

**International Conference on Occupational Radiation Protection:
Strengthening Radiation Protection of Workers –Twenty Years of Progress
and the Way Forward**

Contribution ID: 4

Type: **Poster**

**LOCAL RADIATION DOSIMETRY OF WORKERS
METHOD USING OPTICALLY STIMULATED PULSED
LUMINESCENCE AND MONTE CARLO
SIMULATION**

Background: This is the first study that has been done in Morocco with the aim of optimizing protection of workers in diagnostic radiology, by using Monte Carlo simulation and Optically Stimulated Luminescence (OSL).

Methods:Measurements have been performed OSL detectors to determine the dose received by workers.

Results: There was no statistically significant difference between dose simulated by GATE and those measured using the OSL ($P < 0.01$).

Conclusion: Monte Carlo simulation responses were suitable and could provide an accurate alternative for dose determination with non-uniform primary x-ray beams.

Name of Member State/Organization

morocco

Speakers affiliation

Medical Physics Unit, Temara Hospital and Department of Physical Sciences and Engineering Moulay Ismail University Zitoun Meknès, Morocco, P.O. Box 11201

Speakers email

mo.talbi@uhp.ac.ma

Author: TALBI, Mohammed (medical physicist)

Co-authors: Prof. KHALIS, Mohammed (Department of Physical Sciences and Engineering Moulay Ismail University Zitoun Meknès, Morocco, P.O. Box 11201); Prof. SEBIHI, Rajaa (Department of physics Mohammed V University Rabat, Morocco P.O. Box 1014); Mr EL MANSOURI, Mhamed (Department of Physics, Materials and Subatomic Physics Laboratory Ibn Tofail University, Kenitra, Morocco, P.O. Box 133)

Presenter: TALBI, Mohammed (medical physicist)

Session Classification: Session 2. Monitoring and dose assessment of occupational radiation exposures

Track Classification: 3. Monitoring and dose assessment of occupational radiation exposures