

Recent publications from the radioactivity group of the NMIJ

• Recent publications

2009 to 2010

- Y. Unno, "Measurement technique for standardization of brachytherapy seeds", AIST TODAY, vol10/11, p22.
- Y. Unno, T. Kurosawa, A. Yunoki, T. Yamada, Y. Kawada, Y. Hino, "Measurement of low level ionization current in a new standard free air chamber derived for an I-125 brachytherapy source", International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry, Vienna, 2010/11.
- Y. Sato, et. al, "Examination of the Standardization Method for ^{22}Na Sealed Point Sources under Various Measurement Conditions", The Conference Record of the 2010 Nuclear Science Symposium and Medical Imaging Conference, Knoxville, 2010/10.
- Y. Kawada, T. Yamada and A. Nagai, "Temperature dependence of gain shift in γ -ray spectrometry system involving a long connecting cable", Applied Radiation and Isotopes 68 (2010) 1445–1447.
- Y. Sato, H. Murayama, T. Yamada, T. Hasegawa, K. Oda, Y. Unno and A. Yunoki, "Monte Carlo simulation of standardization of ^{22}Na using scintillation detector arrays", Applied Radiation and Isotopes 68 (2010) 1354–1357.
- A. Yunoki, T. Yamada, Y. Kawada, Y. Unno, Y. Sato and Y. Hino, "Activity measurement of ^{85}Kr diluted by a large volume balloon technique", Applied Radiation and Isotopes 68 (2010) 1340–1343.
- T. Yamada, K. Ishii, Y. Sato, Y. Unno, A. Yunoki and Y. Hino, "Standardization of $^{99\text{m}}\text{Tc}$ and ^{99}Mo by the use of $4\pi\beta$ - $4\pi\gamma$ counter", Applied Radiation and Isotopes 68 (2010) 1324–1329.
- A. Yunoki, L. Mo, V.V. Shaha, Nazaroh, W.M. van Wyngaardt, M. C. Yuan, D. D. Nhan, T. S. Park, Y. Yuandi, T. Soodprasert, C. Michotte, "APMP comparison of the activity measurement of Ba-133 (APMP.RI(II)-K2.Ba-133) and links to the SIR", Metrologia 46 No 1A 06014.
- Y. Hino, "Current status and prospect of remote calibration technique" MEASUREMENT STANDARDS and METROLOGY MANAGEMENT Vol. 58 (2009) No. 4 (in Japanese).

2007 to 2008

- A. K. Pearce, C. Michotte and Y. Hino, "Ionization chamber efficiency curves" *Metrologia* 44 (2007) S67-S70.
- Y. Hino and T. Kurosawa, "Traceability of radiation protection instruments", *METROLOGIA*, **44**, S146 (2007).
 - Y. Sato, et al., "Remote calibration of radioisotope calibrators", PTB-BIPM Workshop on the Impact of Information Technology in Metrology.
 - G. Ratel, C. Michotte, M. Sahagia, A. Yunoki, "Update of the BIPM comparison BIPM.RI(II).K1.Ba-133 of activity measurements of the radionuclide Ba-133 to include the results of the IFIN-HH (Romania) and NMIJ (Japan)", Update Report for Ba-133 2007/11/27.
 - Y. Sato, T. Yamada, H. Hata, K. Moriyama, A. Yunoki and Y. Hino, "The detection efficiency variation method for $4\pi\beta\text{-}\gamma$ coincidence counting using an ink-jet printer", *Applied Rad. and Isotopes* 66 (2008) 691-693.
 - A. Yunoki, T. Yamada, Y. Sato, Y. Kawada and Y. Hino, "Calibration of ^{55}Fe activity with a lithium drifted silicon detector", *Applied Rad. and Isotopes* 66 (2008) 756-759.
 - T. Yamada, Y. Kawada, Y. Sato, A. Yunoki and Y. Hino, "Standardization of ^{18}F using the $4\pi(\beta+\gamma)$ integral counting technique", *Applied Rad. and Isotopes* 66 (2008) 909-913.
 - Y. Kawada, T. Yamada, J. Itoh, Y. Sato, A. Yunoki and Y. Hino, "Observation of β -ray spectra after penetrating absorbing materials", *Applied Rad. and Isotopes* 66 (2008) 819-822.
 - Y. Sato, H. Murayama, T. Hasegawa, T. Yamada, Y. Unno, A. Yunoki and Y. Hino, "Monte Carlo simulation of annihilation radiation - γ ray coincidence measurement for ^{22}Na standard source used for calibration of PET devices", *Proceedings of The 5th KOREA-JAPAN Joint Meeting on Medical Physics* (2008).
 - T. Yamada, Y. Unno, T. Kurosawa, Y. Sato, Y. Wakitani, A. Yunoki and Y. Hino, "Calibration of ^{125}I brachytherapy sources using the secondary standard ionization chamber", *Proceedings of The 5th KOREA-JAPAN Joint Meeting on Medical Physics* (2008).
 - Y. Sato, H. Harano, T. Matsumoto, J. Nishiyama, K. Moriyama, Y. Unno, T. Yamada, A. Yunoki, Y. Hino and K. Kudo, "Measurement of Activated Au foils by $2\pi\beta+2\pi\beta\text{-}\gamma$ Coincidence Counting and EGS5 Monte Carlo Calculation", *American Institute of Physics proceedings* (2008).
 - Y. Unno, T. Kurosawa, Y. Sato, T. Yamada, A. Yunoki and Y. Hino, "Evaluation for non-uniformity effect of a large spherical chamber using EGS5 code", *Proceedings of the Fifteenth EGS Users' Meeting in Japan* (2008).
 - Y. Unno, "A survey on calorimetric measurement for development of advanced radioactivity standards", *AIST bulletin of metrology*, 7-1, pp1-10 (2008).