



WOSMIP2011

Workshop on Signatures of Medical and Industrial Isotope Production
Pacific Northwest National Laboratory

Castello di Strassoldo di Sopra • Strassoldo, Friuli-Venezia Giulia • Italy

June 13-17, 2011

Working Agenda

Sunday, June 12, 2011 • Castello di Strassoldo

17:00h	Shuttle transfer: Grado bus station - Hotel Internazionale – Castle of Strassoldo	
17:00h	Start of Registration and Reception	Gabriella di Strassoldo, <i>Italy</i> Laura Wilhelm, <i>USA</i>
21:00h	Shuttle transfer: Strassoldo – Hotel Internazionale – Grado bus station	

Monday, June 13, 2011 • Castello di Strassoldo

08:30h	Shuttle transfer: Grado bus station – Hotel Internazionale – Strassoldo	
INTRODUCTORY SESSION		
09:15h	Welcome	Paul Saey <i>IAEA</i>
09:30h	Introductions and Overview of WOSMIP	Ted Bowyer <i>PNNL, USA</i>
09:45h	WOSMIP 2009 – Overview of the Previous Workshop	Murray Matthews <i>New Zealand</i>
POLICY OVERVIEW – CHAIR: TED BOWYER		
10:00h	KEYNOTE – Overview of Medical Isotope Production	Ed Bradley <i>IAEA</i>
10:40h	KEYNOTE – Why Medical Isotope Production is Relevant to the Policy Community	Randy Bell <i>DOE/NNSA, USA</i>
11:20h	Break	
11:40h	KEYNOTE – Overview of the Comprehensive Nuclear-Test-Ban Treaty Verification Regime	Matthias Auer <i>CTBTO</i>
EMISSION AND BACKGROUND REDUCTION– CHAIR: JUDAH FRIESE		
12:20h	Minimization of Fission Nuclide Release from Large-Scale Mo-99 Production Facilities by Combining Processing and Off Gas Handling Technology	A.A. Sameh <i>Germany</i>
12:45h	Impact of Medical Isotope Production on IMS Radionuclide Stations and Mitigation Considerations	Fitz Carty <i>General Dynamics, USA</i>
13:10h	Lunch	
14:50h	Noble Gas Emissions from Mo-99 production at ANSTO and impact of Subsequent Increase in Production	Emmy Hoffmann <i>ANSTO, Australia</i>
15:15h	Overview of the Radioxenon Emissions from a Large Radiopharmaceutical Mo-99 Production Facility	Damien Braekers <i>SCK-CEN, Belgium</i>

15:40h	The Detection of I-131 and Tc-99m at RNO1 IMS Station – A Challenge to the Verification Regime	Eduardo Quintana <i>ARN, Argentina</i>
16:05h	Break	
16:35h	Roundtable Discussion	
17:35h	End of Day 1 Technical Program	
EVENING SOCIAL EVENT		
17:45h	Drive (3 min.) or Walk (10 min.) to Local Agriturismo San Gallo for a Dinner with Wine Tasting. 21:00h Shuttle transfer: Agriturismo San Gallo – Hotel Internazionale – Grado bus station	

Tuesday, June 14, 2011 • Castello di Strassoldo

08:30h	Shuttle transfer: Grado bus station – Hotel Internazionale – Strassoldo	
RECENT AND PLANNED ACTIVITIES AT PRODUCTION FACILITIES – CHAIR: A.A. SAMEH		
09:15h	Current Experience and Operations at ANSTO	Michael Druce <i>ANSTO, Australia</i>
09:40h	Medical Isotope Production in Iran: Past and Present	Mohammad Sabzian <i>Shahid Beheshti University, Iran</i>
10:05h	Mo-99 Production from LEU Foil Target	Budi Briyatmoko <i>National Atomic Energy Agency, Indonesia</i>
10:30h	New Method to Produce High Specific Activity Medical Isotopes Using Alternate Neutron Sources	Greg Piefer <i>SHINE Med. Technologies, USA</i>
10:55h	Break	
EXPERIENCE IN MONITORING MEDICAL ISOTOPE PRODUCTION FACILITIES – CHAIR: PAUL SAEY		
11:25h	Characterisation of Noble Gas Releases at ANSTO's Mo-99 facility via NaI and HPGe gamma spectrometry	Emmy Hoffmann <i>ANSTO, Australia</i>
11:50h	Issues and Experience in Emission Quantification at Nordion Inc.	Richard DeCaire <i>Nordion Inc., Canada</i>
12:15h	High Resolution Monitoring System for IRE Stack Releases	Benoit Deconninck <i>IRE-Elit, Belgium</i>
12:40h	Lunch	
14:10h	Spectrometry Systems Used as Stack Monitors	Michel Rotty <i>Canberra</i>
14:35h	Use of Xenon Emission Data to Calculate the Effect of Pharmaceutical Facilities on CTBT Xenon Detections	Mika Nikkinen <i>CTBTO</i>
15:00h	Medical Isotopes Studies	Judah Friese <i>PNNL, USA</i>
15:30h	Break	
16:00h	Roundtable Discussion	
17:00h	End of Day 2 Technical Program	
EVENING SOCIAL EVENT		
17:30h	Direct drive with a bus from Strassoldo to the historical winery “Perusini” – visit and wine tasting, followed by a dinner in the Osteria “Al Postiglione”, sponsored by GammaData Sweden . Note: for those who do not wish to attend to this social event, there will be the usual shuttle transfer (at 17.30h): Strassoldo – Hotel	

Internazionale – Grado bus stop

Wednesday, June 15, 2011 • Castello di Strassoldo

08:30h Shuttle transfer: Grado bus station – Hotel Internazionale – Strassoldo

MONITORING SCIENCE AND TECHNOLOGY – CHAIR: MATTHIAS AUER

09:15h Security Monitoring and Identification of Medical Radionuclides:
Interruptions and False Alarms Kurt Ungar
Health Canada

09:40h Tracers for Radiopharmaceutical Production Facilities Steven Biegalski
University of Texas/PNNL, USA

10:05h Changes in Xe-133 and Xe-135 Ratio during Mo-99 and I-131
Separation Processes Eduardo Carranza
CNEA, Argentina

10:30h Contributions of Reactors to the Natural Background Mohammed Javad Safari
Sharif University of Tech., Iran

10:55h **Break**

11:25h Reach-back Support for the 2010 Vancouver Olympic Games Kurt Ungar
Health Canada

11:50h Analysis of Krypton-Xenon Mixture Obtained as a Byproduct of Air
Liquefaction for Radioxenon Content Kirill Khrestalev
CTBTO

12:15h CTBT Noble Gas Detection Network Density Ian Hoffman
Health Canada

12:40h **Lunch**

14:10h Can We Estimate Unknown Sources of Atmospheric Radioactivity
by Inverse Modeling? Petra Seibert
*University of Natural Resources and
Applied Life Sciences (BOKU), Austria*

14:35h Atmospheric Transport Modeling for Releases from Fukushima and its
Evaluation with Radionuclide Detections of the International Monitoring
System Ole Ross
*Federal Institute for Geosciences and
Natural Resources, German NDC*

15:00h Atmospheric transport modeling on Fukushima and the implication on
next gen IMS systems Harry Miley
PNNL, USA

15:25h **Break**

15:55h Roundtable Discussion

16:55h End of Day 3 Technical Program

17:15h Shuttle transfer: Strassoldo – Hotel Internazionale – Grado bus stop

Thursday, June 16, 2011 • Castello di Strassoldo

08:30h	Shuttle transfer: Grado bus station – Hotel Internazionale - Strassoldo	
POSTER SESSION		
9:15h	Poster Session	
	SAUNA Equipment for Low-Level Measurement of Radioactive Xenon	Helena Burglund <i>Gammadata SAUNA Systems, Sweden</i>
	PNNL Monitoring of Fukushima Reactor Incident	Harry Miley <i>PNNL, USA</i>
	Production of Radio Xenon Standards for Calibration at the Idaho National Laboratory	Robert K. Hague <i>INL, USA</i>
	<i>Preliminary activities on the measurement of noble gases at ENEA</i>	Elisabetta Nava <i>ENEA, Italy</i>
	Characterization of Radioxenon Atmospheric Discharges in Belgium	Johan Camps <i>SCK-CEN, Belgium</i>
	Measurement of isotopes at long distances from Fukushima: the case of Friuli Venezia Giulia region (NE Italy)	Giorgio Mattassi <i>ARPA FVG, Italy</i>
	Improving Detection Capability by Combining ATM and Knowledge of Radioxenon Sources	Michael Schöppner <i>University of Roma, Italy</i>
AWARDS PRESENTATION		
11:15h	Awards Presentation	
11:45h	End of Day 4 Technical Program / Lunch	
SOCIAL EVENT—TOUR OF VENICE		
13:00h	Travel to Venice by Bus; Boat and Guided Walking Tour Around the Centre (San Marco), Visit the Private Palace Albrizzi, and Workshop Dinner in the Palazzo Flangini at the Canal Grande.	
21:30h	Shuttle transfer: Venice – Strassoldo – Hotel Internazionale – Grado bus station	

Friday, June 17, 2011 • Castello di Strassoldo

08:30h	Shuttle transfer: Grado bus station – Hotel Internazionale – Strassoldo	
FUKUSHIMA: MONITORING EXPERIENCE AND LESSONS LEARNED – CHAIR: HARRY MILEY		
09:15h	The 2011 Earthquake off the Pacific Coast of Tohoku and the Fukushima Daiichi NPP Accident	Paul Saey IAEA
09:35h	The First Days of the Fukushima Accident Seen from the Swedish Horizon	Lars-Erik De Geer FOI, Sweden
09:55h	Airborne Radionuclide Concentrations in Finland Following the Fukushima Daiichi Nuclear Power Plant Accident	Aleksi Mattila STUK-Radiation and Nuclear Safety Authority, Finland
10:15h	Fukushima Case Study: How National Technical Means and Other Cooperating Facilities can Supplement the Information Gained by the IMS/IDC	Ian Hoffman Health Canada
10:35h	French Monitoring Experience after Fukushima Reactor Incident	Pascal Achim French NDC
10:55h	Break	
11:20h	Particle Collections of the Fukushima Reactor Accident via Aircraft	John Lucas AFTAC, USA
11:40h	The Fukushima Nuclear Accident and its Influence to Thessaloniki, Northern Greece	Constantin Papastefanou Aristotle University of Thessaloniki, Greece
12:00h	Atmospheric Radioisotopes Measured in Barcelona After the Fukushima Accident	Arturo Vargas Institute of Energy Technologies, Technical University of Catalonia, Spain
12:20h	Operational Experience of CTBTO Related to the Fukushima Nuclear Accident	Mika Nikkinen CTBTO
12:45h	Lunch	
14:15h	Roundtable: Fukushima Lessons Learned	
SUMMARY OF WORKSHOP		
15:00h	Roundtable: Next Steps for WOSMIP	
16:00h	End of WOSMIP 2011	
16:15h	Shuttle transfer: Strassoldo – Hotel Internazionale – Grado bus stop	