

Programme

Monday 22 September

- 17.00 Registration
18.00 Welcome cocktail (*Seoul Palace Hotel, room Royal Ballroom 1st Floor*)

Tuesday 23 September

- 8.30 Registration

Opening Session

- 9.00-9.30 Opening of the meeting (I-S. Hwang, SNU, ROK)
Welcome address (H-P. Kim, member of National Assembly)
Welcome address (J. Gulliford, Head of Nuclear Science Division, OECD/NEA)

- 9.30-9.55 **Partitioning and Transmutation for a sustainable nuclear energy**
D. Warin, CEA, France

Session 1: International and National Programmes (Chair: I-S. Hwang)

- 9.55-10.20 **OECD /NEA Activities related to P&T**
J. Gulliford, OECD/NEA

- 10.20-10.45 **P&T: IAEA Activities**
U. Basak and S. Monti, IAEA

- 10.45-11.15 Coffee

Session 2: Fuel Cycle Strategies and transition scenarios (Chair: H. Oigawa & J. Law)

- 11.15-11.40 **The Effects of the Uncertainty of Input Parameters on Nuclear Fuel Cycle Scenario Studies**
F. Alvarez-Velarde, NEA/EGAFCS)

- 11.40-12.05 **Comparison of the overall environmental footprint between current and future nuclear fuel**
S. Bourg, CEA, France

- 12.05-12.30 **Mass Flow Data Comparison for Comprehensive Fuel Cycle options**
T. Kim, ANL, US

- 12.30-12.55 **The German P&T study-results and conclusion in the view of the contributing Helmholtz Research Centre**
B. Merk, Helmholtz-Zentrum Dresden-Rossendorf, Germany

- 13.00-14.30 Lunch

Session 3: Transmutation Systems and Infrastructures (Chairs: T. Taiwo & P. Paviet)

- 14.30-14.55 **Invited talk**
Contribution of the European Commission to a European Strategy for HLW Management through Partitioning & Transmutation
H. Ait Aberrahim, SCK-CEN, Belgium

- 14.55-15.20 **Impact of Transmutation Scenarios on Fuel Transportation**
A. Saturnin, CEA, France

- 15.20-15.45 **Nuclear Fuel Cycle Evaluation and screening findings on Partitioning and Transmutation**
T. Taiwo, ANL, USA
- 15.45-16.15 Coffee
- 16.15-16.40 **J-PARC Transmutation Experimental Facility Program**
T. Sasa, JAEA, Japan
- 16.40-17.05 **Mars-Story on Molten Salt Actinide Recycler & Transmuter Development by Rosatom in Co-operation with Euratom**
V. Ignatiev, NRC-Kurchatov Institute, Fed. Russia
- 17.05-17.30 **Innovative TRU burners and Fuel Cycles options for Phase-out and Regional Scenarios**
B. Vezzoni, KIT, Germany
- 17.30-17.55 **Commissioning and initial operation of Lead Bismuth Eutectic (LBE) chemical process control loop: Mexico**
J. Lim, SCK-CEN, Belgium

Session 4: Waste management for P&T scenarios (Chair: Z. Hodgson)

- 17.55-18.20 **(Th,Pu)O₂ stability under repository conditions**
J. Cobos-Sabate, CIEMAT, Spain
- 18:20-18.35 **Human intrusion impact of P&T wastes**
H. Joo, SNU-NUTRECK, ROK

19.00 *Dinner (Seoul Palace Hotel, Dynasty A B1 Floor)*

Wednesday 24 September

Session 1: International and National Programmes (Chair: H-S. Lee)

- 9.00-9.25 **P&T in ROK**
J-H. Lee, KHNP-CRI, ROK
- 9.25-9.50 **An overview of actinide partitioning research in the United States fuel cycle research and development**
P. Paviet, DOE, USA
- 9.50-10.15 **P&T in PR China**
Y. Guoan, CIA, China
- 10.15-10.45 *Coffee*
- 10.45-11.10 **Status of nuclear research and development and progress on advanced recycle technologies in the UK**
Z. Hodgson, NNL
- 11.10-11.35 **Plutonium and Minor Actinides management in France: future possible scenarios**
D. Warin, CEA

Session 5: Advanced Nuclear Fuel Recycling (Chairs: D. Warin & V. Ignatiev)

- 11.35-12.00 **International assessment of separation processes related to current and future nuclear fuel cycles**
S. Cornet, OECD/NEA/EGFRC

Session 5a Aqueous processes

- 12.00-12.25 **EXAM selective Am recovery process: near past results and near future LLS experiments**
J-Ph. Dancausse, CEA, France

- 12.25-12.50 **Separation of minor actinides by a single cycle approach using unsymmetrical diglycolamide and diglycolamic acid**
R. Kumaresan, Indira Gandhi Centre for Atomic Research, India
- 12.50-14.15 Lunch
- 14.15-14.40 **Microemulsions and aggregation formation in extraction processes for used nuclear fuel**
M. Nilsson, Univ. California, Irvine, USA
- 14.40-15.05 **Development and demonstration of innovative partitioning processes (i-SANEX and 1-cycle SANEX) for actinide partitioning**
A. Wilden, IEK-6, Germany
- 15.05-15.30 **Development of separation process for minor actinides using TDdDGA and new extractants**
T. Matsamura, JAEA, Japan
- 15.30-16.00 Coffee
- Session 5b Pyroprocessing**
- 16.00-16.25 **Assessment of the pyrochemical DOS process for the recovery of actinides from irradiated oxide fuels**
E. Mendes, CEA, France
- 16.25-16.50 **Quantitative analysis of KF-LiF-ZrF₄ molten salt by probe assisted in situ LIBS systems**
S-H. Kim, Chungnam National University, ROK
- 16.50-17.15 **Model development for Pu-mass accountancy of pyrometallurgical processing with the Pu/Cm-244 ratio method**
S-M. Woo, Univ. California, Berkeley, USA
- 17.15-17.40 **Salt separation from uranium deposits by multilayer porous crucible**
J-H. Jang, KAERI, ROK

Poster Session (Chair: M-H. Kim)

- 18.00-19.30 Poster Session (Dynasty A Hall, B1 Floor)

Thursday 25 September

Session 1: International and National Programmes (Chair: IS Hwang)

- 9.00-9.25 **R&D on HLW in Russia**
A. Khaperskaya, Rosatom, Russian Fed.
- 9.25-9.50 **Review of ADS and P&T programmes in Japan**
H. Oigawa, JAEA, Japan

Session 6: Transmutation fuels and targets (Chair: N. Chauvin & J.R. Kennedy)

- 09.50-10.15 **R&D on Transmutation at CEA: recent outstanding developments**
V. Royet, CEA, France
- 10.15-10.40 **Thermal and Mechanical Properties of UO₂ and PuO₂**
M. Kato, JAEA, Japan
- 10.40-11.10 Coffee
- 11.10-11.35 **Dustless process for minor actinide-bearing blanket fabrication**
M. Caisso, CEA, France
- 11.35-12.00 **Progress on the application of metallic fuels for actinide transmutation**
J.R. Kennedy, INL, USA

12.00-13.30	Lunch
13.30-13.55	Evaluation of minor actinide transmutation performance in fast reactor metal fuels irradiated up to low and middle burnups H. Ohta, CRIEPI, Japan
13.55-14.20	Progress status of the sodium fast reactor advanced fuel project within the generation IV International Forum F. Delage, GIF
14.20-15.10	Coffee
Summary Session	
15.10-16.00	Session Chair Summaries
16.00-16.45	General Discussion