Lesson 33: Electron Distribution Notes

Quantum Numbers

- _____
- Used to _____ an _____ in an _____

n

- _____ _____ _____
- Represents _____ energy level of _____

  _____ # of _____ in an

  _____ _____ = _____

Example: What is the maximum number of electrons that can be in the _____ main energy level?

l

- The _____ _____ _____
- Describes the _____ _____ within an _____ _____
- _____ of orbital _____ possible in _____ _____ = _____

Lesson 33: Electron Distribution Notes (cont.) Chemistry with Lab

Orbital Shapes

designated _____

- level 1: _____
- level 2: _____
- level 3: _____
- level 4: _____

How many electrons can each sublevel hold?

s = 1 orbital x 2 e/orbital = _____ e

p = 3 orbitals x 2 e/orbital = _____ e

d = 5 orbitals x 2 e/orbital = _____ e

f = 7 orbital x 2 e/orbital = _____ e

m

- The _____ _____ _____
- describes _____ of _____ in _____

s

- The _____ _____ _____
- describes _____ of _____ in _____

Lesson 33: Electron Distribution Notes (cont.) Chemistry with Lab

Ground State: _____ energy arrangement of _____

Diagonal Rule:

Examples:

hydrogen _____ lithium _____

nitrogen _____

Orbital Notation:

Examples:

hydrogen

nitrogen

Lesson 33: Electron Distribution Notes (cont.) Chemistry with Lab

Hund's Rule:

_____ of _____ _____ are each _____

by one _____ before any _____ is occupied by a

_____ _____.

Pauli Exclusion Principle:

No two _____ in the _____ _____ can have the

_____ _____ of _____ _____

_____.

The Chemistry Quiz

CR1. _____ CR2. _____ 1. _____ 2. _____ 3. _____

4. _____ 5. _____