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ICRM - Low-Level Radioactivity Measurement Techniques (LLRMT) 2016

Monday 26 September 2016

Opening Ceremony (10:00-10:40)

- Conveners: Ms. Brandenberger, Jill

time	title	presenter
10:00	ICRM Welcome	ARNOLD, Dirk
10:05	LLMT Welcome	HULT, Mikael
10:10	PNNL Welcome	PEURRUNG, Anthony
10:15	LLRMT '16 Scientific "Encouragement"	AALSETH, Craig
10:20	LLRMT '16 Logistics	SEIFERT, Allen

Radioactive Noble Gases (10:40-12:00)

- Conveners: Dr. Back, Henning; Dr. Park, Tae Soon

time	title	presenter
10:40	Monte Carlo simulation of air sampling methods for the measurement of radon decay products	SIMA, Octavian
11:00	Methods for Using Argon-39 to Age-Date Groundwater using Ultra-Low-Background Proportional Counting	AALSETH, Craig
11:20	Study about the radionuclides implanted on glass surfaces for the estimation of retrospective indoor radon concentrations	MARTIN SANCHEZ, Alejandro
11:40	STATE OF THE ART ANALYSIS OF RADIOXENONS AND KRYPTON-85 AT THE BFS NOBLE GAS LABORATORY	SCHLOSSER, Clemens

Radioactive Noble Gases: Poster Introduction - (12:00-12:20)

- Conveners: Dr. Back, Henning; Dr. Park, Tae Soon

time	title	presenter
12:00	Radioactive Noble Gases Poster Introduction	BACK, Henning PARK, Tae Soon
12:01	Continuous measurement of radon exhalation rate from soil surface around active volcano	HOSODA, Masahiro
12:02	Radon removal system for the LZ Dark Matter experiment	PUSHKIN, Kirill
12:04	Improved Pressurized Marinelli Beaker Measurements of Radioactive Xenon in Air	ROBINSON, Troy
12:06	Radon Emanation Screening for LZ	MILLER, Eric
12:08	When the mean value does not mean what is really happening: The case of indoor radon concentration measured with track detectors in working places	MARTIN SANCHEZ, Alejandro

12:10	Natural radon reduction rate of the Community Groundwater System in South Korea	CHO, Byong-Wook
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Non-radiometric Measurements: Session 1 (13:40-15:00)

- Conveners: Dr. Williams, Richard; Douglas, Matthew

time	title	presenter
13:40	Analysis of radionuclides at ultra low levels: synergy of low and high-energy mass spectrometry with gamma-spectrometry	POVINEC, Pavel
14:00	ICP MS measurements of ultra low-level radioactivity in solid material and comparison with γ -spectrometry within the CUPID experiment	DI VACRI, Maria Laura
14:20	Rapid low-level analysis of ^{226}Ra in groundwater samples by latest generation triple quadrupole ICP-MS	VAN ES, Elsje
14:40	Development of an optimised method for analysis of strontium-90 in decommissioning wastes by triple quadrupole inductively coupled plasma mass spectrometry	RUSSELL, Ben

Non-radiometric Measurements: Session 1 Poster Introduction - (15:00-15:20)

- Conveners: Dr. Williams, Richard; Douglas, Matthew

time	title	presenter
15:00	Non-radiometric Measurements Session 1 Poster Introduction	WILLIAMS, Richard DOUGLAS, Matthew
15:01	Isotopic Analysis of Plutonium in Foods by Inductively-Coupled Plasma Mass Spectrometry	EMANUELE, Kathryn

Non-radiometric Measurements: Session 2 (15:50-16:50)

- Conveners: Douglas, Matthew; Dr. Benedik, Ljudmila

time	title	presenter
15:50	Reference Materials for Neptunium Determination	JEROME, Simon
16:10	Application of $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ to trace sources of organic carbon in Baltic Sea sediments	LUJANIEN, Galina
16:30	A comparative study of ^{129}I content in environmental standard materials IAEA-375, NIST-4354 and NIST-4357 by Thermal Ionization Mass Spectrometry and Accelerator Mass Spectrometry	WATROUS, Matthew

Non-radiometric Measurements: Session 2 Poster Introduction - (16:50-17:00)

- Conveners: Douglas, Matthew; Dr. Benedik, Ljudmila

time	title	presenter
16:50	Non-radiometric Measurements Session 2 Poster Introduction	DOUGLAS, Matthew BENEDIK, Ljudmila
16:51	Accurate measurement $^{234}\text{U}/^{238}\text{U}$ activity ratio and $^{236}\text{U}/^{238}\text{U}$ isotope ratio measurement in 10^{-8} range using thermal ionization mass spectrometry	SAHOO, Sarata Kumar

16:52	Radiocarbon concentration in the atmosphere and in tree rings in the south-west Slovakia	POVINEC, Pavel
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Tuesday 27 September 2016

Non-radiometric Measurements: Session 3 (09:00-10:00)

- Conveners: Prof. Povinec, Pavel; Mr. Jerome, Simon

time	title	presenter
09:00	High Radiopurity Polymer Materials and Their Assay for Ultra Low Background Detector Applications	GRATE, Jay
09:20	A Novel Methodology for the Ultratrace Determination of Uranium and Thorium in Polymer Materials	ARNQUIST, Isaac
09:40	Laser Ablation Mass Spectroscopy of Polyethylene for U	BLISS, Mary

Non-radiometric Measurements: Session 3 Poster Introduction - (10:00-10:20)

- Conveners: Prof. Povinec, Pavel; Mr. Jerome, Simon

Applications: Session 1 (10:40-12:00)

- Conveners: Dr. Park, Tae Soon; Dr. Arnold, Dirk

time	title	presenter
10:40	Detection and assessment of specific natural organic compounds as carriers for radionuclides (e.g., I, Pu) in soil and water environments at ambient concentrations	SANTSCHI, Peter H.
11:00	Improvements to sample processing and measurement to enable more widespread environmental application of tritium measurements	MORAN, James
11:20	Residual radioactivity of treated green diamonds	CASSETTE, philippe

Applications: Session 1 Poster Introduction - (12:00-12:20)

- Conveners: Dr. Park, Tae Soon; Dr. Arnold, Dirk

time	title	presenter
12:00	Applications Session 1 Poster Introduction	PARK, Tae Soon ARNOLD, Dirk
12:01	Monte Carlo optimization of shielding for novel industrial free-release measurement facility	SOLC, Jaroslav
12:02	Rapid Detection of Processed Uranium in Food	SHAREEF, Abdur-Rafay Shareef
12:04	Measurement system of alpha and beta emitters with continuous air sampling under different exposure situations	TOKONAMI, Shinji

Applications: Session 2 (13:40-15:00)

- Conveners: Dr. Wellman, Dawn; Dr. Laubenstein, Matthias

time	title	presenter
13:40	Re-circulation of FNPP1 derived radiocaesium observed in winter 2015/2016 at coastal region in Japan	AOYAMA, Michio

14:00	Intrusion of Fukushima-derived radiocesium into the Arctic Ocean from the Bering Sea in summer 2014	KUMAMOTO, Yuichiro
14:20	Screening test for radioactivity on self consumption products in Fukushima after the Fukushima dai-ichi NPP accident in Japan	YAMADA, Takahiro
14:40	Long-term environmental radioactive contamination of Europe due to the Chernobyl accident - Results of the ICPDR Joint Danube Survey 2013 radioactivity measurements	MARINGER, Franz Josef

Applications: Session 2 Poster Introduction (15:00-15:20)

- Conveners: Dr. Wellman, Dawn; Dr. Laubenstein, Matthias

time	title	presenter
15:00	Applications Session 2 Poster Introduction	WELLMAN, Dawn LAUBENSTEIN, Matthias
15:01	A detector for radionuclide monitoring in water systems	DRINHAUS, Jorrit
15:02	Environmental radioactivity study of forest ecosystems: long-term behaviour of contamination of wild boar and its radioecological coherences	KOCADAG, Maria
15:04	Underground measurements of artificial radioactivity in squids from the western Pacific Ocean	MI, YuHao

Applications: Session 3 (16:20-17:40)

- Conveners: Dr. Laubenstein, Matthias; Prof. Maringer, Franz Josef

time	title	presenter
16:20	Mazinger, a gamma-ray spectrometry system of high efficiency and very low background for palaeoclimate applications	QUINTANA, Begoña
16:40	Coordinated underground measurements of gamma-ray emitting radionuclides for plasma physics research	HULT, Mikael
17:00	ULBS, CES and Environmental Measurements at Laboratorio Subterráneo de Canfranc (LSC)	BORJABAD SÁNCHEZ, Silvia
17:20	Black Hills State University Underground Campus	MOUNT, Brianna

Applications: Session 3 Poster Introduction (17:40-18:00)

- Conveners: Dr. Laubenstein, Matthias; Prof. Maringer, Franz Josef

time	title	presenter
17:40	Applications Session 3 Poster Introduction	LAUBENSTEIN, Matthias MARINGER, Franz Josef
17:44	COMPUTATIONAL APPROACHES ON PHOTON-ATTENUATION AND COINCIDENCE-SUMMING CORRECTIONS FOR THE DETECTION OF GAMMA-EMITTING RADIONUCLIDES IN FOODS	ROLLE, Clarence

Wednesday 28 September 2016

Radiometrics: Session 1 (09:00-10:00)

- Conveners: Prof. Sima, Octavian; Dr. García-Toraño, Eduardo

time	title	presenter
09:00	Characterization and calibration of a novel detection system for real time monitoring of radioactive contamination in water processed at water treatment facilities	DE FELICE, Pierino
09:20	Efficiency computation for gamma-ray spectrometry assessment of samples with intrinsic inhomogeneity	SIMA, Octavian
09:40	The BiPo-3 detector	LOAIZA, Pia

Radiometrics: Session 1 Poster Introduction - (10:00-10:20)

- Conveners: Prof. Sima, Octavian; Dr. García-Toraño, Eduardo

time	title	presenter
10:00	Radiometrics Session 1 Poster Introduction	SIMA, Octavian GARCÍA-TORAÑO, Eduardo
10:01	Photon emission intensities in the decay of U-235	LEPY, Marie-Christine
10:02	Uncertainties in Monte Carlo calculated correction factors for true coincidence summations (TCS)	KASTLANDER, Johan
10:04	Simulation of well type HPGe detector for samples both in the hole and on the top of the endcap	UNNO, Yasuhiro
10:06	Absolute peak-efficiency calibration of a well-type germanium detector using multiple gamma-emitting nuclides with the iteration algorithm based on maximum likelihood estimation	ISHIZU, HIDETAKE
10:08	Mathematical vs classical efficiency calibration in routine measurements of gamma emitting radionuclides in environmental samples	TUCAKOVIC, Ivana

Radiometrics: Session 2 (10:40-12:00)

- Conveners: Dr. HINO, Yoshio; Dr. LEPY, Marie-Christine

time	title	presenter
10:40	An integrated bubbler-LSC for on-line measurements of gaseous tritium and carbon-14	BELL, Steven
11:00	Studies of surface and bulk Po-210 in metals	ZUZEL, Grzegorz
11:20	Design, Construction, and Performance of a New Low-Background, External Source Gas Proportional Counter for Environmental Sample Measurements	KEILLOR, Martin
11:40	Operational and Simulated Background Characterization of an Ultra-Low Background Liquid Scintillation Counter	ERCHINGER, Jennifer

Radiometrics: Session 2 Poster Introduction - (12:00-12:20)

- Conveners: Dr. HINO, Yoshio; Dr. LEPY, Marie-Christine

time	title	presenter
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12:00	Radiometrics Session 2 Poster Introduction	HINO, Yoshio LEPY, Marie-Christine
12:01	Simultaneous, Dual-Isotope Measurement Approaches for Tritium and Radiocarbon by Ultra-Low-Background Proportional Counting	MACE, Emily
12:02	Small Volume Assay Method for ²¹⁰ Pb/ ²¹⁰ Po in Lead	MORLEY, Shannon
12:04	Development of a windowless multiwire proportional counting (MWPC) system for the measurements of the surface emission rate of alpha- and beta- area sources	HWANG, Sanghoon

Radiometrics: Session 3 (13:40-14:40)

- Conveners: Dr. cassette, philippe; Dr. Hult, Mikael

time	title	presenter
13:40	Design and Performance of an Ultra-Low Background Cryostat for High-Purity Germanium Spectrometers	HOSSBACH, Todd
14:00	Leda: a new low level spectrometer using gamma-gamma coincidence	DE VISMES OTT, Anne
14:20	Calibration of a Low Background Gamma Spectrometer for the Assay of Pb-210 in Lead and Comments on Current Availability of Low Background Lead in North America	KEILLOR, Martin E

Radiometrics: Session 3 Poster Introduction - (14:40-15:00)

- Conveners: Dr. cassette, philippe; Dr. Wershofen, Herbert

time	title	presenter
14:40	Radiometrics Session 3 Poster Introduction	CASSETTE, philippe HULT, Mikael
14:41	Monte Carlo simulations of background characteristics of Ge detectors operating in the Gran Sasso underground laboratory	POVINEC, Pavel
14:42	A Second-generation Low-Background Gamma-Ray Spectrometer	LINDSTROM, Richard
14:44	Digital gamma-gamma coincidence HPGe system for environmental analysis	MARKOVIC, Nikola
14:46	Development of a dual-HPGe low background gamma-gamma coincidence/anticoincidence spectrometer	ZHANG, Weihua
14:48	GAMMA3: latest improvements and coincidence measurements	CAGNIANT, Antoine
14:50	The Dortmund Low Background Facility	NITSCH, Christian

Thursday 29 September 2016

Radiochemical Techniques (09:00-10:00)

- Conveners: Mr. Jerome, Simon; Dr. Benedik, Ljudmila

time	title	presenter
09:00	Development of radiochemical analysis strategies for decommissioning activities	ZAPATA-GARCÍA, Daniel
09:20	Analysis of ultra-trace concentration of americium in sediments by HR-ICP-MS following a simple extraction chromatography separation	JOUINI, Ameer
09:40	DETERMINATION OF LOW LEVEL NP-237 BY VARIOUS TECHNIQUES	BENEDIK, Ljudmila

Radiochemical Techniques: Poster Introduction - (10:00-10:20)

- Conveners: Mr. Jerome, Simon; Dr. Wershofen, Herbert

time	title	presenter
10:00	Radiochemical Techniques Poster Introduction	JEROME, Simon BENEDIK, Ljudmila
10:01	Analysis of Radioactive Strontium in Food by Cerenkov Liquid Scintillation Counting	HEALEY, Stephanie
10:02	Combination of automated chromatographic separation and off-line Cerenkov counting in determination of low level activity of Sr-90.	GRAHEK, Željko IVANA, Tucakovi
10:04	Application of thermogravimetric analysis for a high temperature combustion method of tritium analysis	KIM, Chang-Jong

Special Session: Monitoring Networks: Session 1 (10:40-12:00)

- Conveners: Prof. Maringer, Franz Josef; Dr. Keillor, Martin

time	title	presenter
10:40	INVITED TALK: Repurposing Existing Portal Monitor Infrastructure	LIVESAY, Ronald J.
11:00	INVITED TALK: Our Radioactive Ocean- establishing an ocean monitoring network after Fukushima	BUESSELER, Ken
11:20	Developing capacity for rapid response in the network of Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA)	OSVATH, Iolanda
11:40	COMPACT RADIOACTIVE AEROSOL PARTICULATE MONITORING DEVICE FOR EARLY WARNING NETWORKS	GLAVI-CINDRO, Denis

Special Session: Monitoring Networks: Session 1 Poster Introduction - (12:00-12:20)

- Conveners: Prof. Maringer, Franz Josef; Dr. Keillor, Martin

time	title	presenter
12:00	Special Session Monitoring Networks Session 1 Poster Introduction	MARINGER, Franz Josef KEILLOR, Martin
12:01	Low-level atmospheric radioactivity measurement using a NaI(Tl) spectrometer during aerosol sampling	HYZA, Miroslav

12:02	Evaluation of an early warning system for airborne radionuclides	KASTLANDER, Johan
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Special Session: Monitoring Networks: Session 2 (13:40-15:20)

- Conveners: Dr. Aalseth, Craig; Prof. Povinec, Pavel

time	title	presenter
13:40	INVITED TALK: The potential detection of low level aerosol isotopes from new civilian nuclear processes	MILEY, Harry
14:00	Silicon PIN diode based electron-gamma coincidence detector system for Noble gases monitoring	KHRUSTALEV, Kirill
14:20	Laboratory analysis of low-level radioxenon samples in support of the International Monitoring System	DOUYSET, Guilhem
14:40	Addition of Active Background Suppression for an International Monitoring System Gamma Detector	CANTALOUB, Michael
15:00	Low-Background Gamma Spectrometry for the International Monitoring System	GREENWOOD, Larry

Special Session: Monitoring Networks: Session 2 Poster Introduction - (15:20-15:30)

- Conveners: Dr. Aalseth, Craig; Prof. Povinec, Pavel

time	title	presenter
15:20	Special Session: Monitoring Networks Session 2 Poster Introduction	AALSETH, Craig POVINEC, Pavel
15:22	Development of an underground multidimensional gamma-spectrometer	BURNETT, Jonathan
15:24	Low-Background Radioxenon Detector	FOXE, Michael

Metrology and Citizen Initiatives Workshop (16:00-18:20)

- Conveners: Ms. Brandenberger, Jill

time	title	presenter
16:00	Workshop Overview	BRANDENBERGER, Jill
16:05	Introductory Remarks	HULT, Mikael
16:25	DoseNet: building scientific literacy through a network of radiation detection devices	HANKS, Janette
16:45	Our Radioactive Ocean - Citizen Science	BUESSELER, Ken
17:05	Screening of self-consumption products in Japan after Fukushima accident	YAMADA, Takahiro
17:15	How you (anybody) can ask the data from IMS	KHRUSTALEV, Kirill
17:25	Role of social media in citizen monitoring	HODAS, Nathan
17:35	Panel Discussion	

Friday 30 September 2016

Quality: Session 1 (09:00-10:00)

- Conveners: Dr. BRUGGEMAN, Michel; Dr. HINO, Yoshio

time	title	presenter
09:00	SURROGATE POST-DETONATION URBAN DEBRIS (SPUD) STANDARD REFERENCE MATERIAL	MANN, Jacqueline
09:20	Development and characterization of nuclear forensic reference materials for measurement of trace-level actinide elements	ESSEX, Richard
09:40	Development of a Low-Level ³⁹ Ar Calibration Standard – Analysis by Absolute Gas Counting Measurements Augmented with Simulation	WILLIAMS, Richard

Quality: Session 1 Poster Introduction - (10:00-10:20)

- Conveners: Dr. BRUGGEMAN, Michel; Dr. HINO, Yoshio

time	title	presenter
10:00	Quality Session 1 Poster Introduction	BRUGGEMAN, Michel HINO, Yoshio
10:01	PRODUCTION OF SPIKED VEGETATION SAMPLES CONTAINING GAMMA-EMITTING RADIONUCLIDES TO PARTICIPATE IN PROFICIENCY TESTING PROGRAMS	DE SOUZA, Poliana
10:02	Proficiency testing for measurement quality control of gamma ray spectrometry using brown rice.	FURUKAWA, Rio

Quality: Session 2 (10:40-12:00)

- Conveners: Harms, Arvic; Dr. Williams, Richard

time	title	presenter
10:40	IAEA proficiency tests for determination of radionuclides in sea water	HARMS, Arend
11:00	Practical implementation of ISO 11929: 2010	DE FELICE, Pierino
11:20	Consensus evaluation of radioactivity-in-soil reference materials in the context of an NPL Environmental Radioactivity Proficiency Test Exercise	DEAN, Julian

Quality: Session 2 Poster Introduction - (12:00-12:20)

- Conveners: Harms, Arvic; Dr. Williams, Richard

time	title	presenter
12:00	Quality Session 2 Poster Introduction	HARMS, Arvic WILLIAMS, Richard
12:01	Calculation of the detection limits by explicit expressions	GLAVI■-CINDRO, Denis
12:02	International Rn-222 in drinking water interlaboratory comparison	KELLEHER, Kevin

Special Session: Metrology of NORM (13:40-15:00)

- Conveners: Dr. Hult, Mikael; Prof. Sima, Octavian

time	title	presenter
13:40	INVITED TALK: Emerging social, scientific and legislative triggers for the application and development of LLRMT resolving NORM issues	MARINGER, Franz Josef
14:00	INVITED TALK: Issues associated with the Metrology of TENORM	SCHWAB, Kristen
14:20	Advancements in NORM metrology - Results and impact of the European joint research project MetroNORM	MARINGER, Franz Josef
14:40	REFERENCE MATERIALS PRODUCED FOR A EUROPEAN METROLOGICAL RESEARCH PROJECT FOCUSING ON MEASUREMENTS OF NORM	LARIJANI, Cyrus

Special Session: Metrology of NORM: Poster Introduction - (15:00-15:20)

- Conveners: Dr. Hult, Mikael; Prof. Sima, Octavian

time	title	presenter
15:00	Special Session: Metrology of NORM Poster Introduction	HULT, Mikael SIMA, Octavian
15:01	Study of particular problems appearing in NORM samples and recommendations for best practice gamma-ray spectrometry	MARINGER, Franz Josef
15:02	Application of an Artificial Neural Network for evaluation of activity concentration exemption limits in NORM industry	WIEDNER, Hannah
15:04	Analysis and Evaluation for Consumer Goods containing NORM in Korea	JANG, Mee
15:06	A low-energy set-up for gamma-ray spectrometry of NORM tailored to the needs of a secondary smelting facility	HULT, Mikael
15:08	Characterisation of the natural radioactivity of the first geothermal installation in Flanders, Belgium	BRUGGEMAN, Michel
15:10	Measurement of radon exhalation rate in NORM used as consumer products	IWAOKA, Kazuki HOSODA, Masahiro
15:12	MEASUREMENT OF NORM SAMPLES WITH CeBr3 DETECTORS	PEYRES, Virginia

Closing Ceremony (15:20-16:00)

- Conveners: Ms. Brandenberger, Jill; Dr. Hult, Mikael

time	title	presenter
15:20	Best Poster Award	HULT, Mikael
15:30	ICRM 2017	MARINGER, Franz Josef