

Chemistry Wave Problems

Name:

1. What is the energy of a wave that has a wavelength of 8.5 meters?
2. What is the wavelength of a wave that has a frequency of 5.9×10^{15} Hz?
3. What is the frequency of a wave that has 5.96×10^{-19} J of energy?
4. What is the frequency of light if the wavelength is 6.00×10^{-7} m? What is the color of the light?
5. Which wave has a shorter wavelength; light with a frequency of 5.8×10^{16} Hz or light that is red in color?
6. If light has a frequency of 8.25×10^{16} Hz, what is its energy?
7. If a wave has an energy of 3.2×10^{-19} J, what is its frequency?
8. If the frequency of light increases, what will happen to the wavelength?
To the energy?
9. If we know the frequency of light, what constant allows us to determine the wavelength?
The energy?
10. How much wood could a woodchuck chuck if a woodchuck could chuck wood?