

# Gas Discharge Tubes of the Noble Gases

## Chemicals and Equipment Needed

- Noble gas discharge tubes – **M4**
  - Optional: H<sub>2</sub> discharge tube – **M4**
- Banana Cables – **M3**
- Power Supply – **M3**

## Preparation

- Before class begins, connect the banana cables to the power supply
  - Attach positive (red) and negative (black) alligator clips to their corresponding positions on the gas discharge device.
- Remind the instructor to be careful with the power supply, as it can deliver a nasty shock

## Presentation

- You must be very careful to handle the power supply one handed. Put your hand in your pocket to avoid touching anything else and potentially completing the circuit.
- Turn on the power supply to show the students the different colors produced by the various noble gases.
  - The device tends to arc between colors/gases, so the safest thing is to turn off the power supply each time you want to show a different color.

## NOTES

- We have a small supply of prism glasses and a hand held spectroscope if desired.