

LIST OF FIGURES

<u>Fig. No.</u>	<u>Title</u>	<u>Page No</u>
1.1	The luminescence centre and its excitation	27
1.2	Energy States for fluorescence and Phosphorescence	28
1.3	Classical configuration coordinate curve model	29
1.4	Energy Band model	30
1.5	Schon - Klassen's model	30
1.6	Lambe - Klick's model	31
1.7	William's and prener's model	32
1.8	Electroluminescence in forward PN junction	34
1.9	Electroluminescence in Heterojunction	34
1.10	Electroluminescence in schottky Barrier	34
1.11	Electroluminescence in MSI structure	34
1.12	Electroluminescence due to radiative lunneling	34
1.13	Accelaration collision EL	34
2.1	Photograph showing PL set up	57
2.2	Photograph showing TL set up	57
2.3	Photograph showing EL set up	58
2.4	Photograph showing four probe set up	58

<u>Fig. No.</u>	<u>Title</u>	<u>Page No.</u>
2.5	Block Diagram of PL set up	59
2.6	Photomultiplier Housing Assembly	60
2.7	Spectral Sensitivity of Photomultiplier tube	61
2.8	Block Diagram of TL set up	62
2.9	Block Diagram of EL set up	63
2.10	Photograph showing wide Band Amplifier	64
2.11	Kanthal strip and Drawer Assembly	65
2.12	XRD patterns of cas, srs and Bas	66
2.13	XRD patterns of undoped and doped cas	67
3.1 to 3.4	Decay curves	85 to 88
3.5 to 3.7	Peeling off decay curves	89 to 91
3.8 & 3.9	Plots of Log I vs log t	92 & 93
4.1	Energy Band Model of Thermoluminescence	120
4.2	Typical glow curve	121
4.3 to 4.12	TL glow curves	122 to 131
4.13	Variation of peak intensity with percentage of Dy.	132
4.14	Variation of peak intensity with percentage of Gd	133

<u>Fig. No.</u>	<u>Title</u>	<u>Page No.</u>
4.15	Dose dependence	134
5.1 to 5.6	Plots of B vs. V	150 tp 155
5.7	Plots of log B vs V	156
5.8	Plots of log B vs $1000/\sqrt{V}$	157
5.9	Plots of log B vs log V	158
5.10	Plots of log B vs log F	159
5.11	Photograph of Brightness waves	160
6.1	Plots of $\log_{10} S$ vs $1/T$	168