S. Dubiez-LeGoff Ph. Dubuisson L. Forest L. Martinelli M. Sauzay C. Desgranges K. Ginestar	France	Synthesis of R&D results on 9%Cr steels for Steam Generators of Sodium Fast Reactors

WEDNESDAY, 6 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 5.3: Fast reactor fuels and transmutation targets: development and irradiation experiments**

(Room 353)

Chairpersons: **A. Kumar, India**
J. Somers, European Commission

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
110	**J. Banerjee** S. Kaity K. Ravi M.R. Nair M.T. Saify R. Keswani A. Kumard G.J. Prasad	India	Out-of-pile thermophysical properties of metallic fuel for fast reactors in India
111	**M.T. Saify** S.K. Jha K.K. Abdulla Arun Kumar G.J. Prasad	India	Fabrication of Metallic Fuel Slugs for Irradiation Experiments in Fast Breeder Test Reactor
193	**F. Lebreton** D. Horlait T. Delahaye P. Blanchart	France	Dilatometric Study of U1–xAmxO2±δ Transmutation Fuels
227	**M. Pukari** M. Takano	Sweden	Sinterability of ZrN and (Zr0.6Dy0.4)N pellets - surrogate fuel fabrication for ELECTRA
253	**M.Kato** T. Abe	Japan	Analysis of oxygen potentials in MOX and MA-bearing MOX fuels and application to nuclear fuel technologies

12:00-13:30 Lunch break

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 1.4:**
Fast reactor designs: goals and paths of Progress

(Room 342A)

Chairpersons: **A. Rineiski, Germany**
C. Poette, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
272	**G. Grasso** C. Döderlein K. Tuček K. Mikityuk F. Manni D. Gugiu	Italy	A core design approach aimed at the sustainability and intrinsic safety of the European Lead-cooled Fast Reactor
295	**D. Lee** T. Tak T. K. Kim	Korea, Republic of	Core design study of ultra-long cycle fast reactor concept
299	**K. Devan** D.Paul A. Bachchan A. Riyas T. Sathiyasheela P. Puthiyavinayagam P. Chellapandi S. C. Chetal	India	Physics Design and Safety Studies of a 320 MWt Experimental Metal FBR
310	**D. Schmitt** D.Verwaerde S. Poumérouly P. Tétart G. Darmet B. Maliverney S. Massara	France	Sample of EDF-R&D 2009-2012 core studies on heterogeneous sodium-cooled fast reactors with low sodium void effect
347	**D. Verrier** A.-C. Scholer M. Chhor	France	A New Design Option for Achieving Zero Void Effect in Large SFR Cores

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 8.3:**
Fast reactors deployment, scenarios and Economics

(Room 351)

Chairpersons: **V. Kagramanyan, Russian Federation**
T.K. Mitra, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
211	**C. Coquelet-Pascal** M. Meyer R. Girieud M. Tiphine R. Eschbach C. Chabert C. Garzenne P. Barbrault L. van den Durpel D. Favet M. Arslan M. Caron-Charles B. Carlier J.C. Lefevre	France	Scenarios for Fast Reactor Deployment with Plutonium Recycling
233	**R. Calabrese**	Italy	Fast Reactor Systems and Innovative Fuels for Minor Actinides Homogeneous Recycling
292	**J. Le Mer** C. Garzenne D. Lemasson	France	EDF research scenarios for closing the Plutonium cycle
332	**A. Chebeskov** E.N. Avrorin	Russian Federation	Fast reactors and nuclear non-proliferation
379	**M. Gill** T. Abram G. Butler	United Kingdom	Options for UK plutonium in SFR fuel cycles

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 7.4: Experimental tests, data and advanced Simulation**

(Room 352B)

Chairpersons: **I. Ashurko, Russian Federation**
M. Carta, Italy

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
115	**T. Okawa** Y. Tsuboi H. Saitou	Japan	Fuel Behaviour Simulation Code FEMAXI-FBR Development for SFR Core Disruptive Accident Analysis
138	**D. Broc** J. Cordolaccia S. Durand D. Gentet J.P. Magnaud	France	Physical and numerical methods for the dynamic behaviour of the Fast Reactor cores
156	**K. Mikityuk** J. Krepel S. Pelloni G. Girardin A. Chenu K. Sun M. Alonso A. Marinoni R. Adams	Switzerland	FAST code system: review of recent applications
241	**M. Lainet** V. Bouineau T. Helfer M. Pelletier	France	Recent modelling improvements in fuel performance code GERMINAL for SFR oxide fuel pins
435	**A. M. Yacout** M. C. Billone	United State of America	Current Status of the LIFE Fast Reactors Fuel Performance Codes

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 2.3:**
Fast reactor technologies, components and instrumentation

(*Room 341)*

Chairpersons: **C. Latge, France**
P. Chellapandi, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
120	**J. Sienicki** G. Rodriguez N. Kisohara J.B. Kim A. Gerber I. Ashurko S. Toyama	United States of America	Synthesis of results obtained on sodium components and technology through the Generation IV International Forum SFR Component Design and Balance-of-Plant Project
263	**G. Laffont** F. Rey R. Aizawa T. Suzuki	France	Large electro-magnetic pump design for application in the ASTRID sodium-cooled fast reactor
324	**A. Pai** T.K. Mitra T. Loganathan P. Kumar	India	Design and Fabrication of Serpentine Tube Type Sodium to air heat Exchangers for PFBR SGDHR Circuits
325	**S. Sandhyapogu** P. Kumar	India	Innovations in Equipment Erection of Prototype Fast Breeder Reactor (PFBR)
376	**A. Timofeev** M. Lyubimov	Russian Federation	Objectives of experimental validation of mechanical equipment for BN-1200 reactor plant

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 9.2: Fast reactor operation and decommissioning: international experience**

(Room 352A)

Chairpersons: **J. Guidez, France**
J. Sackett, United States of America

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
103	**M. Takamatsu** T. Ashida T. Kobayashi H. Kawahara H. Ito A. Nagai	Japan	Restoration work for obstacle and upper core structure in reactor vessel of experimental fast reactor “Joyo” (2)
151	**F. Yamada** Y. Fukano H. Nishi M. Konomura	Japan	Evaluation on Coolability of the Reactor Core in Monju by natural circulation under Earthquake and subsequent Tsunami event
177	**J. Guidez**	France	Phenix: a reprocessing and multiple recycling experiment, unique in the world
377	**O. Vilensky** B. Vasilev V. Kaidalov	Russian Federation	Validation of BN reactor plant long-term operation

WEDNESDAY, 6 MARCH 2013

13:30–15:10 **TECHNICAL SESSION 5.4: Fast reactor fuels and transmutation targets: development and irradiation experiments**

(Room 353)

Chairpersons: **C.B. Lee, Republic of Korea**
N. Chauvin, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
229	**J. Jojo** R. Divakar C. N. Venkiteswaran V. Karthik T. Johny B. P. C. Rao T. Jayakumar	India	Performance assessment of MOX fuel with Alloy D9 cladding and wrapper irradiated in FBTR
306	**B.O. Lee** J.S. Cheon J.H. Kim S.B. Ahn B.O. Yoo H.M. Kim W.S. Ryu C.B. Lee	Korea, Republic of	Irradiation of SFR metal fuel in HANARO and the results of post irradiation examination
392	**H. Ohta** T. Ogata S. Van Winckel D. Papaioannou V.V. Rondinella	Japan	Minor Actinide Transmutation Performance in Fast Reactor Metal Fuel
402	**H.J.M. Chichester** S.L. Hayes D.L. Porter	United States of America	Irradiation and Post-irradiation Examination of AFC-1 Transmutation Metallic Fuels for Fast Reactors
450	**K.J. McClellan** H.J.M. Chichester S.L. Hayes S.L. Voit	United States of America	Summary of the Minor Actinide-bearing MOX AFC-2C and -2D Irradiations

15:10–15:30 Break

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 1.5:**
Fast reactor designs: goals and paths of Progress

(*Room 342A)*

Chairpersons: **D. Verrier, France**
D. Zhang, China

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
132	**C. Poette** P. Guedeney R. Stainsby K. Mikityuk S. Knol	France	Gas Cooled Fast Reactors: Recent Advances and Prospects
147	**E. Merle-Lucotte** D. Heuer M. Allibert M. Brovchenko V. Ghetta P. Rubiolo A. Laureau	France	Recommendations for a demonstrator of Molten Salt Fast Reactor
294	**M. Kim** H.H. Lee T.K. Kim	Korea, Republic of	Preliminary Conceptual Design for a Multipurpose Experimental Sodium-Cooled Fast reactor
423	**A. Nagata** A. Hara Y. Moriki M. Kawashima M. Yamaoka T. Yokoyama	Japan	Study on asymmetric parfait cores with low void reactivity and recycled MAs for the fast reactor
476	**O. Komlev** G.I. Toshinsky I.V. Tormyshev N.N. Novikova K.G. Mel'nikov	Russian Federation	Characteristics of Modular Fast Reactor SVBR-100 Using Thorium-Uranium (233) Fuel

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 3.3: Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors**

(Room 351)

Chairpersons: **Y. Kani, Japan**
D. Blanc, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
137	**H. Kamide** A. Ono N. Kimura J. Endoh O. Watanabe	Japan	Sodium experiments on natural circulation decay heat removal and 3D simulation of plenum thermal hydraulics
243	**C. Journeau** C. Suteau L. Trottignon G. Willermoz G. Ducros J.J. Courouau J.M. Ruggieri F. Serre	France	Experimental programs and facilities for ASTRID development related to the Severe Accident Issue
259	**P. Durairaj** E. Hemanth Rao S.K. Das G. Punitha B.K. Nashine P. Chellapandi	India	Experimental and Numerical Simulations of Sodium Fire Effects in SFR
318	**B. Truong** J. Cheatham N. Touran R. Petroski	United States of America	Aspects of Safety Analysis for Sodium Cooled Fast Reactor Design and Licensing
433	**F. Franceschini** C. Fiorina M. Memmott	United States of America	Safety Aspects of Thorium Fuel in Sodium-Cooled Fast Reactors

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 7.5: Experimental tests, data and advanced Simulation**

(Room 352B)

Chairpersons: **D. Pointer, United States of America**
N. Devictor, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
189	**X. Li** H. Yu Y. Hu X. Huo	China	Calculation and Analysis of Neutron Time-spatial Kinetics in Uncontrolled Withdrawal Accident of Regulating Rod in CEFR
236	**J. Thangavelu** K.K Kuriakose P. Selvaraj S.A.V. Satya Murty	India	Modelling and Simulation of Operator Training Simulator for Prototype Fast Breeder Reactor
244	**C. Suteau** F. Serre J.-M. Ruggieri F. Bertrand	France	Code strategy for simulating Severe Accident Scenario
401	**M. Carta** A. Gandini V. Fabrizio V. Peluso G. Bianchini L. Ricci	Italy	Sensitivity analyses by Generalized Perturbation Theroy (GPT) methods applied to GUINEVERE and MHYRRA lead fast reactors
425	**E. Ivanov** T. Ivanova S. Pignet	France	Sensitivity and Uncertainty Analyses for Validation of Neutronics Calculations in Safety Assessment Support at IRSN

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 2.4:**
Fast reactor technologies, components and instrumentation

(Room 341)

Chairpersons: **J.M. Hamy, France**
P. Agostini, Italy

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
337	**F. Baque** F. Jadot F. le Bourdais J. Sibilo J.M. Augem O. Gastaldi	France	ASTRID In Service Inspection and Repair : review of R&D program and associated results
163	**L. Mingyu** P. Zhiyong Y. Huajin	China	The Hydrogen Detection Technique for SG Protection System
247	**E. Umebayashi** Y. Yamaguchi M. Matsuguchi S. Usami S. Yoshimoto S. Yatsu	Japan	Safeguards in Prototype Fast Breeder Reactor Monju
317	**B.K. Nollet** M.G. Hvasta M.H. Anderson	United States of America	Development of Electrochemical Oxygen Sensors for Liquid Sodium
326	**T. Aoyama** T. Ishikawa Y. Iwata C. Ito Y. Morohashi T. Takeda	Japan	Study on High Sensitive FFDL Technique for Monju and next generation SFR Using Laser Resonance Ionization Mass Spectrometry

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 4.4:**
Fast reactor materials: achievements and new challenges

(Room 352A)

Chairpersons: **C. Fazio, Germany**
T. Asayama, Japan

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
129	**F. Balbaud-Célérier** J. L. Courouau L. Martinelli	France	Corrosion of materials in liquid metals considered as fast reactor coolants
186	**J. Braun** C. Gueneau C. Sauder F. Balbaud P. Allegri E. Brackx	France	Study on the chemical compatibility of SiC/SiC composites as core materials for Sodium Fast Reactors
188	**F. Bernachy-Barbe** L. Gélébart J. Crépin M. Bornert	France	Mechanical modelling of SiC/SiC composites and design criteria
348	**T. Marlaud** D. Pierron A-F. Bonnot M. Blanc L. Forest M. Blat-Yrieix J-P. Mathieu	France	Development of Welding and Hardfacing Technology: challenges for ASTRID project
383	**A. Weisenburger** A. Gessi A. Jianu M. Del Giacco R. Fetzer A. Heinzel G. Müller P. Agostini	Germany	Materials for ALFRED and ELFR – selection and challenges

WEDNESDAY, 6 MARCH 2013

15:30–17:10 **TECHNICAL SESSION 6.3:**
Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation

(Room 353)

Chairpersons: **D. Haas, European Commission**
S. Bourg, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
273	**C. Rostaing** C. Poinssot P. Baron D. Warin B. Boullis	France	Overview of the French R&D program for the development of minor actinides separation processes
280	**M. Miguirditchian** C. Rostaing C. Poinssot P. BaronM. C. Charbonnel X. Heres D. Warin B. Boullis	France	Selective recovery of americium alone from Purex or COEXTM raffinate by EXAm process
291	**A. Saturnin** P. Sarrata, H. Hancoka, J.-F. Milot B. Duret F. Jasserand E. Fillastre F.X. Giffard C. Chabert L. Van Den Durpel M. Caron-Charles J.C. Lefevre B. Carlier M. Arslan D. Favet C. Garzenne P. Barbrault B. Gannaz	France	Transmutation scenarios impacts on advanced nuclear cycle (fabrication and reprocessing plants, transportation)
313	**S. Bourg** A. Geist L. Cassayre C. Rhodes C. Ekberg	France	Overview of the Main Achievement of the FP7 EURATOM Collaborative Project ACSEPT

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
393	**A. Shadrin** S. Veselov K. Dvoeglazov V. Volk O. Shmidt M. Kormilitsyn A. Osipenko	Russian Federation	Combined (Pyro+Hydro) technology for FR SNF reprocessing

17:10–17:30 Break

17:30–19:00 **POSTER SESSION 2: Track 5, 6, 7, 8, 9**

Chairpersons: **D. Warin, France**
J. Carmack, United States of America

(Hall Havane)

THURSDAY, 7 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 10.1: Skill capabilities, professional development, knowledge management**

(Room 342A)

Chairpersons: **J.F. de Grosbois, IAEA**
J. Figuet, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
INV-034	**C. Latge** M. Soucille C. Grandy X. Mi R. Garbil M. Saibaba P. Chellapandi T. Kitabata Y-G Kim S. Monti	France	Education & Training in support to Sodium Fast Reactors around the world.
INV-044	**R. Omberg** D. Wootan	United States of America	Overview of U.S. Knowledge Management Program for Fast Flux Test Facility Data
INV-061	**S. Srinivasula** K.K.Kuriakose R. Malathi, V. Parameswaran	India	Enabling factors of Knowledge Management: A study in the context of a fast reactor research & development organization
INV-066	**C. Renault** J. Safieh J. Figuet	France	A new impetus for E&T on Fast neutrons reactors in Europe : incentives, status, perspectives
INV-422	**Y. Kawakubo** B. Hoffheins N. Inoue R. Mongiello G. Baldwin N.Y. Lee	Japan	Information Sharing Framework among Experts for Facilitating Development of Fast Reactors and Fuel Cycles
INV-441	**S. Monti** U. Basak G. Dyck V. Inozemtsev A. Toti A. Zeman	IAEA	IAEA Activities in the Area of Fast Reactors and Related Fuels and Fuel Cycles

THURSDAY, 7 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 3.4: Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors**

(Room 351)

Chairpersons: **C. Journeau, France**
P. Kumar, India

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
144	**B. Vrban** Š. Čerba J. Lüley J. Haščík V. Necas S. Pelloni	Slovakia	Investigation of the Coupled Reactivity Effects of the Movable Reflector and Safety Control Rods in the GFR
194	**D. Blanc** E. Wattelle L. Ammirabile K. Tucek L. Burgazzi F. Puente-Espel	France	SARGEN_IV: Proposal for harmonized European practices for the safety assessment of innovative fast neutrons spectrum reactors considered in Europe
250	**Y. Tobita** I. Sato K. Konishi T. Suzuki K. Kamiyama J.I. Toyooka R. Nakai S. Kubo K. Koyama	Japan	Safety Strategy of JSFR establishing In-Vessel Retention of Core Disruptive Accident
321	**B. Carluec** S. Beils J.F. Sauvage P. Mariteau P. Lo Pinto	France	Post-Fukushima lessons and safety orientations for ASTRID
412	**S. Perez-Martin** W. Pfrang W. Hering	Germany	Modelling Validation of Transients and Initial Phase of Accident Scenarios for Sodium Fast Reactors

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
458	**V. Smirnov** E. Adamov V.V. Lemekhov A.V. Lopatkin V. Orlov V. Tyukov A. Umanskiy G. Khacheresov N. Chernetsov	Russian Federation	Safety features of a power unit with the BREST-OD-300 reactor

THURSDAY, 7 MARCH 2013

08:00–10:00 **TECHNICAL SESSION 6.4: Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation**

(Room 352B)

Chairpersons: **H. Lee, Republic of Korea**
C. Garzenne, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
212	**M. Tiphine** M. Meyer C. Coquelet-Pascal R. Girieud R. Eschbach C. Chabert C. Garzenne P. Barbrault B. Gannaz L. Van Den Durpel D. Favet M. Arslan B. Carlier M. Caron-Charles J.-C. Lefèvre	France	Scenarios for Minor Actinides Transmutation in the Frame of the French Act for Waste Management
169	**J. Hoorelbeke** M.H. Lagrange C. Chabert	France	Impact of minor actinide transmutation options on geological disposal - The French case
140	**J. Grouiller** L. Buiron G. Mignot R. Palhier	France	Transmutation in ASTRID
220	**C. Ekberg** F. Klaassen T. Retegan M. Sarsfield J. Wallenius	Sweden	The ASGARD project, an introduction
413	**B. Merk** U. Rohde S. Scholl	Germany	The Molten Salt Fast Reactor as Highly Efficient Transmutation System
10:00-10:20	Break		

THURSDAY, 7 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 10.2: Skill capabilities, professional development, knowledge management**

(Room 342A)

Chairpersons: **C. Renault, France**
S. Monti, IAEA

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
149	**J. Wallenius** E. Suvdantsetseg S. Bortot M. Jolkkonen M. Pukari J. Ejenstam P. Szakalos R. Thiele A. Claisse K. Johnson C. Ekberg	Sweden	ELECTRA-FCC: A Swedish R&D centre for Generation IV systems
316	**C. Latge** P. Dufour	France	Knowledge passing on in France in the perspective of ASTRID realization
405	**A. Pryakhin** S. Monti J. de Grosbois	IAEA	Fast Reactor Knowledge Organization System: live demonstration
406	**A. Pryakhin** S. Monti J. de Grosbois	IAEA	Fast Reactor Knowledge Preservation: Implementation and Challenges
429	**T. Berkvens** M. Alonso Ramos R. Salomaa C. Schoenfelder	Belgium	The ENEN-III Project: Technical Training on the Concepts and Design of GEN IV Nuclear Reactors

THURSDAY, 7 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 3.5: Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors**

(Room 351)

Chairpersons: **A. Rineiski, Germany**
P. Mariteau, France

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
260	**G. Bandini** E. Bubelis M. Schikorr M.M. Stempnievicz A. Lázaro K. Tucek P. Kudinov K. Kööp M. Jeltsov L. Mansani	Italy	Safety Analysis Results of Representative DEC Accidental Transients for the ALFRED Reactor
297	**E. Bubelis** M. Schikorr M. Frogheri L. Mansani G. Bandini L. Burgazzi K. Mikityuk Y. Zhang R. Lo Frano N. Forgione	Germany	LFR safety approach and main ELFR safety analysis results
395	**G. Toshinsky** V.V. Petrochenko O.G. Komlev I.V. Tormyshev A.V. Dedul	Russian Federation	Principles of Inherent Self-Protection Realized in the Project of Small Sized Modular Reactor SVBR-100
420	**M. Jin** G. Wang Y. Li H. Gong P. Long L. Hu FDS Team	China	Preliminary safety analysis of China Lead Alloy Cooled Research Reactor CLEAR-I
460	**P. Chellapandi** S.C. Chetal	India	Severe Accident Scenarios: Indian Perspective

THURSDAY, 7 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 6.5:**
Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation

(*Room 352B)*

Chairpersons: **J. Brueziere, France**
V. Usanov, Russian Federation

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
219	**T. Geneves** F.Audubert D.Favet L. Paret	France	Feedback on RNR fuel fabrication at AtPu facility, as a support to the design of a future facility
256	**A. Ravisankar** V. Vijayakumar B.M Anandarao U. Kamachi Mudali V. Sundararaman R. Natarajan	India	An Indian perspective of the Development of Fast Reactor Fuel Reprocessing Technology
276	**M. Masson** A. Tribout-Maurizi S. Grandjean C. Poinssot A. Vaudano D. Warin B. Boullis	France	French Experience and R&D Challenges for an Industrial SFR MOX Fuel Treatment
293	**F. Lelièvre** A. Tribout-Maurizi L. Durand N. Bertrand J. Leroy	France	Polyvalent fuel treatment facility (TCP): shearing and dissolution of used fuel at La Hague facility
444	**A. Lizin** M. V. Kormilitsyn A. G. Osipenko S.V. Tomilin Yu. G. Lavrinovich A. N. Lukinykh	Russian Federation	Treatment of high-level waste arising from pyro-chemical processes

THURSDAY, 7 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 2.5:**
Fast reactor technologies, components and instrumentation

(Room 341)

Chairpersons: **P. Chellapandi, India**
C. Grandy, United States of America

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
119	**F. Beauchamp** M. Nishimura R. Umeda A. Allou	France	Cooperation on impingement wastage experiment of Mod. 9Cr-1Mo steel using SWAT-1R sodium-water reaction test facility
196	**T. Gilardi** A. Chassery C. Perrais C. Latgé R. Baskaran V. Subramanian	France	Modelling of the chemical behaviour of sodium fire aerosols during atmospheric dispersion
245	**F. Serre** P. Allegre F. Bertrand J. Champigny C. Journeau J-C Robin C. Suteau C. Viala	France	R&D and Design Studies for the ASTRID Core-Catcher
302	**Y. Joo** J.H. Bae C.G. Park J.B. Kim	Korea, Republic of	Development of Under-Sodium Inspection Technique using Ultrasonic Waveguide Sensor
338	**J. Jeannot** F. Baqué M. Cavaro O. Gastaldi C. Lhuillier N. Massacret J. Moriot K. Paumel M. Vanderheagen G. Rodriguez	France	Acoustic Waves: A Route to Enhance Sodium Fast Reactor Safety

THURSDAY, 7 MARCH 2013

10:20–12:00 **TECHNICAL SESSION 7.6: Experimental tests, data and advanced Simulation**

(Room 352A)

Chairpersons: **T. Sofu, United States of America**
H. Ninokata, Japan

No. of Paper IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
208	**X. Chen** H. Yu C. Huang B. Xu T. Yu X. Xi'an	China	CEFR irradiation test and application
237	**B. Fontaine** L. Martin G. Prulhiere R. Eschbach J.L. Portier P. Masoni N. Tauveron R. Baviere D. Verwaerde J.M. Hamy	France	Recent analyses of PHENIX End of Life Tests and perspectives
426	**A. Moiseev** Yu.S.Khomyakov S.V. Surov	Russian Federation	Experimental and calculating substantiation of reactivity balance and energy-release distribution in BN-600 core
456	**I. Tretiyakov** Y. Dragunov A. Lopatkin I. Lukasevich N. Romanova M. Svyatkin L. Kochetkov	Russian Federation	Experimental Potentialities of MBIR Reactor
466	**T. Takeda** Y. Shimazu K. Hibi K. Fujimura	Japan	Effect of Heterogeneity of JSFR Fuel Assemblies to Power Distribution

12:00–13:30 Lunch Break

THURSDAY, 7 MARCH 2013

13:30–15:10 **YOUNG GENERATION'S EVENT**

(*Amphitheatre Bordeaux)*

Chairperson: **E. Hourcade, France**

15:10–15:30 Break

15:30-17:30 **CLOSING SESSION**

(Amphitheatre Bordeaux)

Chairpersons: **C. Behar, France**
S. Monti, IAEA

F. Carre France	General Report on the Technical Sessions
P. Lyons United States of America	Report on Panel 1- Safety Design Criteria
R. Cameron OECD-NEA	Report on Panel 2 - Sustainability of advanced fuel cycles
E. Hourcade France	Report on the Young Generation's Event
V. Pershukov Russian Federation	FR17 Announcement
C. Behar France	Closing remarks
IAEA representative	Closing remarks

POSTERS

POSTERS OF TRACK 1 – TUESDAY, 5 MARCH 2013
Fast reactor designs: goals and paths of progress

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
167	**A. Tota** I. Pataki A. Kereszturi	Hungary	Calculation of Sodium Cooled Fast Reactor Concepts Preliminary results of an OECD NEA benchmark calculation
184	**M. Sepielli** F. Pisacane L. Ricci A. Santagata A. Gandini T. Murgia L. Cretara, V. Peluso M. Carta V. Fabrizio	Italy	Fast Research Reactor for Generation IV Technologies
207	**J. Zhang** Y. Chen H. Yu Y. Hu	China	Study of Thorium Utilization in a Large Scale Sodium Cooled Fast Reactor
222	**I. Turcu** S. Valeca M. Constantin	Romania	Romanian Contribution to the Development of Lead Cooled Fast Reactors
264	**M. Ladurelle** P. Le Coz	France	An original and efficient project organisation for ASTRID
308	**S.J. Kim** J.Y. Kim M. Baek	Korea, Republic of	Optimum design parameter studies on different power level of the small size SFR
312	**G. Grasso** C. Petrovic K. Mikityuk D. Mattioli F. Manni D. Gugiu	Italy	Demonstrating the effectiveness of the European LFR concept: the ALFRED core design
364	**C. Courcier** G. Laffont	France	SOME TECHNICAL ORIENTATIONS FOR ASTRID PROJECT
367	**V. Lemekhov** Yu. Dragunov V. Smirnov O. Yarmolenko	Russian Federation	BREST-OD-300 Project Status and Basic Design Features
369	**A. Ottonello** G.v.d. Eynde H.A. Abderrahim	Belgium	MOX fuel optimization for a MYRRHA-based SMR

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
397	**Y. Kim** D. Hartanto	Korea, Republic of	A Simple Recycling of PWR Spent Fuel in a Breed-and-Burn Fast Reactor
418	**T. Zhou** P. Zhao Z. Chen Y. Bai H. Chen Y. Song FDS Team	China	Preliminary Analysis of Natural Circulation Characteristics of China Lead-alloy Cooed Research Reactor (CLEAR-I)
421	**E. Hourcade** E. Jasserand K. Ammar	France	SFR core design : a system-driven multi-criteria core optimisation exercise with TRIAD
428	**N. Chapoutier** M.C. Ricol S. Boulley C. Jammes	France	Neutron and gamma flux characterization in a pool-type SFR vessel with Monte Carlo codes
437	**R. Ponciroli** S. Lorenzi A. Cammi L. Luzzi	Italy	Petri Net Approach to the ALFRED Reactor Start-Up Design
455	**H. Seo KangBang** S. Kang I.C. Bang	Korea, Republic of	Conceptual Design of Energy Conversion System and Core Thermal Evaluation for Large and Small Ultra-long Cycle Fast Reactor
462	**A. Juby** M. Asokkumar M. Rajendrakumar K. Natesan R. Arul Baskar K. Velusamy P. Selvaraj P. Chellapandi	India	Advanced Thermal Hydraulics Design of Commercial SFRs
468	**M. Bae** A. Shin N. Suh	Korea, Republic of	Preliminary Core Analysis for Regulatory Evaluation of SFR Nuclear Designs
472	**I. Shvetsov** I. Ashurko S. Osipov V. Gorbunov	Russian Federation	Comparative Analysis of Effectiveness of Various Emergency Core Cooling System Design Options for Sodium Fast Reactors of High Rower
477	**V. Ignatiev** O.S. Feynberg	Russian Federation	Molten Salt Actinide Recycler & Transforming System and Related Fuel Cycles

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
102	**V. Alekseyev** E.A. Orlova F.A. Kozlov E.V. Varseyev	Russian Federation	Evolution of two-layer oxide scale on the steel surface in a lead circuit during NPP operation
108	**J. Saito** N. Yoshioka M. Nagai K. Ara	Japan	Study on Chemical Reactivity Suppression and Coolant Applicability of Sodium with Suspended Nanoparticles
118	**L. Cachon** E. Rigal I. Moro S. Menou C. Biscarrat C. Garnier G. Rodriguez	France	Preliminary design of a large scale Sodium Gas Heat Exchanger (SGHE) for the Nitrogen Power Conversion System envisaged on the ASTRID SFR prototype
122	**G. Rodriguez** L. Ayrault J. Dumesnil E. Sanseigne F. Dujet B. Collard F. Serre C. Journeau	France	Development of experimental facility platform in support of the ASTRID program
123	**F. Dechelette** S. Christin E. Sanseigne F. Morin G. Laffont G. Rodriguez X. Mognot A. Morcillo	France	Study and evaluation of innovative fuel handling systems for Sodium-cooled Fast Reactors : Single Component Optimization
125	**K. Vulliez** L. Bruguière L. Mirabel A. Béziat F. Baqué M. Berger B. Deschamps J.F. Julia F. Ledrappier G. Rodriguez B. Rouchouze	France	R&D Program on sealing issues for in-service inspection and repair tools on ASTRID sodium prototype

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
154	**R. Coulon** F. Lainé F. Carrel S. Normand M. Bakkali H. Hamrita	France	Set-up of a Sodium Loop at the SAPHIR Facility
165	**F. Jadot** F. Baque J. Sibilo J.M. Augem F. Loisy J.L. Arlaud	France	In service inspection and repair in the ASTRID project: main stakes and considered solutions
173	**P. Ferdinand** S. Magne G. Laffont	France	Enhancing safety in Nuclear Power Plants with Optical Fibre Sensors
176	**G. Laffont** R. Cotillard P. Ferdinand J.-Ph. Jeannot G. Rodriguez	France	Regenerated Fiber Bragg Grating sensors for high temperature monitoring in Sodium-cooled Fast Reactor
182	**J. Li** Y. Zhao H. Liu H. Jin L. Zhu Y. Chen	China	Development of a Mobile CZT Detector System for Burn-up Measurement of Spent Fuel Assembly and On-Site Application
228	**M. Gabard** B. Tormos L.t Brissonneau M. C. Steil J. Fouletier	France	Synthesis and characterization of yttria doped ceria powders and pellets with a view to develop oxygen sensors in sodium fast reactor
266	**M. Trevisiol** B. Carluec P. Martinet	France	Safety orientations, general recommendations and preliminary architecture of the ASTRID I&C
274	**F. Jadot** J.P. Jeannot C. Jammes J. Sibilo F. Loisy J.M. Augem	France	Instrumentation in the ASTRID project: main objectives and considered solutions
303	**J. Eoh** H.Y. Lee T.J. Kim J.Y. Jeong Y.B. Lee	Korea, Republic of	Design Features of a Large-scale Sodium Thermal-hydraulic Test Facility: STELLA

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
322	**M. Narayanasamy** B. Azhagarason T.K. Mitra P. Kumar	India	Challenges in Manufacturing of over Dimensional Stainless Steel Vessels of PFBR
329	**S. Shin** J.J. Kim J.A. Jung K.J. Choi S.I.Choi J.H. Kim	Korea, Republic of	Development of Electrochemical Oxygen Sensor and Experimental System for Materials Compatibility Test for Ultra-long Cycle Fast Reactor (UCFR)
335	**V. Khudasko** A.I. Trofimov S.A. Kurkin	Russian Federation	Heat Exchange in the Steam Generators Sodium-Water of Power Plants with the Fast-Neutron Reactors
362	**N. Kasahara** K. Tsukimori K. Sato N. Kawasaki	Japan	Guidelines of elevated temperature structural design methods to realize compact reactor vessels
385	**J. Sirven** C. Maury E. Vors J.-L. Courouau M. Tabarant T. Vercouter	France	Development of the LIBS technique for online sodium measurements related to the safety of sodium fast reactors
427	**T. Asada** D. Kittaka M. Komai M. Enomoto H. Ota E. Hoashi S. Suzuki H. Horiike M. Hirabayashi, M. Otaka K. Ara	Japan	Development of a new electromagnetic flow meter for a fast reactor - Feasibility of EMF composed of multi unit
452	**D. Lee**	Korea, Republic of	The Viscous and End Effects on an Electromagnetic Pump for Sodium Circulation
465	**J. Polansky** P. Zitek V. Valenta	Czech Republic	Experimental investigation of Gas-Lift using in nuclear reactors

POSTERS OF TRACK 3 - TUESDAY, 5 MARCH 2013
Fast reactor safety: post-Fukushima lessons and goals for next-generation reactors

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
116	**K. Haga** K. Koyama H. Endo	Japan	A Probabilistic Safety Analysis on Fuel Subassembly Events of Monju
130	**S. Gossé** T. Alpettaz C. Guéneau P. Allegri	France	High Temperature Thermochemistry of (U-Pu)O2 Mox Fuel with B4C absorber Application to severe accidents in SFR
157	**K. Mikityuk** Z. Perkó G. Girardin	Switzerland	Reactivity effect of steam/water ingress in Generation-IV Gas-cooled Fast Reactor core
166	**P. Sathiah** F. Roelofs	Netherlands	CFD modelling of sodium fires
206	**A. Ferrari** S. Di Maria R. Fernandez J. Konheiser M. Ottolini M. Sarotto A. Stankovskiy	Germany	Aspects of the core shielding assessment for the FASTEF-MYRRHA design
214	**Y. Wu** L. Ren W. Hu A.M. Tentner T.S. Sumner	China	Unprotected Transient Overpower Accident Analysis of CEFR Core Using SAS4A Code
217	**L. Ren** Y. Wu W. Hu A.M. Tentner T.S. Sumner	China	ULOF Analysis of CEFR Core Using SAS4A Code
221	**P. Gauthé** F. Curnier F. Bertrand N. Duflot S. Jouve M. Balmain V. Rychkov Y. Banchieri	France	Use of simplified PSA studies in support of the ASTRID design process
238	**K. Daudin** F. Beauchamp C. Proust	France	Approach to the identification and evaluation of Sodium-Water-Air Reactions (SWAR) accidental scenarii in Steam Generator buildings

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
248	**Y. Kato** Y. Ohkawachi S. Usami	Japan	Control Rod Worth Measurement in Monju Restart Core
255	**V. Prakash** B.K. Nashine G. Padamkumar R. Vijayashree P. Sharma S. Patri S. Chandramouli K.K. Rajan	India	Development of Diverse methods for drop time measurements of PFBR shut down mechanisms
298	**E. Bubelis** M. Schikorr L. Mansani G. BandiniK. Mikityuk Y. Zhang G. Geffraye	Germany	Safety analysis results of the DBC transients performed for the ALFRED reactor
320	**R. Kruessmann** A. Ponomarev W. Pfrang M. Schikorr D. Struwe	Germany	Comparison of Results of SAS-SFR Calculations of the CP-ESFR Working Horse and Optimized Core Designs during the Initial Phase of an ULOF Accident
354	**M. Flad** D. Zhang C. Matzerath-Boccaccini F. Gabrielli B. Vezzoni W. Maschek G. Brillant H. Bonneville	Germany	ESFR Severe Accident Analyses with SIMMER-III
371	**M. Kissane** M. Garcia-Martin L.E. Herranz-Puebla	France	Major remaining uncertainties associated with source-term evaluation for SFR severe accidents
372	**I. Bylov** L. Abramov A. Bakhmetyev E. Zvyagin Yu. Kamanin Yu. Makhaev E. Rozenbaum V. Shamansky	Russian Federation	Introduction of reliability, safety and risk monitoring technology in BN-600 power unit
394	**V. Kriventsev** X.-N. Chen D. Zhang A. Rineiski W. Maschek	Germany	Analysis of Unprotected Blockage Accidents in FASTEF Subcritical Core with SIMMER-IV

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
453	**A. Volkov** I. Ashurko K.Raskach	Russian Federation	COREMELT-2D Code for Analysis of Severe Accidents in a Sodium Fast Reactor
454	**S. Kang** K.S. Ha H. Seo I.C. Bang	Korea, Republic of	Conceptual Design of a innovative gallium-cooled passive decay heat removal system (PDHRS) with water heat exchanger for fast reactors
457	**S. Fomin** A.S. Fomin Yu.P. Mel'nik V.V. Pilipenko N.F. Shul'ga	Ukraine	Specific Mechanism of Negative Reactivity Feedback in Nuclear Burning Wave Reactor
467	**N. Suh** H.C. Yang	Korea, Republic of	Application of Objective Provision Tree Methodology to Development of Specific Safety Requirements for SFR
470	**S. Hong Yeon** Y.J. Choo N. Suh A. Shin M.H. Bae	Korea, Republic of	Evaluation method of the verification test items for the transient analysis code of sodium cooled fast reactor
474	**A. Sorokin** A.D. Efanov F.A. Kozlov V.M. Poplavsky	Russian Federation	Actual thermo-physical investigations in a substantiation of designs and safety of nuclear fast reactors for new generation

POSTERS OF TRACK 4 - TUESDAY, 5 MARCH 2013
Fast reactor materials: achievements and new challenges

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
145	**O. Ancelet** M. Blanc O. Gelineau D. Bonne B. Riou M. Blat J.M. Augem C. Petesch S. Dubiez le Goff	France	Evolution brought to RCC-MRx Code in relation to ASTRID project
146	**J. Courouau** V. Lorentz M. Tabarant S. Bosonnet F. Balbaud-Célérier	France	Corrosion by oxidation and carburization in liquid sodium at 550°C of austenitic steels for sodium fast reactors
204	**B. Merk**	Germany	Thermal stability of moderating material used to enhance the feedback coefficients in SFR cores
215	**M. Le Flem** J.M. Gentzbittel Widen Rouillard Guéneau Sornin	France	Development of vanadium fuel cladding for Sodium Fast Reactors
224	**Z. Chang** P. Olsson N. Sandberg D. Terentyev	Sweden	Interaction Energy Calculations of Edge Dislocation with Point Defects in FCC Cu
231	**R. Divakar** T. Jayakumar M. D. Mathew K. Laha A.K. Bhaduri	India	Development of materials and fabrication technologies for sodium cooled fast reactors
284	**I. Munoz** J.-M. Augem M. Phélip F. Dalle M. Blat-Yrieix Ch. Billey N. Devictor S. Dubiez-Le Goff S. Pillon M. Le Flem	France	Recovery of materials from PHENIX to support the qualification of ASTRID design options
323	**A. Pai** T.K. Mitra P. Kumar	India	Innovations During Surface Treatment of PFBR Steam Generators in 91 Grade Material

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
333	**A. Trofimov** S.I. Minin M. A. Trofimov D.V. Vasilkovskiy	Russian Federation	Innovation ultrasonic technology of the sealing of the equipment of the rapid reactors
349	**S. Dubiez-Le Goff** F. Dalle M. Blat-Yrieix JM. Augem	France	Qualification of the materials of ASTRID for 60 years lifetime
451	**H. Altendorf** M. Faessel D. Jeulin F. Latourte L. Saintoyant	France	Generation of realistic microstructures of a P91 welded joint from 2D and 3D electron back-scatter diffraction data
475	**D. Gosset** J.M. Escleine A. Michaux	France	Neutron absorber materials in fast reactors: behaviour under irradiation and perspectives
479	**A. Nikitina** V.S. Ageev M.V.Leontyeva-Smirnova N.M. Mitrofanova A.V. Tselishchev	Russian Federation	Results and Prospects of Development of Works on Structural Core Materials for Russian Fast Reactors

POSTERS OF TRACK 5 – WEDNESDAY, 6 MARCH 2013
Fast reactor fuels and transmutation targets: development and irradiation experiments

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
112	**R. Keswani** M.A. Achrekar S. Kumar A. Kumar G.J. Prasad	India	Development and characterization of binary (U-Pu) and ternary (U-Pu-Zr) metallic fuels for fast reactors
114	**S. Mishra** S. Kaity P.S. Kutty G.K. Dey A. Kumar G.J. Parasad	India	Studies on stability of U-UO2/PuO2 Cermet fuel for fast reactor and its interaction with T91 cladding
148	**S. Hirooka** M. Kato T. Tamura A.T. Nelson K.J. McClellan K. Suzuki	Japan	Oxidation and Reduction Behaviours of Plutonium and Uranium Mixed Oxide Powders
168	**M. Odeychuk**	Ukraine	The technological basis of nitride fuels manufacturing based on nitrogen-15
175	**Y. Kim** T. Wiencek E. O'Hare J. Fortner G.L. Hofman	United States of America	Characterization of U-10Zr-5In, U-10Zr-2Ce-5In and U-10Zr-2Ce-5Sb Alloys
191	**T. Delahaye** F. Lebreton D. Horlait N. Herlet	France	U1-xAmxO2 bearing blanket fuel fabrications for the DIAMAINO irradiation experiment
192	**D. Horlait** F. Lebreton T. Delahaye P. Roussel	France	a self-irradiation effects in U1-xAmxO2±d solid solutions monitored by XRD: Preliminary results
213	**G. Ravisankar** T.V. Prabhu R. Padmanaban R. Venkata Krishnan R. Murakidaran V. Ganesan K. Nagarajan P.R. Vasudeva Rao	India	Metal alloy and Sphere-Pac MOX test fuel fabrication for irradiation in FBTR
223	**K. Johnson** M. Jolkkonen, M. Pukari	Sweden	A Comparison of Techniques for the Fabrication of UN and Mixed Uranium Nitrides

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
226	**M. Pukari** J. Ejenstam J. Wallenius P. Szakálos	Sweden	Finding the optimal nitride fuel and cladding combination - A strategy for fuelling ELECTRA
285	**I. Guenot Delahaie** D. Lorenzo B. Valentin J.M. Escleine T. Helfer	France	State of the art of the conceptual designs for ASTRID control and shutdown rods
304	**K. Kim** J.H. Kim H. Song S.J. Oh H.J. Ryu C.B. Lee	Korea, Republic of	Alternative Fabrication Methods of Metal Fuel Slugs for SFR
387	**M. Pouchon** C. Cozzo	Switzerland	Advanced Sphere-pac fuel designs
471	**B. Xu** C. Hunag G.Xie	China	Design of Np-contained Fuel Assembly for Transmutation Research

POSTERS OF TRACK 6 – WEDNESDAY, 6 MARCH 2013
Fast reactor fuel cycle: processes and demonstrations, including Partitioning & Transmutation

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
109	**A. Mishra** B.K. Shelke M.K. Yadav M. Afzal A. Kumar G.J. Prasad	India	Developments in fabrication of annular MOX fuel pellet for Indian fast reactor
136	**M. Abdel Geleel**	Egypt	Radioactive waste produced from Integral Fast Reactors: Comparison to light water reactors
161	**A. Gulevich** O. Komlev E. Zemskov	Russian Federation	Analysis of Spent Fuel Characteristics in Different Scenarios of Closing the Nuclear Fuel Cycle
172	**J. Vaccaro** M. Falcón A. Alvarado P. Dos Reis	Argentina	Modelling of extraction chromatographic reprocessing-partitioning processes
183	**K. Ishii** K. Kawaguchi T. Segawa Y. Kato M. Suzuki	Japan	Mock-up granulation experiments for the simplified MOX fuel production process
239	**F. Derlot** D. Favet F. Bernard L. Paret	France	A New transport packaging for fresh ASTRID fuel transportation
251	**Y. Sano** A. Sakamoto H. Ogino H. Hirano K. Todoroki R. Misumi K. Nishi M. Kaminoyama	Japan	Fluidic Analysis in an Annular Centrifugal Contactor for Fuel Reprocessing
341	**M. Afzal** V. Kumar	India	Development of Mechanical Press Feature for Fabrication of Solid and Annular Pellets
342	**C. Chakrabarti** V. Kothaodar-amaswamy K. Bangerjee	India	Challenges in the design of Waste Management Plant (WMP) for Fast Reactor Fuel Cycle Facility (FRFCF)
360	**I. Smirnov**	Russian Federation	New extraction agents based on the 2,6-disubstituted pyridines for HLW partitioning

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
447	**S. Poglyad** M.V. Kormilitsyn S.A. Efarov V.M. Chistyakov	Russian Federation	Concept of Poly-functional Radiochemical Complex (PRC) on RIAR site

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
104	**E. Mitenkova** N.V. Novikov	Russian Federation	The calculated neutronic characteristics against reconstructed ones at (U-Pu) experiments
139	**D. Broc** J. Cardolaccia S. Durand	France	Dynamic behaviour of the Fast Reactor cores: the Symphony program
153	**E. Moore** C. Guéneau J.P. Crocombette	France	Development and Assessment of a Thermo-kinetic model on Mixed Oxide (MOX) Fuels using DICTRA
160	**L. Ghasabyan** K. Mikityuk J. Krepel S. Pelloni	Switzerland	Use of Serpent Monte-Carlo code for development of 3D full-core models of Gen-IV fast spectrum reactors and preparation of safety parameters/cross-section data for transient analysis with FAST code system
170	**A. Seubert** P. Baloche K. Velkov	Germany	Reactivity feedback assessment of liquid lead-bismuth eutectic cooled fast core
180	**A. Moisseytsev** J. J. Sienicki	United States of America	Supercritical Carbon Dioxide Brayton Cycle for SFR Applications: Optimization, Transient Analysis, and Control
181	**J.J. Sienicki**	United States of America	Modelling Sodium Oxide Deposit Growth and Sodium Plugging
185	**N. Kikuchi** H. Mochizuki	Japan	Application of statistical method for FBR plant transient computation
201	**S. Sikorin** S. Polazau S. Mandzik Y. Damarad J. Palahina T. Hryharovich	Belarus	Analysis of the previous and preparation of new experiments on fast multiplying assemblies for obtaining benchmark data on criticality
202	**S. Sadovich** H. Kiyavitskaya V. Bournos Yu. Fokov Ch. Routkovskaia	Belarus	Yalina-Booster Assembly: from HEU to LEU
203	**E. Fridman** R. Rachamin	Germany	On applicability of the 3D nodal code DYN3D for the analysis of SFR cores
216	**H. Isnard** P. Bourdot S. Eymard G. Ferlay P. Leveque O. Vigneau M. Phelip	France	Synthesis of the first experimental results obtained on the PROFIL-R and M experiments performed in the Phenix fast neutron reactor

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
232	**J. Genin** L. Brissonneau T. Gilardi G. Bénier	France	OSCAR-Na V1.3 : a new code for simulating corrosion product contamination in SFR reactors
257	**W. Hering** R. Stieglitz A. Jianu M. Lux A. Onea S. Scherrer C. Homann	Germany	Scientific Program of the Karlsruhe Sodium Laboratory (KASOLA)
271	**C. Unal** N.N. Carlson J. Galloway	United States of America	Preliminary simulation results of the constituent distribution model implemented into the BISON framework for the performance analysis of metallic fuels
289	**S. Eckert** T. Vogt S. Boden N. Shevchenko G. Gerbeth	Germany	Experimental demonstration of gas entrainment into liquid metals
301	**H. Lee** J.H. Eoh Y.B. Lee	Korea, Republic of	High Temperature Design of Finned-Tube Sodium-to Air Heat Exchanger in the SELFA Test Loop
311	**N. Khatcheressian** C. Latgé X. Joulia T. Gilardi X. Meyer	France	Development of a mass transfer model for Sodium purification system in a Fast Breeder Reactor
327	**I.S.Panova** E. Seleznev A.A.Belov A.M. Zhukov I.P. Matveenko G.M. Mikhailov	Russian Federation	The spatial kinetics in fast reactors
328	**E. Seleznev** A.A. Belov G.N. Manturov F.F. Peregudov M.Y. Semenov A.M. Tsibulya G.V. Tikhomirov I.S. Saldikov	Russian Federation	Uncertainty Analysis for Fuel Flux Calculations of Fast Reactors with External Fuel Cycle
339	**H. Mochizuki** H. Yao J. Riberaud	Japan	CFD computation of thermal stratification in the upper plenum of Monju reactor
351	**E. Suvdantsetseg** S. Bortot J. Wallenius	Sweden	Evaluation of the prompt neutron reproduction time in ELECTRA

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
352	**S. Bortot** A. Della Bona E. Suvdantsetseg J. Wallenius	Sweden	A mathematical model for ELECTRA transient and stability analyses
361	**I. Zagorulko** A.A. Kamaev I. Ashurko M.V. Kascheev N.S. Ganichev V.G. Zhmurin	Russian Federation	Investigation of fuel elements simulators clads disruption in static sodium at transient heat loads
368	**V. Chudanov**	Russian Federation	Development and validation of CONV-3D code for calculation of thermal and hydrodynamics of Fast Reactor at the Supercomputer
373	**S. Rogozhkin** S. Osipov S. Shepelev A. Aksenov M. Sazonova V. Shmelev	Russian Federation	Verification calculations as per CFD FLOWVISION code for sodium-cooled reactor plants
378	**V. Strizhov** A. Kiselev N. Mosunova	Russian Federation	DEVELOPMENT AND VERIFICATION OF THE COMPUTER CODES FOR THE FAST REACTORS NUCLEAR SAFETY JUSTIFICATION
391	**M. Amr** T.K. Kim M. A. Smith T. Sofu	United States of America	Evaluation of Multigroup Transport Effects in Calculating Reactivity Feedback Coefficients for EBR-II Cores
411	**P. Raison** A.L. Smith D. Bykov R.J.M. Konings J.Y. Colle G. Wallez O. Benes C. Apostolidis A. Kovacs E. Suard A.K.C. Cheetham	EC	Interaction of sodium with advanced oxide fuels for GEN-IV Sodium--cooled ractors
431	**E. Merzari** P. Fischer W. D. Pointer	United States of America	Turbulence and Coherent Structures in a Tight 19 Pin Bundle Separated by a Grid Spacer
434	**D. Yun** A.M. Yacout J. Cheon	United States of America	Advanced Multi-physics Modelling of Fast Reactor Fuel Behaviour
438	**N. Pribaturin** O. Kashinsky V. Berdnikov S. Lezhnin	Russian Federation	Thermo-hydraulic model experimental studies for code verification for fast reactors

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
469	**Y. Choi** A. Shin M.H. Bae N. Suh	Korea, Republic of	A Study on Applicability of TRACE Code for Sodium-cooled Fast Reactor
473	**I. Shvetsov** I. Ashurko I. Suslov K. Raskach L. Zabud'Ko E. Marinenko	Russian Federation	The UNICO Multi-Physics Code to Analyse Transients in Sodium Fast Reactor

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
107	**N. Taverdet-Popiolek** B.S. Tehrani	France	Why R&D for Generation IV reactors should be subsidised? A strictly economic point of view
134	**S. Gabriel** A. Baschwitz G. Mathonnière T. Eleouet F. Fizaine	France	Downscaled estimate of uranium resources produced from phosphates and impact on the penetration of sodium fast reactors
135	**G. Mathonniere** A. Baschwitz S. Gabriel	France	Economic relevance of starting up an SFR with enriched uranium
159	**J. Krepel** V. Brankov K. Mikityuk	Switzerland	Selection of initial fuel composition for the ESFR core based on the knowledge of its equilibrium closed cycle parameters
218	**H. Nguyen Trong** L.B. Thuan	Vietnam	Development of Nuclear Fuel Cycle in Vietnam
258	**C. Le Renard**	France	A sociotechnical analysis of the French FBR programme : evaluation as a cornerstone
265	**M. Ladurelle** J.M. Carrere L. Vincon	France	Optimising environmental steps for the ASTRID project
319	**Y. Fedorov** B.E. Burakov G.I. Toshinsky O.G. Komlev I.V. Tormyshev N.N. Novikova	Russian Federation	Perspectives of the SVBR-100 during the Transition Period to the large-scaled energetic based on FBR
345	**E. Poplavskaia** V.S. Kagramanyan V.M. Dekusar A.G. Tsykunov	Russian Federation	About some scenarios for neptunium management in nuclear power
355	**F. Heidet** T.K. Kim C. Grandy	United States of America	Feasibility Study on AFR-100 Fuel Conversion from Uranium-based Fuel to Thorium-based Fuel
370	**G. Van den Eynde** V. Romanello F. Martin-Fuertes C. Zimmerman B. Lewin A. van Heek	Belgium	EC-FP7 ARCAS : technical and economical comparison of Fast Reactors and Accelerator Driven Systems for transmutation of minor actinides

POSTERS OF TRACK 9 – WEDNESDAY, 6 MARCH 2013
Fast reactor operation and decommissioning: international experience

No. of Poster IAEA-CN-199 -	*Name*	*Designating Member State/Organization*	*Title of Paper*
027	**B. Anandapad-manaban** A.Babu S.Sridhar K.Dinesh G.Srinivasan	India	Life Extension Activities in Fast Breeder Test Reactor
143	**A. Kitano** T. Miyagawa Y. Ohkawachi T. Hazama	Japan	Evaluation of Feedback Reactivity in Monju start-up test
155	**K. Mikityuk** M. Schikorr	Switzerland	New transient analysis of the Superphénix start-up tests
269	**G. Mignot**	France	Preliminary considerations on the start-up phase for the ASTRID core
270	**A. Chassery** H. Lorcet J. Godlewski K. Liger C. Latge X. Joulia	France	Study of the tritium distribution in the effluents resulting from the sodium hydrolysis
334	**V. Khudasko** A.I. Trofimov S.A. Kurkin	Russian Federation	METHOD OF THE OPERATIONAL MEASUREMENT OF THERMAL AND STRUCTURAL STRESSES IN THE EQUIPMENT FOR POWER PLANTS WITH THE FAST-NEUTRON REACTORS
430	**F. Dominjon** C. Beretti J.M. Herbet J. Mas	France	Sodium loop decommissioning of PHENIX : Additional draining and preparation of carbonation
442	**A. Roux** A. Durand C. Cerat P. Blin A. Faure	France	Dismantling of large components from the PHENIX reactor

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TECDOC-1405	Operational and Decommissioning Experience with Fast Reactors
TECDOC-1406	Primary Coolant Pipe Rupture Event in Liquid Metal Cooled Reactors
TECDOC-1520	Theoretical and Experimental Studies of Heavy Liquid Metal Thermal Hydraulics
TECDOC-1531	Fast Reactor Database 2006 Update
TECDOC-1569	Liquid Metal Cooled Reactors: Experience in Design and Operation
IAEA-THPH ISBN 978-92-0-106508-7	Thermophysical Properties of Materials for Nuclear Engineering: A Tutorial and Collection of Data
TECDOC-1623	BN-600 Hybrid Core Benchmark Analyses. Results from a Coordinated Research Project on "Updated Codes and Methods to Reduce the Calculational Uncertainties of the LMFR Reactivity Effects"
TECDOC-1626	Advanced Reactor Technology Options for Utilization and Transmutation of Actinides in Spent Nuclear Fuel
TECDOC 1633	Decommissioning of Fast Reactors After Sodium Draining
NES NF-T-4.1	Status and Trends of Nuclear Fuels Technology for Sodium Cooled Fast Reactors
NES NF-T-4.2	Status of Developments in the Back End of the Fast Reactor Fuel Cycle
TECDOC 1639	Assessment of Nuclear Energy Systems Based on a Closed Fuel Cycle with Fast Reactors
NES NP-T-1.6	Liquid Metal Coolants for Fast Reactors (Reactors Cooled by Sodium, Lead and Lead-bismuth Eutectic)
NES NF-T-4.3	Structural Materials for Liquid Metal Cooled Fast Reactor Fuel Assemblies-Operational Behaviour
IAEA Proceedings Series	Fast Reactors and Related Fuel Cycles: Challenges and Opportunities (FR09) Proceedings of an International Conference Held in Kyoto, Japan, 7–11 December 2009
TECDOC, 1691	Status of Fast Reactor Research and Technology Development

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2013

International Conference on Effective Regulatory Systems
8-12 April 2013, Ottawa, Canada

International Experts' Meeting on Human and Organizational Factors in Nuclear Safety in the Light of the Accident at the Fukushima Daiichi Nuclear Power Plant
21-24 May 2013, Vienna, Austria

International Ministerial Conference on Nuclear Power in the 21st Century
27-29 June 2013, St. Petersburg, Russian Federation

The International Conference on Nuclear Security: Enhancing Global Efforts
1-5 July 2013, Vienna, Austria

International Conference on Integrated Medical Imaging in Cardiovascular Diseases
30 September-4 October 2013, Vienna, Austria

International Conference on the Safety and Security of Radioactive Sources: Maintaining the Continuous Global Control of Sources throughout their Life Cycle
27-31 October 2013, Abu Dhabi, UAE

International Conference on Topical Issues in Nuclear Installation Safety
21-24 October 2013, Vienna, Austria

2014

International Conference on Challenges Faced by Technical and Scientific Support Organizations (TSO) in Enhancing Nuclear Safety and Security
7-11 April 2014, Beijing, China

International Conference on Human Resource Development for Introducing and Expanding Nuclear Power Programmes: Building and Sustaining Capacity
12-16 May 2014, Vienna, Austria

International Symposium on Understanding moderate malnutrition of children under five years of age for effective interventions
6-9 June 2014, Vienna, Austria

International Symposium on Uranium Raw Material for Nuclear Fuel Cycle: Exploration, Mining, Production, Supply and Demand, Economics and Environmental Issues
16-20 June 2014, Vienna, Austria

International Conference on Advances in Nuclear Forensics: Countering the Evolving Threat of Nuclear and Other Radioactive Material out of Regulatory Control
July, TBD

Symposium on International Safeguards
17-24 October 2014, Vienna, Austria

25th Fusion Energy Conference (FEC2014)
13-18 October 2014, St. Petersburg, Russian Federation

International Symposium on Nuclear and Related Techniques for Food Integrity, Traceability, Safety and Quality
10-14 November 2014, Vienna, Austria

International Conference on Occupational Radiation Protection
1-5 December 2014, Vienna, Austria

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OVERVIEW SESSION 1

Tue 5 March		Wed 6 March	
Time	Room 342A	*Time*	Room 342A
08.00 - 10.00	1.1		
		10.20 - 12.00	1.3
13.30 - 15.10	1.2	*13.30 - 15.10*	1.4
		15.30 - 17.10	1.5

Overview Session 2

Wed 6 March			Thu 7 March	
Time	ROOMS		*Time*	ROOM
	342A	341		341
8.00 - 10.00	2.1			
10.20 - 12.00		2.2	*10.20 - 12.00*	2.5
13.30 - 15.10		2.3		
15.30 - 17.10		2.4		

Overview Session 3

Wed 6 March		Thu 7 March	
Time	Room 351	*Time*	Room 351
8.00 - 10.00	3.1	*8.00 - 10.00*	3.4
10.20 - 12.00	3.2	*10.20 - 12.00*	3.5
15.30 - 17.10	3.3		

Overview Session 4

Tue 5 March			Wed 6 March	
Time	Rooms		*Time*	Room
	351	352A		352A
10.20 - 12.00	4.1		*10.20 - 12.00*	4.3
13.30 - 15.10		4.2	*13.30 - 15.10*	
			15.30 - 17.10	4.4

Overview Session 5

Tue 5 March		Wed 6 March	
Time	Room 351	*Time*	Room 353
8.00 - 10.00	5.1		
		10.20 - 12.00	5.3
13.30 - 15.10	5.2	*13.30 - 15.10*	5.4

Overview Session 6

Tue 5 March			Wed 6 March		Thu 7 March	
Time	ROOMS		Time	ROOM	Time	ROOM
	342A	353		353		352B
					8.00 - 10.00	6.4
10.20 - 12.00	6.1				10.20 - 12.00	6.5
13.30 - 15.10		6.2				
			15.30 - 17.10	6.3		

Overview Session 7

Tue 5 March		Wed 6 March		Thu 7 March	
Time	ROOM 352B	*Time*	ROOM 352B	*Time*	ROOM 352A
10.20 - 12.00	7.1	*10.20 - 12.00*	7.3	*10.20 - 12.00*	7.6
13.30 - 15.10	7.2	*13.30 - 15.10*	7.4		
		15.30 - 17.10	7.5		

Overview Session 8

Tue 5 March			Wed 6 March	
Time	ROOMS		*Time*	ROOM
	352B	341		351
8.00 - 10.00	8.1		*8.00 - 10.00*	
13.30 - 15.10		8.2	*13.30 - 15.10*	8.3

Overview Session 9

Wed 6 March		
Time	Rooms	
	352B	352A
8.00 - 10.00	9.1	
13.30 - 15.10		9.2

Overview Session 10

Thu 7 March	
Time	ROOM
	342A
8.00 - 10.00	10.1
10.20 - 12.00	10.2

FR13 - PROGRAMME OVERVIEW

Monday 4 March		Tuesday 5 March							Wednesday 6 March							Thursday 7 March					
Amphietheatre Bordeaux			ROOMS							ROOMS							ROOMS				
			342A	351	352B	341	352A	353		342A	351	352B	341	352A	353		342A	351	352B	341	352A
8.00 - 10.00	Opening Session	8.00 - 10.00	1.1	5.1	8.1				8.00 - 10.00	2.1	3.1	9.1				8.00 - 10.00	10.1	3.4	6.4		
10.30 - 12.00	Plenary Session	10.20 - 12.00	6.1	4.1	7.1				10.20 - 12.00	1.3	3.2	7.3	2.2	4.3	5.3	10.20 - 12.00	10.2	3.5	6.5	2.5	7.6
13.30 - 15.00	Plenary Session (continued)	13.30 - 15.10	1.2	5.2	7.2	8.2	4.2	6.2	13.30 - 15.10	1.4	8.3	7.4	2.3	9.2	5.4	13.30 - 15.10	YGE (Amphietheatre Bordeaux)				
15.20 - 16.50	Plenary Session (continued)	15.30 - 17.30	PANEL 2 (Amphitheatre Havane + Room 351 for overflow)						15.30 - 17.10	1.5	3.3	7.5	2.4	4.4	6.3	15.30 - 17.30	Closing (Amphietheatre Bordeaux)				
17.10 - 19.00	Panel 1	17.30 - 19.00	POSTER SESSION 1 (Hall Havane): tracks 1,2,3,4,10						17.30 - 19.00	POSTER SESSION 2 (Hall Havane): tracks 5,6,7,8,9											

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