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## **Milikan's experiment for the verification of Einstein's photoelectric equation**

**Objective :** *Describe Millikan's experiment for the verification of Einstein's photoelectric equation and calculate Planck's constant.*

### **Experimental Setup**

#### **Physical Structural setup in milikan's photoelectric experiment**

- A circular disc is present.
- A light hole is present.
- A knife is present.

#### **Function of knife in milikan's photoelectric experiment**

- Knife removes the layer of surface from metal.

#### **Cause of removal of layer of surface form metal by a knife in milikan's photoelectric experiment**

- The layer of surface from metal is removed to freshen the surface.
- The previous photon struck in the surface knock off the electrons.
- The later photon struck in the surface cannot knock off electrons in more amount in the unremoved surface.

#### **Physical Material setup in milikan's photoelectric experiment**

- There is the presence of metals.
- The metals are present around a circle.

#### **Chemistry of metals in milikan's photoelectric experiment.**

- The metals in milikan's photoelectric experiment are
  - alkali

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**Number of metals in milikan's photo electric experiment.**

- The number of metals in milikan's photo electric experiment is
  - 3

**Electrical setup in milikan's photoelectric experiment**

- A cathode is present.
- A galvanometer is present.
- A key is present.
- A source is present.

**Charge in cathode in milikan's photoelectric experiment**

- The charge of cathode in milikan's photoelectric experiment is
  - negative

**Cause of negative charge in cathode in photoelectric experiment**

The negative charge of cathode in photoelectric experiment

- Only allows to move fast moving electron inside the cathode.

**Atmospheric setup in milikan's photoelectric experiment**

- The atmospheric setup in milikan's photoelectric experiment is
  - Vacuum

**Optical setup in milikan's photoelectric experiment**

- A light filter is present.

**Function of light filter in milikan's photoelectric experiment**

- The light filter in milikan's photoelectric experiment generates monochromatic light.