

Electron Configuration Worksheet #2

Please use complete notation.

Write the electron configuration for:

1. He
2. Be
3. Cd
4. Xe
5. Cs
6. La
7. Pa
8. At⁻
9. Al³⁺
10. Ra²⁺

The following configurations are the ground state of what element?

11. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^1$
12. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^{10} 6p^6 7s^2 6d^1 5f^3$
13. $[\text{Xe}]6s^2 5d^1 4f^8$
14. $[\text{Kr}]5s^1$
15. $[\text{Ar}]4s^2 3d^{10} 4p^5$

Electron Configuration Worksheet

- List the aufbau sequence of orbitals from 1s to 7p.
- Write orbital notations and complete electron configurations for atoms of the following elements.
 - Beryllium
 - Aluminum
 - Nitrogen
 - Sodium
- Use noble-gas notation to describe the electron configurations of the elements represented by the following symbols.
 - Mn
 - Kr
 - P
 - Zn
 - Zr
 - W
 - Pb
 - Ra
 - Sm
 - Bk
- What elements are represented by each of the following electron configurations?
 - $1s^2 2s^2 2p^5$
 - $[\text{Ar}]4s^2$
 - $[\text{Xe}]6s^2 4f^4$
 - $[\text{Kr}]5s^2 4d^{10} 5p^4$
 - $[\text{Rn}]7s^2 5f^{13}$
 - $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^5$