

Unit 2: Ch 5.2-5.3 – Electron Configurations #2: Orbital (*Diagram*) Notation

REVIEW OF ELECTRON CONFIGURATIONS:

- _____ and _____ interact to create the most _____, _____ arrangement possible.

AUFBAU PRINCIPLE:

➤ DEFINITION –

- Within _____ energy level, that is _____.

PAULI EXCLUSION PRINCIPLE:

➤ DEFINITION –

- **WHY?** → Electrons within the same _____ also occupy the _____.

➤ ORBITAL –

- Describes _____ of 3-D _____.
 - “s” →
 - “p” →
 - “d” →
 - “f” →

- **ONLY** _____ *electrons* MAX can occupy _____ one _____.

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- **DRAW:**

HUND'S RULE:

➤ DEFINITION –

○ Orbital _____ is due to _____.

○ **DRAW & LABEL:**

○ However, electrons in a _____ orbital must have the _____ “spin”.

○ **DRAW:**

ORBITAL (DIAGRAM) NOTATION PRACTICE:

Ex #1) Calcium → Atomic #: _____ # electrons: _____

Ex #2) Selenium → Atomic #: _____ # electrons: _____

Ex #3) Gallium → Atomic #: _____ # electrons: _____

Ex #4) Cobalt → Atomic #: _____ # electrons: _____

Ex #5) Niobium → Atomic #: _____ # electrons: _____