

INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU FIZICA SI
INGINERIE NUCLEARA HORIA HULUBEI (HORIE HULUBEI NATIONAL
INSTITUTE OF R&D FOR PHYSICS AND NUCLEAR ENGINEERING), IFIN - HH,
BUCHAREST, ROMANIA

LIST OF PUBLICATIONS
2003 – 2008

a). Articles published in International Journals, Institute for Scientific Information (ISI),
Philadelphia, USA, Quoted

1. C.Ivan, P. Cassette, M. Sahagia "A new TDCR-LS counter using channel photomultiplier tubes" Appl. Radiat. Isot. 66, 6-7(2008) 1006 -1011
2. M.Sahagia, A.C.Razdolescu, C.Ivan, A.Luca " Assurance of the traceability chain for I-131 measurements" App. Radiat. Isot. 66, 4(2008)539-544
3. M.Sahagia, C.Ivan, E.L.Grigorescu, A.C.Razdolescu "Standardization of I-125 by the coincidence method and practical applications" 66, 6-7(2008)895-899
4. A.C.Razdolescu, P. Cassette, M.Sahagia "Measurements of a Fe-55 solution activity by LSC-TDCR method" Appl. Radiat. Isot. 66, 6-7(2008)750-755
5. P. Cassette, M.Sahagia, L. Grigorescu, M.C.Lepy, J.L.Piccolo, " Standardization of ^{222}Rn by LSC and comparison with α - and γ - spectrometry" Appl. Radiat. Isot .64,10-11(2006)1465-1470
6. M. Sahagia, "Standardization of $^{99\text{m}}\text{Tc}$ " Appl. Radiat. Isot 64,10-11(2006)1234-1237
7. A.C.Razdolescu, R.Broda, P.Cassette , B.Simpson "The IFIN-HH triple coincidence liquid scintillation counter" Appl. Radiat. Isot 64,10-11(2006)1510-1514
8. D.Stanga, I.Moreau, P.Cassette "Standardization of tritiated water by two improved methods" Appl. Radiat. Isot 64,10-11(2006)1203-1206
9. E.L.Grigorescu, A.C.Razdolescu, M.Sahagia, P.Cassette, "Calibration of tritium monitors using saturated vapour of tritiated water", Fusion Science and Technology, vol.48, nr.1 (2005)382 – 385
10. D.Stanga, I.Moreau, J.L.Piccolo, Ph. Cassette "A new tritium generator for activity measurements of the tritiated water by internal gas counting" Fusion Science and Technology, vol.48, nr.1 (2005)354-357
11. A.Stochioiu, M.Sahagia, I.Georgescu, F.Scarlat "Dysprosium doped CaSO_4 for high sensitivity X and gamma-rays detectors", Journal of optoelectronics and Advanced Materials, Vol. 7, No. 3(2005)1657 -1663
12. Z.Szucs, D.Dudu, C.Campeanu, A.Luca, E.Duta, M.Sahagia, "Production and chemical separation of ^{48}V ", J.Radioanalytical Nuclear Chemistry, Vol. 265. No.3 (2005)507 – 509
13. E.L.Grigorescu, "Mesure a bas niveau d'activite par coincidences beta-gamma" Bulletin du Bureau National de Metrologie, France, Vol.2003-2, no.123, pp.28 – 31
14. A.Luca, J.Morel "Influence of the background approximation methods on the analysis of gamma-rays spectra" Appl.Radiat.Isot. 60(2004)233 - 238
15. M.Sahagia, C.Ivan, E.L.Grigorescu, M.Capogni, P.de Felice, A.Fazio "Standardization of Zn-65 by the 4 pi PC-gamma efficiency extrapolation method" Appl. Radiat.Isot 60(2004)423 - 428
16. E.L.Grigorescu, C.D.Negut, A.Luca, A.C.Razdolescu, M.Tanase "Standardization of (Ge+Ga)-68" Appl.Radiat.Isot. 60(2004)429 - 432
17. A.C.Razdolescu, P.Cassette "Standardization of tritiated water and Tl-204 by TDCR liquid scintillation counting" Appl.Radiat.Isot. 60(2004)493 – 498

18. E.L.Grigorescu, P.de Felice, A.C.Razdolescu, A.Luca “Low-level gamma spectrometry using beta coincidence and Compton suppression” Appl.Radiat.Isot. 61(2004)191
19. A.Luca, M.N.Amiot, J.Morel “Determination of half-life and photon emission probabilities of Zn-65” Appl.Radiat.Isot.58 (2003) 607-610
- E.L.Grigorescu, “Mesure a bas niveau d'activite par coincidences beta-gamma” Bulletin du Bureau National de Metrologie, France, Vol.2003-2, no.123, pp.28 – 31

b) Papers presented at International Conferences, Workshops

- **2nd Workshop for Radioactive Decay Data Evaluators: Training sessions of the Decay Data Evaluation Project (DDEP2008), Bucharest, Romania, May 12-14, 2008**
Organizers: DDEP, IFIN-HH, Romania – Radionuclide Metrology Laboratory, in cooperation with IAEA- Nuclear Data Section

1. A. Luca”Evaluation of ²³⁶U Nuclear Decay Data”, CD –ROM containing all papers presented, distributed to the participants
2. M. Sahagia “Main Research Area and International Activities of the Radionuclide Metrology Laboratory from IFIN-HH”, CD –ROM containing all papers presented, distributed to the participants

- 1st International Proficiency Testing Conference, Sinaia, Romania, October 11-13 2007

1. M.Sahagia, A.C.Razdolescu, E.L.Grigorescu, A.Luca, C.Ivan “From international equivalence to national traceability in radionuclide metrology”, Proc. Vol. pp 253-261, ISBN 978-973-8132-65-8

- “NUCLEAR PT” Nuclear Proficiency Testing in Applications of Nuclear Techniques, Workshop, Bucharest October 6-9, 2007, Organizer IFIN-HH, Romania.

1. M. Woods, M.Sahagia “The International Framework for Maintaining Equivalence and Traceability in Radionuclide Metrology”, accepted at American Institute of Physics, Proceedings
- 2.M.Sahagia, M.Woods “The National Dissemination of International measurements” accepted at American Institute of Physics, Proceedings

- IRPA Regional Congress for Central and Eastern Europe, Brasov, Romania, 24-28 September, 2007

1. A.Luca “Evaluation of Nuclear Data and its Importance in Some Dose Rate Computations, CD-ROM, Abstract Book, paper T5 P-11.
2. A.Luca, A.Pantelica, L.Dinescu, E.Neacsu, I.Companis, M.Dragusin, S.Badea “Assessment of the Radioactivity Levels in Soil Around VVR-S Nuclear Reactor of IFIN-HH by Gamma-Ray Spectrometry” Abstract Book, paper T11 P-3.
3. E. L. Grigorescu, “Efficiency uncertainties in gamma spectrometry”, Abstract Book, paper T5 O-3

- Underground laboratories and measurement of low level activities – Workshop, Bucharest and Slanic-Prahova, Romania, April 25-27, 2007

1. A. Luca , M. Sahagia, A.C. Razdolescu, “Low Level Activity Measurements by using Gamma-ray Spectrometry, in the frame of the IAEA-CU-2006-09-CCRI (II)-S4 Supplementary Comparison”, CD-ROM, distributed to the participants

- 6-th Balkan Union Physics Conference, BPU6, Istanbul- Turkey, August 21-26, 2006
- 1. M. Sahagia, A.C. Razdolescu, A. Luca, C. Ivan "Importance of the primary radioactivity standard laboratory and implementation of its quality management", American Institute of Physics, AIP Conf. Proc.899 , pp.523-524, Print ISSN 0094-2434X, Online ISSN 1551-7616
- 2. A.Stochioiu, M.Sahagia, F.Mihai, I.Tudor, H.Lupescu " Application of Thermoluminescent Dosemeters for the Measurement of the Low Level Background" , AIP Conf. Proc.899 , pp.413-414, Print ISSN 0094-2434X, Online ISSN 1551-7616

- IAEA, Vienna, International Conference on the Safety and Security of Radioactive Sources: Control of Sources throughout their Life Cycle, Bordeaux, France, 27 June – 1 July, 2005

1. C.Ivan, M.Sahagia, A.Luca, E.L.Grigorescu " The experience of the Radioisotope Department of IFIN-HH, Romania, in production, testing, delivery, transport and evidence of radioactive sources" Proc. IAEA-CN-134, pp 164 – 168

- Neutron Measurements, Evaluations and Applications – 2, NEMEA-2,organised by EC Directorate-JRC, IRMM-Geel, Bucharest, Romania, 2004

- 1.M.Sahagia, A.C.Razdolescu, E.L.Grigorescu, A.Luca, C.Ivan, V.Lungu "The standardization of ¹⁷⁷Lu and its use in Nuclear Medicine" EUR Report EN 22136, Luxembourg, EC, 2005, ISBN 92-894-8618-X, pp.181-184
- 2.E.Nescu, A.Luca, V.Stefan, Z.Zorliu "Romanian experience on wet storage spent nuclear fuel at VVR-S research reactor of IFIN "Horia Hulubei " EUR Report EN 22136, Luxembourg, EC, 2005, ISBN 92-894-8618-X, pp.173-176

c) International Reports

Commissariat a l'Energie Atomique, France, Rapport CEA-R-6081, ISSN 0429-3460

1. M.M.Be.....A.Luca, M.Sahagia, A-M Razdolescu, L.Grigorescu....."Activity measurements and gamma emission intensities determination in the decay of ⁶⁵Zn"
2. International Atomic Energy Agency (IAEA) Technical Report Series 454 (TRS 454), 2006 , ISBN 92-0-105306-1, ISSN 0074-1914
« Quality Assurance for Radioactivity Measurements in Nuclear Medicine" pp.1-96,
Contributors to drafting and review: M.Dondi, C.P.Herbst, A.Iwahara, M.Morengo, S. Mather, J.P. Norenberg, V.Olsovcova, P.Oropesa Verdicia, P.Otiz-Lopez, L.Joseph, M.Ghafoori, J.A.Onto, N. Ramamoorthy, M.Sahagia, K.R. Shortt, S.Tastan, P.Vincze, M.J.Woods, B.E.Zimmerman
3. E.L.Grigorescu, "Mesure a bas niveau d'activite par coincidences beta-gamma" Bulletin du Bureau National de Metrologie, France, Vol.2003-2, no.123, pp.28 – 31

d) Articles published in Romanian Journals

NOTE: Starting with May 8, 2008, the "Romanian Journal of Physics" and the "Romanian Reports in Physics" became: Institute for Scientific Information (ISI), Philadelphia, USA, Quoted

1. A.Luca "Experimental determination of the uranium enrichment" Rom. J. Phys. 53, 1-2(2008)35-40
- 2.A.Stochioiu, M.Sahagia, S.Bercea, F.Mihai, I.Tudor "Use of passive dosemeters for the

mapping of the radiation level in areas involved in work with radioactive sources”: Rom. J.Phys. 53, 7-8(2008)00-00

3.M.Sahagia, A.C.Razdolescu “Quality assurance in nuclear medicine radioactivity measurements” Rom. Rep. in Phys. 59, 4(2007)1119-1126

4. M.Sahagia, A.C.Razdolescu, E.L.Grigorescu, A.Luca, C.Ivan , “The collaboration of the Radionuclide Metrology Laboratory from IFIN-HH, owner of the primary activity standard, with units involved in nuclear energy field” Rom. Rep. in Phys, 59, 3 (2007)787-793

5.M.Sahagia, A.C.Razdolescu, E.L.Grigorescu, A.Luca, C.Ivan ”Results Obtained by the Radionuclide Metrology Laboratory of IFIN-HH in International Comparisons, during the Period 2002-2004” Rom. J. Phys. 51,1-2(2006)21-26

6.A.C.Razdolescu, M.Sahagia, E.L.Grigorescu, “Comparative measurements of ^{63}Ni , ^{137}Cs , ^{241}Am ” Rom.J.Phys, 50,9-10(2005)957-962

7. E.L.Grigorescu, A.Luca, M.Sahagia, A.C.Razdolescu, C.Ivan “ 4π -gamma ionization chamber method for secondary standardization of radioactive solutions” Rom.Jour.Phys.48,1-4(2003) 91-95

8.Stochioiu, I.Georgescu, M.Sahagia “High sensitivity thermoluminescent system for monitoring of dwellings and public institutions” Science and Technology of Environmental Protection, 10,2 (2003) 85-90 , ISSN – 1221 – 6909

e) Papers accepted for presentation at international conferences

- IRPA12 Congress, Buenos Aires, Argentina, October 19-24, 2008

1. M. Sahagia, D. Stanga, A. C. Wätjen, A.Luca, L.Toro , C.Varlam, P.Cassette “Concept for a primary Romanian radon standard” ID 2398

2. M. Sahagia, A. C. Wätjen , C. Ivan “Progress in organizing national and international comparisons for nuclear medicine measurements” ID2377

- 5th International Conference on Radionuclide Metrology Low- Level – Radioactivity Measurement Techniques , ICRM-LLRMT’08, PTB -Braunschweig, Germany, September 22-26, 2008

1. A. Luca “The minimum detectable activity – A false friend of the low-level gamma-ray spectrometrist ?” ID 071

2. A.Luca, R.Margineanu, M.Sahagia, A.C. Wätjen “Activity measurements of the technically enhanced naturally occurring radionuclides (TENORM) in phosphogypsum” ID 072