

Program WTTC19

Presenter

Sunday, August 25' 2024

18:00 - 21:00 Registration & Welcome Reception

Monday, August 26' 2024

08:00 - 09:00 WTTC19 Registration

Moderator: Viplav Gupta

09:00 - 09:35	Welcome Address and Introductory remarks	S.M. Schmidt, V. Gupta
09:35 - 10:20	Reminiscences of a long journey through the realm of radionuclides	Syed M. Qaim
10:20 - 10:40	Presentation from ISOFLEX	Patrick Hardy
10:40 - 11:00	Presentation from SUMITOMO (high-yield target)	SHI

11:00 - 11:30 Refreshment

Session 1 Gas Targets: Chairs - David W. Dick, Martin Walther

11:30 - 11:50	OP01 Production of Iodine-131 Using a compact fusion reactor based on Multi-State Fusion	Tom Haywood
11:50 - 12:10	OP02 Cyclotron production of ^{131}Cs via ^{131}Xe (p,n) reaction in a gas target	Valia Barreras
12:10 - 12:30	OP03 ^{11}C Medical-isotope Production with Carbon Nanotubes by Photonuclear Reaction	Maki Kurosawa
12:30 - 12:50	OP04 Comparison of self-made and commercial gas targets for $[^{11}\text{C}]\text{CH}_4$ production	Semi Helin

12:50 - 14:20 Lunch

Session 2 Solid Targets 1: Chairs - Matthew Stokely, Sara Cisternino

14:20 - 14:40	OP05 Different approaches for the preparation of bismuth metal targets for the production of astatine-211 Production of antimony-119 from tin targets: efforts towards a tin electrodeposition method compatible with target	Lucas Mues genannt Koers
14:40 - 15:00	OP06 recycling	Aivija Grundmane
15:00 - 15:20	OP07 Cyclotron Production of High-Purity Scandium-47 from Natural Vanadium Targets	Emily Putnam
15:20 - 15:40	OP08 Dissolution and purification stations for radiometal production using solid targets	Ruben Dallakyan

15:40 - 16:30 Poster Session 1 (including Refreshment)

Tuesday, August 27' 2024

Session 3

Targetry: Chairs - Jonathan W. Engle, Saverio Braccini

- 09:00 - 09:20 OP09 Rotating targets: Theory, design parameters and experimental verification. Mikael Jensen
Pressed targets using aluminium filler for increased thermal stability in the production of ^{135}La , ^{165}Er , and ^{89}Zr with a
- 09:20 - 09:40 OP10 medical cyclotron Kristina Søborg Pedersen
- 09:40 - 10:00 OP11 Cyclotron-based Production of ^{44}Sc using Pressed Powder Calcium on an In-House Developed Solid Target System Viktoria Krol
- 10:00 - 10:20 OP12 Direct Temperature Measurements of Solid Isotope Production Targets David Prevost
- 10:20 - 10:40 OP13 Indirect production of the radionuclides ^{103}Pd , and $^{103\text{m}}\text{Rh}$: Targetry, recycling, separation and purification Mangi Lal Godara
- 10:40 - 11:00 OP14 NiSb target for production of Sn-117m and other radionuclides Dmitri Medvedev

11:00 - 11:30 Refreshment

Session 4

Exotic World 1: Chairs - Nick van der Meulen, C. Etienne Vermeulen

- 11:30 - 11:50 OP15 Production of High Specific Activity Germanium-71 through Photonuclear Reactions and Nuclear Recoil Separation Emily Paige Abel
Non-destructive beam monitoring based on optical fibers and inorganic scintillators for radioisotope production and
- 11:50 - 12:10 OP16 radiation therapy applications Alexander Gottstein
- 12:10 - 12:30 OP17 Production and purification of Au-199 from natural platinum(0) in a research reactor Veronika Rosecker
Production and Purification of Radiolabeling-Ready $^{132/135}\text{La}$ from the Irradiation of Metallic $^{\text{nat}}\text{Ba}$ Targets with Low
- 12:30 - 12:50 OP18 Energy Protons Brooke McNeil

12:50 - 14:20 Lunch

Session 5

Nuclear Data: Chairs - Olof Solin, Mikael Jensen

- 14:20 - 14:40 OP19 Nuclear cross section measurement of the $^{93}\text{Nb}(p,n)^{93}\text{Mo}$ reaction Andreas Dragoun
- 15:00 - 15:20 OP20 Investigation of the $^{48,49,50}\text{Ti}(p,x)$ nuclear reactions for the production of ^{47}Sc at the INFN-LNL Lucia De Dominicis
Nuclear cross-section measurement of terbium-155 production using reactions induced by light ions on Eu, Gd, Tb and
- 15:20 - 15:40 OP21 Dy targets Michele Colucci
- 15:40 - 16:00 OP22 Measurement of Excitation Functions of the $^{226}\text{Ra}(p,xn)$ reactions Ondřej Lebeda

16:00 - 16:30 Poster FLASH Talk 1 (P1 - P11)

16:30 - 17:30 Poster Session 2 (including Refreshment)

17:30 - 19:00 IAC Meeting

Wednesday, August 28th 2024

Session 6

Facility: Chairs - Katherine Gagnon, Jonathan Siikanen

09:00 - 09:20	OP23	Big Machine, Big Targets, Big Oopsies	C. Etienne Vermeulen
09:20 - 09:40	OP24	Design of a Mechanical Iris for the Experimental Beamline at FZJ IAEA Contribution to the production of cyclotron-based radioisotopes and radiopharmaceuticals for the Member	Ingo Spahn
09:40 - 10:00	OP25	States	Amirreza Jalilian
10:00 - 10:20	OP26	A Balancing Act at UAB Cyclotron Facility: Supporting routine production of traditional isotopes and novel radiometals. ICNAS's experience of daily production of gallium-68 from liquid targets with 2 cyclotrons of distinct energies:	Jean-Pierre Appiah
10:20 - 10:40	OP27	introducing the new IBA Kiube VE – Variable Energy	Sergio do Carmo
10:40 - 11:00	OP28	University of Wisconsin - Madison Experiences with two GE Solid Target Systems	Jason Mixdorf

11:00 - 11:10 **WTTC19 Group Photo**

11:10 - 11:40 **Refreshment**

Session 7

Solid Target 2: Chairs - Jean-Pierre K. Appiah, Martin Kreller

11:40 - 12:00	OP29	Progress with production of ^{76}Br Challenges in electromagnetic isotope separation of heavy medically relevant nuclides from thick thorium-based targets at CERN MEDICIS	Karsten Franke
12:00 - 12:20	OP30	Developments towards an optimized production of non-conventional radioisotopes with solid targets at the Bern	Jake Johnson
12:20 - 12:40	OP31	medical cyclotron Purification of Cyclotron-Produced [^{68}Ga]Ga from [^{68}Zn]Zn Solid Target as a Precursor for Synthesis of	Saverio Bracchini
12:40 - 13:00	OP32	Radiopharmaceuticals at BIONT, a.s.	Marek Leporis

13:00 - 14:30 **Lunch**

18:00 - 22:00 **Gala Dinner**

Thursday, August 29' 2024

Session 8

Actinium and Terbium Waves: Cornelia Hoehr, Martina Benešová-Schäfer

09:00 - 09:20	OP33	^{225}Ac Production from $^{226}\text{Ra}(p,2n)$ at TRIUMF	Eleanor Dunling
09:20 - 09:40	OP34	Chelator-impregnated polydimethylsiloxane beads for the separation of Ac-225 from Radium	Svenja Trapp
09:40 - 10:00	OP35	Selective Precipitation of Thorium for Actinium-225 Recovery from Proton Irradiated Thorium Targets	Steven Schultz
10:00 - 10:20	OP36	Designing an Optimal Terbium Target for indirect ^{155}Tb production	Anzhelika N. Moiseeva
10:20 - 10:40	OP37	Fabrication and Characterization of Gd Targets for the Production of Terbium Radionuclides for Nuclear Medicine	Vanessa Rhoden
10:40 - 11:00	OP38	Proton irradiation, Purification, and recycling of gadolinium oxide targets for production of ^{155}Tb	Trenton Irvin

11:00 - 11:30 Refreshment

Session 9

World of Copper: Chairs - Ulrich W. Scherer, Sérgio do Carmo

11:30 - 11:50	OP39	Routine Production of ^{67}Cu at the TR-Flex Cyclotron: Report on Challenges Faced and Potential Solutions	Santiago Andrés Brühlmann
11:50 - 12:10	OP40	Production Cross Section Measurements of the $\text{natNi}(d,x)^{61}\text{Cu}$ Reaction Production of Cu-67 with medical cyclotron: target manufacturing technology development and recovery process	Laurine Puren
12:10 - 12:30	OP41	optimization	Sara Cisternino
12:30 - 12:50	OP42	Current Status on ^{64}Cu Production with a TR-Flex Cyclotron at the HZDR	Martin Walther
12:50 - 13:10	OP43	Is $^{70}\text{Zn}(d,x)^{67}\text{Cu}$ the best way to produce ^{67}Cu for medical applications?	Etienne Nigrón

13:10 - 14:30 Lunch

Session 10

Liquid Targets: Chairs - Francisco Alves, Kristina S. Pedersen

Production of technetium-94m by irradiation of phosphomolybdic acid in a liquid target at the McMaster University

14:30 - 14:50	OP44	Cyclotron Facility	Ross Harper
14:50 - 15:10	OP45	Titanium-45 Production in a Liquid Cyclotron Target	Molly DeLuca Chubina Pathma
15:10 - 15:30	OP46	Liquid Target Production and Separation of ^{45}Ti for complexation with DOTA	Kumarananthan
15:30 - 15:50	OP47	"He-free" IBA's cylindrical ^{18}O water target modification	Ondrej Szollos
15:50 - 16:10	OP48	In-liquid Isotope Identification for Development of Alpha-therapeutics	Christian Diget

16:10 - 16:40 Poster FLASH Talk 2 (P12 - P22)

16:40 - 17:30 Poster Session 3 (including Refreshment)

Friday, August 30' 2024

Session 11	Radiochemistry - Chairs: Ondřej Lebeda, Mukesh Pandey	
09:00 - 09:20	OP49 Chromatographic separation of Medical Radionuclides from Proton-Irradiated Thorium Targets	Michael E. Fassbender
09:20 - 09:40	OP50 Radiometal production with in-target dissolution Requirements and challenges of recycling target materials towards rational radionuclide production for clinical and	Dezső Szikra
09:40 - 10:00	OP51 preclinical investigation Combining Solid Phase Extraction and Ion Exchange Chromatography for the Purification of Cyclotron-produced ⁵² Ga	Nicholas P. van der Meulen
10:00 - 10:20	OP52 with Application to Macrocyclic Chelators	Kendall Barrett
10:20 - 10:40	OP53 The TRIUMF Automated Chemistry Unit (TACU): a Versatile System for Radioisotope Processing	Nicolas Fedrigo
10:40 - 11:10	Refreshment	
Session 12	Exotic World 2: Chairs - Valery Radchenko, Ingo Spahn	
11:10 - 11:30	OP54 Er-165: A promising candidate for the targeted Auger electron therapy of cancer	Behrad Saeedi Saghez
11:30 - 11:50	OP55 Production of Pb-203: pathway from target manufacturing to chemical separation	Vanessa Rhoden
11:50 - 12:10	OP56 Production of medically relevant holmium radioisotopes for Targeted Radionuclide Therapy	Edoardo Renaldin
12:10 - 13:00	Prize Distribution, Concluding Remarks, Next WTTC19 Announcement	WTTC19 chairs, SS mentors
13:00 - 14:30	Lunch	

Program WTTC19 - Poster

Tuesday August 27, 2024

Poster Session 2: Chair - Jason Lewis

16:00-16:30

Flash Talks

P01 Progress towards Production and Application of $^{197m/8}\text{Hg}$ for Targeted Auger Electron Therapy (TAET)

Yumeela Shah

P02 Upcycling older modules, from feasibility to Gallium-68 ligand production

Antje Uhlending

P03 The Research for Preparation Process of ^{103}Pd Based on Cyclone-30

Chengwei Ma

P04 Production of Zirconium-89 & Solid Target Irradiations at the McMaster University Cyclotron Facility

Derek R. Morim

P05 Qualitative study of thin targets

Erika Jajcisinova

P06 Increasing ^{166}Ho Specific Activity through the Szilard-Chalmers Effect in ^{165}Ho -loaded Zeolite A

Esther Spruit

P07 New [^{18}O] Water Target for Large Scale Fluorine-18 Production

Francisco Guerra Gomez

P08 Separation of rare-earth elements using an ionic liquid impregnated resin

Evan Williams

P09 The production Process of ^{89}Zr Based on the C30 Cyclotron

Fei Duan

P10 Feasibility study for the production of ^{155}Tb using different $^{155}\text{Gd}_2\text{O}_3$ target configurations

Gaja Piteo

P11 Molybdenum based materials for a low-specific activity $^{99}\text{Mo}/^{99m}\text{Tc}$ generator

Gauri Gauri

16:30-17:30

Refreshment + Poster Walk

Thursday August 29' 2024

Poster Session 3: Chair - Karin M. Nielsen

16:10-16:40

Flash Talks

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| P12 | Radiochemistry Capabilities at The University of Tennessee Knoxville | Ivis Chaple Gore |
| P13 | Effects of Target Conditioning and In-Target Pressure Evaluation for Production of Zr-89 | Jacqueline Noel |
| P14 | Beam Detection and Alignment for Custom Targets | Joe Singh |
| P15 | Technology Improvements for the Case of a Solid Target Station | Justine Munich |
| P16 | Automated dispensing system for [¹⁸ F]F ⁻ water | Karsten Franke |
| P17 | Optimization of ⁶⁸ Ga production with liquid target in cyclotron | Leandro Urrutia |
| P18 | Concentration and Recovery of Nuclear Medicine Radionuclides in Buffer Solutions | Madeleine Eddy |
| P19 | Copper isotopes production test with medical cyclotron: preliminary irradiation on ^{nat} Zn and Cu/Zn separation | Giorgia Speltri |
| P20 | Niobium as a suitable alternative material for cyclotron target windows | Sergio do Carmo |
| P21 | Ortho-Positronium Imaging Techniques with GRETINA | Wesley Walker |
| P22 | The quest for terbium: could molecular extraction help us bring terbium closer to the clinics? | Wiktoria Wojtaczka |

16:40-17:30

Refreshment + Poster Walk