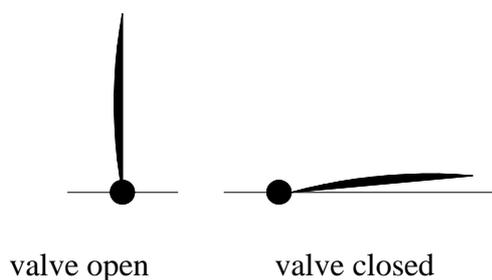


**6 APPENDIX 1: THE SEQUENCE OF OPERATIONS**

1. Open both vent and flow valves
  2. Turn selector valve to 'cell in'
  3. Purge with helium gas for at least 10 minutes
  4. Close flow valve
- 
5. Wait for pressure reading to stabilise, and then close the vent valve
  6. Zero the pressure reading if necessary
  7. Turn selector valve to 'cell out'
  8. Open the flow valve, wait for the pressure reading to reach about 17psi, and then close the flow valve
  9. Wait for the pressure reading to stabilise fully and then record the pressure ( $P_1$ )
  10. Turn selector valve to 'cell in'
  11. Wait for the pressure reading to stabilise fully and then record the pressure ( $P_2$ )
  12. Open the vent valve
  13. Go to step 5 and repeat the loop (5-13) until the ratio ( $P_1/P_2$ ) has stabilised within the error due to fluctuation on the last digit of the  $P_2$  pressure reading.
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**Figure 2** Operation of the flow and vent valves.

An Excel spreadsheet is available from the author which can be used when making measurements on the micropycnometer.