

NRC Refereed dosimetry publications, 2009-11

- [1] Burns, D.T., Kessler, C. and McCaffrey, J.P., "Key comparison BIPM.RI(I)-K2 of the air-kerma standards of the NRC, Canada and the BIPM in low-energy x-rays" *Metrologia* **48** Tech. Suppl. 06002 (2011).
- [2] Kessler, C., Burns, D.T., Allisy-Roberts, P.J., McCaffrey, J.P., McEwen, M.R. and Ross, C.K., "Comparison of the standards for absorbed dose to water of the NRC and the BIPM for ^{60}Co radiation", BIPM RI(I)-K4, *Metrologia* **47** 06016 (2010).
- [3] Picard, S., Burns, D.T., Roger, P. Allisy-Roberts, P.J., McEwen, M.R., Cojocar, C.D. and Ross, C.K., "Comparison of the standards for absorbed dose to water of the NRC and the BIPM for accelerator photon beams", BIPM RI(I)-K6, *Metrologia* **47** 06025 (2010).
- [4] Csete, I., Leighton, A.G., Sochor, V., Lapenas, A., Gringborg, J.-E., Jokelainen, I., Bjerke, H., Dobrovodsky, J., Megzifene, A., Costas, H.J., Ivanov, R., Vedic, B., Kokocinski, J., Cardoso, J., Buermann, L., Tiefenboeck, W., Stucki, G., van Dijk, E., Toni, M.P., Minniti, R., McCaffrey, J.P., Silva, C.N.M., Kharitonov, I., Webb, D., Saravi, M. and Delaunay, F., "Report on EUROMET.RI(I)-K1 and EUROMET.RI(I)-K4 (EUROMET project no. 813): Comparison of air kerma and absorbed dose to water measurements of ^{60}Co radiation beams for radiotherapy", *Metrologia* **47** 06012 (2010)
- [5] Tessier, F. and Kawrakow, I., "Effective point of measurement of thimble ion chambers in megavoltage photon beams", *Med. Phys.* **37**, 96–107, 2010.
- [6] Tsybeskov, L., Kamenev, B.V., Sirenko, A.A., McCaffrey, J.P., Lockwood, D.J. "Strain-induced lateral self-organization in Si/SiO₂ nanostructures", *Appl. Phys. Lett.* **96**, 013105, 2010.
- [7] Tessier, F., Hooten, B. and McEwen, M.R., "Zero-shift thimble ionization chamber", *Med. Phys.* **37**, 1161–1163, 2010.
- [8] Ross, C., Galea, R., Saull, P., Davidson, W., Brown, P., Brown, D., Harvey, J., Messina, G., Wassenaar, R., de Jong, M., "Using the ^{100}Mo photoneutron reaction to meet Canada's requirement for $^{99\text{m}}\text{Tc}$ ", *Physics in Canada* **66** 19-24 (2010).
- [9] McCaffrey, J.P., Mainegra-Hing, E., Shen, H. "Optimizing non-Pb radiation shielding materials using bilayers", *Med. Phys.* **36**, 5586-5594, 2009.
- [10] Abdel-Rahman, W., Evans, M.D.C., Serré, L., McCaffrey, J.P., Podgorsak, E.B. and Seuntjens, J.P., "Clinic based transfer of the $\text{N}_{\text{D,w}}^{\text{Co-60}}$ calibration coefficient using a linear accelerator", *Med. Phys.* **36**, 929-938 (2009).
- [11] Fragoso, M., Kawrakow, I., Faddegon, B.A. "Fast, accurate photon beam accelerator modeling using BEAMnrc: a systematic investigation of efficiency enhancing methods and cross-section data", *Med. Phys.* **36**, 5451-5466, 2009.

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- [14] Downes, P., Jarvis, R., Radu, E., Kawrakow, I., Spezi, E. "Monte Carlo simulation and patient dosimetry for a kilovoltage cone-beam CT unit", *Med. Phys.* **36**, 4156-4167, 2009.
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- [17] Ververs, J.D., Schaefer, M.J., Kawrakow, I., Siebers, J.V. "A method to improve accuracy and precision of water surface identification for photon depth dose measurements *Med. Phys.* **36**, 1410-1420, 2009.
- [18] McEwen, M.R., DuSautoy, A.R. "Primary standards of absorbed dose for electron beams", *Metrologia* **46**, S59-S79, 2009.
- [19] Ross, C.K., Klassen, N.V. "Comments on "Cellular response to modulated radiation fields" [by E. Claridge Mackonis, N. Suchowerska, M. Zhang, M. Ebert, D.R. McKenzie and M. Jackson, 52 (18), 5469-5482, September 21, 2007]", *Phys. Med. Biol.* **54**, L11-L13, 2009.
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Conference presentations, 2009-11

- [1] Tessier, F., "Accurate dose distributions: the implications of new effective point of measurement (EPOM) values for thimble ionization chambers", *International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry*, Vienna, Austria, 9–12 November 2010.
- [2] Ross, C., "Using the Mo-100 Photoneutron Reaction to Meet Canada's Requirement for Tc-99m" Annual Meeting, Canadian Association of Physicists, , University of Toronto, Plenary Session on Medical Isotopes, 6-12 June, 2010.

- [3] Ross, C., "Using the Mo-100 Photoneutron Reaction to Meet Canada's Requirement for Tc-99m", Annual Meeting, Canadian Organization of Medical Physicists, , Crowne Plaza Hotel, Ottawa, Symposium on Medical Isotopes, 16-19 June, 2010.
- [4] Galea, R., "Using Electron-Linacs to Meet Canada's Requirement for ^{99m}Tc ", American Nuclear Society Winter Meeting, Las Vegas, 7-11 November, 2010.
- [5] Tessier, F., Kawrakow, I., " Effective point of measurement of thimble ion chambers in megavoltage photon beams", *Second European Workshop on Monte Carlo Treatment Planning*, Cardiff, Wales, 19–21 October 2009.
- [6] Cojocar, C.D., Ross, C.K., McEwen, M.R., Faddegon, B.A. "EGSnrc benchmarking against high-precision lateral distributions of x-rays produced in thick targets", *American Association of Physicists in Medicine 51st Annual Meeting : abstracts (Anaheim, California, USA, July 26-30, 2009)*, *Med. Phys.* **36** (6), 2782 (WE-E-BRD-5), June 2009.
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- [9] Heath, E., Kawrakow, I. "Fast 4D Monte Carlo dose calculations in deforming anatomies", *American Association of Physicists in Medicine 51st Annual Meeting : abstracts (Anaheim, California, USA, July 26-30, 2009)*, *Med. Phys.* **36** (6), 2620 (SU-FF-T-426), June 2009.
- [10] McEwen, M.R., Xu, L.B. "Commissioning of a PTW Starcheck 2-D ion chamber array", *American Association of Physicists in Medicine 51st Annual Meeting : abstracts (Anaheim, California, USA, July 26-30, 2009)*, *Med. Phys.* **36** (6), 2610 (SU-FF-T-385), June 2009.
- [11] Xu, L.B., McEwen, M.R. "On the comparison of Epson V700 and 10000XL scanners for GafChromic EBT film dosimetry", *American Association of Physicists in Medicine 51st Annual Meeting : abstracts (Anaheim, California, USA, July 26-30, 2009)*, *Med. Phys.* **36** (6), 2589 (SU-FF-T-296), June 2009.