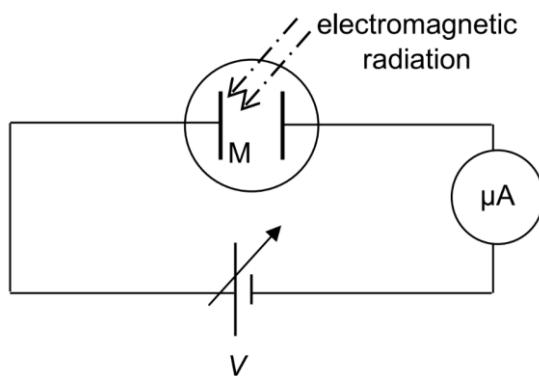


- 28** A 0.31 mW beam of electromagnetic radiation is incident on a clean metal plate M. Each photon of the electromagnetic radiation has energy 3.11 eV.

The potential difference  $V$  in the circuit is varied until the microammeter gives a maximum reading of 2.0  $\mu\text{A}$ .



What is the ratio  $\frac{\text{number of electrons emitted per unit time}}{\text{number of photons incident per unit time}}$  ?

- A**  $3.2 \times 10^{-21}$       **B**  $2.0 \times 10^{-2}$       **C** 1.0      **D**  $1.3 \times 10^{17}$

