

## DORIS H\*(10) Dosimeter



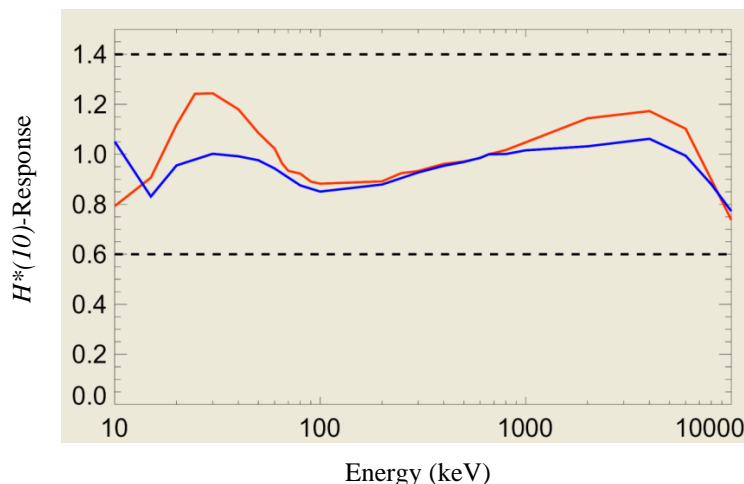
**DORIS = DO**simeter**R** for **I**ndoor and outdoor **S**urveys

### Concept

The solution worked out at the GSI Helmholtz Centre for Heavy Ion Research GmbH is based on standard Harshaw-type TLD detector cards placed inside a scattering body made of polyethylene.

Placed inside the dosimeter, two out of four crystals of the TLD card are shielded by a thin copper foil acting as a filter. The combination of the dose measurements of the two detector pairs leads to a response function which very closely resembles the  $H^*(10)$  measure. The two Cu-filters make possible dosimetry in a very broad energy (10keV to 10MeV) and angular range.

These characteristics represent a significant improvement compared to commercially available solutions. Standard solutions follow the  $H^*(10)$  function only in a much smaller energy range from about 100keV to 1MeV. As a result of its special design, the dosimeter can be used under almost all weather and environmental conditions.



Response for two photon incidence angle (0°-red; 75°-blue) from 10keV to10MeV

## Accessories



Aluminium TLD cards

## Benefits

- More accurate dose measurement in a very broad energy and angular range
- Suitable for standard TLD cards with MTS-N or MTS-7 elements
- Compact and cost effective scattering-body design
- Simple evaluation method
- Easy handling
- Perfect for outdoor use

## Practical application

- Accelerator facilities
- Nuclear medicine facilities
- X-ray radiation monitoring
- Gamma radiation monitoring
- Fluoroscopic systems



TLD card holder type Genesis

## Current Project Status

This solution was developed for radiation protection monitoring at the GSI accelerator facilities and is currently in operation successfully. This product is legally protected worldwide.

All information in this brochure is subject to technical changes without notice.

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