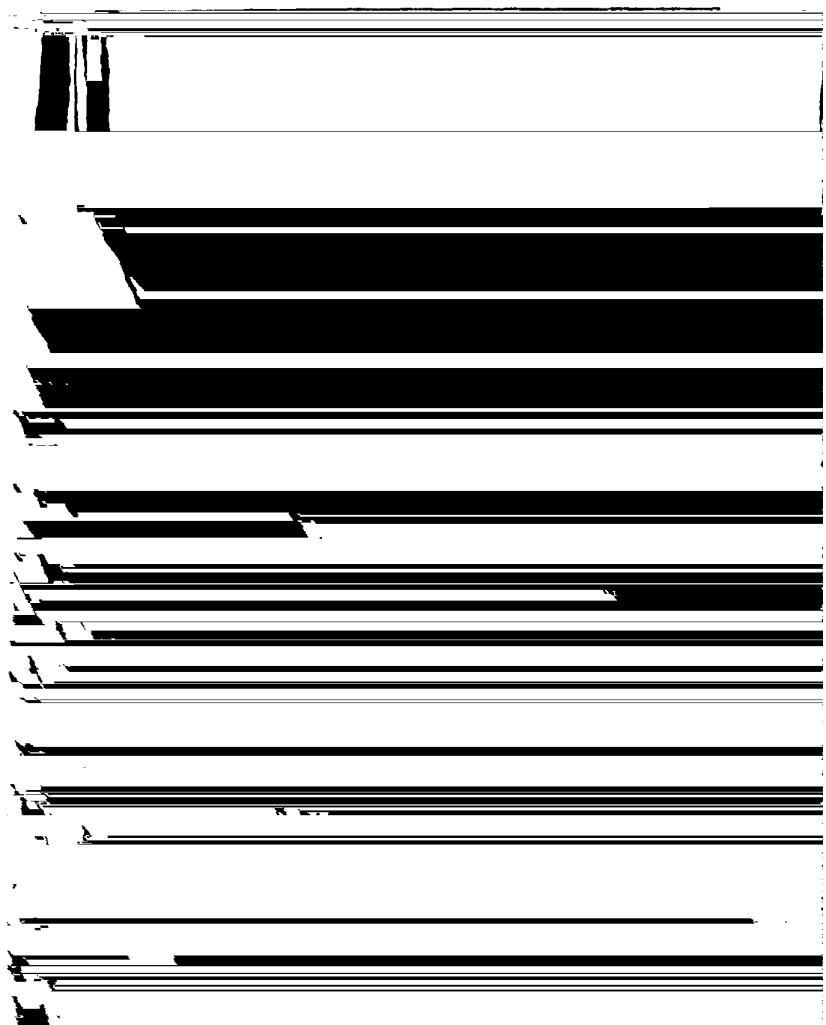


Electron Spin

@

Electronic Configurations of Multielectron Atoms

- @ The arrangement or **configuration** of electrons in various orbitals gives rise to a total **energy state** for the atom.
- There are many possible electronic configurations, so there are many possible corresponding energy states.
- @ The lowest possible overall energy state for an atom is its **ground state**.
- The configuration of electrons in specific orbitals that gives rise to this lowest energy state is called the **ground state configuration**.
- Any other configuration will result in a higher energy state, called an **excited state**



7p
6d
5f 7s

6p
5d
4f 6s

5p
4d
5s

4p
3d 4s

3p
3s

2p
2s
1s

Hund's Rule of Maximum Multiplicity

Frederic Hund - 1925





