

Material	Density (g/cm <sup>3</sup> )	Z <sub>eff</sub>	Ph.Abs.Coeff. at 511 keV (cm <sup>-1</sup> )	X <sub>0</sub> (cm)	LY (Ph/MeV)	τ (ns)	λ (nm)	Bibliographic Reference number
<b>Cross-luminescent materials are not determined</b>								
<b>Self-activated materials</b>								
<b>BeO</b>		7.3			6500	18	250	55,58
<b>Y<sub>2</sub>O<sub>3</sub></b>		36	3.02		15480	28	370	58
<b>Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub></b>	4.55	30.1	0.014	3.6	11610	100	260	58
<b>YAlO<sub>3</sub></b>		32	2.2		14400			61
<b>Sc<sub>2</sub>SiO<sub>5</sub></b>		16.8	10.98		10600	15	320	56
<b>NaZrSiO<sub>5</sub></b>		30	3.72		5600	110, 580	290, 520	56
<b>Lu<sub>3</sub>(Al-Sc)<sub>5</sub>O<sub>12</sub></b>	6.7	-			22500	610	270	60
<b>CdWO<sub>4</sub></b>	7.9	64.2	0.262	1.21	19700	2000	495	43
<b>ZnWO<sub>4</sub></b>	7.87	62.5	0.266	1.19	21500	22000	480	53
<b>CaWO<sub>4</sub></b>	6.1	63.8	0.221	1.50	6000	6000	430	54
<b>PbWO<sub>4</sub></b>	8.28	75.6	0.485	0.89	100	6	420	64

<b>Bi<sub>3</sub>Si<sub>4</sub>O<sub>12</sub></b>		74.4	1.15		1200	100	480	56
<b>Bi<sub>3</sub>Ge<sub>4</sub>O<sub>12</sub></b>	7.13	75.2	0.336	1.12	8200	300	505	43
<b>Doped materials</b>								
<b>LiLuSiO<sub>4</sub>:Ce</b>	5.61	63.4	0.178	1.68	23000	41+slow	405	34
<b>Rb<sub>3</sub>Lu(PO<sub>4</sub>)<sub>2</sub>:Ce</b>	4.7	49.6	0.077	2.4	30000	34+slow	420	62
<b>K<sub>3</sub>Lu(PO<sub>4</sub>)<sub>2</sub>:Ce</b>	4	51	0.072	3.13	50000	37+slow	410	62
<b>Gd<sub>3</sub>Sc<sub>2</sub>Al<sub>3</sub>O<sub>12</sub>:Ce</b>	5.56	55.5	0.11	1.93	1100	108	550	34
<b>Y<sub>5</sub>Al<sub>5</sub>O<sub>12</sub>:Ce</b>	4.55	32.6	0.017	3.28	11000	70	550	54
<b>Y<sub>5</sub>Al<sub>5</sub>O<sub>12</sub>:Pr</b>	4.55	32.6	3.28					48
<b>Lu<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>:Sc</b>	6.7	62.9	0.205	1.41	22500	610	270	44
<b>Lu<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>:Ce</b>	6.7	62.9	0.205	1.41		100?	520	66
<b>Lu<sub>3</sub>(Al-Sc)<sub>3</sub>O<sub>12</sub>: Pr</b>	6.7	--			10000	610	320, 370	60
<b>YAlO<sub>3</sub>:Ce</b>	5.35	32	0.019	2.2	16200	30	347	47
<b>YAlO<sub>3</sub>:Pr</b>	5.35	32	0.019	2.2				46
<b>(Y-Lu)AlO<sub>3</sub>:Ce</b>	6.3	--			14200	4.6,22,83	342	49

<b>GdAlO<sub>3</sub>:Ce</b>		56.2	1.34					50
<b>LuAlO<sub>3</sub>:Ce</b>	8.34	64.9	0.29	1.1	11400	17	365	45
<b>Y<sub>2</sub>SiO<sub>5</sub>:Ce</b>	4.45	35	0.014	3.23	9200	42	420	59
<b>Y<sub>2</sub>SiO<sub>5</sub>:Pr</b>	4.45	35	0.014	3.23				51
<b>Gd<sub>2</sub>SiO<sub>5</sub>:Ce</b>	6.71	59.4	0.175	1.36	12500	60,600	430	40,52
<b>Lu<sub>2</sub>SiO<sub>5</sub>:Ce</b>	7.4	66	0.28	1.1	27000	40	420	59
<b>Lu<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>:Ce</b>	6.23	64.4	0.21	1.39	30000	30	380	67
<b>La<sub>2</sub>Be<sub>2</sub>O<sub>5</sub>:Ce</b>		51.5	1.62		4300	65	470	56
<b>LuBO<sub>3</sub>:Ce</b>	7.4	64.5	0.28	1.32	26000	39	410	62
<b>Li<sub>6</sub>Gd(BO<sub>3</sub>)<sub>3</sub>:Ce</b>	3.5	47.9	0.051	4.13	17000		390	62