d) Switch the BASELINE RESTORER of the linear amplifier into the LO setting.

e) Move the cable carrying the Amplifier output from the oscilloscope to the ADC input.

f) Utilizing the ADC conversion gain and digital offset controls, display the relevant peaks for energy/channel calibration and spectroscopy. To measure resolution accurately, separation of the peaks of interest should be adjusted so that 8 to 20 channels appear between the half maximum points. Adjustment is by linear amplifier gain, conversion gain, and digital offset.

g) For high rate optimization a more detailed procedure is available from Aptec.

3.5 Shut-down

a) Turn off the HV power and the preamplifier power.

b) Re-install the window cover for protection.

c) Disconnect all cables at the Preamplifier panel.

d) If warming up the system, see Section 3.6. on thermal cycling precautions.

3.6 Thermal Cycling

The Aptec spectrometer may have any number of room temperature to liquid nitrogen cycles. The following precautions must be followed to ensure that the detector will retain its original characteristics when cold.

a) If the unit has started warming, either by pouring out the liquid nitrogen, or by removing the dipstick from the dewar, and less than 30 minutes has elapsed, the unit may be recooled and be ready for operation within 1 hour.

b) If the 30 minute warming time is exceeded, the unit MUST be allowed to come to room temperature. The minimum recommended warming time period is 16 hours.

c) Units with end-cap or cold finger extensions may require longer warming and cooling times. If in doubt, contact Aptec for further information.