

Periodic Properties

Name _____

1. If it is known that Lithium (Li) reacts vigorously with water, name one other element that probably will react in the same way and explain why you picked that element?
2. Radioactive isotopes of Strontium (Sr) are known to cause bone cancer. Why might this element particularly target bones and not other parts of the body?
3. What is ionization energy?
4. Explain the relationship between atomic radius and electronegativity. Why do smaller atoms tend to attract electrons from larger atoms better than larger atoms attract electrons from smaller atoms. (Hint: think about how the attraction between positive and negative are affected by distance.)

(over)

5. Why do the elements on the right side of the periodic table have a higher ionization energy? In other words, why is it harder to remove an electron from the elements on the right side of the periodic table?
6. The electric currents you are most familiar with are electrons hopping from one atom to another, generally moving in one direction (ex through a wire). Explain why metals (left side of the periodic table) are good conductors and non-metals (right side of the periodic table) are not, preventing electrons from jumping from atom to atom. You should mention both electronegativity and ionization energy in your answer.