Appendix a

Values of activation energy (E) and frequency factor (s)

TL material	Glow Peak (°C)	Activation energy (eV)	Frequency factor (sec^{-1})
$Gd_2O_3:Tb^{3+}$	175 310	0.59 0.51	3.8×10^7 1.1×10^5
$Gd_2O_3:Tm^{3+}$	145 310	0.77 0.69	2.9×10^{10} 6.1×10^6
$Gd_2O_3:Eu^{3+}$	155 -	0.83 -	9.9×10^{10} -
$Gd_2O_3:Er^{3+}$	160 not clear	0.69 -	1.4×10^9 -
$La_2O_3:Tb^{3+}$	180 310	0.88 1.05	8.5×10^{10} 1.2×10^{10}
$La_2O_3:Tm^{3+}$	200 310	0.56 0.73	8.5×10^6 1.4×10^7
$La_2O_3:Er^{3+}$	180 not clear	0.55 -	1.1×10^7 -
$Y_2O_3:Tb^{3+}$	190 300	0.90	7.7×10^{10}
$Y_2O_3:Tm^{3+}$	142 240 -	0.88 0.68 -	7.6×10^{11} 4.0×10^7 -
$Y_2O_3:Eu^{3+}$	150 280	1.00	1.4×10^{13}
$Y_2O_3:Er^{3+}$	150 220	0.83 1.10	1.3×10^{11} 1.1×10^{12}
TLD-100H	143	1.10	2.3×10^{14}
TLD-700H	140	0.92	3.0×10^{12}
TLD-200	220 305	0.65 0.90	3.5×10^7 6.7×10^8
TLD-500	287	1.98	1.4×10^{19}
TLD-900	195 290	0.72 0.97	6.9×10^8 4.6×10^9

Appendix b

List of published papers

1. **UV Induced Thermoluminescence in Phosphors and Their Suitability as UV Dosemeters**

Journal of Solid State Science and Technology Letters
Volume 4, No.2. December 1997.
Universiti Putra Malaysia, Serdang, Selangor, Malaysia

2. **UV Radiation Induced TL Response of Rare Earth Doped Minerals and Commercial Phosphors**

Journal of Solid State Science and Technology Letters
Volume 6, No.2. November 1999.
Universiti Sains Malaysia, Penang, Malaysia

3. **Investigation of Some Commercial TLD Chips/Discs as UV Dosimeters**

International Radiation Physics Society.
8th International Symposium on Radiation Physics (ISRP-8)
June, 2000.
Prague, Czech Republic.

4. **Thermoluminescence Dosimeter for Ultraviolet Light Using LiF and $CaCO_3$**

Proceeding National Physics Conference 1999, PERFIK 1999.
20 - 21 September 1999
University of Malaya, Kuala Lumpur, Malaysia

5. **The Use of CaSO4:Dy in Teflon Matrix as Solar UV Detector**

Proceeding National Physics Conference 2000, PERFIK 2000.
4 - 5 September 2000
Regency Hotel & Resort, Port Dickson.
Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia