

Electron Configuration & Orbital Diagram

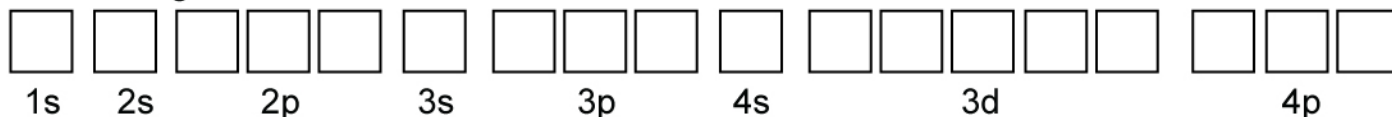
Write the complete and short-hand electron configurations and fill in the orbital diagrams for the following elements.

1. Nitrogen

Full: _____

Short-hand: _____

Orbital diagram

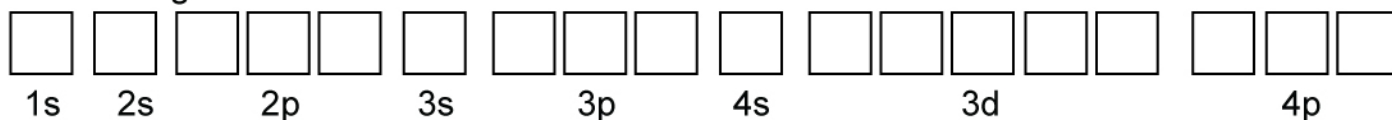


2. Sodium

Full: _____

Short-hand: _____

Orbital diagram

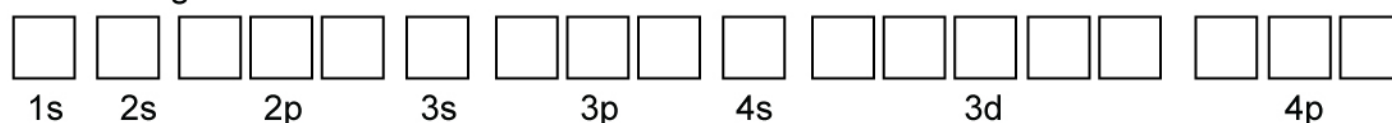


3. Chlorine

Full: _____

Short-hand: _____

Orbital diagram

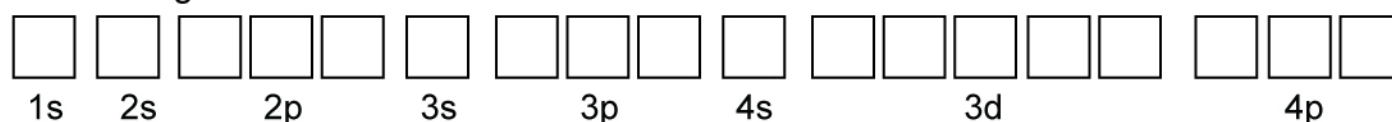


4. Calcium

Full: _____

Short-hand: _____

Orbital diagram



5. Gallium

Full: _____

Short-hand: _____

Orbital diagram



6. Krypton

Full: _____

Short-hand: _____

Orbital diagram



Electron Configuration & Orbital Diagram

Answers

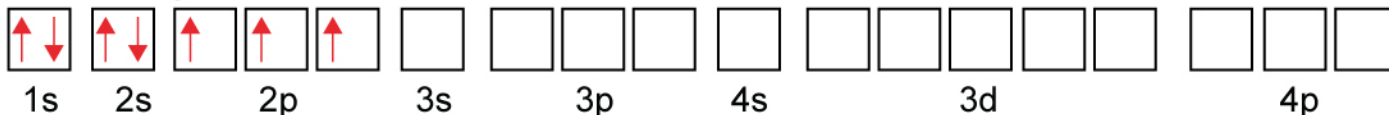
Write the complete and short-hand electron configurations and fill in the orbital diagrams for the following elements.

1. Nitrogen

Full: $1s^2 2s^2 2p^3$

Short-hand: $[\text{He}] 2s^2 2p^3$

Orbital diagram

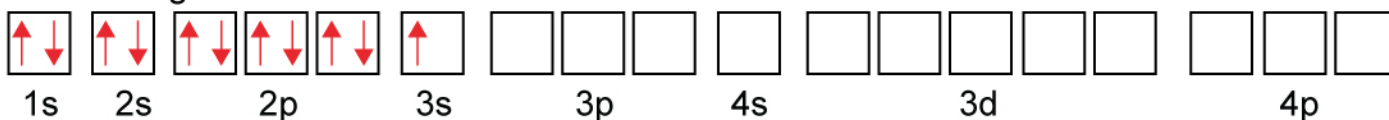


2. Sodium

Full: $1s^2 2s^2 2p^6 3s^1$

Short-hand: $[\text{Ne}] 3s^1$

Orbital diagram

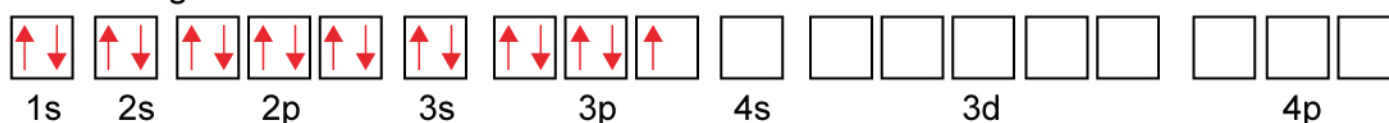


3. Chlorine

Full: $1s^2 2s^2 2p^6 3s^2 3p^5$

Short-hand: $[\text{Ne}] 3s^2 3p^5$

Orbital diagram



4. Calcium

Full: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$

Short-hand: $[\text{Ar}] 4s^2$

Orbital diagram



5. Gallium

Full: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^1$

Short-hand: $[\text{Ar}] 4s^2 3d^{10} 4p^1$

Orbital diagram



6. Krypton

Full: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6$

Short-hand: $[\text{Ar}] 4s^2 3d^{10} 4p^6$

Orbital diagram

