

Czech Metrology Institute – publications related to neutrons

March 2009 –March 2011

D. Ekendahl, Z. Prouza, M. Králík

Radiation Protection Dosimetry; 2010, Jun; 139(4): 574-9

Testing of a thermoluminescent personal dosimeter at interim storages for spent nuclear fuel

M. Králík, K. Turek, V. Vondráček, J. Krása, A. Velyhan, M.Scholz, I. M. Ivanova-Stanik

Radiation Measurements 45 (2010) 1245-1249, doi:10.1016/j.radmeas.2010.06.011

Measurements with Bonner Spheres Spectrometer in Pulsed Neutron Fields

M Králík, J Krása, A Velyhan, M Scholz, I M Ivanova-Stanik, B Bienkowska,

R Miklaszewski, H Schmidt, K Řezáč, D Klír, J Kravárik and P Kubeš

Review of Scientific Instruments 81, 1 (2010), doi:10.1063/1.3488372.

Applications of a Bonner sphere spectrometer for determination of the energy spectra of neutrons generated by ≈ 1 MJ plasma focus

May 2007 –March 2009

M. Králík, V. Kulich, J. Studený and P. Pokorný

Radiation Protection Dosimetry 132, No.1 (2007) 13-17

Dosimetry at an interim storage for spent nuclear fuel

M. Králík, K.Turek, V.Vondráček

Radiation Protection Dosimetry 132, No.1 (2008) 13-17

Spektra of Photoneutrons produced by High Energy X-Ray Radiotherapy Linacs

J.Krása, M. Králík, et al.

Plasma Phys. Control. Fusion 50 (2008)

Anisotropy of the emission of DD-fusion neutrons caused by the plasma-focus vessel

Internal reports:

M. Králík

Report CMI 9011-02 / 2007

Direct neutron field around ^{252}Cf source measured with the Bonner spheres spectrometer – PTB design.

M. Králík

CMI Report 9011-01/2007

EUROMET Project No. 608: Key Comparison for the Calibration of Ambient Dose Equivalent Meters in ISO Neutron Reference Fields.

Other Recent References in Neutron Metrology from the CMI

[1] Hyeonso Park, Kil-Oung Choi, Jong-Man Lee, Kyoung-Beom Lee, Myung-Sup Hahn (KRISS), M.Kralik (CMI)

Proceedings of Spring Conference and Symposium Korean Association for Radiation Protection, 29, 30 April 2004, Jeonnam, Korea

Manganese Sulphate Bath (in Korean)

- [2] M.Kralik, V.Kulich, J.Studený
Proceedings of Spring Conference and Symposium Korean Association for Radiation Protection, 29, 30 April 2004, Jeonnam, Korea
Dosimetry at the Interim Storage Facility for Spent Nuclear Fuel
- [3] M.Kralik and K.Turek
Radiation Protection Dosimetry 110 (2004) 503-507
Characterisation of neutron fields around high-energy radiotherapy machines
- [4] J.Krasa, B.Bienkowska, I.M.Ivanova-Stanik, L.Juha, L.Karpinski, D.Klier, M.Kralik, J.Kravarik, P. Kubes, M. Paduch, M. Scholz, K. Tomaszewski
German-Poland Conference on Plasma Diagnostic, 10 September, 2004, Krakow
Applicability of thermoluminescent dosimeters for fast neutron dosimetry at plasma focus device
- [5] M.Kralik
CMI Report 9011-03 / 2004, Prague, November 2004
Calculation of the contribution of scattered neutrons during calibrations of personal dosimeters on the ISO phantom for ISO radionuclide neutron sources
- [6] M.Kralik
CMI Report 9011-01 / 2004, Prague, June 2004
Calculation of the contribution of scattered photons during calibration of personal dosimeters on the ISO phantom for photon energies in the range from 60 keV up to 3 MeV
- [7] G.Gualdrini and P.Ferrari, Editors
Intercomparison on the usage of computational codes in radiation dosimetry.
Bologna – Italy, International Workshop Proceedings, July 14–16, 2003
V.Olsovcova: Air kerma backscatter profiles for two ISO photon expanded and aligned fields impinging on the ISO water phantom
M.Kralik: Calibrations of neutron detectors in a bunker
- [8] M.Kralik
CMI Report 9011-02 / 2004, Prague, August 2004
EUROMET Project No. 608 – Key Comparison for the Calibration of Ambient Dose Equivalent Meters in ISO Neutron Reference Fields – CMI Results

Earlier publications

P.Bém, V.Burjan, F.Cvachovec, M.Gotz, M.Králík, V.Kroha, E.Lukášová, E.Šimečková, V.Vincour: **Nuclear Instruments and Methods in Physics Research A 466 (2001) 509-512**
Fast Neutrons from thick helium target irradiated by 17 MeV deuterons

N. Golnik, K. Jozefowicz, M.Králík: **Nuclear Instruments and Methods in Physics Research A 476 (2002) 365-368** Measurement of H*(10) in reference neutron fields using Bonner sphere spectrometry and LET spectrometry

M.Králík, V.Kulich, J.Studený: **Nuclear Instruments and Methods in Physics Research A 476 (2002) 423-428** Neutron spectrometry at the interim storage facility for spent nuclear fuel

