



LiF Data Sheet

GR-200

Customer's Approval Certificate	
Complies with Directive 2002/95/EC (RoHS)	
Please return this Page Via email as a certification of Your approval	
Checked & Approval by:	Date:

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THERMOLUMINESCENCE DOSIMETER AND MATERIALS

1) Characteristics and applications

GR-200 series LiF:Mg,Cu,P TLD has an extreme low detectable threshold, and is near air or tissue equivalent. Its unique features make it an ideal environmental, personal and medical dosimeter. Especially in the radioactive field of low background, it behaves better than other kind of TLDs for dose monitoring.

2) Performances

Effective atomic number Z	8.2
TL emission spectrum [nm]	380
Zero dose reading [nGy]	100
Linear dose range[Gy]	10 ⁻⁷ ~12
Detectable threshold[Gy]	~10 ⁻⁷
Relative TL sensitivity to TLD-100	65 times for Circular chip GR-200A,
Energy dependence (photon: 30keV ~3MeV)	<20%
Stability of stored information(at room	<5%/yr
Repeatability	< 2%
Reusability	Unlimited
Light effect	Insensitive to scattered sunlight,
Dose rate influence	Independent

3) Operating conditions recommended

◆ Readout heating program: heating rate: 6~20oC /sec; preheating: 135oC for 5~15 sec;
readout : from 135oC to 240oC and hold at 240oC for 10~20sec

◆ Annealing condition for reuse: 240oC for 10 min, not surpass 245oC followed by rapid cooling to room temperature

◆ Post-irradiation: 100oC for 10 minutes

3. Products



Thermo-luminescence Materials

GR-200 SERIES LiF:Mg ,Cu ,P TLDs and GR-100 SERIES LiF:Mg ,Ti TLDs

TYPE	DESCRIPTION	DIMENSION	APPLICATION
GR-200A	Natural LiF(Mg,Cu,P)	Dia. 4.5×0.80mm	Integrated doses of gamma rays
GR-200		Chip4.0×4.0×0.20--0.80mm	
GR-200		Chip3.2×3.2×0.20--0.89mm	
GR-200R		Rod1×1×1--6mm	
GR-200P		Powder 80--200mesh	
GR-200T		Tube dia.2×12mm	
GR-200F		5×5--10×10mm ,Dia. 4.5,5mm	Skin(beta)
GR-207A	7LiF(Mg,Cu,P) (enriched Li-7)	Dia. 4.5×0.80mm	Insensitive to neutrons.
GR-207		Chip4.0*4.0*0.20--0.80mm	

GR-207		Chip 3.2*3.2*0.20--0.89mm	
GR-207R		Rod 1*1*1--6mm	
GR-207P		Powder 80--200mesh	
GR-207T		Tube dia. 2*12mm	
GR-207F		5*5--10*10mm	
GR-206A	6LiF(Mg,Cu,P) (enriched Li-6)	Dia. 4.5*0.80mm	Integrated doses of thermal neutrons
GR-206		Chip 4.0*4.0*0.2--0.80mm	
GR-206		Chip 3.2*3.2*0.20--0.89mm	
GR-206R		Rod 1*1*1--6mm	
GR-206P		Powder 80--400mesh	
GR-100	LiF(Mg,Ti)	Chip 4.0*4.0*0.4--0.80mm	The LiF:Mg,Ti sensitized.
GR-100		Chip 3.2*3.2*0.4--0.89mm	
GR-100M		Chip 4.0*4.0*0.4--0.80mm	
GR-100M		Chip 4.0*4.0*0.4--0.80mm	

Not only are a large quantities of standard detectors, but also any special detectors regarding powder grain size, detector size, etc available. Please do not hesitate to contact us for more information, free samples of our products and for special products for your needs.