

Introduction

Who am I?

What I expect

Behaviour

Mutual Respect

Attention / Participation

Appreciation

What you expect

Periodic Table Homework

Parts of an Atom

Protons: are 'heavy', positively charged (p^+) particles found in the **nucleus**

- the number of protons is equal to the atomic number

Neutrons: are neutral particles that have the same mass as a proton and are found in the nucleus.

Electrons: are negatively charged (e^-) particles that circle or orbit the nucleus at different energy levels.

- The particles have almost no mass.
- The farther away from the nucleus an electron is, the higher the energy level.
- atoms are electrically neutral, so the number of p^+ equals the number of e^-

Atomic Structure Review

What is an atom?

Protons?

Neutrons?

Electrons?

Bohr Diagrams

Bohr Diagrams

- Bohr diagrams can be drawn to represent the arrangement of electrons in various levels or orbits
- each orbit has a definite number of electrons

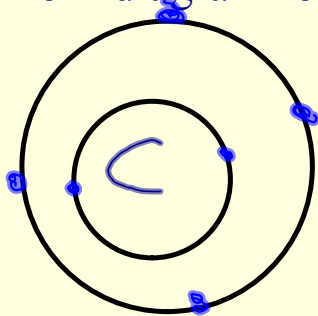
**the first level can have two
the second can have eight
the third can have eight**

Atomic Models

9 e⁻
9 P⁺

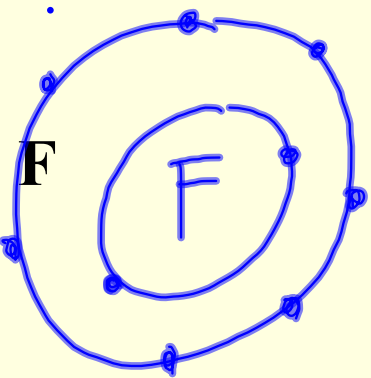
Draw a Bohr diagram for:

a) C

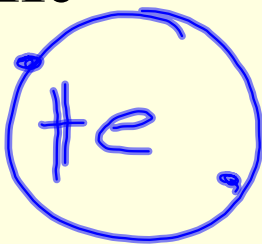


b) F

$$9 - 2 = 7$$

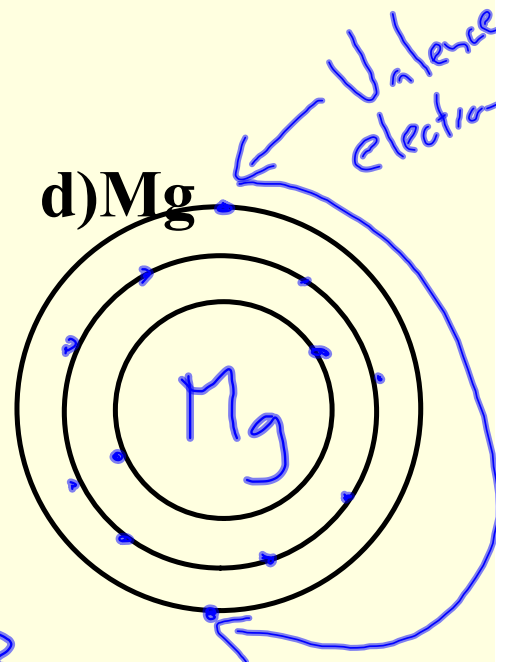


c) He



d) Mg

$$Z = 8 + 2 = 12$$



Valence Electrons

Those electrons that are found in the highest energy level (outside orbit) are called valence electrons. These are the subatomic particles used in forming compounds.

Bohr Diagram worksheets

Bohr Worksheets

Periodic Table of the Elements

I		Transition Metals										III	IV	V	VI	VII	0																													
H ¹																	He ²																													
Li ³	Be ⁴											B ⁵	C ⁶	N ⁷	O ⁸	F ⁹	Ne ¹⁰																													
Na ¹¹	Mg ¹²	IIIB	IVB	VB	VIB	VII B	VIII B			IB	IIB	Al ¹³	Si ¹⁴	P ¹⁵	S ¹⁶	Cl ¹⁷	Ar ¹⁸																													
K ¹⁹	Ca ²⁰	Sc ²¹	Ti ²²	V ²³	Cr ²⁴	Mn ²⁵	Fe ²⁶	Co ²⁷	Ni ²⁸	Cu ²⁹	Zn ³⁰	Ga ³¹	Ge ³²	As ³³	Se ³⁴	Br ³⁵	Kr ³⁶																													
Rb ³⁷	Sr ³⁸	Y ³⁹	Zr ⁴⁰	Nb ⁴¹	Mo ⁴²	Tc ⁴³	Ru ⁴⁴	Rh ⁴⁵	Pd ⁴⁶	Ag ⁴⁷	Cd ⁴⁸	In ⁴⁹	Sn ⁵⁰	Sb ⁵¹	Te ⁵²	I ⁵³	Xe ⁵⁴																													
Cs ⁵⁵	Ba ⁵⁶	57-71	Hf ⁷²	Ta ⁷³	W ⁷⁴	Re ⁷⁵	Os ⁷⁶	Ir ⁷⁷	Pt ⁷⁸	Au ⁷⁹	Hg ⁸⁰	Tl ⁸¹	Pb ⁸²	Bi ⁸³	Po ⁸⁴	At ⁸⁵	Rn ⁸⁶																													
Fr ⁸⁷	Ra ⁸⁸	89-103	Rf ¹⁰⁴	Ha ¹⁰⁵	106	107	108	109																																						
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	Metal		Metalloid		Nonmetal
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