

List of publications of Krasimir Mitev

Dated August 22, 2022

Chapters in monographies (3):

1. **Mitev K.**, Cassette P. (2021) Radioactive Noble Gas Detection and Measurement with Plastic Scintillators. In: Hamel M. (eds) Plastic Scintillators. Topics in Applied Physics, vol 140. Springer, Cham. pp 385-423, ISBN: 978-3-030-73487-9, https://doi.org/10.1007/978-3-030-73488-6_11.
2. **К. Митев**, Т. Бошкова, Р. Segur, J. Barthe, “Измервания, свързани с йонизиращи лъчения”, Глава 13 към Том 3 на “Метрология и измервателна техника” книга-справочник в три тома, под общата редакция на проф. д.т.н. Христо Радев, София, издателство Софттрейд, 2012, стр. 485-678, ISBN: 978-954-334-094-1.
3. D. Pressyanov, I. Dimitrova, **K. Mitev** S. Georgiev, Retrospective Radon Measurements: Techniques and Perspectives, Chapter 4 in “*Handbook of Radon: Properties, Applications and Health*”, editors: Zachary Li and Christopher Feng, 2012, Nova Science Publishers, Inc., ISBN: 978-1-62100-177-5

Articles in international peer-reviewed journals (55):

1. V. Todorov, Ch. Dutsov, P. Cassette, **K. Mitev**, “*Effects of the photocathode non-uniformity on radon measurements by plastic scintillation spectrometry*”, Journal of Radioanalytical and Nuclear Chemistry, *in press*, <https://doi.org/10.1007/s10967-022-08362-6>.
2. B. Sabot, Ch. Dutsov, P. Cassette, **K. Mitev**, “*Performance of portable TDCR systems developed at LNE-LNHB*”, Nuclear Instruments and Methods in Physics Research, section A, **1034 (2022) 166721** <https://doi.org/10.1016/j.nima.2022.166721>
3. Ch. Dutsov, B. Sabot, P. Cassette, **K. Mitev**, “*Significance of the corrections for accidental coincidences in liquid scintillation counting measurements*”, Journal of Radioanalytical and Nuclear Chemistry, *in press*, <https://doi.org/10.1007/s10967-022-08316-y>.
4. T. Turtiainen, **K. Mitev**, R. Dehqanzada, O. Holmgren, S. Georgiev, “*Testing of thoron cross-interference of continuous radon measuring instruments*”, Journal of the European Radon Association, **2022, 3: 7694** <http://dx.doi.org/10.35815/radon.v3.7694>
5. **K. Mitev**, S. Georgiev, B. Sabot, “*Approaches for reduction of the temperature bias on radon detectors packed in anti-thoron polymer membranes*”, Applied Radiation and Isotopes, **177 (2021) 109915**
6. Ch. Dutsov, B. Sabot, P. Cassette, **K. Mitev**, “*Measurement of the half-life of excited nuclear states using liquid scintillation counting*”, Applied Radiation and Isotopes, **176 (2021) 109845**
7. **K. Mitev**, Ch. Dutsov, P. Cassette, B. Sabot, “*Time-domain based evaluation of detection efficiency in liquid scintillation counting*”, Scientific Reports, **11 (2021) 12424**.

8. M. Hamel, B. Sabot, Ch. Dutsov, G. H.V. Bertrand, **K. Mitev**, “*Tuning the decay time of liquid scintillators*”, Journal of Luminescence, **235 (2021) 118021**
<https://doi.org/10.1016/j.jlumin.2021.118021>
9. Ch. Dutsov, P. Cassette, **K. Mitev**, B. Sabot, “*In quest of the optimal coincidence resolving time in TDCR LSC*”, Nuclear Instruments and Methods in Physics Research, section A, **987 (2021) 164846** <https://doi.org/10.1016/j.nima.2020.164846>
10. **K. Mitev**, P. Cassette, D. Pressyanov, S. Georgiev, Ch. Dutsov, N. Michielsen, B. Sabot, “*Methods for the experimental study of ^{220}Rn homogeneity in calibration chambers*”, Applied Radiation and Isotopes, **165 (2020) 109259** <https://doi.org/10.1016/j.apradiso.2020.109259>
11. Ch. Dutsov, P. Cassette, B. Sabot, **K. Mitev**, “*Evaluation of the accidental coincidence counting rates in TDCR counting*”, Nuclear Instruments and Methods in Physics Research, section A, **977 (2020) 164292** <https://doi.org/10.1016/j.nima.2020.164292>
12. P. Cassette, A. Arinc, M. Capogni, P. De Felice, C. Dutsov, R. Galea, E. Garcia-Toraño, K. Kossert, J. Liang, **K. Mitev**, O. Nähle, Y. Nedjadi, P. Oropesa Verdecia, M. Takács and T. Ziemek, “*Results of the CCRI(II)-K2. H-3 key comparison 2018: measurement of the activity concentration of a tritiated-water source*”, Metrologia, **57 (2020) 06004**
<https://doi.org/10.1088/0026-1394/57/1A/06004>
13. Ch. Dutsov, **K. Mitev**, P. Cassette, V. Jordanov, “*Study of two different coincidence counting algorithms in TDCR measurements*”, Applied Radiation and Isotopes, **154 (2019) 108895**
<https://doi.org/10.1016/j.apradiso.2019.108895>
14. S. Georgiev, **K. Mitev**, Ch. Dutsov, T. Boshkova, I. Dimitrova, “*Partition Coefficients and Diffusion Lengths of ^{222}Rn in Some Polymers at Different Temperatures*”, International Journal of Environmental Research and Public Health, **16 (2019) 4523**, doi:10.3390/ijerph16224523
15. D. Pressyanov, L.S. Q. Poncela, S. Georgiev, I. Dimitrova, **K. Mitev**, C. Sainz, I. Fuente, D. Rabago “*Testing and Calibration of CDs as Radon Detectors at Highly Variable Radon Concentrations and Temperatures*”, International Journal of Environmental Research and Public Health, **16(17) (2019) 3038**, <https://doi.org/10.3390/ijerph16173038>
16. R. Merín, A. Tarancón, K. Mitev, S. Georgiev, Ch. Dutsov, H. Bagán, J.F. García, “*Evaluation of synthesis conditions for plastic scintillation foils used to measure alpha- and beta-emitting radionuclides*”, Journal of Radioanalytical and Nuclear Chemistry, **319 (2019) 135 - 145**.
17. V. Jordanov, P. Cassette, Ch. Dutsov, **K. Mitev**, “*Development and applications of a miniature TDCR acquisition system for in-situ radionuclide metrology*”, Nuclear Instruments and Methods in Physics Research, section A, **954 (2020) 161202**.
18. **K. Mitev**, Ch. Dutsov, S. Georgiev, T. Boshkova, D. Pressyanov, “*Unperturbed, high spatial resolution measurement of Radon-222 in soil-gas depth profile*”, Journal of environmental radioactivity, **196 (2019) 253-258**.
19. **K. Mitev**, S. Georgiev, I. Dimitrova, D. Pressyanov, “*Radon-222 in soil-gas measurements by compact disks. Comparison to diffusion chamber measurements*”, Radiation Protection Dosimetry, **181 No 1 (2018) 38-41**.

20. **K. Mitev**, P. Cassette, I. Tartès, S. Georgiev, I. Dimitrova, D. Pressyanov, “*Diffusion lengths and partition coefficients of ^{131m}Xe and ^{85}Kr in Makrofol N and Makrofol DE polycarbonates*”, Applied Radiation and Isotopes, **134** (2018) 269-274
21. D. Pressyanov, I. Dimitrova, **K. Mitev**, S. Georgiev, D. Dimitrov, “*Identifying radon priority areas and dwellings with radon exceedances in Bulgaria using stored CD/DVDs*”, Journal of Environmental Radioactivity, **196** (2019) 274-280.
22. **K. Mitev**, P. Cassette, V. Jordanov, H. R. Liu, Ch. Dutsov, “*Design and performance of a miniature TDCR counting system*”, Journal of Radioanalytical and Nuclear Chemistry, **314** (2017) 583 - 589.
23. E. Pelay, A. Tarancón, **K. Mitev**, Ch. Dutsov, S. Georgiev, L. Tsankov, J. F. García, “*Synthesis and characterisation of scintillating microspheres made of polystyrene/polycarbonate for ^{222}Rn measurements*”, Journal of Radioanalytical and Nuclear Chemistry, **314** (2017) 637 - 649.
24. **K. Mitev**, Ch. Dutsov, S. Georgiev, L. Tsankov T. Boshkova, “*Study of ^{222}Rn Absorption and Detection Properties of EJ-212 and BC-400 Plastic Scintillators*”, IEEE Transactions on Nuclear Science, **64** No. 6 (2017) 1592 - 1598.
25. D. Pressyanov, **K. Mitev**, S. Georgiev, I. Dimitrova, J. Kolev “*Laboratory facility to create reference radon + thoron atmosphere under dynamic exposure conditions*”, Journal of Environmental Radioactivity, **166** (2017) 181 – 187.
26. **K. Mitev**, S. Georgiev, I. Dimitrova, D. Pressyanov, “*Application of scintillation counting using polycarbonates to radon measurements*”, Radiation Measurements, **92** (2016) 32 - 38.
27. **K. Mitev**, I. Dimitrova, A. Tarancón, D. Pressyanov, L. Tsankov, T. Boshkova, S. Georgiev, R. Sekalova, J. F. García, “*Pilot Study of the Application of Plastic Scintillation Microspheres to Rn-222 Detection and Measurement*”, IEEE Transactions on Nuclear Science, **63** No. 2 (2016) 1209 - 1216.
28. **K. Mitev**, “*Measurement of ^{222}Rn by absorption in plastic scintillators and alpha/beta pulse shape discrimination*”, Applied Radiation and Isotopes, **110** (2016) 236-243.
29. S. Georgiev, I. Dimitrova, D. Pressyanov, **K. Mitev**, “*Retrospective Rn-220 Measurements by Compact Discs*”, IEEE Transactions on Nuclear Science, **63** No. 1 (2016) 333 – 340.
30. I. Dimitrova, S. Georgiev, D. Pressyanov, B. Sabot, N. Michielsen, S. Bondiguel, **K. Mitev**, “*Influence of the type of CD case on the track density distribution in CDs exposed to thoron*”, Applied Radiation and Isotopes, **109** (2016) 393 - 396.
31. T. Boshkova, **K. Mitev**, “*Metrological tests of a 200 L calibration source for HPGE detector systems for assay of radioactive waste drums*”, Applied Radiation and Isotopes, **109** (2016) 114 - 117.
32. **K. Mitev**, P. Cassette, S. Georgiev, I. Dimitrova, B. Sabot, T. Boshkova, I. Tartès, D. Pressyanov, “*Determination of ^{222}Rn absorption properties of polycarbonate foils by liquid scintillation counting. Application to ^{222}Rn measurements*”, Applied Radiation and Isotopes, **109** (2016) 270 - 275.

33. D. Pressyanov, **K. Mitev**, S. Georgiev, I. Dimitrova, “*Optimization of etching conditions of CDs/DVDs used as detectors for ^{222}Rn* ”, Radiation Measurements, **83** (2015) 36-40.
34. **K. Mitev**, S. Georgiev, D. Pressyanov, I. Dimitrova, V. Zhivkova, T. Boshkova, “*A high-sensitivity method for the measurement of ^{222}Rn based on liquid scintillation counting of polycarbonate powder*”, Radiation Protection Dosimetry, **160** (2014) 188-191.
35. **K. Mitev**, V. Zhivkova, D. Pressyanov, S. Georgiev, I. Dimitrova, G. Gerganov, T. Boshkova, “*Liquid scintillation counting of polycarbonates: A sensitive technique for measurement of activity concentration of some radioactive noble gases*”, Applied Radiation and Isotopes, **93** (2014) 87-95.
36. D. Pressyanov, E. Foerster, S. Georgiev, I. Dimitrova, **K. Mitev**, “*Traceability of CDs/DVDs used as retrospective ^{222}Rn detectors to reference STAR laboratory*”, Radiation Measurements, **59** (2013) 165-171.
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37. **K. Mitev**, G. Gerganov, A. Kirov, C. R. Schmidtlein, Y. Madzhunkov, I. Kawrakow, “*Influence of Photon Energy Cuts on PET Monte Carlo Simulation Results*”, Medical Physics, Vol. 39, No 7, July 2012, pp. 4175-4186.
38. D. Pressyanov, I. Dimitrova, S. Georgiev, **K. Mitev**, “*Pilot experiments on retrospective thoron measurements by CDs/DVDs*”, Radiation Measurements, **50** (2013) 218-222.
39. D. Pressyanov, S. Georgiev, I. Dimitrova, **K. Mitev**, “*Experimental study of the response of radon track detectors with solid absorbers as radiators*”, Radiation Measurements, **50** (2013) 141-144.
40. **K. Mitev**, I. Dimitrova, V. Zhivkova, S. Georgiev, G. Gerganov, D. Pressyanov, T. Boshkova, “*Measurement of Rn-222 in water by absorption in polycarbonates and liquid scintillation counting*”, Nuclear Instruments and Methods in Physics Research, section A, **677** (2012) 31-40.
41. S. Georgiev, **K. Mitev**, D. Pressyanov, I. Dimitrova, T. Boshkova, “*Numerical modelling of the activity concentration measurements of beta-radioactive noble gases by absorption in polycarbonates and external beta-counting*”, Radiation Measurements, **47** (2012) 303-310.
42. S. Akkoyun, ..., **K. Mitev**, ..., et. al., “*AGATA – Advanced Gamma Tracking Array*”, Nuclear Instruments and Methods in Physics Research, section A, **668** (2012) 26-58.
43. D. Pressyanov, S. Georgiev, I. Dimitrova, **K. Mitev**, T. Boshkova, “*Determination of the diffusion coefficient and solubility of radon in plastics*”, Radiation Protection Dosimetry, Volume 145, Issue 2-3, (2011) 123-126.
44. D. Pressyanov, **K. Mitev**, I. Dimitrova, S. Georgiev, “*Solubility of krypton, xenon and radon in polycarbonates. Application for measurement of their radioactive isotopes*”, Nuclear Instruments and Methods in Physics Research, section A, **629** (2011) 323-328.
45. I. Dimitrova, **K. Mitev**, D. Pressyanov, S. Georgiev, T. Boshkova, “*Measurement of ^{222}Rn and ^{226}Ra in water by absorption of radon in polycarbonates and etching alpha-tracks*”, Radiation Measurements, **46** (2011) 119-126.

46. D. Pressyanov, **K. Mitev**, S. Georgiev, I. Dimitrova, “*Radon mapping by retrospective measurements – an approach based on CDs/DVDs*”, Journal of Environmental Radioactivity, **101** (2010) 821 – 825.
47. **K. Mitev**, Y. Madzhunkov, G. Gerganov, I. Dimitrova, S. Georgiev, D. Pressyanov, “*Automatic counting of electrochemically etched tracks in compact discs. Application to retrospective measurements of Rn-222*”, IEEE Transactions on Nuclear Science, **57 No. 1** (2010) 300 – 308.
48. **K. Mitev**, D. Pressyanov, I. Dimitrova, S. Georgiev, T. Boshkova, V. Zhivkova, “*Measurement of krypton-85 in water by absorption in polycarbonates*”, Nuclear Instruments and Methods in Physics Research, section A, **603** (2009) 491-494.
49. D. Pressyanov, **K. Mitev**, S. Georgiev, I. Dimitrova, “*Sorption and desorption of radioactive noble gases in polycarbonates*”, Nuclear Instruments and Methods in Physics Research, section A, **598** (2009) 620-627.
50. A. Alkaa, **K. Mitev**, P. Ségur, “*A Fast Technique for Monte Carlo Simulation of the Process of Gas Multiplication in Cylindrical Proportional Counters*”, Nuclear Instruments and Methods in Physics Research, section A, **580** (2007) 161-164
51. D. Pressyanov, I. Dimitrova, S. Georgiev, E. Hristova, **K. Mitev**, “*Measurement of Radon-222 in water by absorption in Makrofol*”, Nuclear Instruments and Methods in Physics Research, section A, **574** (2007) 202-204.
52. **K. Mitev**, P. Ségur, A. Alkaa, M.C. Bordage, C. Furstoss, C. Khamphan, L.de Nardo, V. Conte, P. Colautti, “*Study of non equilibrium electron avalanches, application to proportional counters*”, Nuclear Instruments and Methods in Physics Research, section A, **538** (2005) 672-685.
53. L.Tsankov, D. Pressyanov, **K. Mitev**, S. Georgiev, I. Dimitrova, “*Automatic counting of chemically etched tracks by means of computer scanner*”, Radiation Measurements, **39** (2005) 557-559.
54. D. Pressyanov, **K. Mitev**, V. Stefanov, “*Measurement of ^{85}Kr and ^{133}Xe in air by absorption in Makrofol*”, Nuclear Instruments and Methods in Physics Research, Section A, **527** (2004) 657-659.
55. D. Stanga, J.L. Picolo, N. Coursol, **K. Mitev**, I. Moreau, “*Analytical calculations of counting losses in internal gas proportional counting*”, Applied Radiation and Isotopes, **56** (2002) 231-236

Abstracts and publications in other journals (9):

1. **K. Mitev**, Ch. Dutsov, “Development of a TDCR counting system for absolute activity measurements at the Faculty of Physics, Sofia University “St. Kliment Ohridski”, Annual of Sofia University “St. Kliment Ohridski”, Faculty of Physics, Jubilee edition, 2018, pp 73-84.
2. **K. Mitev**, G. Gerganov, I. Dimitrova, I. Kawrakow, E. Piperkova, “A new tool for computer aided diagnosis in myocardial perfusion SPECT imaging” **European Journal of Nuclear Medicine & Molecular Imaging**, vol. 38., Supplement 2, October 2011, pp. S267 (abstract).

3. **K. Mitev**, G. Gerganov, I. Kawrakow, “New Algorithm for Identification of Differences Between Noisy Medical Images” **Medical Physics**, vol. 38. No. 6, June 2011, pp.3421 (abstract).
4. H. Kang, C.R. Schmidtlein, **K. Mitev**, G. Gerganov, J. Madzhunkov, J.L. Humm, H.I. Almos, A.S. Kirov, “Monte Carlo Based Evaluation of 3D PET Quantification Inaccuracy for the Lung”, **Medical Physics**, vol. 36. No. 6, June 2009, pp.2468-2469 (abstract).
5. I. Kawrakow, **K. Mitev**, G. Gerganov, J. Madzhunkov, A. Kirov, “Using EGSnrc Within GATE to Improve the Efficiency of Positron Emission Tomography Simulations”, **Medical Physics**, vol. 35. No. 6, June 2008, p. 2667 (abstract).
6. I. Kawrakow, **K. Mitev**, G. Gerganov, J. Madzhunkov, A. Kirov, “Efficient photon transport in positron emission tomography simulations using VMC⁺⁺”, **Journal of Physics: Conference Series** 102 (2008) 012014.
7. I. Dimitrova, **K. Mitev**, D. Pressyanov, S. Georgiev, “Desorption of ²²²Rn from Polycarbonate Samples”, BgNS TRANSACTIONS, vol. 12, No 1, October, 2008, pp. 33-38.
8. S. Georgiev, D. Pressyanov, **K. Mitev**, I. Dimitrova, “Calibration of Diffusion Chambers for Measuring ²²²Rn in Air”, BgNS TRANSACTIONS, vol. 12, No 1, October 2008, pp. 3-6.
9. И. Борисова, **К. Митев**, М. Маринов, “Вариант на занятие за ЗИП”, списание “Физика”, бр. 2, 1995г.

Full text papers in international conference proceedings (31):

1. **K. Mitev**, V. Jordanov, M. Hamel, Ch. Dutsov, S. Georgiev, P. Cassette (2018) “Development of a portable scintillation spectrometer with alpha-/beta- and neutron-/gamma-pulse-shape discrimination capabilities”, 2018 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2018 IEEE, (2018); DOI: 10.1109/NSSMIC.2018.8824692
2. **K. Mitev**, Ch. Dutsov, L. Tsankov, S. Georgiev, M. Mitev, N. Markov, T. Todorov (2018) “Design and Field Tests of Scintillation Spectrometer for Continuous Radon in Soil-gas Monitoring”, 2018 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2018 IEEE, (2018); DOI: [10.1109/NSSMIC.2018.8824288](https://doi.org/10.1109/NSSMIC.2018.8824288)
3. Ch. Dutsov, **K. Mitev**, P. Cassette (2018) “Characterization of filters for efficiency variation in TDCR”, 2018 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2018 IEEE, (2018); DOI: 10.1109/NSSMIC.2018.8824752
4. **K. Mitev**, L. Tsankov, M. Mitev, Ch. Dutsov, S. Georgiev, S. Kolev, N. Markov, T. Todorov, (2017) “Design and Tests of a Detector for ²²²Rn in Soil-gas Measurements based on ²²²Rn Absorbing Scintillating Polymers”, Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2017 IEEE, (2017); DOI: 10.1109/NSSMIC.2017.8532818
5. **K. Mitev**, (2015), “Thoron (²²⁰Rn) detection with plastic scintillators”, Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2015 IEEE; DOI: 10.1109/NSSMIC.2015.7581748

6. D. Pressyanov, P. Kovacheva, **K. Mitev**, S. Georgiev, (2015) “*Common organics as samples to measure radioxenon after nuclear emergency*”, Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2015 IEEE, DOI: 10.1109/NSSMIC.2015.7581758

7. D. Pressyanov, I. Dimitrova, S. Georgiev, E. Hristova, K. Mitev, (2014), Novel approaches in radon and thoron dosimetry, AIP Conference Proceedings 1607, 24 (2014); DOI: 10.1063/1.4890699

8. **K. Mitev**, (2013) “*On the Possibility to Detect Some Radioactive Noble Gases by Cherenkov Counting of Polycarbonates*”, N28-1, 2013 IEEE Nuclear Science Symposium Conference Record, DOI: 10.1109/NSSMIC.2013.6829495

9. I. Dimitrova, **K. Mitev**, T. Boshkova, S. Georgiev (2013), “*An Approach to Study the Distribution of Radon in Natural Materials Containing Radium*”, NPO1-180, 2013 IEEE Nuclear Science Symposium Conference Record, DOI: 10.1109/NSSMIC.2013.6829634

10. G. Gerganov, **K. Mitev** (2013), “*Quantitative Comparison of Liquid Scintillation Counting Spectra*”, NPO2-143, 2013 IEEE Nuclear Science Symposium Conference Record, DOI: 10.1109/NSSMIC.2013.6829713

11. G. Gerganov, A. Papucharov, I. Kawrakow, **K. Mitev** (2013), “*Portal Image Registration Using the Phase Correlation Method*”, M21-17, 2013 IEEE Medical Imaging Conference, DOI: 10.1109/NSSMIC.2013.6829306

12. **K. Mitev**, G. Gerganov, I. Kawrakow, (2012), “*A Synthetic Image Phantom for Evaluation of the Performance of Numerical Algorithms for Comparison of Noisy Medical Image*”, M22-54, 2012 IEEE Nuclear Science Symposium Conference Record, pp. 3989 – 3993, DOI: 10.1109/NSSMIC.2012.6551914

13. G. Gerganov, V. Kuvandjiev, I. Dimitrova, I. Kawrakow, **K. Mitev**, (2012), “*NUMERICS: An Online Image Registration and Image Comparison Platform*”, M22-37, 2012 IEEE Nuclear Science Symposium Conference Record, pp. 3930 – 3935, DOI: 10.1109/NSSMIC.2012.6551901

14. **K. Mitev**, T. Boshkova, G. Gerganov, C. Andreev, N. Kirilova, E. Stoyanova, V. Zhivkova, M. Iliev, G. Neshovska, G. Georgiev, (2012), “*Determination of Scaling Factors for Low and Intermediate Level Dry Radioactive Waste from Kozloduy Nuclear Power Plant*”, N1-21, 2012 IEEE Nuclear Science Symposium Conference Record, pp. 66 – 73, DOI: 10.1109/NSSMIC.2012.6551062

15. S. Georgiev, I. Dimitrova, D. Pressyanov, **K. Mitev**, (2012), “*Retrospective Rn-220 Measurements by Compact Discs*”, N1-112, 2012 IEEE Nuclear Science Symposium Conference Record, pp. 250 – 252, DOI: 10.1109/NSSMIC.2012.6551102

16. I. Dimitrova, S. Georgiev, **K. Mitev**, D. Pressyanov, (2012), “*Influence of the Water Temperature on Measurements of Rn-222 in Water by Liquid Scintillation Counting of Polycarbonates*”, N39-005, 2012 IEEE Nuclear Science Symposium Conference Record, pp. 1941-1944. DOI: 10.1109/NSSMIC.2012.6551448

17. **K. Mitev**, A. Korichi, T.M. H. Ha, A. P. Minkova (2011), “*Monte Carlo Simulations and Experimental Study of a Symmetric AGATA Prototype Detector*”, NP3.M-70, 2011 IEEE Nuclear Science Symposium Conference Record, pp. 1156-1158.
18. S. Georgiev, **K. Mitev**, D. Pressyanov, T. Boshkova, I. Dimitrova (2011). “*Measurement of Xe-133 in Air by Absorption in Polycarbonates - Detection Limits and Potential Applications*,” NP1.M-85, 2011 IEEE Nuclear Science Symposium Conference Record, pp. 290 – 292.
19. **K. Mitev**, R. Tsibranski, V. Avramov, B. Stoenelova, I. Dimitrova, T. Boshkova, S. Georgiev (2011). “*Measurements of ^{131}I , ^{134}Cs and ^{137}Cs in environmental samples in Bulgaria after the Fukushima accident*,” NP3.M-118, 2011 IEEE Nuclear Science Symposium Conference Record, pp. 1256-1260.
20. I. Dimitrova, **K. Mitev**, V. Zhivkova, S. Georgiev, G. Gerganov, D. Pressyanov (2011). “*Measurements of Rn-222 in Water by Liquid Scintillation Counting of Polycarbonates*,” NP1.M-3, 2011 IEEE Nuclear Science Symposium Conference Record, pp. 183- 187.
21. G. Gerganov, **K. Mitev**, I. Kawrakow (2011), “*Iterative Non-Rigid Image Registration Based on Moebius Transformations*”, MIC12.M-89, 2011 IEEE Nuclear Science Symposium Conference Record, pp. 2973-2975.
22. G. Gerganov, **K. Mitev**, C. R. Schmidlein, H. Kang, A. S. Kirov, I. Kawrakow (2010), “*Detecting Visual Differences in Reconstructed Images Using a Region-Based Test for Outliers*”, M09-381, 2010 IEEE Nuclear Science Symposium Conference Record, pp. 2346-2351.
23. **K. Mitev**, T. Boshkova, L. Minev, (2010), “*Design, Production, Metrological Tests and Certification of a Large-volume (200L) Calibration Source for Gamma-spectrometry Systems for Assay of Radioactive Waste Drums*”, N18-227, 2010 IEEE Nuclear Science Symposium Conference Record, pp. 464-471.
24. D. Pressyanov, I. Dimitrova, S. Georgiev, **K. Mitev**, (2010), “*Radon survey based on home stored CDs/DVDs*”, **Proceedings** of Third European IRPA Congress 2010 June 14–18, Helsinki, Finland, P03-14, pp 1-10.
25. **K. Mitev**, A. Kirov, Y. Madzhunkov, G. Gerganov, I. Kawrakow. (2009), “*Study of the influence of photon energy cuts on the PET simulation results*”, M05-343, 2009 IEEE Nuclear Science Symposium Conference Record, 2873-2876.
26. **K. Mitev**, D. Pressyanov, V. Zhivkova. (2009), “*New sensitive technique for measurement of Krypton-85 based on absorption in polycarbonates and liquid scintillation counting*”, N25-53, 2009 IEEE Nuclear Science Symposium Conference Record, 1363 – 1367.
27. G. Gerganov, H. Kang, Y. Madzhunkov, **K. Mitev**, C. R. Schmidlein, I. Kawrakow, A. Kirov. (2009), “*A Monte Carlo simulation of PET of a real patient with GATE*”, **Proceedings** of the Fifth International Summer School on Nuclear Physics Methods and Accelerators in Biology and Medicine “Nuclear Physics Methods and Accelerators in Biology and Medicine”, Bratislava (Slovakia), 06–15 July 2009, AIP Conference Proceedings Volume 1204, ISBN: 978-0-7354-0741-1, pp. 219-220.
28. Y. Madzhunkov, C. R. Schmidlein, G. Gerganov, **K. Mitev**, I. Kawrakow, A. Kirov. (2009), “*A GATE simulation of a GE Discovery LS PET Scanner with NEMA image quality phantom*”, **Proceedings** of the Fifth International Summer School on Nuclear Physics Methods and

Accelerators in Biology and Medicine “Nuclear Physics Methods and Accelerators in Biology and Medicine”, Bratislava (Slovakia), 06–15 July 2009, AIP Conference Proceedings Volume 1204, ISBN: 978-0-7354-0741-1, pp. 221-223.

29. **K. Mitev**, Y. Madzhunkov, G. Gerganov, I. Dimitrova, S. Georgiev, and D. Pressyanov. (2008), "*An Algorithm for Automatic Counting of Electrochemically Etched Tracks in Compact Discs Used for Retrospective Measurements of Rn-222*", N02-87, 2008 IEEE Nuclear Science Symposium Conference Record, vols. 1-9, pp. 102-107.

30. Pressyanov D., Dimitrova I., Georgiev S., **Mitev K.** (2008), "*Measurement of ^{222}Rn by absorption in polycarbonates - research and practice*", Presented at 2008 AARST International Symposium, September 2008, Las Vegas, NV, published in the proceedings of the symposium. Available online: http://www.aarst.org/proceedings/2008/01-Measurement_of-222Rn_by_Absorption_in_polycarbonates.pdf

31. **K.Mitev**, P. Ségur, A.Alkaa, (2003) , "*Modelisation numérique du transport des electrons dans un compteur proportionnel cylindrique, influence de la rétro diffusion aux parois, couplage du code CPAT avec le code PENELOPE*", invited talk on the “Journées Scientifique Francophones: Codes de calcul en radioprotection, radiophysique et dosimétrie“, 2-3 octobre 2003, Sochaux, France, published in the conference proceedings (in french).

Full text papers in proceedings from national conferences (24):

1. Ch. Dutsov, M. Mitev, L. Tsankov, **K. Mitev** (2017), "Electronic Circuits for the High Voltage Supply and Additional Sensors for the Polyphemus ^{222}Rn in Soil-Gas Scintillation Detector", **Proceedings** of the XXVI International Scientific Conference Electronics - ET2017, September 13 - 15, 2017, Sozopol, Bulgaria, *in press*.

2. **K. Mitev**, I. Dimtrova, S. Georgiev, I. Pavlova, S. Ilieva, D. Damianov, G. Gerganov, (2012), "Calibration of Rack Beta – Spectral 1219 Liquid Scintillation Counter for radon in water measurements", **Proceedings** of the 22th National Scientific Symposium with international participation “Metrology and Metrology Assurance 2012”, September 10-14, 2012, Sozopol, Bulgaria. ISSN 1313-9126, pp. 239-243 (in Bulgarian).

3. G.Gerganov, V.Kuvandjiev, I. Dimitrova, **K. Mitev**, (2012), "NUMERICS: Online Image Registration and Image Comparison Platform", **Proceedings** of the 22th National Scientific Symposium with international participation “Metrology and Metrology Assurance 2012”, September 10-14, 2012, Sozopol, Bulgaria. ISSN 1313-9126, pp. 317-320 (in Bulgarian).

4. Boshkova T., **Mitev K.**, Andreev C., Stoyanova E., Zhivkova V., Neshovska G., Iliev M., Georgiev G, Kirilova N., (2012), "Implementation of the scaling factors method for the characterization of dry radioactive waste from the “Kozloduy” NPP”, **Proceedings** of the 22th National Scientific Symposium with international participation “Metrology and Metrology Assurance 2012”, September 10-14, 2012, Sozopol, Bulgaria. ISSN 1313-9126, pp. 250-256 (in Bulgarian).

5. I. Dimitrova, **K. Mitev**, S. Georgiev, D. Pressyanov, (2012), "A system for reference activity concentrations of Rn-222 in air based on RAD radon monitor", **Proceedings** of the 22th National

Scientific Symposium with international participation "Metrology and Metrology Assurance 2012", September 10-14, 2012, Sozopol, Bulgaria. ISSN 1313-9126, pp. 244-249 (in Bulgarian).

6. S. Georgiev, **K. Mitev**, I. Dimitrova, D. Pressianov, (2012), "Computer code for precise calculation of the activity of radioactive noble gases absorbed in polycarbonate grains", **Proceedings** of the 22th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2012", September 10-14, 2012, Sozopol, Bulgaria. ISSN 1313-9126, pp. 233-238 (in Bulgarian).

7. G. Gerganov, I. Kawrakow, V. Kuvandjiev, I. Dimitrova, **K. Mitev**, (2012), "Performance Evaluation of 2D image registration algorithms with the NUMERICS image registration and comparison platform", **Proceedings** of the European Medical Physics and Engineering Conference, October 18-20, 2012, Sofia, Bulgaria, pp 294- 299, ISBN 978-954-91589-3-9.

8. **K. Mitev**, G. Gerganov, (2011), "New algorithm for deformable image registration of nuclear medicine images using Mobius transformations", **Proceedings** of the 21th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2011", September 10-14, 2011, Sozopol, Bulgaria. ISSN 1313-9126, pp. 284-288 (in Bulgarian).

9. I. Dimitrova, **K. Mitev**, S. Georgiev, V. Zhivkova, M. Iliev, G. Neshovska, T. Boshkova, G. Marinov, (2011), "Laboratory intercomparison of radon-222 in water measurements by gamma-spectrometry and liquid scintillation counting", **Proceedings** of the 21th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2011", September 10-14, 2011, Sozopol, Bulgaria. ISSN 1313-9126, pp. 253-258 (in Bulgarian).

10. S. Georgiev, **K. Mitev**, D. Pressianov, G. Gerganov, I. Dimitrova, (2011), "Computer code for precise calculations of the activity and the depth distribution of radioactive noble gases absorbed in polycarbonates", **Proceedings** of the 21th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2011", September 10-14, 2011, Sozopol, Bulgaria. ISSN 1313-9126, pp. 278-283 (in Bulgarian).

11. T. Boshkova, **K. Mitev**, G. Georgiev, N. Kirilova, (2011), "Verification and analysis of the results of activity measurements by the portal system "Modul 5" in department of "RAW-Kozloduy", **Proceedings** of the 21th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2011", September 10-14, 2011, Sozopol, Bulgaria. ISSN 1313-9126, pp. 271-277 (in Bulgarian).

12. **K. Mitev**, G. Gerganov. (2010), "*Application of Grubbs` test for comparisons of images in nuclear medicine*", **Proceedings** of the 20th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2010", September 9-13, 2010, Sozopol, Bulgaria. ISSN 1313-9126, pp. 249-253 (in Bulgarian).

13. **K. Mitev**, T. Boshkova. (2010), "*On the application of Monte Carlo simulations in problems related to metrology assurance of portal monitors for activity measurement*", **Proceedings** of the 20th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2010", September 9-13, 2010, Sozopol, Bulgaria. ISSN 1313-9126, pp. 310-316 (in Bulgarian).

14. T. Boshkova, **K. Mitev**, L. Minev, A. Alexiev. (2010), "*A method for calibration of multi-detector portal system for activity measurements*", **Proceedings** of the 20th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2010", September 9-13, 2010, Sozopol, Bulgaria. ISSN 1313-9126, pp. 304-309 (in Bulgarian).

15. I. Dimitrova, S. Georgiev, **K. Mitev**, T. Boshkova, D. Pressyanov. (2010), "*Correction for finite sample volume in Rn-222 in water measurements by absorption in polycarbonates*", **Proceedings** of the 20th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2010", September 9-13, 2010, Sozopol, Bulgaria. ISSN 1313-9126, pp. 254-259 (in Bulgarian).
16. S. Georgiev, I. Dimitrova, T. Boshkova, **K. Mitev**, D. Pressyanov. (2010), "*Determination of the efficiency for registration of alpha-particles of the experimental set-up for gross beta-counting UMF-1500*", **Proceedings** of the 20th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2010", September 9-13, 2010, Sozopol, Bulgaria. ISSN 1313-9126, pp. 283-289 (in Bulgarian).
17. **K. Mitev**, T. Boshkova. (2009), "*Monte Carlo calculation and experimental validation of HPGe detector efficiencies for measurement of bulk sources in close geometries*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 371-379.
18. **K. Mitev**, S. Stefanov. (2009), "*Monte Carlo calculation of the efficiency of wide-area beta-particle sources*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 380-387, (in Bulgarian)
19. T. Boshkova, **K. Mitev**. (2009), "*Methods for estimation of the self-attenuation corrections in gamma-ray spectrometry of bulk samples*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 355-365, (in Bulgarian)
20. I. Dimitrova, S. Georgiev, **K. Mitev**, D. Pressyanov. (2009), "*Calibration of compact disks for measurements of Radon-222 in air*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 347-354 (in Bulgarian)
21. S. Georgiev, I. Dimitrova, , D. Pressyanov, **K. Mitev**. (2009), "*Measurements of Radon-222 in dwellings and in soil-gas by the polycarbonate method*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 341-346, (in Bulgarian)
22. T. Boshkova, **K. Mitev**, L. Minev. (2009), "*Realization of a large-volume certified source for calibration of gamma-spectrometry systems used for radioactive waste measurements*", **Proceedings** of the 19th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2009", September 10-14, 2009, Sozopol, Bulgaria. ISSN 1313-9126, pp. 388-396, (in Bulgarian)
23. **K. Mitev**, T. Boshkova, L. Minev. (2007), "A model for realization of a large-volume certified source for calibration of gamma-spectrometry systems used for radioactive waste measurements", **Proceedings** of the 17th National Scientific Symposium with international participation "Metrology and Metrology Assurance 2007", September 10-14, 2007, Sozopol, Bulgaria. ISBN 978-954-334-061-3, pp. 408-414 (in Bulgarian)

24. D. Pressyanov, **K.Mitev**, V. Stefanov, N. Stanchev, V. Stancheva, (2003) , *“The referent volume method for realization of a secondary gas standard for the activity of radioactive noble gases”* **Proceedings** of the 13th National Scientific Symposium with international participation “Metrology and Metrology Assurance 2003”, September 10-14, 2003, Sozopol, Bulgaria. ISBN 954-9725-76-6, pp.76-79, (in bulgarian)