

COMPARISON OF RADIATION DOSIMETERS

	Self-indicating, instant casualty dosimeters RADTriage* RADSticker*		Film (AgBr)	TLD**	OSL***	Quartz Fiber/Pocket	Electronic
Price (US \$)	10-20	1-2	50-200 [@]	50-200 [@]	50-200 [@]	50-100	100-1,000
Main users	First responders & general public		Occupational	Occupational	Occupational	Occupational	General
Objective	Triaging exposure info & medical treatment in emergency		Monitor very low exposure	Monitor very low exposure	Monitor very low exposure	Monitor low exposure	Detect and monitor ⁽¹⁾
LLD (rad)⁽²⁾	2	5-10	0.01	0.01	0.01	1	Lowest (<0.01)
Dose range	1-1,000+	10 -1,000+	0.01 - 100	0.01 - 1,000+	0.01 - 1,000+	1 – 100	NA
Uncertainty (±%)	10-20 ⁽³⁾	10-25 ⁽³⁾	5	5	5	10	Least
Time for results	Instant	Instant	Days	Days	Days	Instant	Instant
Support equip. Service	None required	None required	Developing Required	Reader Required	Reader Required	Charger None	Power None
Re-usable	Disposable	Disposable	No	Yes	Yes	Yes	Yes
Size	Smallest	Tiny (0.2g)	Small	Small	Small	Small	Small-bulky
Shock sensitivity	Sturdiest	Sturdiest	Sturdy	Sturdy	Sturdy	Fragile	Acceptable
Archiving	Available	Available	Yes/fixed	No	No	No	No
Service life	One year	Two+ years	Month	Months	Months	NA	NA

* = Products of JP Laboratories, Inc., Middlesex, NJ

** = TLD, Thermoluminescence Dosimeter

*** = OSL, Optically Simulated Luminescence

@ = Price depends on service required

(1) = Detection, dose and dose rate meters

(2) = LLD = Lowest limit of detection. 1 rad = 10 mSv

(3) = Visually ~20%, ~10% with a densitometer

See the following slide for some representative images of the dosimeters, detectors and pagers

SOME COMMERCIAALLY AVAILABLE DETECTORS, PAGERS AND DOSIMETERS

