

Answer on Question #58024 - <Chemistry> - <General Chemistry>

Einstein's equation for the photoelectric of the external effect:

$$\varepsilon = A + \frac{mV_{2\max}^2}{2}$$

$$A = \varepsilon - \frac{mV_{2\max}^2}{2}$$

$$\varepsilon = h \frac{c}{\lambda}$$

$$A = \varepsilon - W_{\max} = h \frac{c}{\lambda} - \frac{mV_{2\max}^2}{2} = 3.4 \cdot 10^{-34} \frac{J}{mol}$$

The ionisation energy of rubidium per atom is $3.4 \cdot 10^{-34} \frac{J}{mol}$