

## 38.5: Analysis

1. As you move from left to right along a period (row), what is the change that happens in the outermost shell?
2. Describe how the number of unpaired electrons in the outermost shell is related to the group number, either directly or by the octet rule.
3. Assuming the goal is to be like a noble gas, a Group 8A element, determine the number of electrons that elements in each Group A column would tend to gain or lose in order to have a full outer shell. Record whether the atoms in the group would tend to gain or lose electrons. Record the number of electrons the atoms in the group would tend to gain or lose. Write the charge an atom would tend to have. Complete the *ionization* table.

Table 38.5.1: Ionization Table

Group	Lose/Gain	Number	Charge on Atom
IA	lose	1	+1
IIA			
IIIA			
IVA			
VA			
VIA			
VIIA			
VIIIA			

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