Name_____

Phys 2020 (NSCC), Spring 2008
Problem Set #11

1. Find the wavelength and frequency of a photon of energy 3.1 eV.

2. The minimum energy required to remove an electron from a metal is 2.60 eV. What is the longest wavelength photon that can eject an electron from this metal?

3. A rubidium surface has a work function of 2.16 eV. What is the maximum kinetic energy of ejected electrons if the incident radiation is of wavelength 413 nm?

4. What are the de Broglie wavelengths of electrons with the following values of kinetic energy? (a) 1.0 eV. (b) 1.0 keV.