

IFIN-HH Accelerator Complex

PAC meeting (23 - 24 November 2023)

1MV Summary

ID	Spokesperson	Title	Requested days or samples	Approved days
3	Ailincai Sorin-Cristian	14C DATING OF BRONZE AGE BURIALS FROM VĂCĂRENI, TULCEA COUNTY;	4	3
4	Bianca Preda-Bălănică	Building the absolute chronology of Bronze Age burial mounds in Moldova and Bukovina - future directions	2	3
9	Adrian Adamescu	THE MOUNDS 1 AND 8 FROM CUCA, JUD. GALAȚI;	1	3
11	Eugen Silviu TEODOR	At the beginning of the story: Băneasa Tumulus;	3	3
13	Zsuzsanna Kopeczny	The dating of the royal residence from Timișoara (13-14th centuries) ;	3	3
14	Dr. hab. Adina Boroneanț	Dating diet and environmental changes in the Mesolithic-Early Neolithic Iron Gates of the Danube	7	3
15	Cristian Eduard Ștefan	The absolute chronology of the final Chalcolithic in north-western Wallachia	2	3
16	Daniel Veres	Radiocarbon dating the youngest volcanic eruptions in East- Central Europe, Ciomadul lava dome complex, Romania	10	3
17	Maria Ilie	A high-resolution chronology of sedimentation in oxic and euxinic environments	2	6
18	Daniel Veres	Assessing the role of past climate change in the Bronze Age settlement shifts, Lower Mures area, Romania	10	3
19	Ciprian Astalos	Radiocarbon dating of Neolithic and Eneolithic sites in north-western Romania (continuation)	5	3
20	Maria-Laura Tîrlă	Climatic oscillations of MIS 3-1 recorded in fault deposits of past glacial environments (Southern Carpathians)	30	3
21	Florica Matau	New perspectives on the Cucuteni settlement patterns	1	3
22	Raluca Teodorescu	Radiocarbon data for old and newly found archaeological sites in Transylvania and Muntenia	120	3
23	Popa Ștefan	Radiocarbon dating of the osteological material from Igrîș Abby (Timiș County, Romania);	3	3

ID	Spokesperson	Title	Requested days or samples	Approved days
24	Diana-Măriuca Vornicu	The chronology of technological and socio-economic transformations, during Copper Age, in the Bahlui River basin	3	3
25	Vasile Opreș	The radiocarbon dating of Early Chalcolithic in the Bucharest area (ca. 5000-4500 BC)	3	3
26	Mircea Anghelinu	Timing of major cultural shifts during the Upper Palaeolithic of Eastern Romania	14	3
28	Mihai Rotea	Proposal for carbon - 14 dating of the prehistoric osteological samples from Igrîța Cave, Florești – Polus and Săndulești – La Stână sites;	3	3
29	Tiberiu Sava	Tree-ring 14C archives in the proximity of the Cernavoda NPP	6	6
31	Marian Cosac	The Middle Paleolithic from the area of the Romanian Carpathians	30	3
32	Maria-Emilia Țiplic	Radiocarbon dating of early medieval churches and their cemeteries from Călnic (jud. Alba), Miercurea Sibiului (jud. Sibiu) and Cîsnădie (jud. Sibiu)	3	3
35	Denis Negrea	Advanced characterization of some materials from the Romanian cultural heritage	3	3
37	Alexandru Petre	129I AMS measurements for determining its background in the environment in the territory of Romania	11	3
42	Andreea Dima	Lifestyle and diet offset in late Medieval monastic Oltenia: radiocarbon dating and stable isotopes analysis. A statistical approach.	3	3
44	Alfred Vespremeanu-Stroe	Progresses in the Lower Danube Valley geoarchaeology and the Southern Carpathians and Balkan Mountains alpine lakes geochronology	5	6
49	Diaconu Vasile	Chronological Highlights for The Bronze Age in the Moldavian Subcarpathians	2	3
53	Țiplic Ioan Marian	Using 14C dating for funerary samples. Cremation cemetery from Păuca-Biserica Ungurească archeological site (Sibiu County)	3	3
58	Nona Palincas	The 14C-dating of animal bones from the Late Bronze-Early Iron Age site at Popești, Co. Giurgiu, Southeastern Romania (ca. 1600-800 BC)	4	3
61	Daniela Pascal	Chronology of former glaciers in the Romanian Carpathians	9	3
63	Doru Pacesila	AMS survey of 210Pb for experiments in Astroparticle physics	12	3
64	Doru Pacesila	Determination of technetium-99 by low energy AMS	8	3
65	Doru Pacesila	Intercomparison of Iodine measurements by AMS blank and standard samples. 1MV and 3MV	4	3

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		Tandetron Accelerators		
67	Iuliana Stanciu	Advancing Environmental Radionuclide Analysis: Radiochemical separation and AMS measurement of plutonium and americium	4	3
70	Hila Tudor	Radiocarbon dating of the early medieval period from Târgsoru Vechi area, Prahova county (Continuation)	3	3
72	Hila Tudor	Radiocarbon dating of the migration period (5th -7th century AD) from Budureasca Valley, Prahova county	3	3
73	Bogdan Ciupercă	Radiocarbon dating of the Dacian fortress from Gura Vitioarei - Movila	3	3
81	CONSTANTIN PREOTEASA	Back in time. Cucuteni in context: Eastern Carpathian area in the mid-Vth Millenium BC	3	3

Total days approved 123

3MV Summary

ID	Spokesperson	Title	Requested days	Approved days
0	Mihai Straticiuc	Chetec-INFRA	10	10
46	Iqra Zamir	X-ray production cross sections of Cr, Mo, and W samples with low energy protons induced reactions.	10	0
47	Mihai Straticiuc	Transnational access for the European project ChETEC-INFRA	9	9
51	Alexandra Spiridon	Study of ion-ion fusion mechanisms at sub-barrier energies for nuclear astrophysics	7	7
79	Giuseppe Lorusso	$^{10}\text{B}(\alpha,n)^{13}\text{N}$ and $^{76}\text{Ge}(\alpha,n)^{79}\text{Se}$ cross section measurement for plasma diagnostics and astrophysics	11	11
33	Maria-Emilia Țiplic	PIXE and XRF analysis of waste metal from a medieval bell-casting pit discovered inside of the medieval church of Cisnădie (Sibiu county, Romania)	1	1
60	Mihai Radu	Biological effects of low energy accelerated protons in 2D cell cultures exposed in FLASH regimen	30	25
5	Valentin CRACIUN	Thickness and density measurements in carbon films	6	6
7	Valentin CRACIUN	Exploring fs-laser irradiation damage subthreshold behavior of dielectric mirrors via electrical measurements	6	3
8	Valentin CRACIUN	Radiation effects in SiC single crystal	9	0

ID	Spokesperson	Title	Requested days	Approved days
39	Banciu Marian Gabriel	Vanadium oxide layers for high frequency applications	4	4
74	Alin Velea	Comprehensive RBS Characterization of Machine-Learning-Predicted Chalcogenide Thin Films Synthesized by Combinatorial Magnetron Sputtering	12	12
76	Nistor Magdalena	RBS analysis of oxide thin films for energy applications	7	7
80	Radu-Florin ANDREI	Non stoichiometric composite oxide memristors - RBS assessment.	3	3
36	Gihan Velisa	Response of amorphous germanium to ionizing irradiation	16	16
41	Andrei Apostol	Study of Elemental Impurities present in Natural Uranium Samples for Nuclear Forensics and Safeguards Applications	5	5
56	Gihan Velisa	Ionization effects on the evolution of pre-existing defects in Ga ₂ O ₃	18	5
12	Valentin CRACIUN	Radiation effects in high entropy alloys thin films	9	0
38	Ionut Topala	Cosmic-Rays Effects on Carbonaceous Interstellar Dust Analogs Doped with Sulphur and Other Heteroatoms	8	8
40	Ke Jin	Ion irradiation effects in V-Nb-Ta-Ti refractory high-entropy alloys	10	10
66	Teodora Madgearu	p-B fusion cross section measured with ELISSA	14	14
68	Mircea LECHINTAN	Beam testing of the YAP:Ce scintillator detector prototype for Cryring @ESR	4	4

Total days approved 160

9MV Summary

ID	Spokesperson	Title	Requested days	Approved days
30	Adina Coman	The production cross section of the 4439-keV g-ray line in the $^{12}\text{C}(p,p'\text{g})^{12}\text{C}$ reaction	12	10
50	Alexandru Enciu	In-beam validation of HYDRA setup for hypernuclei studies	7	7
54	Yuki Abe	Diagnostic development for spectral analysis of GeV-scale multi-species ion beams in laser-driven experiments	5	5
55	Kalin Gladnishki	Magnetic moment of the 4+ isomeric state in ^{210}Po	7	7

ID	Spokesperson	Title	Requested days	Approved days
59	Radu-Emanuel Mihai	Extensive testing of Timepix detectors for particle discrimination in heavy ion reactions at the 9MV Tandem accelerator	6	6
75	Ciprian Mitu	Composite materials for space radiation protection-Phase 2	3	3
10	OLIVER WIELAND	Search for HOT PDR in neutron rich ^{66}Ni at finite temperature	20	18
27	Sorin Pascu	Study of the ^{150}Tb decay	14	14
34	Ananya Kundu	To measure the radiative n-capture cross section for ^{81}Kr using hybrid surrogate transfer reactions induced by weakly-bound nuclei	8	8
45	Polytimos Vasileiou	Investigations of collectivity and shape coexistence in ^{184}Os	16	14
48	Volker Werner	Spectroscopy of the neutron-rich ^{156}Sm in 2n transfer	15	14
52	Stefan Lalkovski	Lifetimes of the ^{107}Ag core-excited states	7	7
57	Kalin Gladnishki	Electromagnetic transition rates in the nucleus $^{132,134}\text{Ba}$	14	14
71	Thorsten Kroell	Shape coexistence in ^{52}Cr : lifetime of first excited 0^+ state	7	7
78	Asli KUSOGLU	Access to the Single-Particle Structure of the Low-Lying Electric Dipole Response of ^{62}Ni via One-Neutron (d, p γ) Transfer;	7	7
82	Tatsuya Furuno	Measurement of $^{14}\text{N}(^3\text{He}, t)^{14}\text{O}(1^-)$ Cross Section for Stellar $^{13}\text{N}(p, \gamma)$ Reaction Rate	2	2
83	Massimiliano Luciani	Search for 0^+ states in ^{42}Ca by 2n-transfer reactions	6	6
84	Giacomo Corbari	Pinning down the nature of 0^+ excitations in ^{114}Sn by 1n transfer	10	10
85	Bogdan Fornal	Lifetime measurements of $0^+, 2, 3, 4$ excitations in $^{116, 118, 120}\text{Sn}$ with one-neutron transfer reactions induced by a ^{13}C beam	20	18
86	Par-Anders Soderstrom	Study of gamma strength functions in ^{128}Te with complementary probes and methods	7	7
69	Cristina Petrone	Testing of a detection setup for identification of MNT products near 0°	5	4

Total days approved 188