Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_

Chapter 21.1 – Sound PP B, the Photoelectric effect , page 758

1. In the photoelectric effect, it is found that incident photons with energy 5.00 eV will produce electrons with a maximum kinetic energy 3.00 eV. What is the threshold frequency of this material?

1. Light of wavelength 350 nm falls on a potassium surface, and the photo-electrons have a maximum kinetic energy of 1.3 eV. What is the work function of potassium? What is the threshold frequency for potassium?
2. Which of the following metals will exhibit the photoelectric effect when light of 7.0 x 1014  frequency shines on it.
3. Lithium hft = 2.3 eV
4. Silver hft = 4.7 eV
5. Cesium hft = 2.14 eV