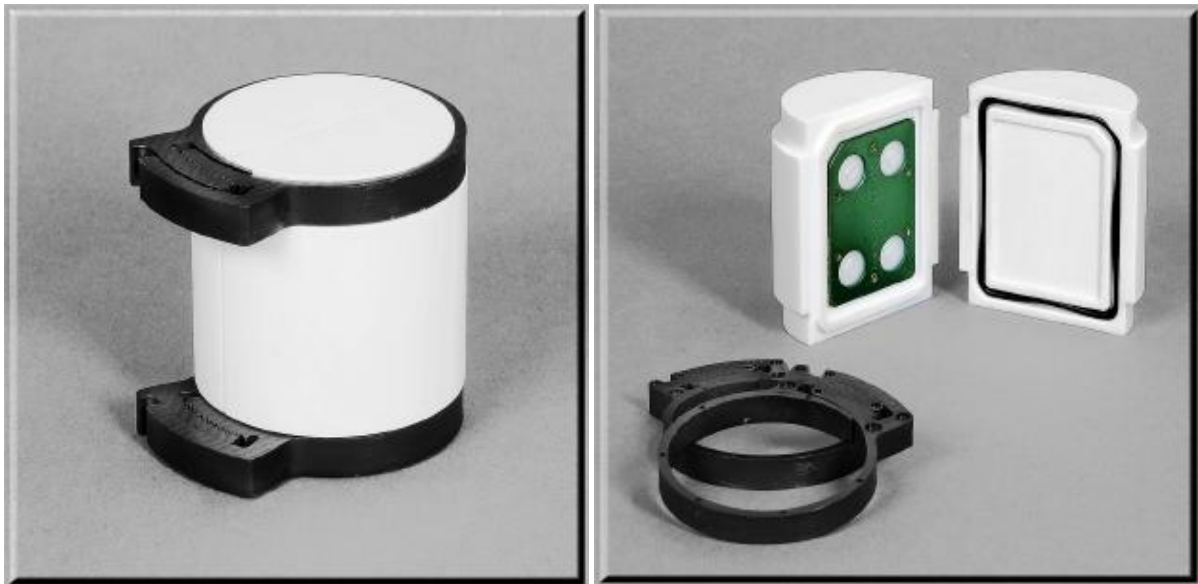


Environmental Dosimeter PE56Cu



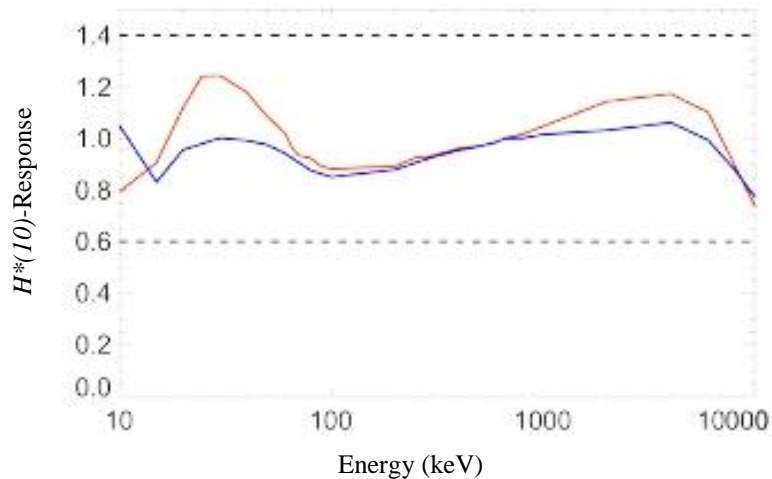
Concept

The solution worked out at the GSI (Helmholtz Centre for Heavy Ion Research Darmstadt) is based on standard Harshaw-type TLD detector cards inset in a scattering body made from polyethylene. In two of the four crystals, copper is set as an additional filter.

The combination of the measured dose of the two detector pairs leads to a response function, which bear a very close resemblance to the $H^*(10)$ measured value.

This is achieved by two Cu-filters and allows its use in a very broad energy (10keV to 10MeV) and angular range.

This behavior represents a significant improvement compared to commercially available solutions. Standard solutions follow the size of $H^*(10)$ only in a much smaller energy range from 100keV to 1MeV. In addition, by a 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

Benefits

- More accurate dose measurement in a very broad energy and angular range
- Suitable for standard TLD cards
- Compact and cost effective execution of the scattering body
- Simple evaluation method
- Easy handling
- For outdoor use

Practical application

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

Current Project Status

The solution was developed for a radiation protection monitoring at the GSI accelerator and is currently successful in the operation. The patent is granted in Germany.

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

Accessories



TLD cards type „Harshaw“



TLD card holder type GDS-760

RadPro International GmbH
 ...Radiation Protection for the Radiation Professionals...

Burger Straße 28
 42929 Wermelskirchen
 Germany
 Phone: +49 2196 889803
 Email: sales@radproint.de
 Web: www.radpro-int.com

