

ATOMIC RADIUS

1. What trend in atomic radius do you see as you go down a group/family on the periodic table? _____
2. What causes this trend? _____
3. What trend in atomic radius do you see as you go across a period/row on the periodic table? _____
4. What causes this trend? _____
5. Circle the atom in each pair that has the largest atomic radius.
 - a) Al B
 - b) S O
 - c) Br Cl
 - d) Na Al
 - e) O F
 - f) Mg Ca
6. Which element has the largest atomic radius? _____ The smallest? _____
7. Put the following elements in order from smallest to largest atomic radius: C,O,Sn,Sr.

ELECTRONEGATIVITY

8. Define electronegativity. _____
9. What trend in electronegativity do you see as you go down a group/family on the periodic table? _____
10. What causes this trend? _____
11. What trend in electronegativity do you see as you go across a period/row on the periodic table? _____
12. What causes this trend? _____
13. Circle the atom in each pair that has the greater electronegativity.
 - a) Ca Ga
 - b) Li O
 - c) Cl S
 - d) Br As
 - e) Ba Sr
 - f) O S
14. Which element has the greatest electronegativity? _____ The least? _____
15. Put the following elements in order from least to greatest electronegativity:
N, Cs, Mo, P, Ag.

IONIZATION ENERGY

16. Define ionization energy. _____
17. What trend in ionization energy do you see go down a group/family on the periodic table? _____
18. What causes this trend? _____
19. What trend in ionization energy do you see as you go across a period on the periodic table? _____
20. What causes this trend? _____
21. Circle the atom in each pair that has the greater ionization energy.
 - a) Fe Os
 - b) Ca As
 - c) He Mg
 - d) Te Cs
 - e) Na Rb
 - f) C O
22. Put the following elements in order from least to greatest ionization energy:
As, Ba, Y, O, Sb

ELECTRON AFFINITY

23. Define electron affinity. _____
24. What trend in electron affinity do you see as you go down a group/family on the periodic table? _____
25. What causes this trend? _____
26. What trend in electron affinity do you see as you go across a period/row on the periodic table? _____
27. What causes this trend? _____
28. Circle the atom in each pair that has the greater electronegativity.
 - a) Ba Ca
 - b) Na S
 - c) O S
 - d) Br F
 - e) Ba Sr
 - f) Al P
29. Which element has the greatest electron affinity? _____
30. Put the following elements in order from least to greatest electronegativity:
N, Cs, Mo, P, Ag.