

**IRD – Instituto de Radioproteção e Dosimetria****LNMRI – Laboratório Nacional de Metrologia das Radiações Ionizantes****LN – Laboratório de Nêutrons****Progress Report 2000-2001****Routine calibration of neutron survey meters and neutron pocket dosimeters**

In order to attend our national regulations, up to now were performed the routine calibration of 110 equipments.

**Neutron sample irradiation**

90 samples of different kind used by other research groups were irradiated.

**IRD albedo neutron dosimeter – New quantities tests**

The IRD albedo neutron dosimeter was developed do make measures in terms of MADE. Now tests are performed to evaluate its response to new quantity personal dose equivalent.

**Set up of 252Cf spectrum D2O moderated**

It was prepared the calibration set up to ISO 252Cf spectrum D2O moderated. The experimental measures will be started at July 2001. This spectrum will be mainly used to perform calibration of neutron personal dosimeters.

**Monte Carlo calculations**

The Monte Carlo code MCNP is used for the determination of calibration coefficients to the graphite thermal flux for being used to calibrate neutrons personal monitors.

**V ENAN – National Meeting on Nuclear Applications**

The following papers ware presented at V ENAN – National Meeting on Nuclear Applications October 15-20, 2000, Rio de Janeiro – SP - Brazil.

- 1)Influência dos parâmetros do banho de MnSO<sub>4</sub> na determinação da incerteza total da atividade de saturação. E. S. da Fonseca e W. W. Pereira.
- 2)Avaliação da geometria externa do fluxo térmico padrão para calibração de dosímetros individuais de nêutrons. C. N. M. da Silva, E. S. da Fonseca e W. W. Pereira.

**Metrologia 2000 – International Conference on Advanced Metrology**

The following papers were presented at Metrologia 2000 - International Conference on Advanced Metrology, 4-7 December 2000, São Paulo – SP – Brazil:

- 1)Calibração de dosímetros individuais de nêutrons utilizando o fluxo térmico padrão. E. S. da Fonseca e W. W. Pereira.
- 2)Calibração de monitores de nêutrons nas novas grandezas. E. S. da Fonseca e W. W. Pereira.
- 3)Determinação da incerteza total da atividade de saturação do banho de sulfato de manganês (MnSO<sub>4</sub>). E. S. da Fonseca e W. W. Pereira.

**V Regional Congress on Radiation Protection and Safety – Regional IRPA Congress**

The following paper was presented at V Regional Congress on Radiation Protection and Safety – April 29-May 4, 2001 – Recife – PE – Brazil.

1) Reproducibility of saturation activity measures at manganese bath ( $\text{MnSO}_4$ ). E. S. da Fonseca and W. W. Pereira.

**Participation in CCRI comparison of measurements of neutron source emission rate**

The IRD was included to participate in CCRI comparison. The neutron source will be arriving at LN – Laboratório de Nêutrons at the end of 2001.