# Lab 8

## Calculations

Compute the first excitation potential, *U*0, from the graph.

1. Choose one trace and read the horizontal coordinates of the crests. Put the voltages in the following table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Crest | 1 | 2 | 3 | 4 | 5 | 6 |
| Voltages, *U* (V) |  |  |  |  |  |  |

1. Compute the difference of the voltages

U01=U2–U1;

U02 =U3–U1;

U03=U4–U1;

U04=U5–U1;

U05=U6–U1;

1. Compute to the first excitation potential *U*0.
2. The accepted value of the first excitation potential of argon is 13.1 V. Compute the relative error of you measurement.