



TLD dosimeter

Thermoluminescence Dosimetry System

- **personnel dosimetry**
 - **extremity dosimetry**
 - **environmental monitoring**
 - **medical dosimetry applications**
 - **automatic or manual operation**
 - **stand-alone or computer controlled**
 - **flexible badge construction**
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RADOS Thermoluminescence Dosimetry system covers a wide range of applications: RADOS TLD System includes all the components needed for easy and accurate Personal Dosimetry. Easy adaption of high sensitive TL-materials and low noise photon counting measurement method makes the RADOS system extremely suitable for environmental dosimetry. Ingenious dosimeter card construction and high measurement range bring the advantages of an automatic reader to clinical dosimetry applications.

Flexible badge construction

The RADOS badge design allows the exchange of filter materials, filter thickness and TL-materials. This is both to satisfy the needs of different applications and also to offer the possibility of applying new TL-materials easy.

Physical characteristics

Material	Li ₂ B ₄ O ₇ : Mn.Si	Natural LIF: Mg	Enriched LIF: Mg
	hot sintered	92,5% Li-7 7,5% Li-6	99,9% Li-7 hot sintered
dimensions	dia 4.5 mm x 0.8mm	dia 4.5 mm x 0.9 mm	dia 4.5 mm x 0.9 mm
radiation	beta, gamma, x-rays, neutrons	beta, gamma, x-rays, neutrons	beta, gamma, x-rays
measuring range	5 mrad – few krad 50µGy – 10's Gy	1 mrad –1 krad 10µGy – 10 Gy	1 mrad –1 krad 10µGy – 10 Gy
Eff atomic no	7,4	8,14	8,14
main TL peaks	220°C	170 °, 225° C	170°C, 225°C
linearity	< 5%	3%	3%
supralinear	> 1 rad (10 Gy)	> 1 rad (10 Gy)	> 1 rad (10 Gy)
fading	< 5% in 7 days < 10% in 80 days	< 3% in 30 days	< 3% in 30 days