

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	SCHEMATIC DIAGRAM OF THE HIGH FREQUENCY OSCILLATOR AND DISCHARGE TUBE.	72
2	CIRCUIT DIAGRAM OF POWER SUPPLY FOR HIGH FREQUENCY OSCILLATOR.	74
3	CIRCUIT DIAGRAM OF HIGH-FREQUENCY OSCILLATOR.	75
4	THE PATH OF RAYS (SINGLE-PASS BEAM) IN PERSPECTIVE IN TWO - METER PLANE GRATING SPECTROGRAPH.	79
5	SCHEMATIC DIAGRAM OF PATH OF RAYS IN DOUBLE PASS BEAM.	82
6	MICRODENSITOMETER G - II COUPLED WITH POTENTIOMETRIC RECORDER G_1B_1	87
7	SKETCH DIAGRAM OF PLANIMETER.	90

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
8	PLOT OF $\Delta_2 F(J) \longrightarrow J$ FOR (0,5) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	98
9	PLOT OF $\Delta_2 F(J)/(J+1/2) \longrightarrow (J+1/2)^2$ For (0,5) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	99
10	PLOT OF $\Delta_2 F(J) \longrightarrow J$ FOR (0,4) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	108
11	PLOT OF $\Delta_2 F(J)/(J+1/2) \longrightarrow (J+1/2)^2$ FOR (0,4) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	109
12	PLOT OF $\Delta_2 F(J) \longrightarrow J$ FOR (0,3) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	117
13	PLOT OF $\Delta_2 F(J)/(J+1/2) \longrightarrow (J+1/2)^2$ FOR (0,3) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	118
14	PLOT OF $\Delta_2 F(J) \longrightarrow J$ FOR (2,1) BAND OF A $\longrightarrow X_1$ SYSTEM OF PbCl.	129

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
15	PLOT OF $\Delta_2 F(J)/(J+1/2) \longrightarrow (J+1/2)^2$ FOR (2,1) BAND OF A \longrightarrow X ₁ SYSTEM OF PbCl.	130
16	PLOT OF $\Delta_2 F(J) \longrightarrow J$ FOR (1,0) BAND OF D \longrightarrow X SYSTEM OF PbO.	163
17	PLOT OF $\Delta_2 F(J)/(J+1/2) \longrightarrow (J+1/2)^2$ FOR (1,0) BAND OF D \longrightarrow X SYSTEM OF PbO.	164
18(a)	INTENSITY DISTRIBUTION IN THE (1,0) BAND OF D \longrightarrow X SYSTEM of PbO MOLECULE.	170
18(b)	INTENSITY DISTRIBUTION IN THE (0,1) BAND OF D \longrightarrow X SYSTEM OF PbO MOLECULE.	171
18(c)	INTENSITY DISTRIBUTION IN THE (0,2) BAND OF D \longrightarrow X SYSTEM OF PbO MOLECULE.	172

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
19(a)	Plot of $\ln(I_{em})/2K \longrightarrow K(K - 1)$ for P branch of (1,0) band of D \longrightarrow X system of Pb0.	181
19(b)	Plot of $\ln(I_{em})/(2K + 1) \longrightarrow K(K + 1)$ for Q branch of (1,0) band of D \longrightarrow X system of Pb0.	182
20(a)	Plot of $\ln(I_{em})/2K \longrightarrow K(K - 1)$ for P branch of (0,1) band of D \longrightarrow X system of Pb0.	183
20(b)	Plot of $\ln(I_{em})/(2K + 1) \longrightarrow K(K + 1)$ for Q branch of (0,1) band of D \longrightarrow X system of Pb0.	184
21(a)	Plot of $\ln(I_{em})/2K \longrightarrow K(K - 1)$ for P branch of (0,2) band of D \longrightarrow X system of Pb0.	185
21(b)	Plot of $\ln(I_{em})/(2K + 1) \longrightarrow K(K + 1)$ for Q branch of (0,2) band of D \longrightarrow X system of Pb0.	186

