

Cornell Notes

Name Paola Ramirez / Fragoso

Date 10/3/11

Topic Ch. 3 Notes: Ions

Class/Subject Chemistry P. 2

Homework
Review
~~7:55~~ 7:55

Quiz
8:00 - 8:15

Ch. 3 Section 3.
Ions

(13) Potassium - (39) Atomic Mass
Proton: 19 Neutrons: 20
Electrons: 19

³⁹₁₉K

* Homework *
- Complete 3.3 Review W.S.
10, 11, 13-22

Atom - Protons
 Neutrons
 Electrons

• Isotopes has to do w/ the # of neutrons

• gain or lose electrons.

• Noble gases do not need to lose or gain electrons

• All other chemicals will form ions

• Ions - formed when atoms lose or gain electrons

• The net charge of an ion:
Charge of ion = (# of protons) - (# of electrons)

• The # of protons in the nucleus never changes!

The atomic mass is the number of protons + neutrons.
Ions are formed when atoms lose or gain electrons.
The net charge of an ion = (# protons) - (# electrons). Noble gases never gain or lose electrons.

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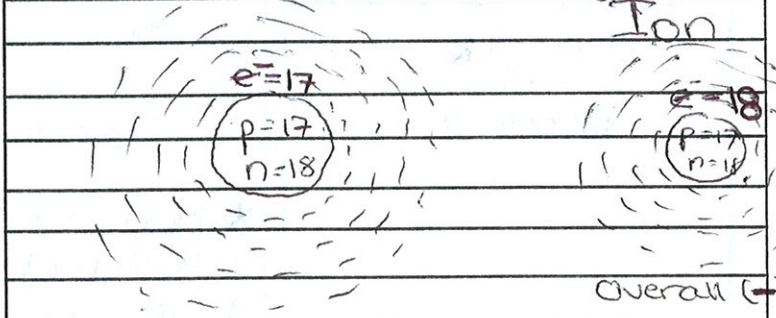
Class/Subject Chemistry P. 1

Neutron Atom of Chlorine 35
 Symbol: $^{35}_{17}\text{Cl}$

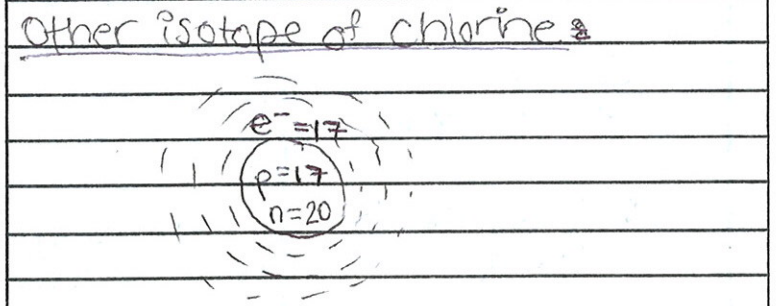
Chlorine 37
 Symbol: $^{37}_{17}\text{Cl}$

8:30

2 types of Ions.



Cl^{-1}
 or
 Cl^{-}
 Overall (-) charge: -1



The element name is determined by the # of protons in the nucleus of the atom, a number that never changes when the atom becomes an ion.

- Cation: a positively charged ion
 • Ex: Elements in Groups 1 & 2 form cations
- Anion: a negatively charged ion
 • Ex: Elements in Group 17 form anions.

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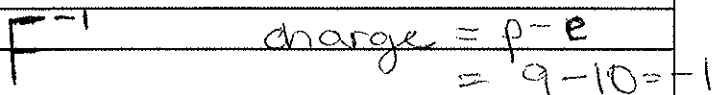
Date 10 / 3 / 11

Topic Ch. 3 Notes: Ions

Class/Subject Chemistry P.1

Examples:

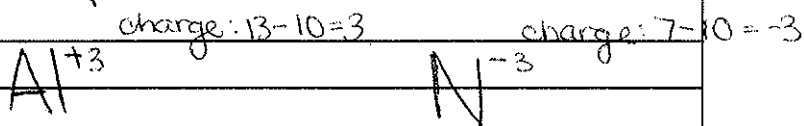
▷ Write the chemical symbol for the ion w/ 9 protons and 10 electrons.



▷ Write the chemical symbol for:

• 13 protons and 10 electrons

• 7 protons and 10 electrons



▷ How many protons and electrons are present in:

• S^{-2} ion → Sulfur, 16 protons, 18 electrons

• Li^{+1} → Lithium,

To find # of electrons:

$$-2 = 16 - e$$

$$e = 16 + 2 = 18$$

In Class Assignment.

3.3 Practice Problems #11-15

