Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ December 5, 2016 Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BELL WORK: *Bio-Chem*

1. Naturally occurring europium (Eu) consists of two isotopes was a mass of 151 and 153. Europium-151(150.65 amu) has an abundance of 48.03% and Europium-153(152.99 amu) has an abundance of 51.97%. What is the atomic mass of europium?

**Argon: Electron Orbital Diagram**

2. Write an electron configuration for the following:

 a. Chromium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. Fluorine\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c. Potassium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 d. Tungsten\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Draw the electron orbital diagram for Argon, (see box to the right)

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ December 5, 2016 Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BELL WORK *Bio-Chem*

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**Argon: Electron Orbital Diagram**

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 b. Fluorine\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c. Potassium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 d. Tungsten\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Draw the electron orbital diagram for Argon

Paste in Notebook as a Reference

|  |  |  |  |
| --- | --- | --- | --- |
| **Shellname** | **Subshellname** | **Subshellmaxelectrons** | **Shellmaxelectrons** |
| K | 1s | 2 | **2** |
| L | 2s | 2 | 2 + 6 = **8** |
| 2p | 6 |
| M | 3s | 2 |  |
| 3p | 6 |
| 3d | 10 |
| N | 4s | 2 |  |
| 4p | 6 |
| 4d | 10 |
| 4f | 14 |
| O | 5s | 2 |  |
| 5p | 6 |
| 5d | 10 |
| 5f | 14 |
| 5g | 18 |
| P | 6s | 2 |  |
| 6p | 6 |
| 6d | 10 |
| Q | 7s | 2 |  |
| 7p | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Shellname** | **Subshellname** | **Subshellmaxelectrons** | **Shellmaxelectrons** |
| K | 1s | 2 | **2** |
| L | 2s | 2 | 2 + 6 = **8** |
| 2p | 6 |
| M | 3s | 2 | 2 + 6 + 10= **18** |
| 3p | 6 |
| 3d | 10 |
| N | 4s | 2 | 2 + 6 +10 + 14= **32** |
| 4p | 6 |
| 4d | 10 |
| 4f | 14 |
| O | 5s | 2 |  |
| 5p | 6 |
| 5d | 10 |
| 5f | 14 |
| 5g | 18 |
| P | 6s | 2 |  |
| 6p | 6 |
| 6d | 10 |
| Q | 7s | 2 |  |
| 7p | 8 |