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Occupational doses from ionizing radiation in nuclear medicine in Poland

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Based on statistical data from the Laboratory of Individual and Environmental Dosimetry at the Institute of Nuclear Physics (IFJ) in Krakow nuclear medicine is the main source of occupational doses for medical staff in Poland. More than 1000 occupational persons working in nuclear medicine in Poland are wearing dosimeters from our dosimetry service. Only during industrial use of radiation the higher dose levels are recorded. According to statistic only about 65% individual doses for whole body and 55% individual doses for extremity ring dosimetry in nuclear medicine in Poland are on the level of the natural radiation background, while for conventional radiology this parameter reaches ca. 90%. In nuclear medicine staff could be divided into doctors, nurses, technicians. Also regarding to different procedures and applications of beta, gamma or positron emitters and place (laboratories of scintigraphy, isotope therapy or department of PET-CT) different dose levels are observed. The doses to medical staff in are measured in terms of the personal dose equivalent $H_p(10)$ for whole body, $H_p(0.07)$ for hands and $H_p(3)$ for eyes. The doses are measured using thermoluminescent detectors placed in individual dosimetry badges. The study includes analysis of the doses for whole body, extremity ring and eye lens for medical staff (technical staff, nurses and doctors) exposed to radiation in nuclear medicine.

Biography

Maciej Budzanowski has completed his PhD in 2001 from Institute of Nuclear Physics Polish Academy of Sciences and Postdoctoral studies in 2012. He has started working as an Associate Professor in 2014. He has published more than 80 papers in *JCR* journals. He is a Scientific and Technical Director of the Institute of Nuclear Physics in Krakow, Poland.

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