1 Franck-Hertz Experiment — Introduction

The purpose of this laboratory is to reproduce the famous Franck-Hertz experiment. We will use the neon gas experiment – the mercury experiment is still not working.

Reference:

- Melissinos and Napolitano, Section 1.3 (The Franck-Hertz Experiment), p. 10.
- “Franck-Hertz experiment with neon,” Leybold Physics Leaflets P6.2.4.3. (Attached.)

2 Experiment

Obtain Franck-Hertz curves (I-versus-$U_2$) for various values of $U_1$ and $U_3$. (Print these curves and paste them into your lab notebook.)

Collect enough data to understand how $U_1$ and $U_3$ affect the curve, and to obtain a value for the ionization potential of neon.