Unit 3

Modeling Atomic Structure

Mr. Maxwell

PACS

January 26, 2025

Atomic Number

The is the number of in the nucleus of an atom.

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Atomic Number

The atomic number is the number of protons in the nucleus of an atom.

Atomic Mass

The the total number of and in the nucleus of an atom.

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The mass number the total number of and in the nucleus of an atom.

Atomic Mass

The mass number the total number of protons and in the nucleus of an atom.

Atomic Mass

The mass number the total number of protons and neutrons in the nucleus of an atom.

Hydrogen

$^{1}\mathrm{H}$

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$$^{1}\mathrm{H}$$

What does the 1 mean?

Hydrogen

$$^{1}\mathrm{H}$$

What does the 1 mean?

1 is the total number of neutrons and protons.

Helium

$$^{4}_{2}\mathrm{He}$$

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What does the 4 mean?

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What does the 4 mean? 4 is the total number of neutrons and protons.

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What does the 2 mean?

Helium

$$^{4}_{2}\mathrm{He}$$

What does the 4 mean? 4 is the total number of neutrons and protons.
What does the 2 mean? 2 is the number of protons.

Lithium

$^{7}_{3}\mathrm{Li}$

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How many protons does Lithium have?

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$$^{7}_{3}\mathrm{Li}$$

How many protons does Lithium have? 3

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How many protons does Lithium have? 3 How many neutrons?

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Lithium

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How many protons does Lithium have? 3 How many neutrons? $7 - 3 = 4$

The Great Dane

The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different

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The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different energy levels.

Energy Levels

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Energy Levels

The electrons closest to the nucleus have the energy, while those further from away have energy.

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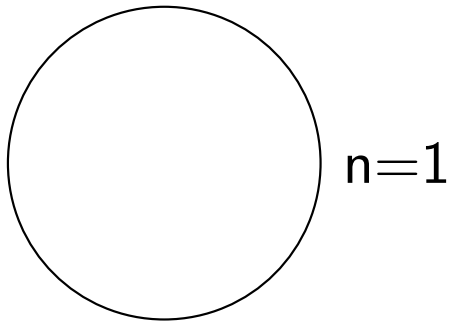

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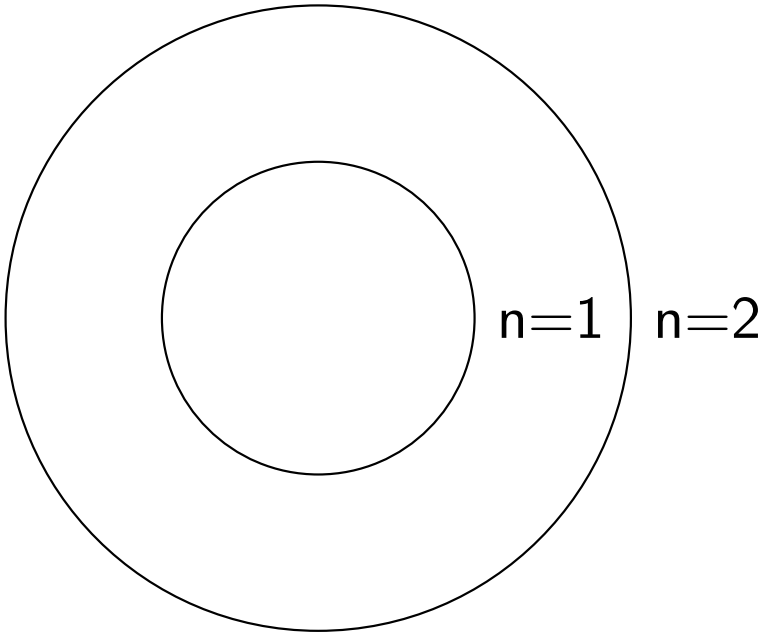

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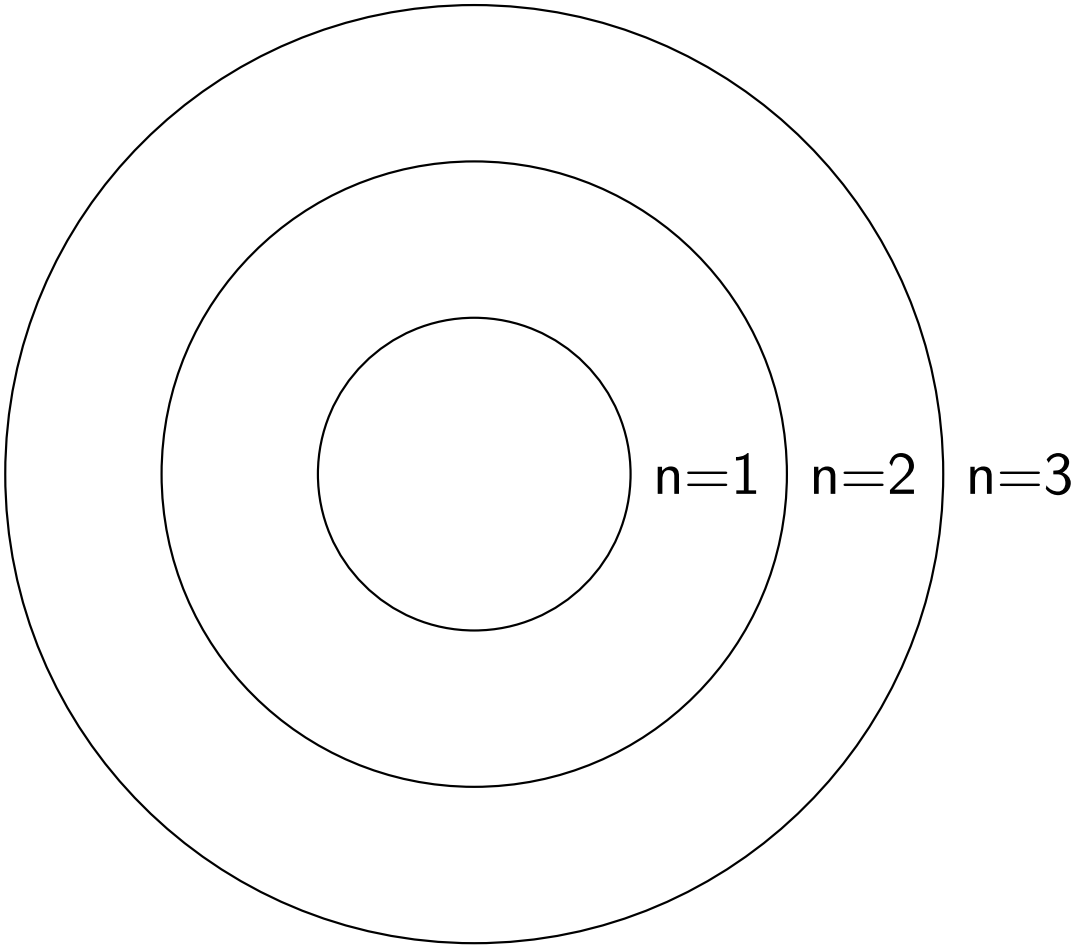
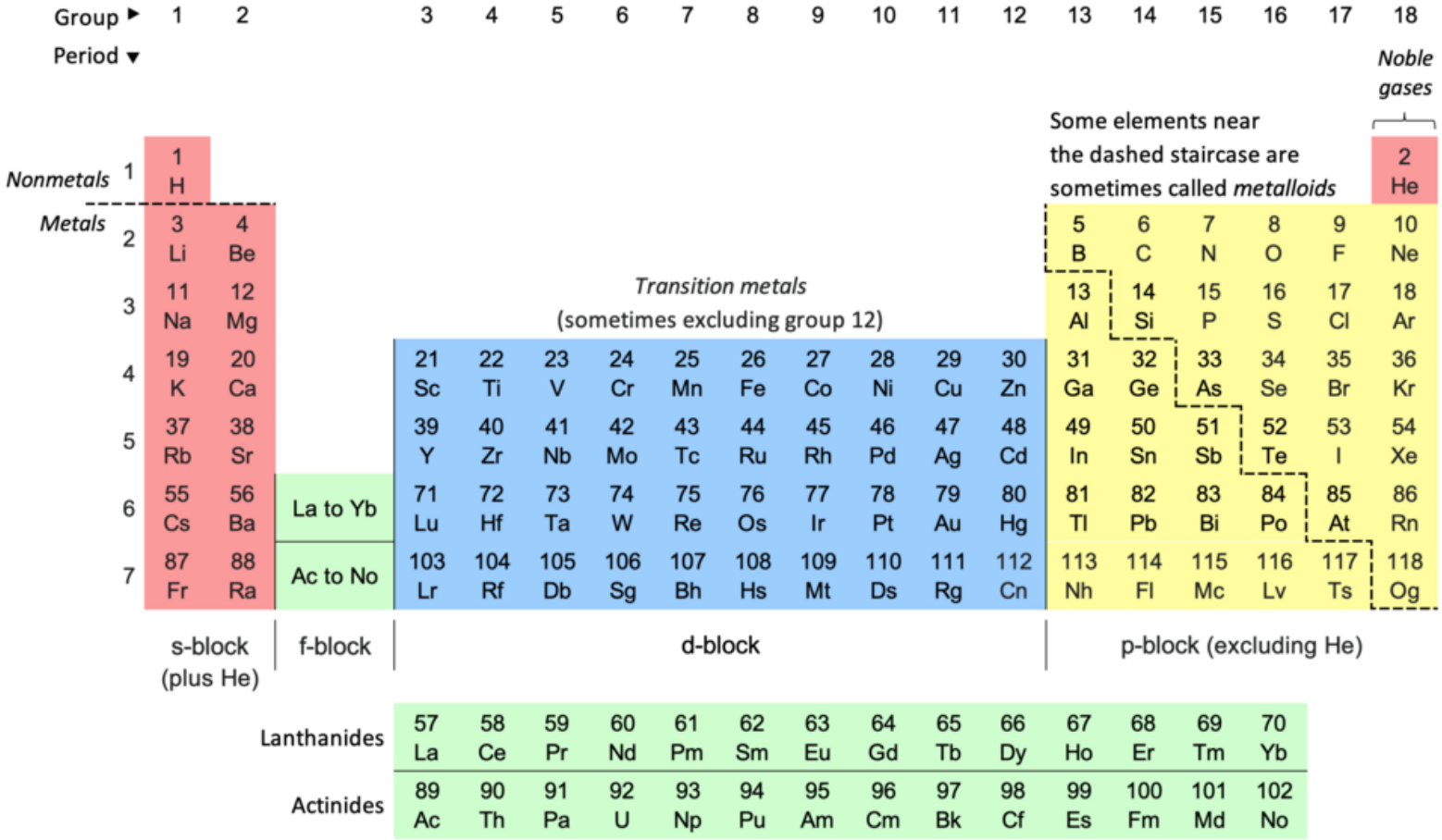
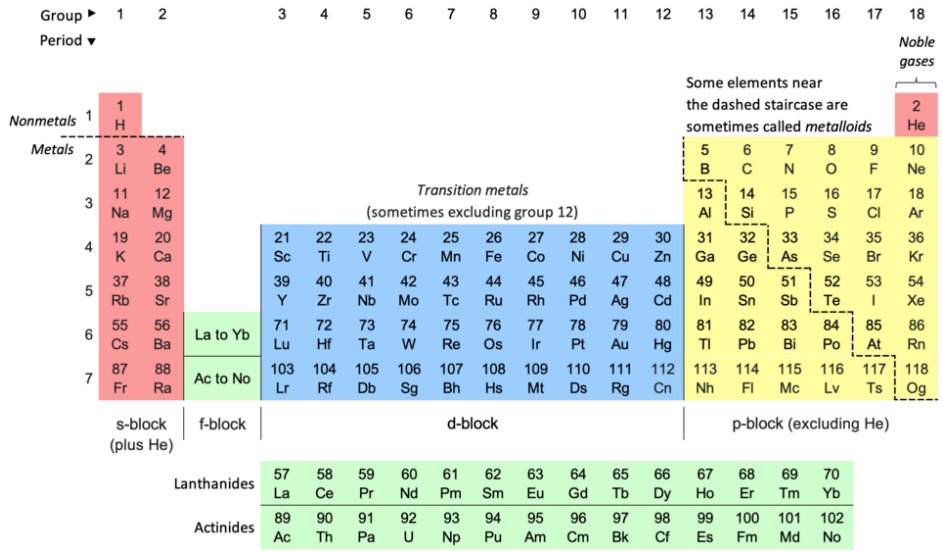


Energy Levels and the Periodic Table



Energy Level of Hydrogen



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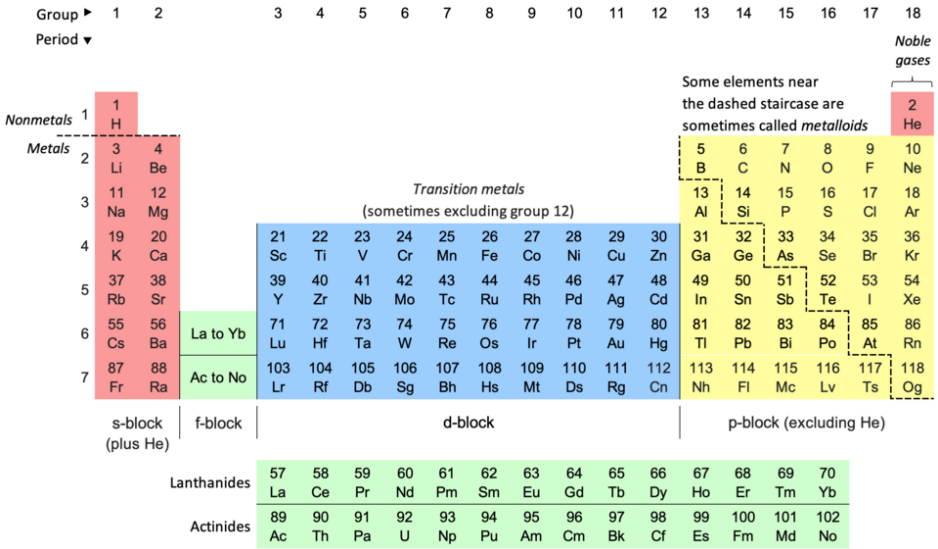
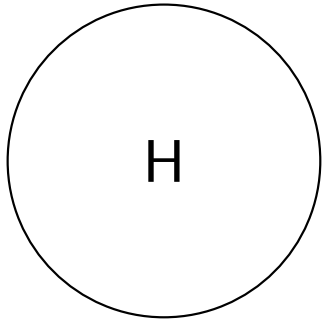
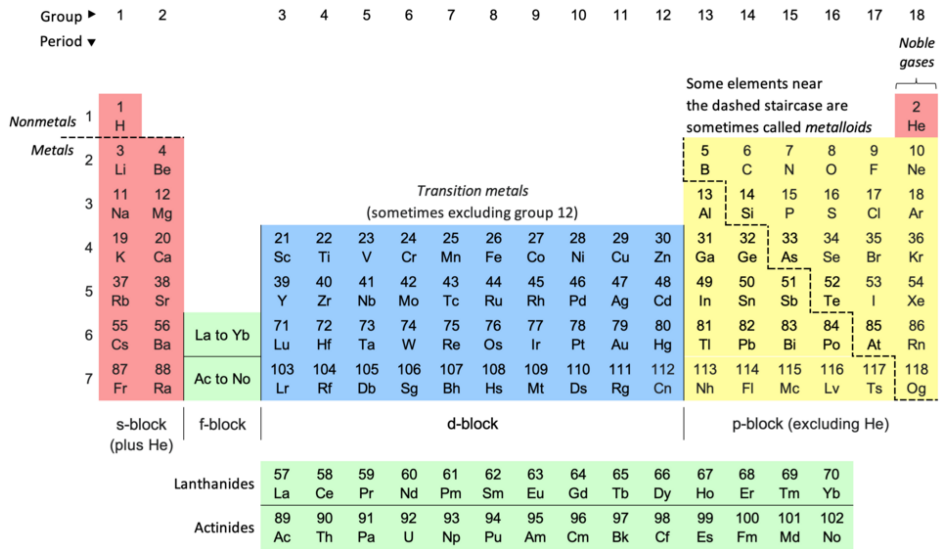




Energy Level of Lithium



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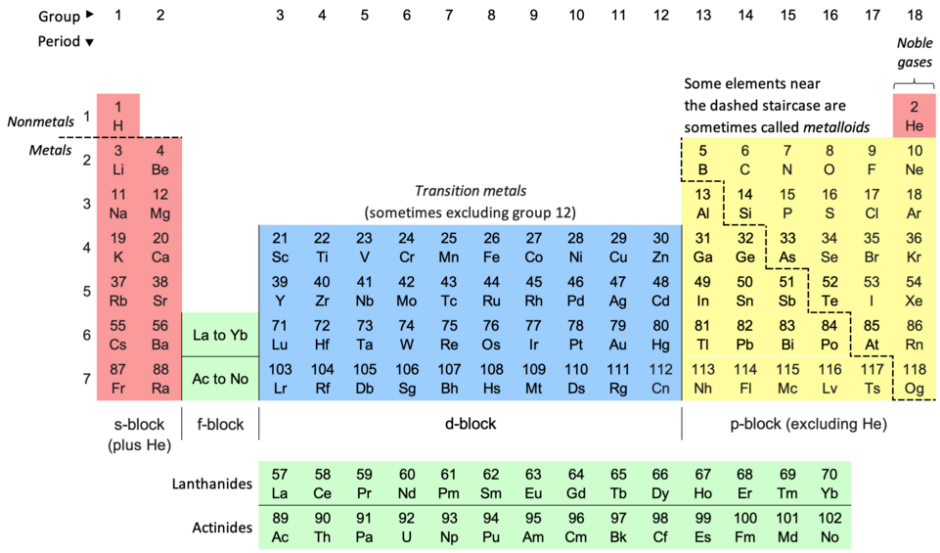

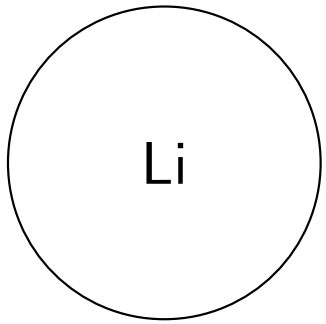

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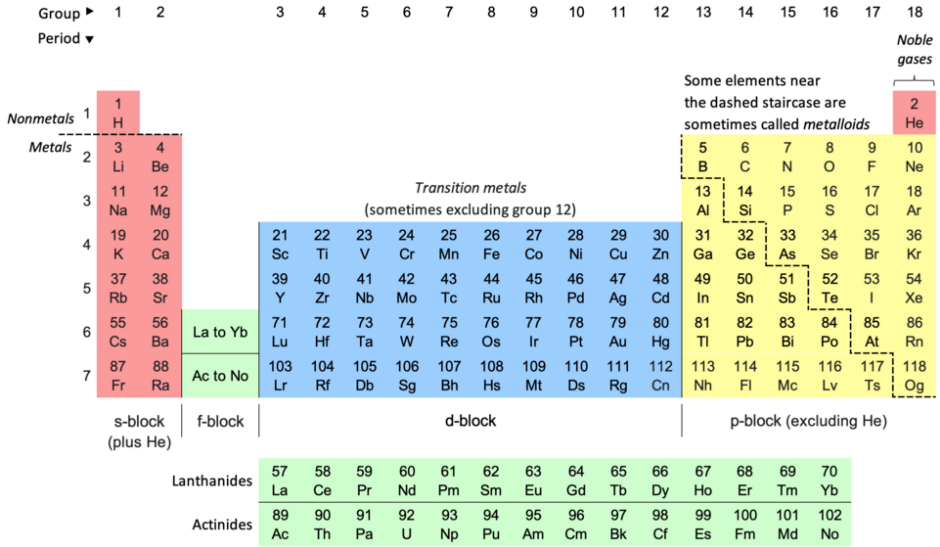
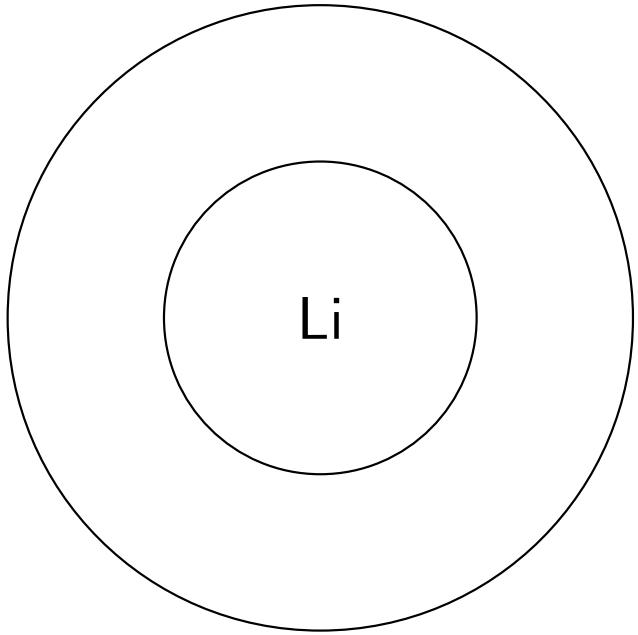
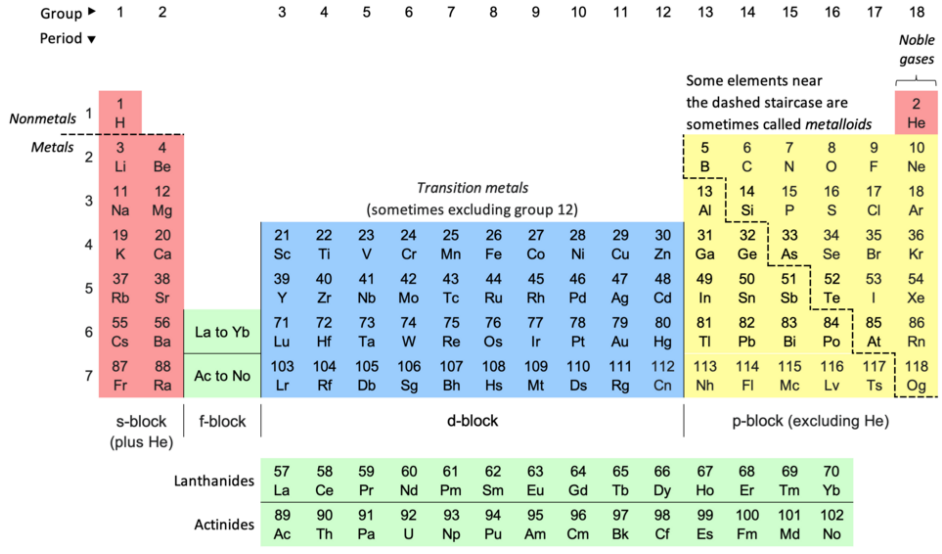
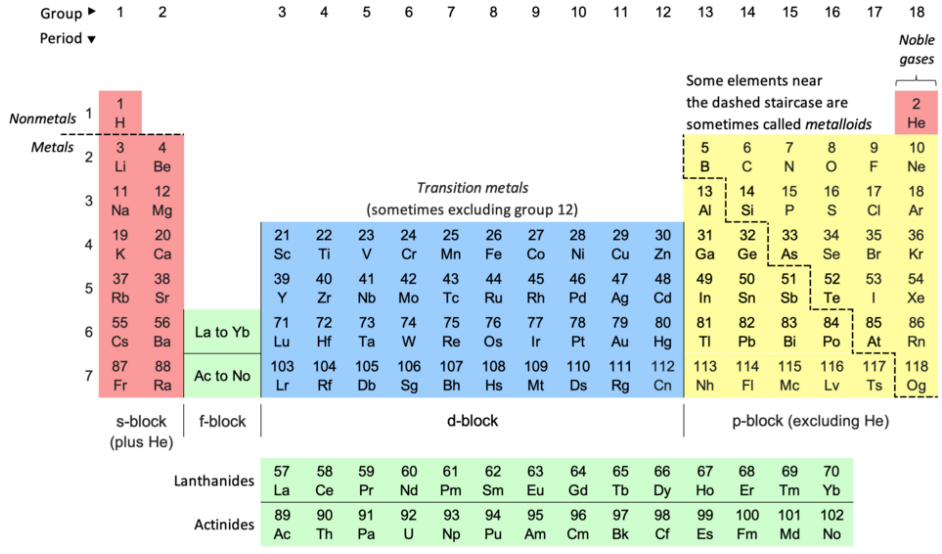


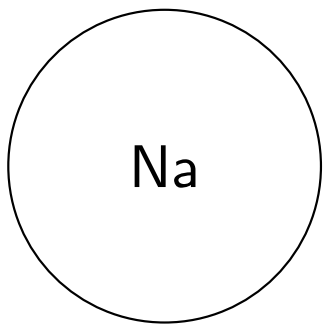


Energy Level of Sodium



Energy Level of Sodium





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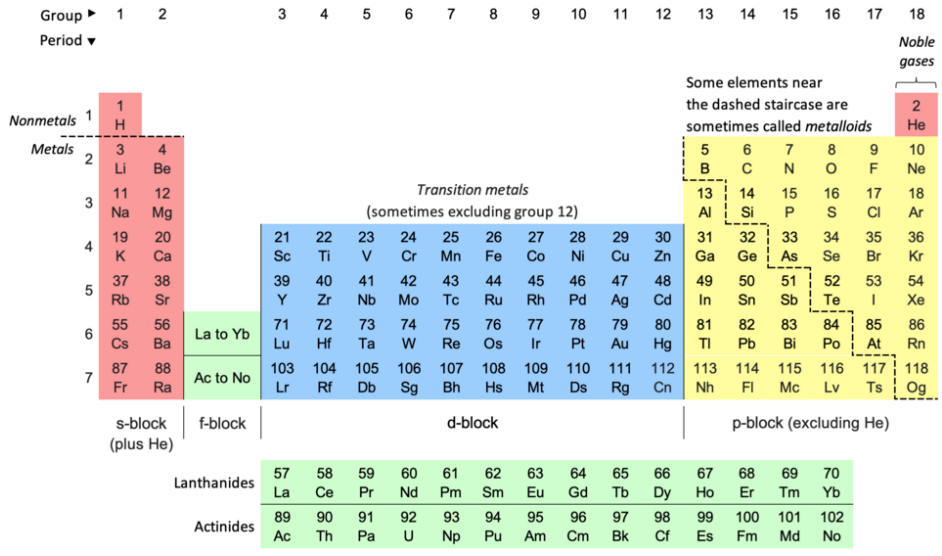

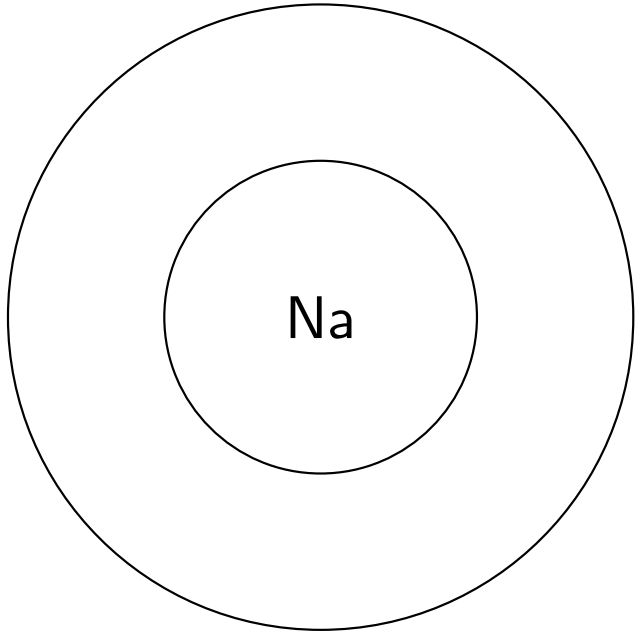

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