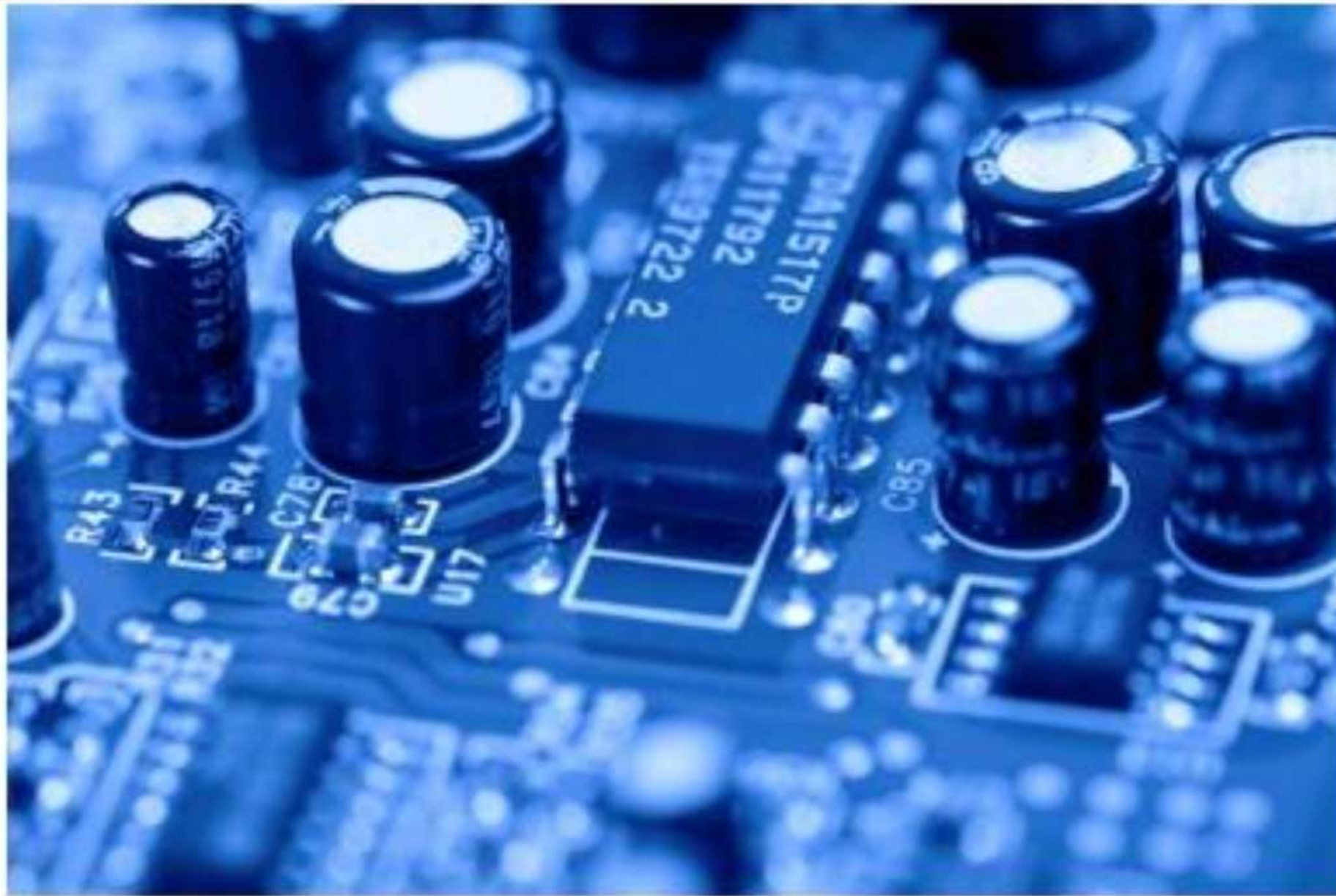
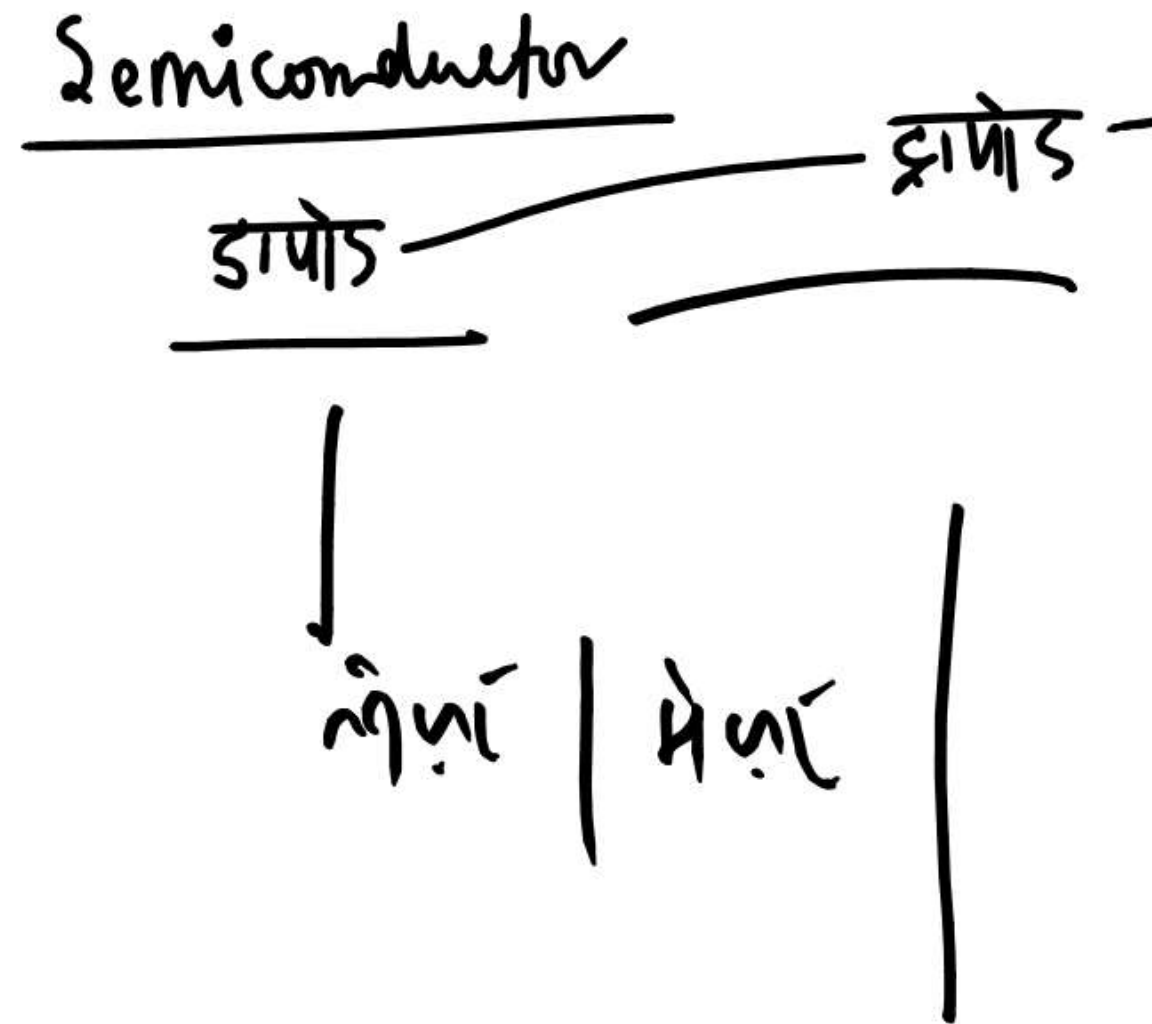


इलेक्ट्रॉनिक्स (Electronics)

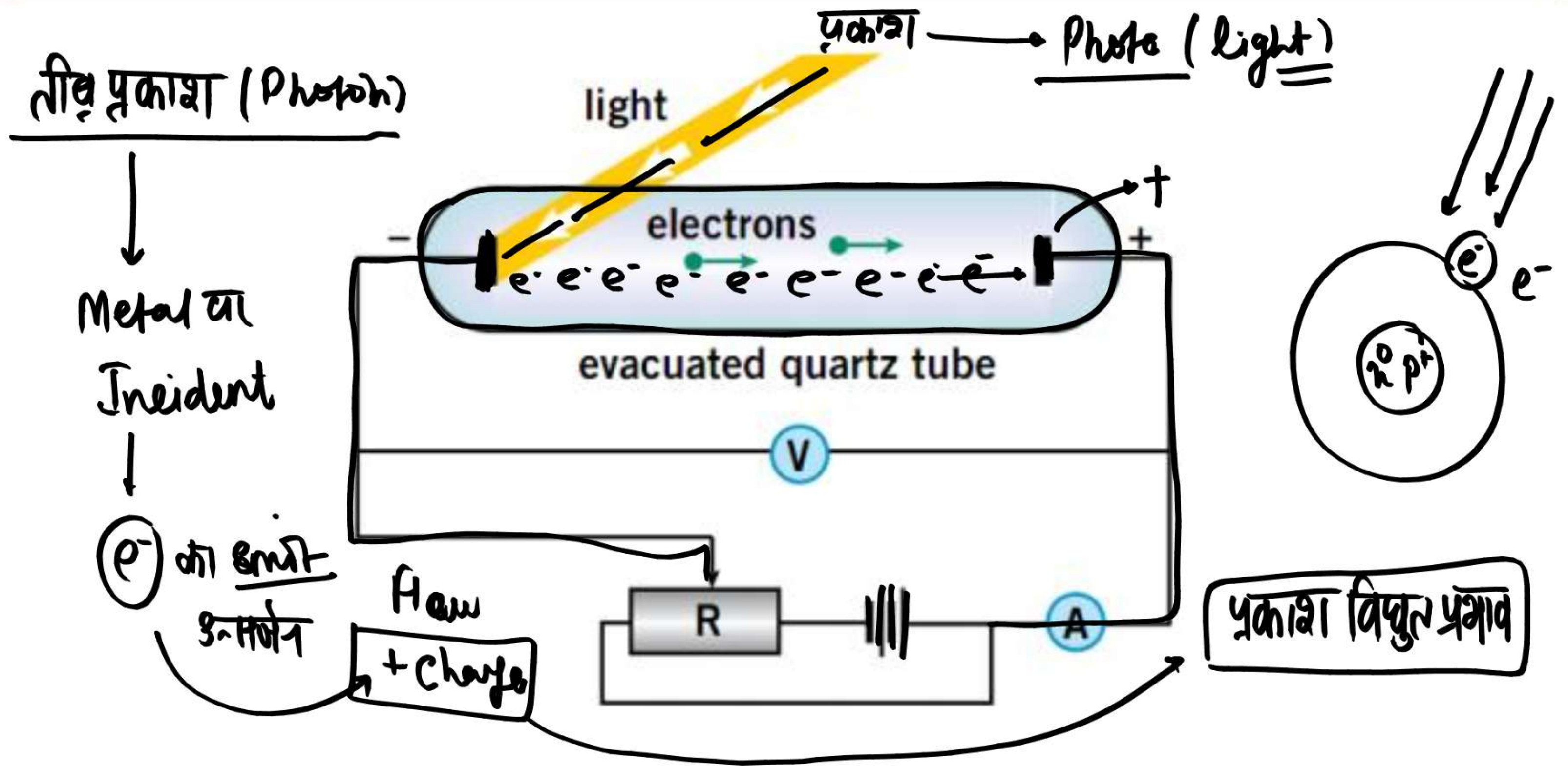


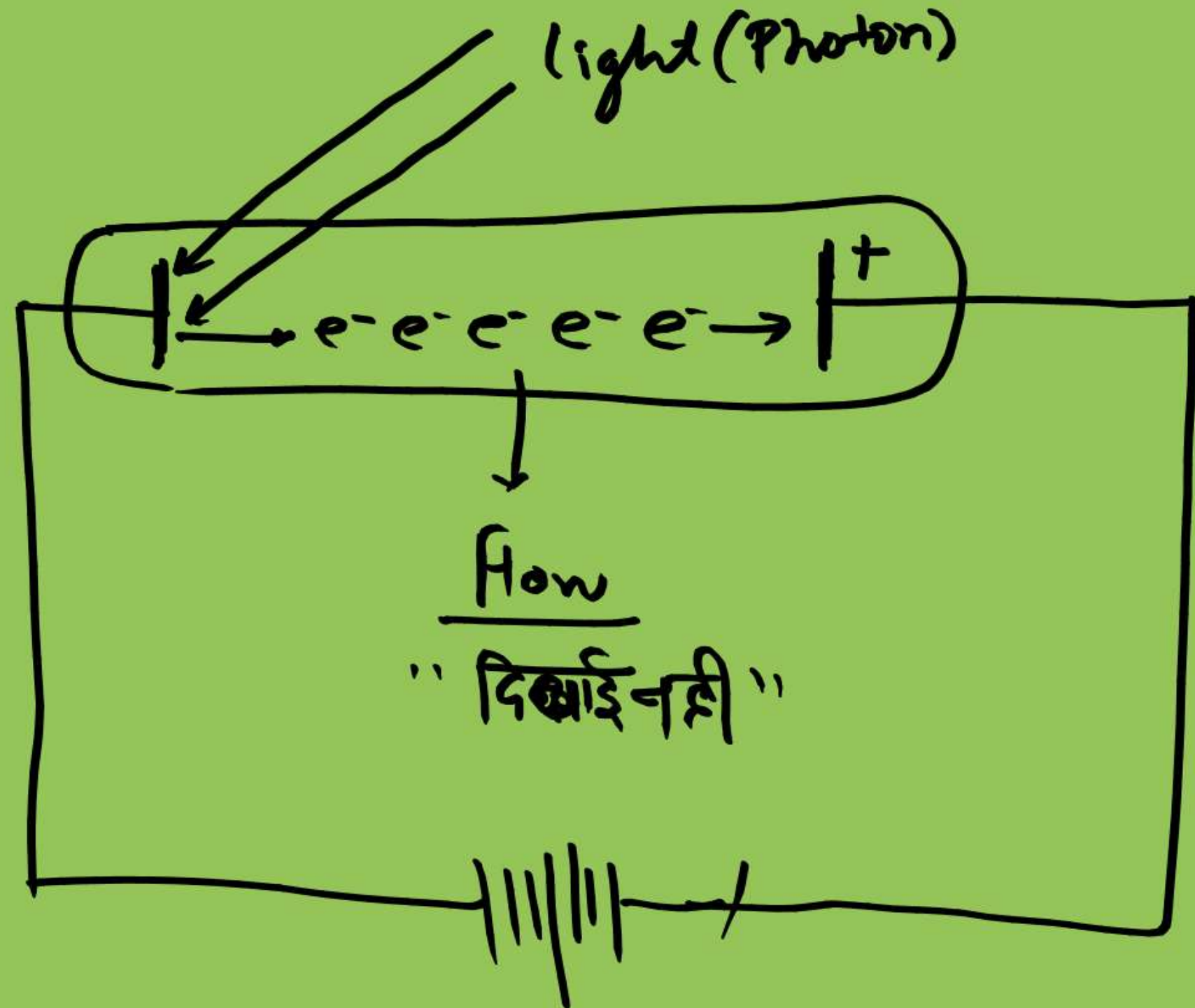
@Sumit Shukla (Faculty of Science and Technology)

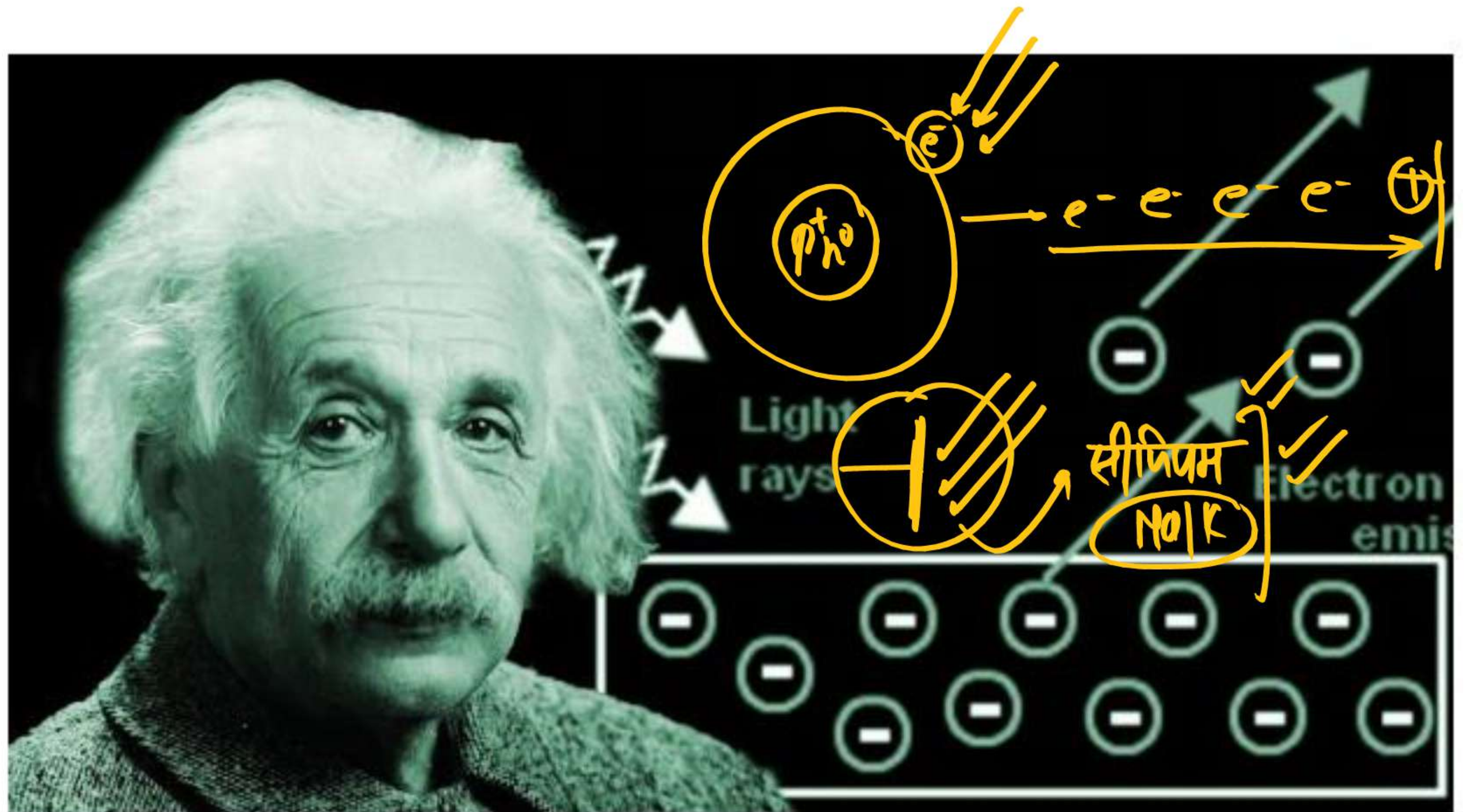
General Introduction And Question Trend



Photoelectric Effect



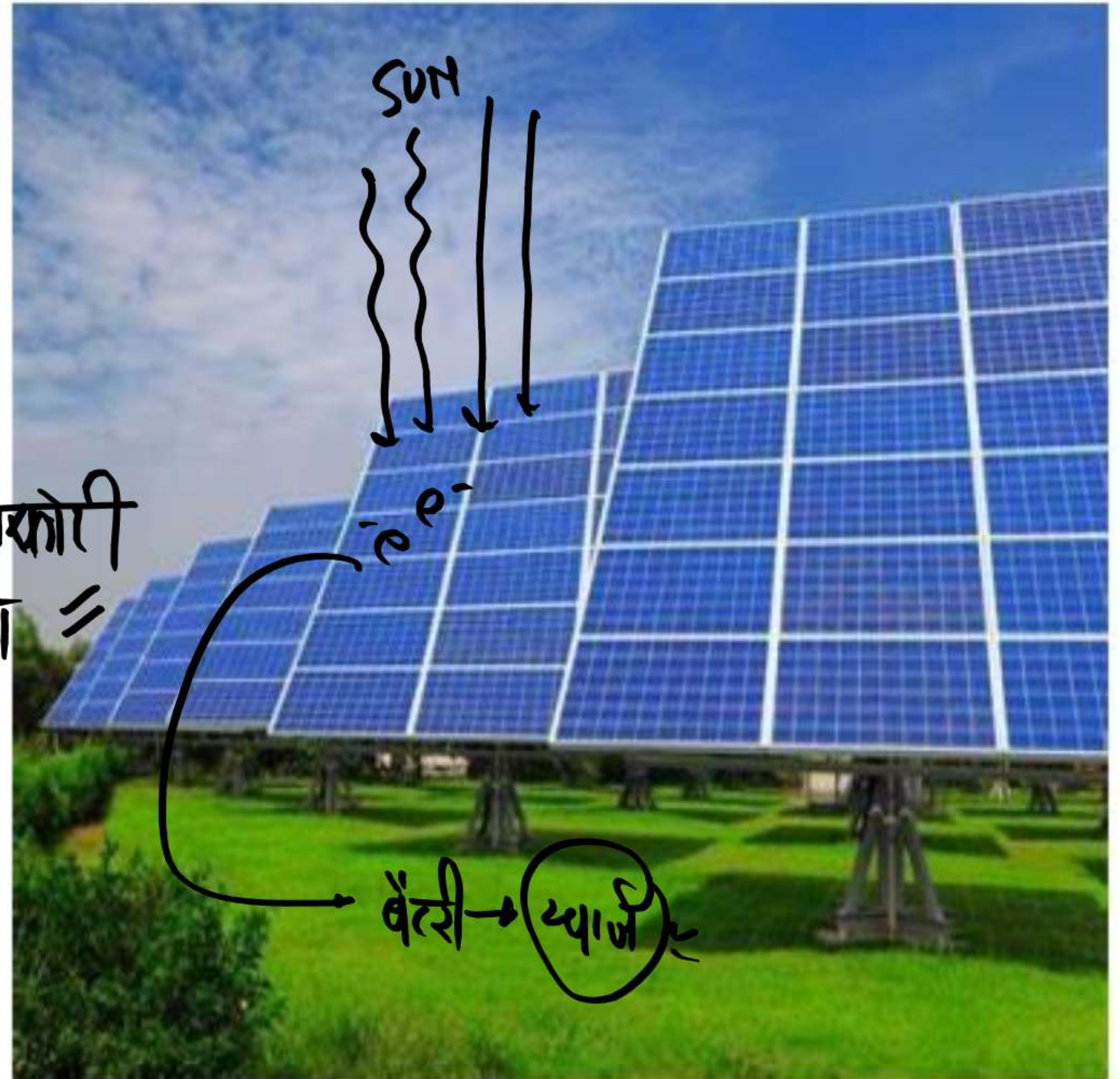




Application of Photoelectric Effect

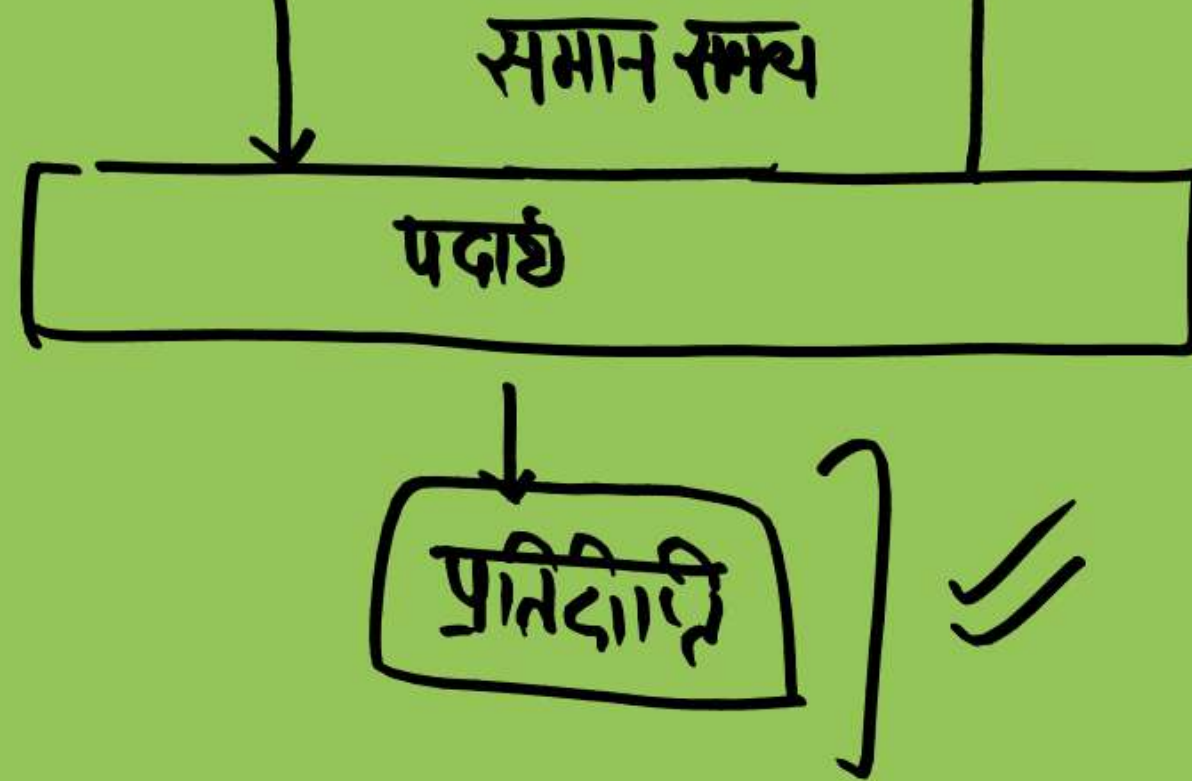
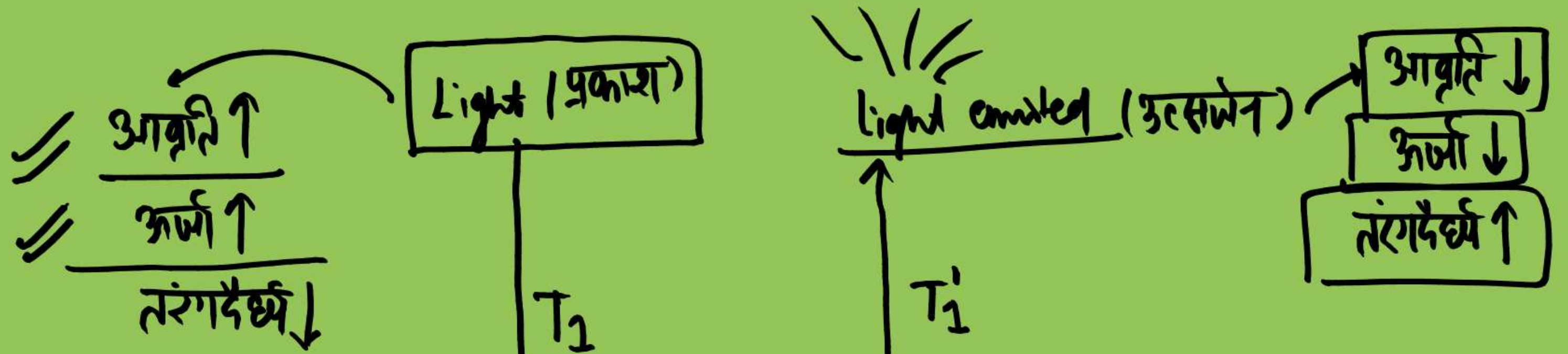
अनुप्रयोग

- ① सौर तंत्र की कार्य प्रणाली (PEE)
- ② लिफ्ट दरवाजे -
- ③ स्वचालित दरवाजे
- ④ सीढ़ियाँ स्वचालित
- ⑤ बैक लिफ्ट की माफ़ा =



Fluorescence (प्रतिदीप्ति)





Note: जब तक Light Incident होती तभी तक Light emitted आएगी

उदाहरण (प्रतिदीर्घ)

- फ्लोरस्पॉर ✓
- पेद्रोल ✓
- टॉनिकवार ✓
- चाय। हल्दी ✓
- कुनीन सल्फेट ✓
- बेरियम प्लैटिनम सायनायड ✓

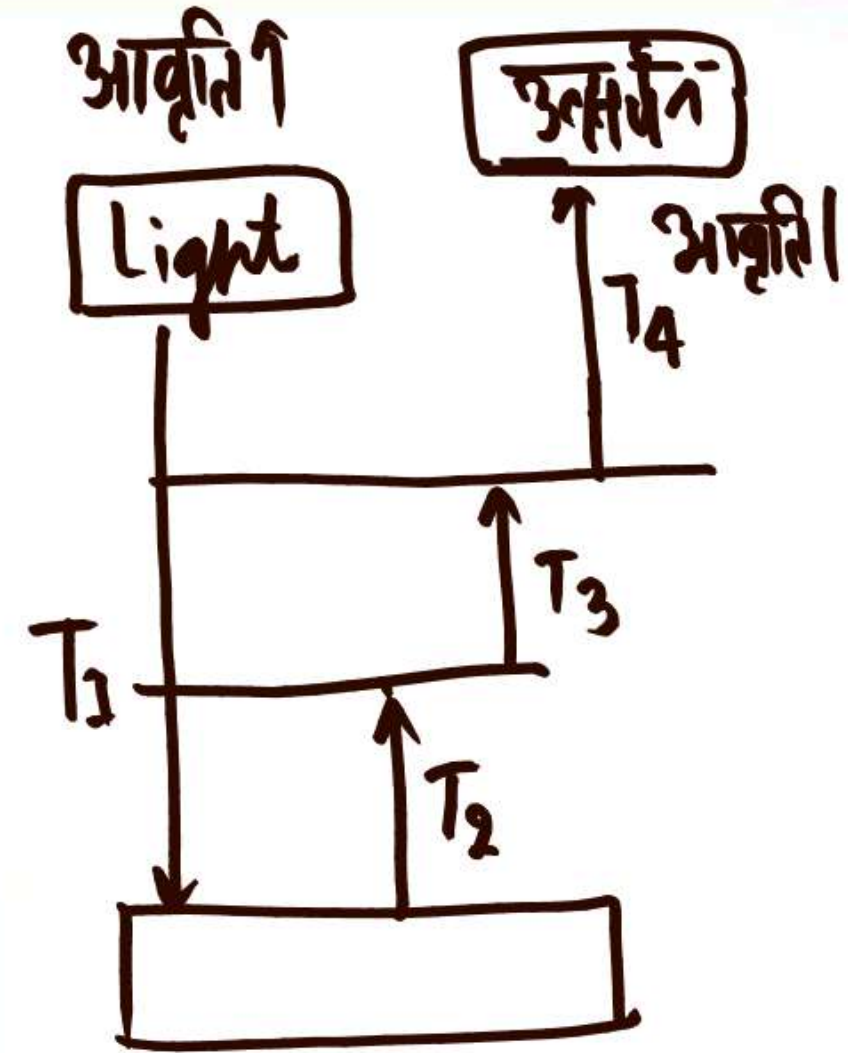
प्राप्त

Phosphorescence (स्फुरदीप्त)

Note: हेनरी बेकरल इसी
प्रक्रिया के रिसर्च
के दौरान

रेडियो सक्रियता

का पता लगाया

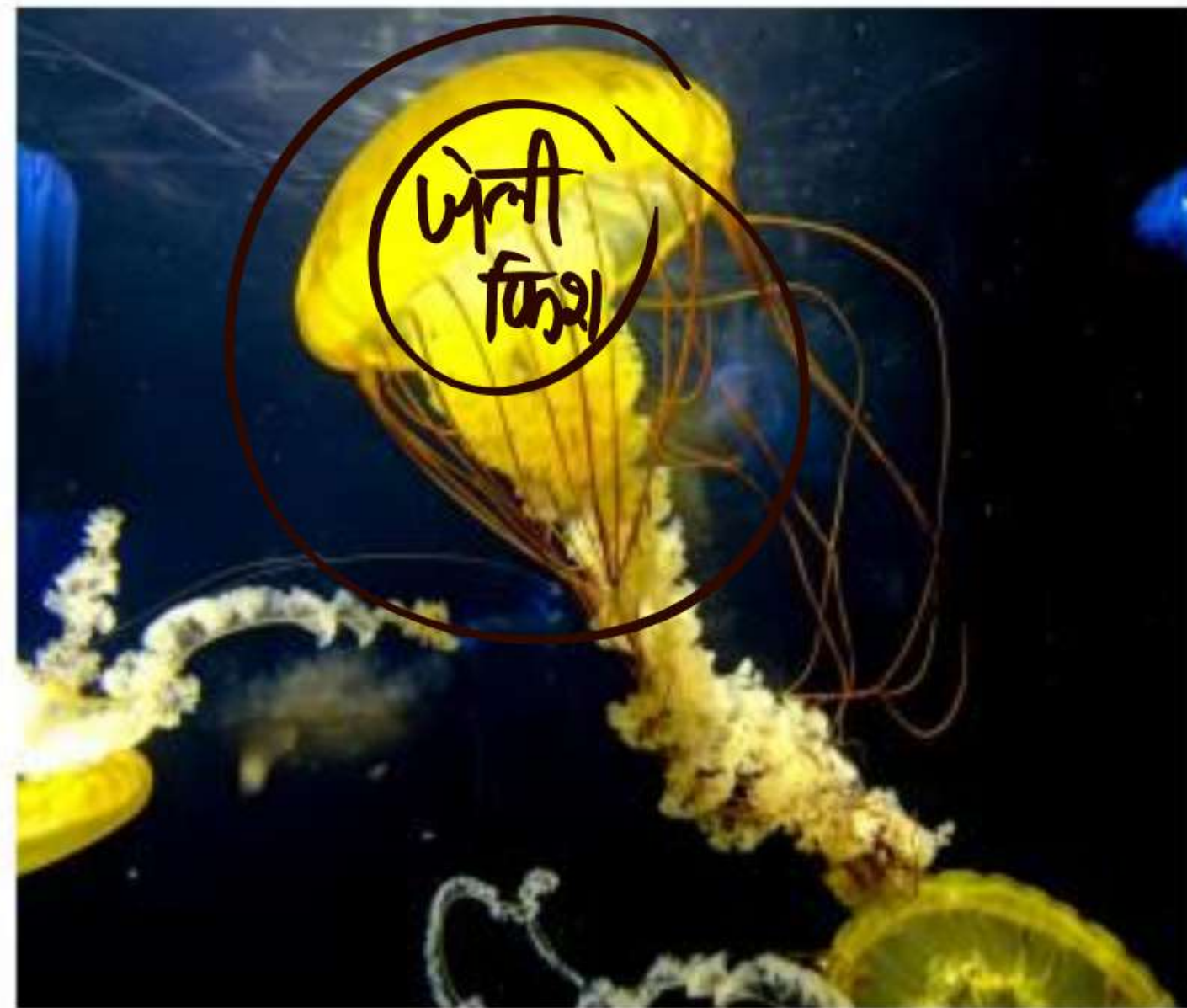


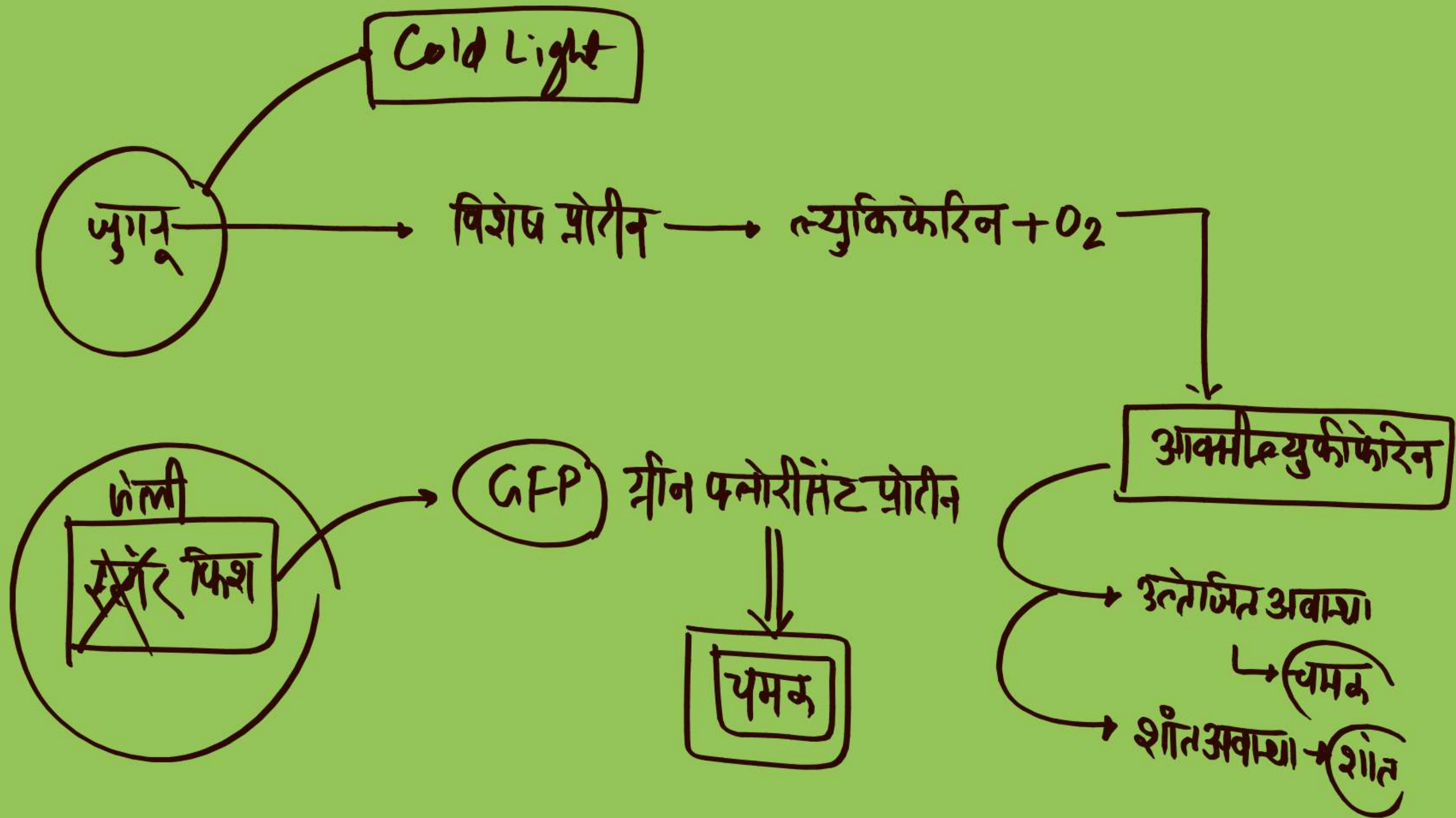
प्रकाश हरा लेने के बाद भी
पदार्थ में धमक रही है

Exp → जिंक सल्फाइड
बेरियम सल्फाइड
कैल्शियम सल्फाइड
स्ट्रॉन्शियम सल्फाइड

स्फुरदीप्ति → धड़ी की सुइयो
माइन बोर्ड
इलेक्ट्रॉनिक्स

जैव रासायनिक प्रकाश (Bioluminescence)





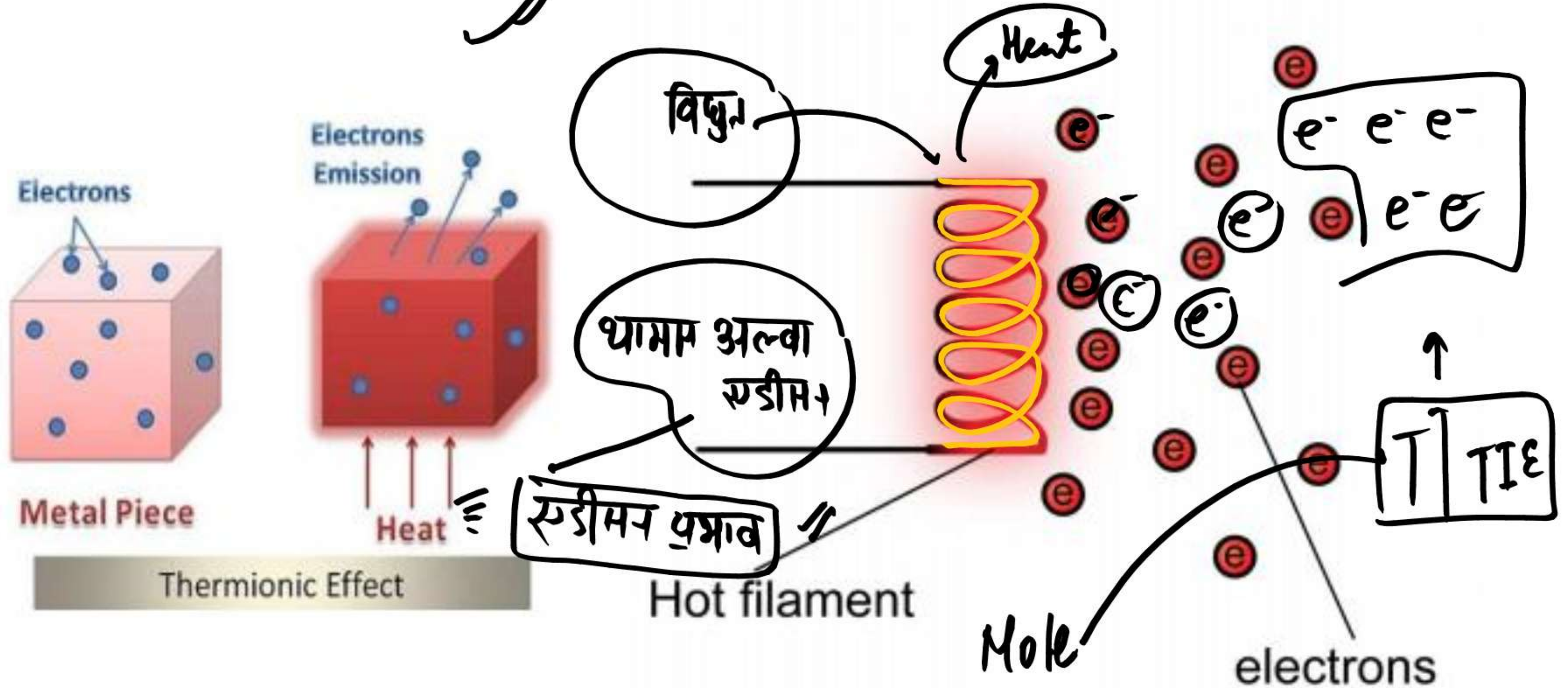
प्रमुख प्राकृतिक प्रकाश

EXAMPLES OF NATURAL LIGHT SOURCES

- Fire
- Sun
- Bio-luminescent
- Lightning
- Stars

= अरोरा
उल्कापिण्ड
तेखुला
मैगा

ऊष्मा आयनिक उत्सर्जन (Thermal ionic emission)



डायोड (Diode)

Gunn Diode



PIN Diode



Step Recovery Diode



Laser Diode



Photo Diode



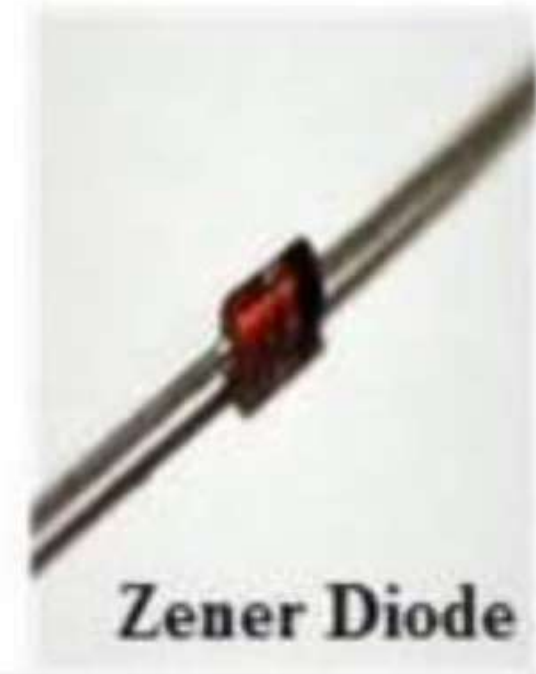
Tunnel Diode



Varactor Diode



Schottky Diode

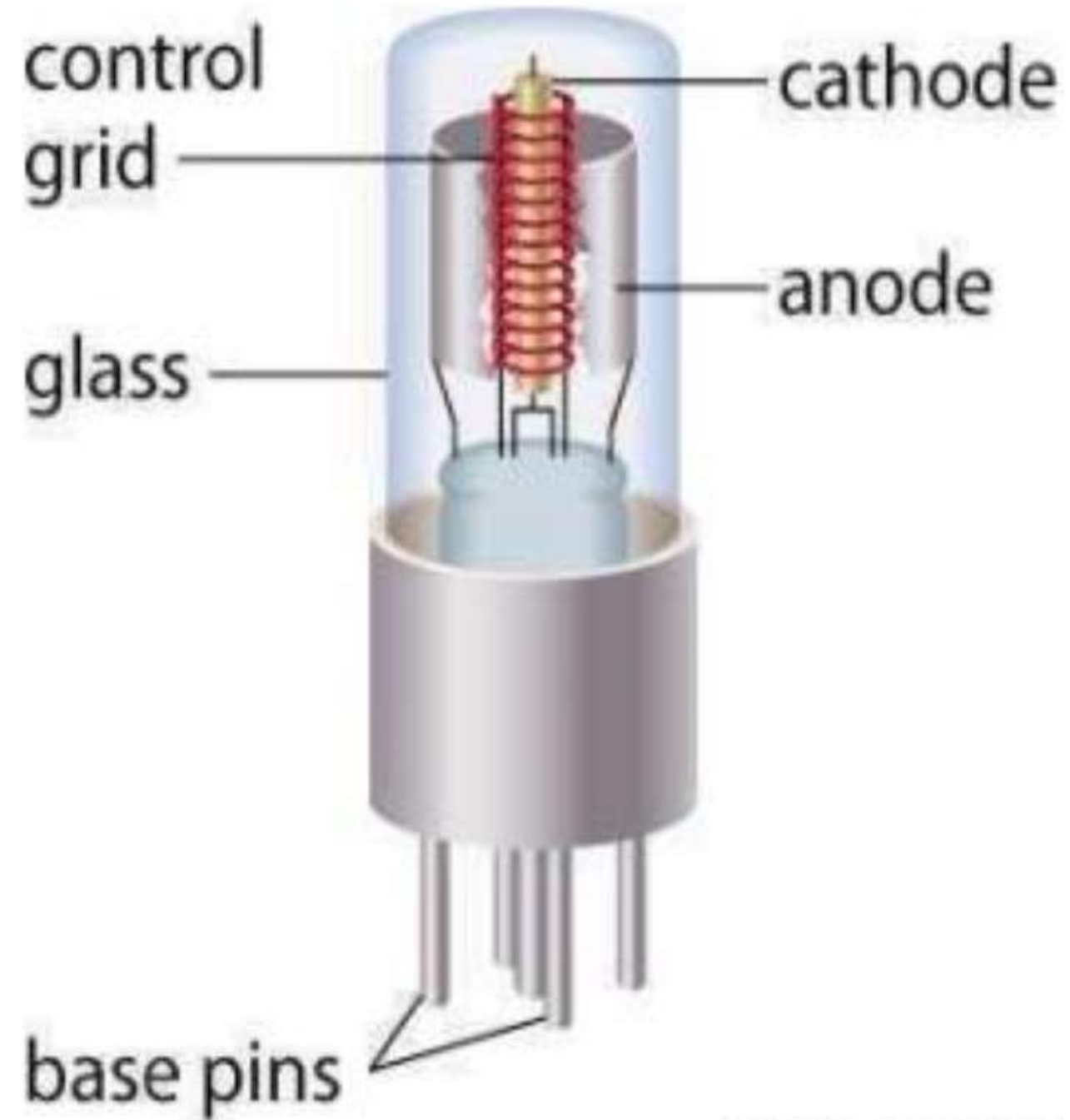


Zener Diode

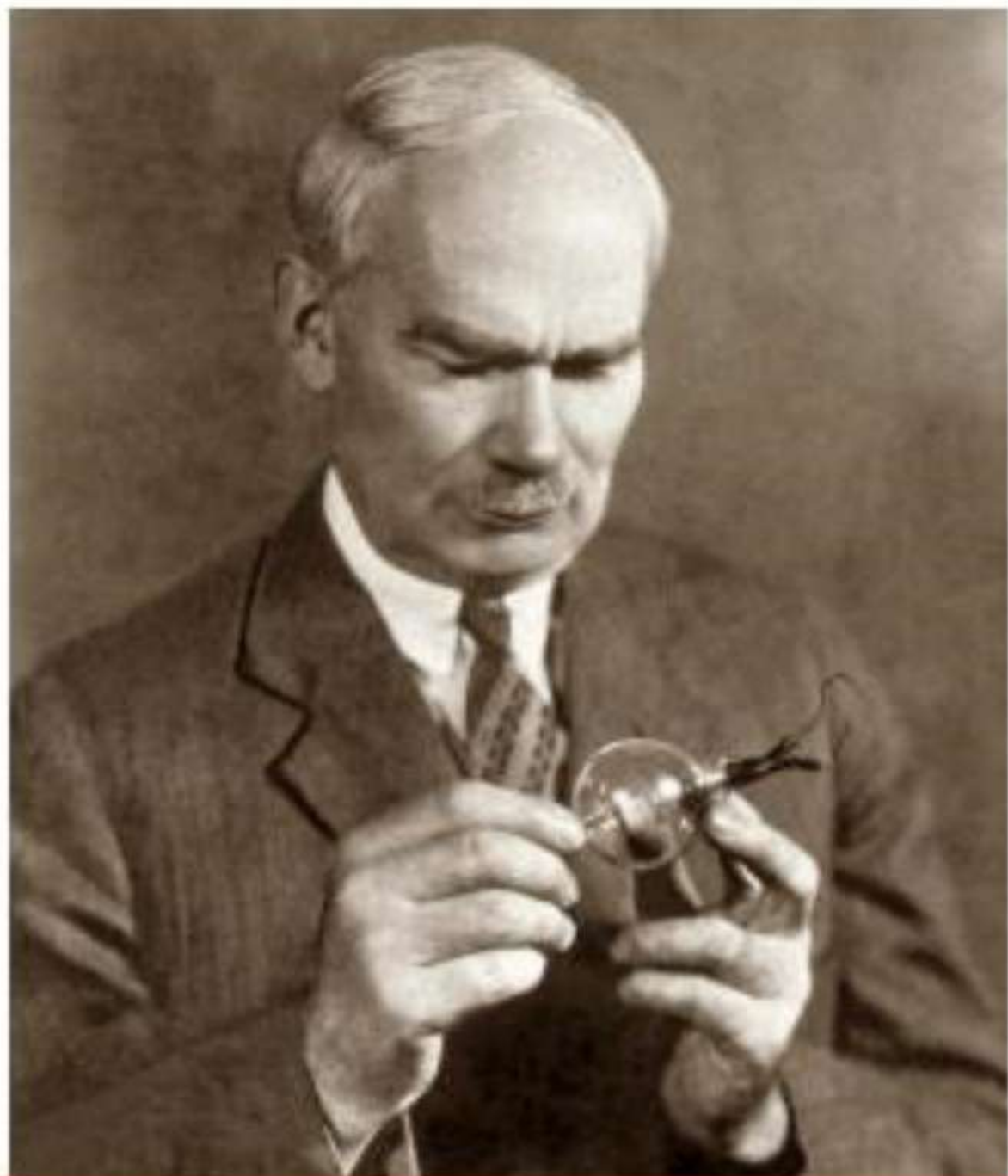


John Ambrose Fleming (UK)

ट्रायोड (triode)



Precision Graphics



Lee de forest (USA)

Semiconductor (अर्धचालक)

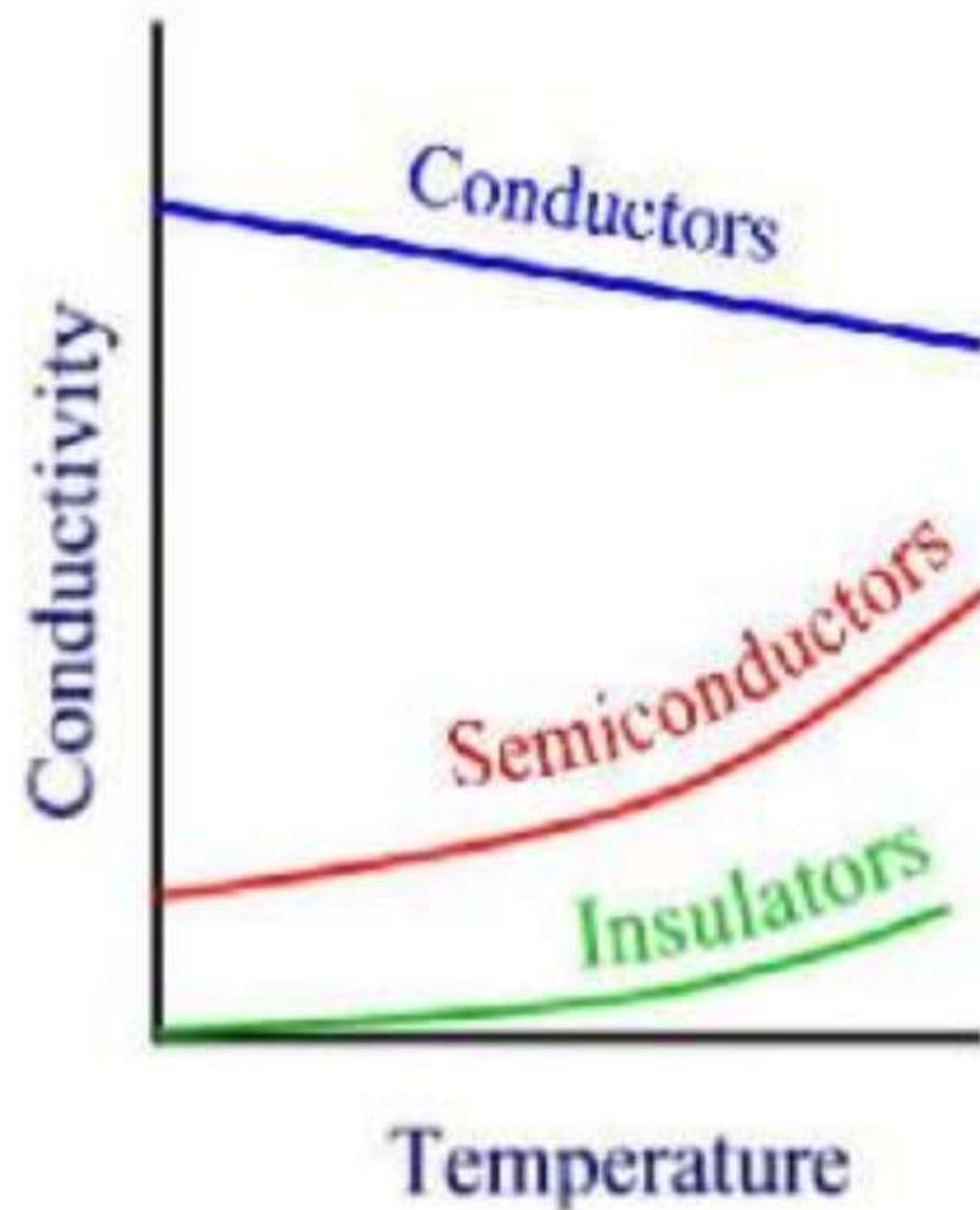


Type of semiconductor

n - type semiconductor

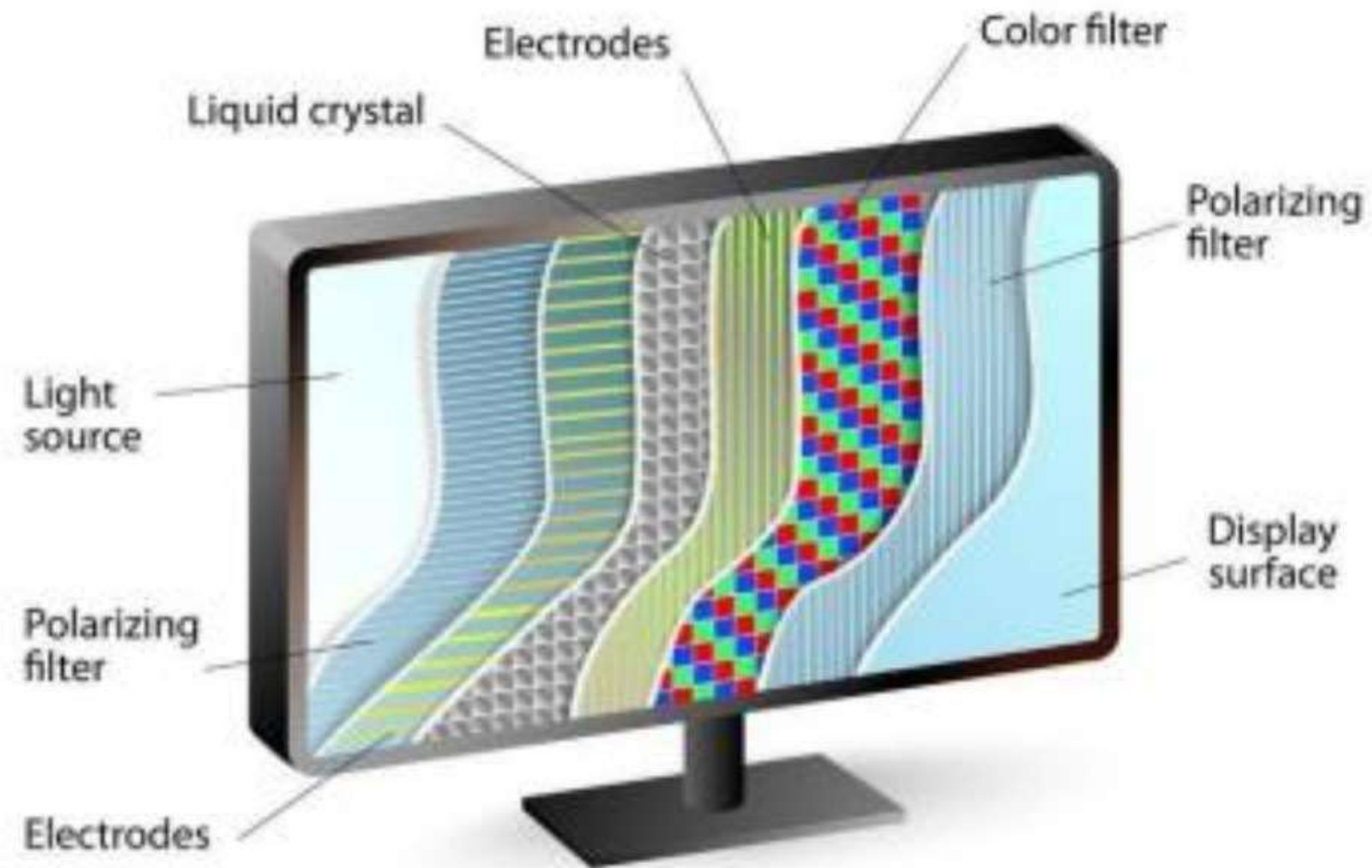
p- type semiconductor

Effect of temperature on semiconductor

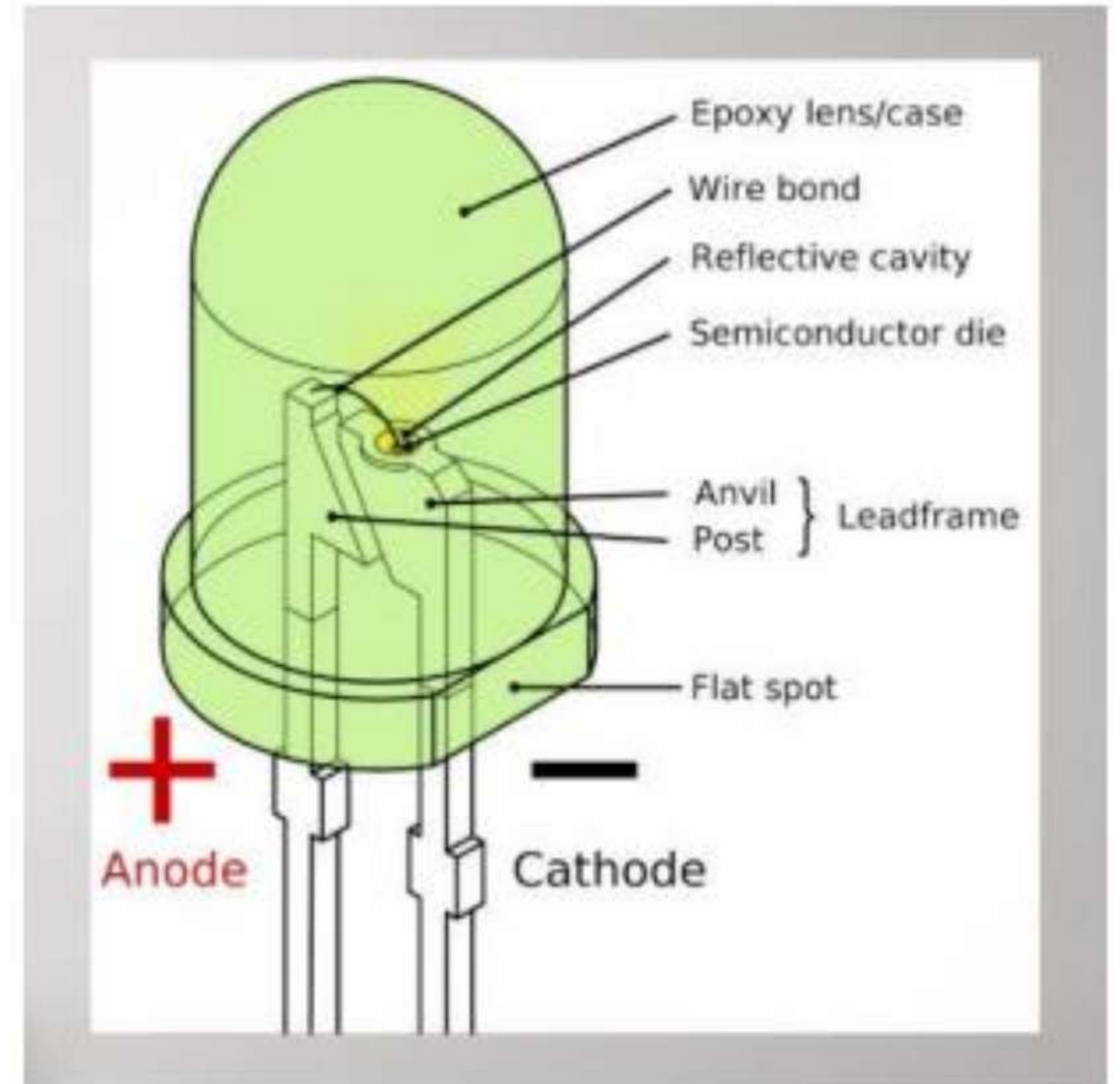


Liquid crystal display (LCD)

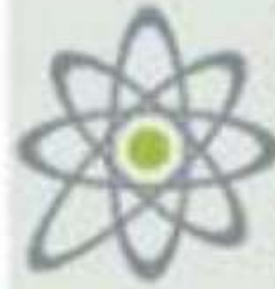
LIQUID CRYSTAL DISPLAY



Light emitting diode (LED)



The blue light-emitting diode



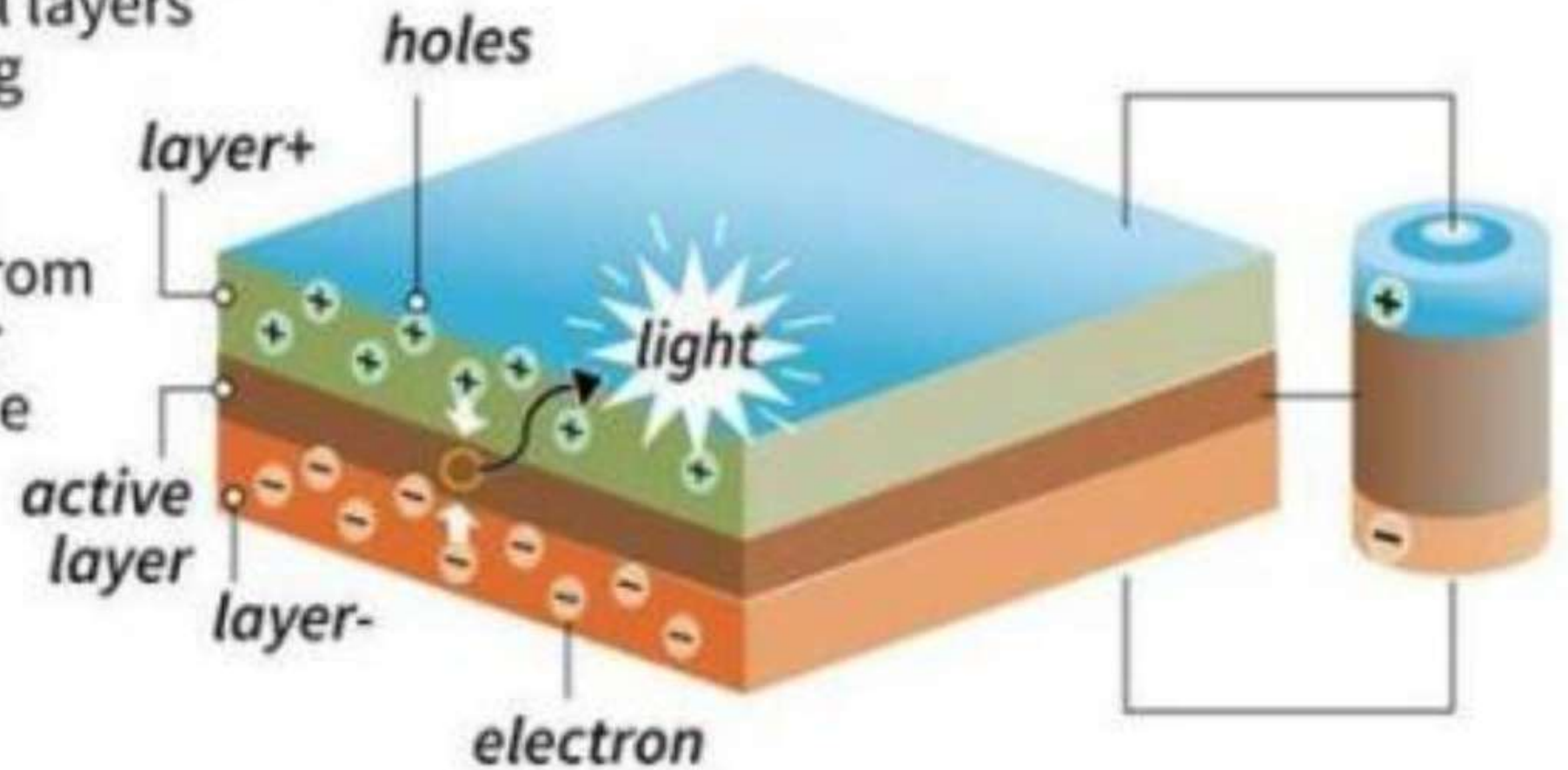
Work by **Isamu Akasaki**, **Hiroshi Amano** and **Shuji Nakamura** led to a low-energy source of light for illuminating homes and computers, as well as a weapon against global warming



A light-emitting diode (LED)

consists of several layers of semiconducting materials.

Electrical voltage drives electrons from the negative layer and holes from the positive layer to the active layer, where they recombine to emit light



Laser



LASER

**Light Amplification by Stimulated
Emission of Radiation**



लेजर तकनीक का अनुप्रयोग



मेसर

Microwave amplification by the stimulation emission of radiation

