

Rules for putting electrons in orbitals

Aufbau Principle

An electron occupies the lowest energy orbital that it can.

Means: Fill from the bottom up
Electrons are lazy!

Pauli Exclusion Principle

No two electrons in the same atom can have the same set of 4 quantum numbers

Means: if there are two electrons in one orbital, one must be spin up, one spin down.
They can't have exactly the same "address"

Hund's Rule

Orbitals of equal energy are each occupied by one electron before any orbital is occupied by a second electron.

Means: If there are more than one orbital at the same energy, put one electron into each orbital before pairing up
Don't share a bedroom unless you have to!

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