

# APPENDICES

- A 1 Lens Input Aperture Sizes
- A 2 Analyser Slit and Aperture Dimensions
- A 3 Available Pass Energies and Lens Modes
- A 4 Low Pass Energy Schematic Diagram

**A 1. Lens Input Aperture Sizes**

<u>Aperture #</u>	<u>Aperture diameter [mm]</u>	<u>Distance to sample [mm]</u>
1	20	45

**A 2. Analyser Slit and Aperture Dimensions**

Slit selector positions are numbered clockwise

<u>Position No.</u>	<u>Slit width</u> <u>[mm]</u>	<u>Slit length</u> <u>[mm]</u>	<u>Aperture width</u> <u>[mm]</u>	<u>Aperture length</u> <u>[mm]</u>	<u>Shape</u>
1	0.2	14	1.0	14	Curved
2	0.4	14	1.5	14	Curved
3	0.8	14	2.0	14	Curved
4	0.2	14	1.0	14	Straight
5	1.6	14	3.0	14	Straight
6	3.2	14	4.0	14	Straight

**A 3. Available Pass Energies and Lens Modes**

<u>Pass Energy</u>	<u>Pass Energy range</u>	<u>Lens mode</u>	<u>Magnifica- tion</u>	<u>Kinetic energy limits</u>	
[eV]				Low [eV]	High[eV]
1	Low	transmission	5	0.2	75.0
2	Low	transmission	5	0.4	150.0
5	Low	transmission	5	1.0	375.0
10	Low	transmission	5	2.0	750.0
20	Low	transmission	5	4.0	1500.0
50	High	transmission	5	10.0	1500.0
100	High	transmission	5	20.0	1500.0
200	High	transmission	5	40.0	1500.0
500	High	transmission	5	100.0	1500.0

<u>Pass energy</u>	<u>HV board set</u>	<u>Lens mode</u>	<u>Angular Disp. [deg./mm]</u>	<u>Lowest kinetic energy [eV]</u>	<u>Highest kinetic energy [eV]</u>
[eV]					
2	Low pass energy	angular	1	1.2	60.0
5	Low pass energy	angular	1	3.0	150.0
10	Low pass energy	angular	1	6.0	300.0
20	Low pass energy	angular	1	12.0	600.0
50	High pass energy	angular	1	30.0	1500.0
100	High pass energy	angular	1	60.0	1500.0
200	High pass energy	angular	1	120.0	1500.0
500	High pass energy	angular	1	300.0	1500.0

**A 4. Low Pass Energy Schematic Diagram**

