LANDAUER
PERSONDOSIMETRI

Dosimetry Services

Landauer Persondosimetri is engaged in the production and maintenance of personal dosimeters. Employees in nuclear facilities, X-ray and gamma radiation workplaces use dosimeters daily to ensure satisfactory radiation exposure control.

Landauer Persondosimetri operates Sweden's largest personal dosimetry laboratory, located in Stockholm. Landauer Persondosimetri supplies three different types of thermoluminescence (TL) dosimeters: body, finger and background dosimeters. Our services include selection, supply and evaluation of the dosimeter, including the transfer of individual doses to various dose registries.

Through our well-planned manufacturing process and thorough service we offer products at an attractive price and excellent quality. Three types of dosimeters are manufactured: TLD-body, TLD-finger and TLD-background. We advise on the choice of dosimeter, supply it and evaluate it including transfer of individual doses to various dose registries. All dose measurements are registered and filed for an extensive period of time. In our customer database we have approximately 700 clients, mainly within the nuclear, medical, veterinary and dental professions as well as in research and universities. Within the industrial sector our clients are companies working with portable x-ray devices and radiography.

In total we have approximately 9000 users per annum. The user's dosimeters are evaluated, recorded and reported. Thereafter the dosimeters are repacked and sent to new users, which means that our postal routines are highly efficient. Tailor-made regular training of personell sustains motivation and state-of-the-art performance.

The Landauer Persondosimetri dosimetry laboratory is approved by the Swedish Radiation Safety Authority in accordance with regulations (SSI FS 1998:5). The laboratory is also certified according to the quality and environmental standards ISO 9001:2008 and ISO 14001:2004.

TLD-body dosimeters and TLD-finger dosimeter.

We help you all the way from selection to evaluation.

Own packaging
The coded dosimeters are packed in holders of our own design, each with a unique identification label. The dosimeters are sent to the customer by mail and are then evaluated on return.

Using the TLD
The three types of TLDs are all used for a period of 4 weeks and after that they should be evaluated. It is possible to have TLDs delivered on a continuous basis every 4 weeks or as appropriate. Normally the TLD-body is placed behind the lead apron (if the user is wearing one), but can be placed elsewhere provided we are informed.

Evaluation
The TL pellets placed in the TLDs are individually calibrated and automatically evaluated. The system identifies the user and all user data is saved in a database.
The laboratory has a fixed value for background radiation. Due to variations in different places a background dosimeter can be used if background radiation deviates from standard.

Methods of measurement
The TLD-body contains two pellets which measure both Hp (10) and Hp (0,07). The finger dosimeter contains one Hp (0,07) pellet. The pellets are heated up to 300°C, and those that have been exposed to radiation emit light. The light is measured and the pellets are reset for reuse.

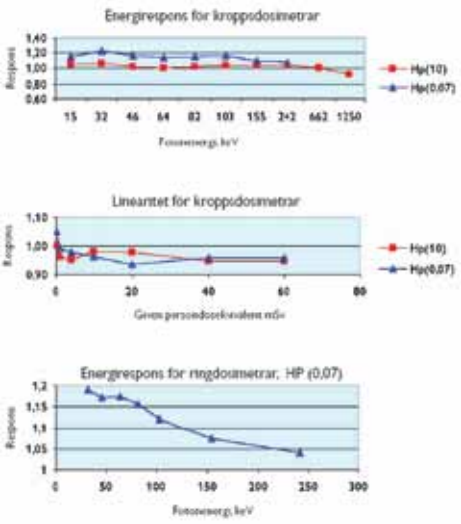
The TLD estimates the personal dose equivalent Hp (10) in the energy range from 30 keV to 7,6 MeV, and Hp (0,07) in the energy range from 30 keV to 1 MeV gamma radiation.

Reports
Dose reports will be sent to the user. In accordance with current regulations we can also report the doses to the national dose register at the Swedish Radiation Protection Authority.

The TLD
Specification
The body dosimeter contains two lithium borate pellets. Landauer Persondosimetri also offers the combination of different pellet types: lithium borate pellets and lithium floride pellets.

One of the pellets lies beneath a 1 mm thick aluminiuim filter. The finger dosimeter contains one lithium borate pellet.

Sensitivity to photon radiation



Sensitivity to beta radiation
The dosimeters have been tested in a beta radiation field and give the dose equivalent Hp (0,07), from a 90Sr source E_{max} 2 MeV, with a divergence of 10%.


Pellets.


Packaging of dosimeters.


Evaluation.

Ordering information
When ordering, please state the order number, reference number and billing address.

Delivery
Delivery is made within 1 - 4 weeks.

Billing
Billing is quarterly.

For further information please contact:
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