

Chapter 7

- X.** Rewrite each of the following in order of increasing size of the species
- | | | |
|-------------------|--|-------------------|
| a. Ca, Sr, Mg, Be | b. Te, Po, O, S | c. Ar, He, Rn, Kr |
| d. Sn, Ge, Si, Pb | e. Ga, In, B, Al | f. B, Li, O, C |
| g. Bi, Cs, Tl, Ba | h. Sc^{3+} , Cl^- , K^+ , S^{2-} | i. K, Br, Ge, As |

- XI.** Rewrite each of the following lists in order of ionization energy smallest to largest
- | | | |
|-------------------|-------------------|-------------------|
| a. Rb, K, Na, Cs | b. N, As, Sb, P | c. Al, B, Tl, In |
| d. Be, Sr, Mg, Ca | e. Na, Cl, Al, Ar | f. Ca, Ge, Kr, As |

- XII.** Rewrite each of the following lists in order of electron affinity, smallest to largest
- | | | |
|------------------|---------------|------------------|
| a. Br, Cl, F, I, | N, P, Bi, Sb, | c. Na, Rb, Li, K |
|------------------|---------------|------------------|

- XIII.** Rewrite each list in order of increasing metallic character, most non metallic to most metallic.

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| a. Rb, K, Na, Cs | b. Cs, F, In, P | c. As, Br, Ca, K |
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Answer Key: Chapter 7

- X.** Rewrite each of the following in order of increasing size of the species
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| a. $\text{Be} < \text{Mg} < \text{Ca} < \text{Sr}$ | b. $\text{O} < \text{S} < \text{Te} < \text{Po}$ | c. $\text{He} < \text{Ar} < \text{Kr} < \text{Rn}$ |
| d. $\text{Si} < \text{Ge} < \text{Sn}, \text{Pb}$ | e. $\text{B} < \text{Al} < \text{Ga} < \text{In}$ | f. $\text{O} < \text{C} < \text{B} < \text{Li}$ |
| g. $\text{Bi} < \text{Tl} < \text{Ba} < \text{Cs}$ | h. $\text{Sc}^{3+} < \text{K}^+ < \text{Cl}^- < \text{S}^{2-}$ | i. $\text{Br} < \text{As} < \text{Ge} < \text{K}$ |

- XI.** Rewrite each of the following lists in order of ionization energy smallest to largest
- | | | |
|----------------------|----------------------|----------------------|
| a. Cs < Rb < K < Na | b. Sb < As < P < N | c. Tl < In < Al < B |
| d. Sr < Ca < Mg < Be | e. Na < Al < Cl < Ar | f. Ca < Ge < As < Kr |

- XII.** Rewrite each of the following lists in order of electron affinity, smallest to largest
- | | | |
|--------------------|-----------------|---------------------|
| a. I < Br < Cl < F | N < P < Sb < Bi | c. Li < Na < K < Rb |
|--------------------|-----------------|---------------------|

- XIII.** Rewrite each list in order of increasing metallic character, most non metallic to most metallic.

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|---------------------|--------------------|---------------------|
| a. Na < K < Rb < Cs | b. F < P < In < Cs | c. Br < As < Ca < K |
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