

POSTER PRESENTATIONS

<i>Poster Session 1 – Tuesday, 16 September 2025</i>			
Poster No	Author	Affiliation	Poster Title
<u>T1-1</u>	S Bugeac	INCDTIM Cluj-Napoca	Operating a modular random packing testing plant for ¹⁸ O isotope separation via H ₂ O vacuum distillation
<u>T1-2</u>	F D Covaciu	INCDTIM Cluj-Napoca	Advanced profiling of pesticide residues in commercially available potato tubers by GC-FID
<u>T1-3</u>	G Cristea	INCDTIM Cluj-Napoca	Aries River: insights from isotopic fingerprints of water and sediments
<u>T1-4</u>	A Dehelean	INCDTIM Cluj-Napoca	The influence of beverage vessel on migration of potentially toxic elements (PTEs): health risk assessment
<u>T1-5</u>	I Feher	INCDTIM Cluj-Napoca	Surface river water evaluation based on ICP-MS content and chemometrics
<u>T1-6</u>	V Mirel	INCDTIM Cluj-Napoca	Isotopic and multielement characterization of bottled mineral waters on the Romanian market
<u>T1-7</u>	S Radu	INCDTIM Cluj-Napoca	Optimizing Separation Efficiency: Hydrophilicity analysis of random packing
<u>T1-8</u>	Z Ronen	Ben Gurion University, Israel	Metal-oxide nanocomposite biochar functionalized for grey water decontamination
<u>T1-9</u>	J-Zs Szucs-Balazs	INCDTIM Cluj-Napoca	Comparative efficiency analysis of molecular oxygen cryogenic distillation vs. water distillation for oxygen-18 separation
<u>T1-10</u>	C Voica	INCDTIM Cluj-Napoca	Ecological risk assessment of heavy metal pollution along Aries River
<u>T2-1</u>	M R Bacila	UBB Cluj-Napoca	In vivo and ex vivo effects of rat brain and tumor fixation in formalin evaluated by 11.75 T high field MR imaging, spectroscopy and relaxometry
<u>T2-2</u>	Zs Balint	INCDTIM Cluj-Napoca	A complementary theoretical study on 6-nitro BIPS spiropyran photo-switching mechanism
<u>T2-3</u>	P Bulieris	INCDTIM Cluj-Napoca	Comparative biochemical analysis of protein profile in marketable and non-marketable Romanian potato tubers
<u>T2-4</u>	I Cardan	INCDTIM Cluj-Napoca	Blue nanoplastics detection by SERRS: insights from molecules to single-nanoplastic particle detection
<u>T2-5</u>	V Chis	UBB Cluj-Napoca	Towards chemical accuracy in the excitation energies of O ₂ and O ₃ molecules
<u>T2-6</u>	A Colnita	INCDTIM Cluj-Napoca	Flexible and tunable nanoimprinted gratings covered with metallic thin films for ultrasensitive SERS detection
<u>T2-7</u>	D Cuibus	INCDTIM	Comparison of colloidal crystals formed

		Cluj-Napoca	through Stop&Go versus standard convective self-assembly
<u>T2-8</u>	H Y Dasagan	University of Cukurova, Turkey	Effects of hydrogels on beans (<i>Phaseolus vulgaris</i> L.) growing under salt stress
<u>T2-9</u>	A A Farcas	INCDTIM Cluj-Napoca	Advancing Gene Therapy: An AI-driven computational framework for optimizing polymer-based nanoplateforms in personalized medicine
<u>T2-10</u>	C G Floare	INCDTIM Cluj-Napoca	An exploration of human γ D-crystallin affinity for potential aggregation inhibitors
<u>T2-11</u>	C V Floare-Avram	INCDTIM Cluj-Napoca	QuEChERS combined with UHPLC-PDA for quantification of pesticide residues in potatoes
<u>T2-12</u>	A M M Gherman	INCDTIM Cluj-Napoca	A Neural Network Approach to Surface Enhanced Raman Spectroscopy Substrate Optimization
<u>T2-13</u>	L Janosi	INCDTIM Cluj-Napoca	Potential of mean force calculations highlight the energetics behind lignin derivatives' interactions with skin-like membrane
<u>T2-14</u>	K Kovacs	INCDTIM Cluj-Napoca	Exploit propagation-induced distortion of the laser pulse to increase efficiency of high-harmonic generation
<u>T2-15</u>	I Lung	INCDTIM Cluj-Napoca	New material based on hydrogel and fruit wastes for pollutants removal from contaminated water
<u>T2-16</u>	E Matei	INCDTIM Cluj-Napoca	Disrupting the aggregation propensity of cataract-associated P23T γ D-crystallin by vitamin C
<u>T2-17</u>	Z Moldovan	INCDTIM Cluj-Napoca	Determination of quaternary ammonium compounds by GC/MS methods
<u>T2-18</u>	Cs Molnar	INCDTIM Cluj-Napoca	Hidden Ingredients? Pesticide residue risk in frozen fruits and vegetables and fresh potatoes on the Romanian market
<u>T2-19</u>	C Morari	INCDTIM Cluj-Napoca	Computational investigation of chirality-dependent azo coupling on Au(111) surfaces via DFT and STM simulations
<u>T2-20</u>	F Nekvapil	INCDTIM Cluj-Napoca	Ultra-sensitive detection of astaxanthin by SERRS on AgFoN substrate
<u>T2-21</u>	A Simion	INCDTIM Cluj-Napoca	Polarization transfer efficiency in solid state NMR at spinning frequencies up to 150 kHz
<u>T2-22</u>	P Snetkov	ITMO University, Russia	Hyaluronic Acid as Biocompatible and Biodegradable Polymer Matrix for Ear, Nose and Throat Reconstructive Materials: In Vivo study
<u>T2-23</u>	M L Soran	INCDTIM Cluj-Napoca	Antifungal effects of Rheum Rhabarbarum extracts obtained by sonication
<u>T2-24</u>	D Stoia	UBB Cluj-Napoca	Tracking protein denaturation on gold nanoparticle surfaces: Insights into nano-bio interactions
<u>T2-25</u>	R Sturza	Technical University of Moldova	Application of Fourier Transform Infrared Spectroscopy for evaluating the quality of

			different triticale varieties from the Republic of Moldova
<u>T2-26</u>	A S Tatar	INCDTIM Cluj-Napoca	Gold nanourchins for bionanosensoristics: a microfluidic approach
<u>T2-27</u>	I Toth	INCDTIM Cluj-Napoca	Surface vs bulk sensitivity of plasmon resonances in nanoparticle ensembles
<u>T2-28</u>	Sz Toth	UBB Cluj-Napoca	Assessment of shape- and dose-dependent hepatotoxicity induced by gold nanoparticles in an in vivo model
<u>T2-29</u>	M Tudor	UBB Cluj-Napoca	Poly (Lactic-co-Glycolic Acid) nanoparticles encapsulating IR-783 fluorophore for NIR imaging and photothermal therapy
<u>T2-30</u>	I Turcu	INCDTIM Cluj-Napoca	The energetics of short Trp- and Arg-rich antimicrobial peptides at lipid-water interfaces
<u>T3-1</u>	E Bruj	INCDTIM Cluj-Napoca	Experimental validation of a two-pole permanent magnet synchronous generator for small wind turbines
<u>T3-2</u>	O Bruj	INCDTIM Cluj-Napoca	Phase change materials for an effective thermal management system of Li-Ion batteries
<u>T3-3</u>	L A Dina	ICMET Craiova	Impact of renewable energy injection on transport infrastructure: a technical and systemic analysis
<u>T3-4</u>	S Garabagiu	INCDTIM Cluj-Napoca	SnSe as a promising 2D material for thermoelectric devices
<u>T3-5</u>	R C Gavrea	INCDTIM Cluj-Napoca	TVZ-H as innovative catalyst used in degradation processes of polyolefin polymers
<u>T3-6</u>	T Murariu	INCDTIM Cluj-Napoca	Real-time single-photon pulse counting with low-cost microcontrollers
<u>T3-7</u>	I Nesterovschi	INCDTIM Cluj-Napoca	Enhancing supercapacitor performance with tungsten-doped molybdenum disulfide
<u>T3-8</u>	A D Oprea	INCDTIM Cluj-Napoca	Development and performance evaluation of Dye-Sensitized Solar Cells: material optimization and photovoltaic characterization
<u>T3-9</u>	M N Pop	INCDTIM Cluj-Napoca	Energy management for an environmental monitoring system relying on solar power
<u>T3-10</u>	S Rada	INCDTIM Cluj-Napoca	Metallic nanocomposites as substitute for cement in the preparing of mortars
<u>T3-11</u>	M Senila	ICIA Cluj-Napoca	Passive sampling for Cd determination in wastewaters using a new polymer inclusion membrane
<u>T3-12</u>	F Toadere	INCDTIM Cluj-Napoca	Restoration of the blurred image which is due to linear motion
<u>T3-13</u>	V Tosa	INCDTIM Cluj-Napoca	Generation of attosecond pulses in guided structures by mid-IR femtosecond pulses

<u>T3-14</u>	M Zagrai	INCDTIM Cluj-Napoca	Glass and glass-ceramics materials for high-temperature sensible energy storage
<i>Poster Session 2 – Wednesday, 17 September 2025</i>			
<u>T4-1</u>	A Balla	INCDTIM Cluj-Napoca	Sustainable valorization of spent coffee grounds: production and activation of high-performance biochar
<u>T4-2</u>	I A Brezestean	INCDTIM Cluj-Napoca	Development of a portable sensors-based biosensor for sensitive detection of cyanotoxins in freshwater sources
<u>T4-3</u>	L Buimaga-Iarinca	INCDTIM Cluj-Napoca	Structural and transport analysis of materials for superconducting qubits in Josephson junctions
<u>T4-4</u>	A Bunge	INCDTIM Cluj-Napoca	Heavy metal adsorption by waste-derived magnetic sorbents
<u>T4-5</u>	A M Chis	INCDTIM Cluj-Napoca	Antibiotics removal using materials based on biochar
<u>T4-6</u>	D Cisternino	University of Rome “Tor Vergata”, Italy	Green synthesis of fluorescent Carbon Dots by microwave-assisted facile route
<u>T4-7</u>	A Falamas	INCDTIM Cluj-Napoca	Controlling Surface-Enhanced Fluorescence via Spacer Layer Engineering on Nanostructured Films
<u>T4-8</u>	I-V Ganea	INCDTIM Cluj-Napoca	Green Chemistry in Action: Removing Dyes Using Waste-Based Materials
<u>T4-9</u>	O Grad	INCDTIM Cluj-Napoca	Towards Designing Antibacterial Materials Based on Cysteine
<u>T4-10</u>	S Gutoiu	INCDTIM Cluj-Napoca	Biocompatibility and Anticancer Effects of Manganese-Doped Copper Oxide Nanoplatelets in Cell Culture Models
<u>T4-11</u>	G Ispas	INCDTIM Cluj-Napoca	Conductive composite films based on polypyrrole suitable for various applications
<u>T4-12</u>	A M Kasza	INCDTIM Cluj-Napoca	New strategy to modify CuO-ZnO-Al ₂ O ₃ catalysts for the improved direct hydrogenation of CO ₂ to methanol
<u>T4-13</u>	C Leostean	INCDTIM Cluj-Napoca	Carbon-based structures decorated with W doped SnO ₂ nanoparticles for supercapacitor applications
<u>T4-14</u>	S Macavei	INCDTIM Cluj-Napoca	Enhancing the supercapacitive properties of SnO ₂ nanoparticles by doping with V ⁴⁺ ions
<u>T4-15</u>	L Magerusan	INCDTIM Cluj-Napoca	Instant coffee - unconventional exfoliation medium for the production of N/F co-doped graphenes applicable in the sulfamethazine detection
<u>T4-16</u>	D Marconi	INCDTIM Cluj-Napoca	3D flexible metal/semiconductor nanostructured surfaces fabricated by nanoimprint lithography and pulsed laser deposition techniques
<u>T4-17</u>	C Marcu	INCDTIM Cluj-Napoca	Utilization of modified spent coffee ground biochar for Cr(VI) adsorption from aqueous solutions

<u>T4-18</u>	K Maskaric	INCDTIM Cluj-Napoca	Manganese doped molybdenum sulfide nanoflowers for supercapacitor application
<u>T4-19</u>	L Mathe	INCDTIM Cluj-Napoca	Friedel oscillations in a two-dimensional electron gas and monolayer graphene with a non-Coulomb impurity potential
<u>T4-20</u>	A C Maxim	UBB Cluj-Napoca	Ultrasensitive, label-free biosensing using large-area plasmonic nanostructures fabricated via nanosphere lithography
<u>T4-21</u>	K Mellouk	University Badji Mokhtar, Algeria	Green synthesis of silver nanoparticles using Pistacia Lentiscus leaf extract and evaluation of their antibacterial activity
<u>T4-22</u>	P S Muresanu	UBB Cluj-Napoca	Sustainable waste-based materials for mining water treatment
<u>T4-23</u>	A Nan	INCDTIM Cluj-Napoca	Next-generation modified PVDF membranes for enhanced efficiency in dye removal using photocatalysis and adsorption techniques
<u>T4-24</u>	O Opris	INCDTIM Cluj-Napoca	Synthesis and characterization of graphene-metal oxide materials using plant extracts for the preliminary adsorptive removal of pesticides from aqueous solutions
<u>T4-25</u>	O Pana	INCDTIM Cluj-Napoca	Interfacial electron transfer between half-metals and transition metal dichalcogenides
<u>T4-26</u>	S Pintea	INCDTIM Cluj-Napoca	Tartrazine, ciprofloxacin and acetamiprid removal from aqueous solutions using modified mica surfaces as adsorbents
<u>T4-27</u>	L-M Piroas-Timbolmas	INCDTIM Cluj-Napoca	Systematic Hamiltonian construction of multi-Loop Fluxonium qubits
<u>T4-28</u>	F Pogacean	INCDTIM Cluj-Napoca	Electrochemical detection of catechol by linear voltammetry using a graphene modified electrode
<u>T4-29</u>	A Popa	INCDTIM Cluj-Napoca	Defective C doped ZnO with enhanced photocatalytic and supercapacitor performances
<u>T4-30</u>	S Pruneanu	INCDTIM Cluj-Napoca	Electrochemical strategy based on graphene-modified electrodes for enhanced ciprofloxacin sensing
<u>T4-31</u>	T Radu	INCDTIM Cluj-Napoca	Effect of synthesis method and metal ion type on the thermal conductivity of selected polymer complexes
<u>T4-32</u>	M C Rosu		TiO ₂ /g-C ₃ N ₄ photoactive composites
<u>T4-33</u>	M A (Taut) Stan	Technical University Cluj-Napoca	Bioinspired self-healing microcapsules based on crystalline hydroxyapatite for dental remineralization and repair
<u>T4-34</u>	M Stan	INCDTIM Cluj-Napoca	Synthesis of Calcium Phosphate-ZnO composites from natural wastes
<u>T4-35</u>	M Stefan	INCDTIM Cluj-Napoca	Photocatalytic properties of office paper waste derived activated carbon for efficient degradation of organic pollutants
<u>T4-36</u>	A Stegarescu	INCDTIM Cluj-Napoca	New materials based on biochar and metal oxides. Preliminary depollution tests

<u>T4-37</u>	R Sturza	Technical University of Moldova	Sorption capacity of phthalate residues on biochar obtained from apple waste and functionalized with metal oxides
<u>T4-38</u>	R C Suci	INCDTIM Cluj-Napoca	Influence of anatase / rutile proportion on the tribological performance of engine oils
<u>T4-39</u>	N Terenti	INCDTIM Cluj-Napoca	Optimization and scaling-up strategies of synthesis of poly(tartaric acid) for future industrial applications
<u>T4-40</u>	D Toloman	INCDTIM Cluj-Napoca	gC3N4 decorated with ZnO:Mn rods for enhanced photocatalytic performance
<u>T4-41</u>	A Urda	INCDTIM Cluj-Napoca	Gold-decorated titania nanotubes with graphene for visible light-mediated amoxicillin photodegradation
<u>T4-42</u>	A Vadan	UBB Cluj-Napoca	Study on the influence of hybrid gold-iron oxide nanoparticle shape on the in vivo hepatotoxicity
<u>T4-43</u>	A Varadi	INCDTIM Cluj-Napoca	Synthesis and characterization of nanocomposites based on GO/rGO and Li doped ZnO for supercapcitor application
<u>T4-44</u>	S Tripon	INCDTIM Cluj-Napoca	Studies on g-C ₃ N ₄ -TiO ₂ :Mn based nanocomposites with photocatalytic properties
<u>S-1</u>	E Bender	UBB Cluj-Napoca	Half-metallic compensated ferrimagnetism in the Co _{0.5} Mn _{1.5} Al half-Heusler compound: experimental and theoretical investigations
<u>S-2</u>	A Mateas	UBB Cluj-Napoca	Superconducting Thin Films Fabricated Using the Sol-Gel Spin Coating Method
<u>S-3</u>	R G Stoia	UBB Cluj-Napoca	Exploring Romanian archaeological ceramics via solid-state NMR spectroscopy
<u>S-4</u>	D Ursa	UBB Cluj-Napoca	Plasmonic Calligraphy: A portable multiplex nanosensor for ultrasensitive and multimodal biomolecule detection