

P#19

Ch 28 - pg 896

$$a) E_4 = \frac{-13.6 \text{ eV}}{4^2} = -0.85 \text{ eV}$$

$$E_2 = \frac{-13.6 \text{ eV}}{2^2} = -3.4 \text{ eV}$$

$$\Delta E = (-0.85 \text{ eV}) - (-3.4 \text{ eV}) \\ = 2.55 \text{ eV}$$

$$E = \frac{h \cdot c}{\lambda}$$

$$(2.55 \text{ eV}) = \frac{1240 \text{ eV} \cdot \text{nm}}{\lambda}$$

$$\lambda = 486 \text{ nm}$$