



## NUTECH-2020 CONFERENCE SESSIONS

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### Session 1. OPENING SESSION

<b><i>Presenting author</i></b>	<b><i>Title</i></b>
<b><i>Andrzej G. Chmielewski</i></b>	Opening conference and short review of main topics to be presented
<b><i>Marek Lankosz</i></b>	Role of AGH of development of nuclear technologies and nuclear power
<b><i>Vladimir Feldman</i></b>	
<b><i>Mohamad AL-Sheikhly</i></b>	
<b><i>Suresh Pillai</i></b>	
<b><i>Bum Soo Han</i></b>	IAEA Programs in the field of radiation technologies
<b><i>Patrick Brisset</i></b>	IAEA Programs in the field of RT, NCS and NDT



## Session 2. IRRADIATION FACILITIES, DOSIMETRY AND PROCESS CONTROLL

<b>Presenting author</b>	<b>Title</b>
<b>Aleksandr Bryazgin</b>	ILU Electron Accelerators for E-beam and X-ray Treatment
<b>Colombani Juliette</b>	IRSN irradiation facilities
<b>Nikolay Kuksanov</b>	Radiation sources (eb, X-ray and gamma) development applications

Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Zbigniew Zimek</b>	Characteristics of output systems used in high power electron accelerators equipped with titanium window
<b>Nikolay Tolstun</b>	Development and Testing of Powerful High-Voltage Electron Accelerator for Energy-Intensive Applications
<b>Ivica Vujcic</b>	Dose Mapping of Products with Different Density Irradiated with Co-60 Irradiator
<b>Urszula Gryczka</b>	Dose measurements in liquid flow systems
<b>Zaur Khalilov</b>	Comparison of the measured and calculated dose maps in gamma facility in Azerbaijan.
<b>Maria Ines Teixeira</b>	Thermally stimulated exoelectron emission using Brazilian onyx samples
<b>Vyacheslav Uvarov</b>	On-Line Monitoring System of Processing Regime at an Industrial Electron Accelerator
<b>Valentyn Lazurik</b>	Using the PFSEM method for a birchwood dosimetric wedge



### Session 3. RADIATION TECHNOLOGIES FOR THE ENVIRONMENTAL AND INDUSTRIAL APPLICATIONS

<b>Presenting author</b>	<b>Title</b>
<b>Mark Driscoll</b>	Electron Beam Degradation of Microcystin LR
<b>Turki Alkhuraiji</b>	Advanced oxidation process based on water radiolysis to degrade and mineralize diclofenac in aqueous solutions

Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Marko Fulop</b>	Combination of methods of thermal and radiation treatment of sediments associated with PCBs - the Delor type
<b>Andrea Sagatova</b>	Improvement of radiation degradation of PCBs in sediments
<b>Tomasz Smoliński</b>	Ballast water treatment technology for floating "green dock"
<b>Marcin Sudlitz</b>	A method of hygienisation and disintegration of sewage sludges using ionising radiation
<b>Dagmara Chmielewska-Śmietanko</b>	Inactivation of invasive marine species and harmful bacteria in the process of irradiation of ballast water with electron beam



#### Session 4. HTR and Other New Reactors

<b>Presenting author</b>	<b>Title</b>

#### Session 5. MEDICAL APPLICATIONS

<b>Presenting author</b>	<b>Title</b>
<b>Piotr Ulański</b>	
<b>Tatyana Baptista</b>	Assurancy quality system in iodine-125 seeds souces production
<b>Monika Łyczko</b>	Synthesis of multimodal radiobioconjugate Octreotide-PEG-198AuNPs-PEG-DOX

#### Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Beata P. Rurarz</b>	Radiation synthesis of poly(acrylic acid) nanogels for drug delivery applications - post-synthesis product stability
<b>Kamil Wawrowicz</b>	Radiobioconjugates of gold nanoparticles with $^{193m}/^{195m}\text{Pt}$ conjugated with Trastzumab to targeted Auger therapy
<b>Ulmas Mirsaidov</b>	Nuclear technology applications in the Republic of Tajikistan
<b>Patrycja Sliż</b>	Sub-cellular Elemental Imaging of Human Muscle Tissues Affected by Neuromuscular Diseases



## Session 6. NUCLEAR ENERGY

<b>Presenting author</b>	<b>Title</b>

## Session 7. ANALYTICAL METHODS

<b>Presenting author</b>	<b>Title</b>
<b>Ewelina Chajduk</b>	Activity of INCT in the domain of nuclear forensic.
<b>Leon Fuks</b>	Interlaboratory comparison on the determination of radionuclides in water, food and soil conducted by the National Atomic Energy Agency (NAEA), Poland

## Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Florin Adrian Albota</b>	Validation of the chemical protocol for the determination of lanthanides elemental impurities in uranium oxides



## Session 8. FOOD IRRADIATION

<b>Presenting author</b>	<b>Title</b>
<b>???</b> invited?? Carl???	
<b>Suresh??</b>	
<b>Ivana Sandeva</b>	Interlaboratory comparison for detection of irradiated food by luminescence methods
<b>Aleksandar Krleski</b>	Analysis of irradiated food monitoring in the republic of North Macedonia
<b>Urszula Gryczka</b>	Application of low energy electron beam for microbial decontamination of food products

### Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Slobodan Masic</b>	Effect of gamma irradiation on microbiological and nutritional properties of the freeze-dried berries
<b>Magdalena Miłkowska</b>	Detection of radiation treated vegetal extracts by thermoluminescence method
<b>Grażyna Liśkiewicz</b>	Applicability of thermoluminescence for detection of irradiated food treated with low energy electron beam



## Session 9. RADIATION SYNTHESIS AND MODIFICATION OF THE MATERIALS

<b>Presenting author</b>	<b>Title</b>
<b>Mohamad Al-Sheikhly</b>	Electron Beam Synthesis of Novel Fabrics for Extraction of Uranium from Seawater
<b>Hanna Lewandowska</b>	The influence of irradiation on the physicochemical properties of collagen scaffolds

Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Wojciech Głuszewski</b>	Radiation stability of high test peroxide (HTP)
<b>Magdalena Rzepna</b>	Impact of electron beam treatment on copolymers of polylactide and poly(trimethylene carbonate) in an air atmosphere
<b>Marta Walo</b>	EPR study of gamma irradiated membranes dedicated for gas separation applications
<b>Krystyna Cieśla</b>	The effect of nanocellulose addition and radiation treatment on the properties of starch-PVA films
<b>Tanja Jurkin</b>	Rheological, microstructural and thermal properties of magnetic poly(ethylene oxide)/iron oxide nanocomposite hydrogels synthesized using one-step gamma-irradiation method
<b>Ivan Marić</b>	A controllable method for the synthesis of magnetic iron oxide and iron oxide/Au nanostructures using $\gamma$ -irradiation
<b>Wojciech Głuszewski</b>	The use of GC and DRS to study postradiation phenomena of polypropylene oxidation
<b>Krystyna Cieśla</b>	Modification of the properties of the films formed in the starch:PVA:nanocellulose system by addition of thymol and ionising radiation



## Session 10. TRACERS AND RADIOTRACERS APPLICATIONS (ISTRA)



<b><i>Presenting author</i></b>	<b><i>Title</i></b>
<b><i>Tor Bjørnstad</i></b>	Neutron methods in material examinations – a review
<b><i>Jovan Thereska</i></b>	Radiological consideration on radioactive tracer and sealed source applications in industry
<b><i>Christos Tsabaris</i></b>	Progress in radionuclide characterisation in beach sands of Lesvos Island using an underwater gamma-ray spectrometer in $2\pi$ geometry
<b><i>Thorsten Jentsch</i></b>	ISO proposal: Measurement of Fluid Flow Rate in Closed Conduits – Radioactive Tracer Methods
<b><i>Nelson Barrientos</i></b>	Evaluation of “Tórtolas 1” industrial flotation plant by means of radioactive tracers
<b><i>Gergo Bator</i></b>	Presenting an industrial radiography training device

### Poster session

<b><i>Presenting author</i></b>	<b><i>Title</i></b>
<b><i>Jovan Thereska</i></b>	ISO proposal on leak testing in pressured vessels and underground pipelines using radioactive tracer methods
<b><i>Ferenc Ditrói</i></b>	Visualization of tracer distribution in irradiated samples and traced objects by using Positron Emission Tomography (PET)
<b><i>Miroslav Pavlović</i></b>	Optimization of Injected Radiotracer Volume for Flow Meter Calibration in Closed Conduits





## Session 11. ACCELERATOR RESEARCH AND INNOVATION FOR EUROPEAN SCIENCE AND SOCIETY (ARIES)



<b>Presenting author</b>	<b>Title</b>
<b>Andrzej G. Chmielewski</b>	New Developments in Environmental Radiation Technology Applications
<b>Yongxia Sun</b>	Organic pollutant removal from marine diesel engine off-gases under electron beam (EB) and EB hybrid wet scrubber process
<b>Malgorzata Siwek</b>	Application of Electron Beam treatment for microplastics removal from sewage sludge
<b>Simone Schopf</b>	Effect of Low Energy Electron Beam Irradiation on Bacteria and Viruses in Liquids

Poster session

<b>Presenting author</b>	<b>Title</b>
<b>Andrzej Pawelec</b>	Plasma technology to remove NOx from off-gases
<b>Marcin Sudlitz</b>	Electron beam municipal sludge treatment
<b>Anna Bojanowska</b>	