

**Chemistry,
A Branch of
Science
Research
Provided By
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What is Chemistry?

Chemistry is a branch of physical science that has to do with the study of the composition of matter and the study of everything composed of matter as well as based on the basis of atomism, fluid dynamics, and particle physics, as well as the action of measurements applied as a stoichiometry and a method in using chemistry. Chemistry is basically the central science, though it may be a branch of physical science, it is very distinct from physics. The word chemistry itself comes from the word alchemy which is derived from الكيمياء which is then derived from the greek word χημεία, this means the study of material, which is then translated to being the study of everything composed of matter. Ancient Egyptians themselves used synthetic chemistry as a study of herbs as well as using this branch of chemistry to help them plant crops in the fertile crust. Democritus's theory of atomism became the foundation of chemistry and elementary physics itself. Eventually Atomism brought forth ideas of models of the atoms around us and many generations later, the Quantum Mechanical Model was born. This is how the fundamental of chemistry came to be.

Composition of Matter

The composition of matter is made out of tiny particles known as atoms, which takes the form of dry matter, which is what we are made of. Atoms are the basic units of chemistry. Every atom consists of a dense core known as a nucleus and around it is atomic rings. Next we look at a chemical element as substances composed of a single type of atom in specific. Next we look at a chemical compound which is a combination of ratio of atoms from more than one elements. Next we look at a substance which is a combination of more than one chemical compound. Finally, we can measure molecules as the smallest invisible portion that exist in a pure chemical substance. This can lead us into looking into paired bonds between molecules. Molecules held together through a set of atoms are typically classified as covalent bonds. Ionic bonds contain bond of existing but non-identifiable molecules. Next we can look at moles as a measurement that is able to denote the chemical amount in a substance or the amount of chemicals that are in a substance.

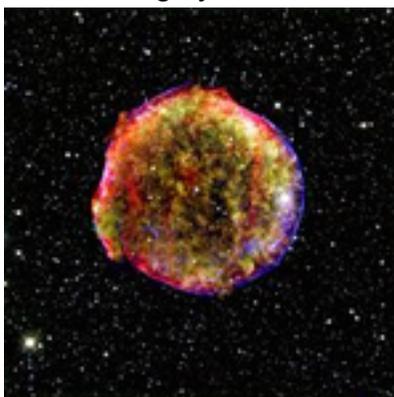
Homogeneous mixture-> the composition is the same when a substance dissolves in another substance

Heterogeneous mixture-> composition - not uniform

Element- substances-> cannot be separate in the means of chemistry

What are Ions?

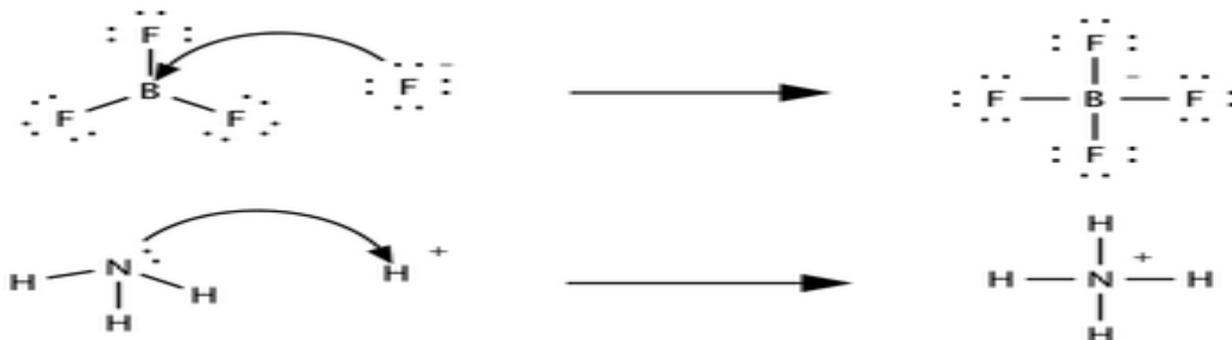
Ions are atoms or molecules in which the entire number of electrons are not going to be equal to the total numbers of protons. An Ion that consists of one atom is known as a monatomic ion, while an ion consisting of two or more atoms are known as a molecular or polyatomic ion. Anions are ions that have a higher number of electrons than it does of protons. Cations are when an ion has a fewer number of electrons than protons making it the opposite of Anions. Ions in a gas-like state are the most reactive in terms of formation of the bonds in ions. Ions also can perform as plasma state, which in the supernova known as Tycho, it is highly reactive.



However, since ions are highly reactive, they produce large amounts of radiation which can then be characterized as Alpha, Beta, Gamma, and X-Ray radiation.

What are Acids and Acidic Bases?

An acid is any substance that reacts with a base and has the possibility of creating or composing hydronium ions when dissolved in water, and an Arrhenius acid increases the hydronium concentration when added to water. Next, there are Lewis acids which have characteristics that don't involve proton transfer.



Next, we look at Lowry-acids which have the ability to gain hydrogen cations. This must mean that all Lowry-acids are Lewis-Acids, but not all Lewis Acids are going to be Lowry-Acids.

Examples of Aromatic Terms:

Aromatic- organic chemist- use it for normal chemistry discussions about benzene

C₉H₈O- named cinnamaldehyde

Structural formulas have large chemical bonds

C₇H₆O₂- crystalline compound

H:C ratio in benzoic acid: <1

The ratio suggests several double bonds

Benzoic acid- can be converted to stable benzene

C₆H₆— unreactive bond transformations

Benzene- reacts to temperature

(SO₂)- sulfur dioxide

(HNO₃)- nitric acid

Cyclohexene- typical alkenes

Benzene is presented by regular hexagons

Theoretically, Gibbs Free Energy is known as the measurement of usefulness in a thermodynamic potential

Phases are known as the states of matter such as:

*Liquid: Takes Form of Container

*Gas: State in which liquid became a vaporous form or state when an element is in a vaporous form

*Solid: Has unknown shape or form and is tangible and the state in which an element or substance is in a hardened phase

Cycloalkanes: have one or more rings of carbon atoms

Hexane: C₆H₁₄

Cycloalkane: C_nH_{2n}

IMPOSSIBILITY OF THE BIG BANG SINGULARITY BASED ON LOGIC AND CHEMISTRY:

1. Everything that existed after the beginning of time is made of matter
2. Matter can not be created or destroyed by itself
3. A flame of fire can not expand to a great ball of fire and helium and be able to create elements by itself such as carbon,
4. If the Big Bang was true then every time a flame is lit then it would cause a simultaneous combustion
5. In chemistry everything doesn't just exist naturally, there must be a scientific law explaining a phenomenon
6. The creationist theory is the most logical explanation on our existence
7. All the terms I provided in chemistry are based on laws of measurement and proven calculations rather than just theories.
8. The Big Bang Theory is considered by some to be a pseudoscience
9. Planets have existed millions of years after the supposed Big Bang Theory which means that planets aren't really as old as the Big Bang Theory would state they are.

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