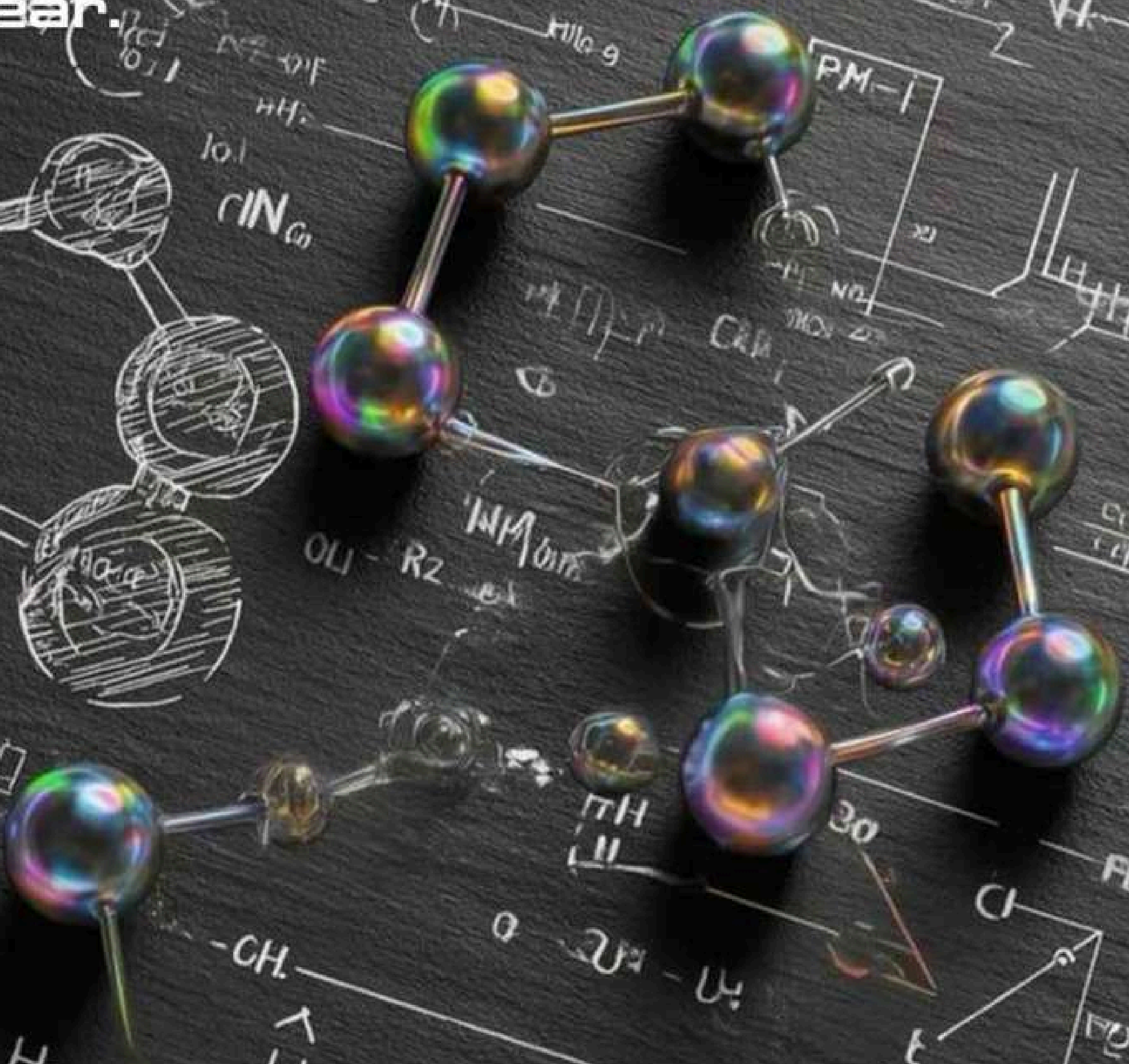
CHEMYSTERY

5th Edition



ChemChronicle

– Chronicles of chemistry through the year.

Department of Chemistry
Barasat Government College

A Year in Reflection

Science is not built in a day — it is the result of centuries of curiosity, dedication, and tireless pursuit of truth by brilliant minds across the world. With great respect for this legacy, our department presents this special edition of our annual magazine, dedicated entirely to the remarkable scientific discoveries and the visionary scientists behind them.

This magazine is designed as a monthly academic calendar, where each month celebrates two groundbreaking discoveries or landmark events that have shaped the world of chemistry and science as a whole. From the foundational works of pioneers like Marie Curie, Dmitri Mendeleev, and C.V. Raman, to revolutionary advancements that continue to inspire the modern world — every page is a tribute to the eternal flame of scientific inquiry. Our aim is not only to revisit these moments of brilliance but also to ignite curiosity and pride among students and readers. These stories are reminders that science is a journey — one of observation, struggle, innovation, and above all, wonder.

We thank our faculty, students, and contributors who helped bring this idea to life. May this calendar not just mark time, but celebrate the minds that changed it.

– The Editorial Team
Department of Chemistry

From the Editorial Board

It has been a privilege to curate this special edition that honors the timeless contributions of great scientists and their discoveries. Through months of planning, research, and collaboration, we aimed to create a magazine that is both informative and inspiring. We thank everyone who supported us throughout this journey. As you turn each page, we hope you feel the same sense of wonder and admiration for science that guided us in putting it all together.

Behind the Pages

Published On: 28th June, 2025

CONTENTS

DEPT. OF CHEMISTRY

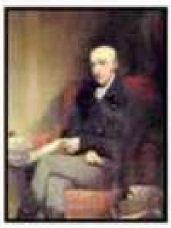
JANUARY

45
Rh
Rhodium
102.9055

Rhodium is a chemical element; it has symbol Rh and atomic number 45. It is a very rare, silvery-white, hard, corrosion-resistant transition metal. It is a noble metal and a member of the platinum group. It has only one naturally occurring isotope, which is 103Rh. Naturally occurring rhodium is usually found as a free metal or as an alloy with similar metals and rarely as a chemical compound in minerals such as bowieite and rhodplumsite. It is one of the rarest and most valuable precious metals. Rhodium is a group 9 element (cobalt group).

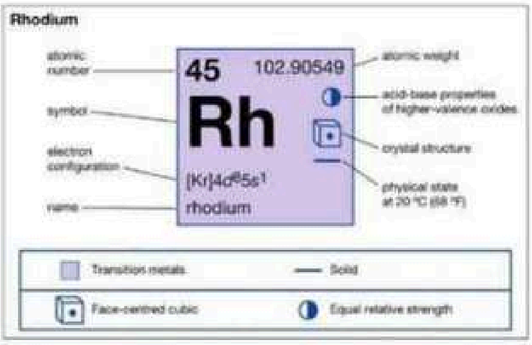
HISTORY & DISCOVERY

Rhodium is a rare and valuable metal that was discovered in **January 1804**, around mid-year, by English chemist **William Hyde Wollaston**. While experimenting with crude platinum ore from South America, Wollaston noticed a reddish solution after removing platinum and palladium. Through a series of chemical reactions, he isolated a new element and named it "rhodium"—from the Greek word rhodon, meaning "rose," due to the rose-colored compounds it formed. Though it had little use at the time, rhodium later became highly valuable for its corrosion resistance and excellent catalytic properties. Today, it plays a key role in automobile catalytic converters and is considered one of the rarest and most expensive metals in the world.



William Hyde Wollaston

Rhodium was named after the Greek word "rhodon" meaning "rose", due to the rose-colored compounds it formed during its discovery.

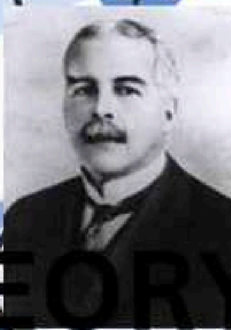


5 KEY CHARACTERISTICS OF RHODIUM

1. **Silvery-white and highly reflective** – Rhodium has a bright, mirror-like finish.
2. **Chemically inert** – It does not easily react with acids or other chemicals.
3. **High melting point (1964°C)** – Can withstand extreme heat without melting.
4. **Excellent corrosion resistance** – It resists rust and tarnish even in harsh conditions.
5. **Dense yet relatively lightweight** – Strong and durable, but lighter than many other precious metals.

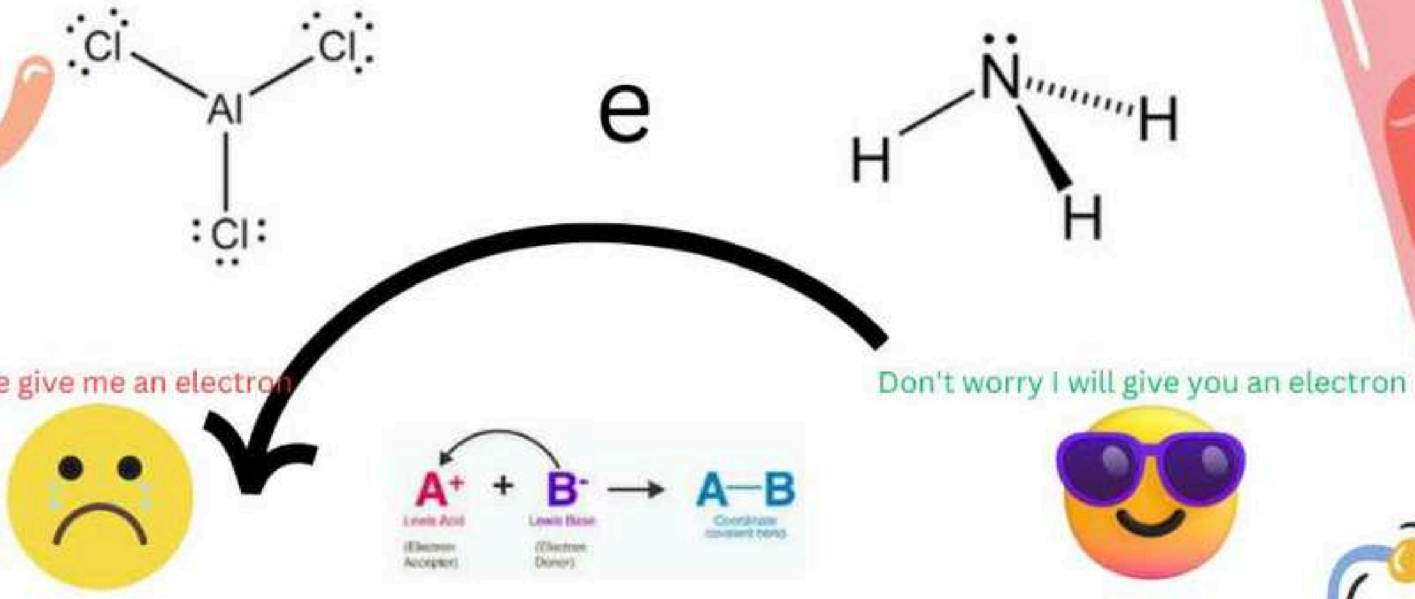
5 IMPORTANT USES OF RHODIUM

1. **Catalytic Converters** – Used in car exhaust systems to reduce harmful gases like nitrogen oxides (NOx).
2. **Jewelry Plating** – Gives white gold and silver a shiny, corrosion-resistant finish.
3. **Laboratory Equipment** – Used in high-temperature and chemically stable lab tools.
4. **Reflective Coatings** – Applied on mirrors, telescopes, and searchlights for enhanced reflectivity.
5. **Investment Metal** – Traded in the form of bars and coins due to its high market value.



LEWIS ACID BASE THEORY (January, 1923)

Lewis Acid	*Lewis Base*
1. Electron acceptor.	1. Electron donor.
2. Electron deficient system.	2. Electron rich system.
3. Presence of valence orbital.	3. Species with lone pair.
Eg.- AlCl3	Eg.- NH3



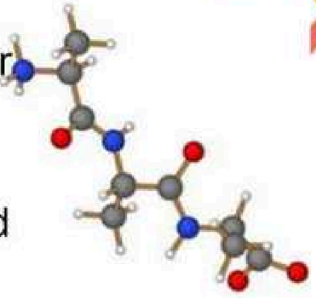
February

NYLON 6,6

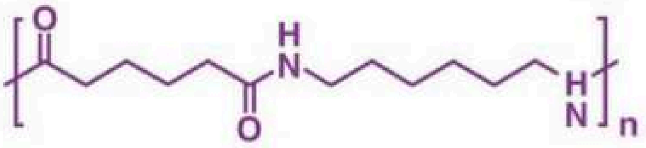
Wallace Hume Carothers(1896-1937)

Nylon 6,6 was invented in 1935 by American chemist Wallace Carothers and his team at DuPont.

What is Nylon 6,6?



Nylon 6,6 is a type of synthetic polymer, specifically a polyamide or nylon, known for its strength and versatility. It's created through a condensation polymerization process, where hexamethylenediamine and adipic acid combine under heat and pressure.



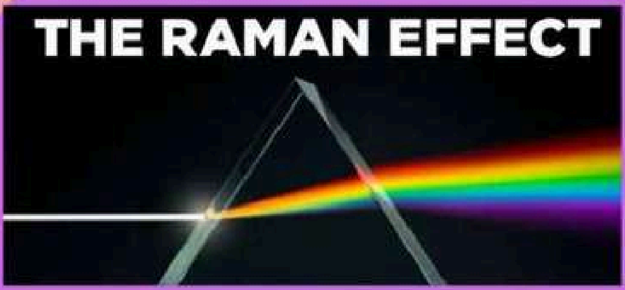
Structure of Nylon – 6,6

Nylon 6,6 exhibits high strength, stiffness, and resistance to abrasion, heat, and chemicals. It's also known for its toughness and relatively low water absorption compared to Nylon 6.

It was first use commercially in toothbrush bristles and then widely used in textiles (apparel, carpets), automotive parts (tires, airbags), industrial components (bearings, gears), and various consumer products.

NATIONAL SCIENCE DAY

28th FEBRUARY



C.V. Raman was born on November 7, 1888 in Tiruchirappalli, India. He was a child prodigy who completed his secondary and higher secondary education at the age of 11 and 13, respectively. He was a student at Presidency College, Madras, where he earned his B.A. in 1904 and his M.A. in 1907.Raman was an Indian physicist who won the Nobel Prize in 1930 for his discovery of the Raman effect.

What is Raman Effect?

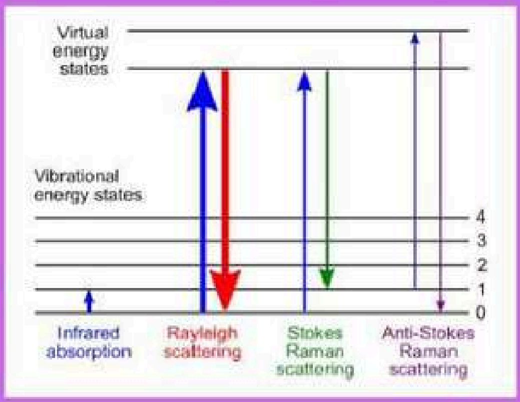
The Raman spectroscopy which is also known as Raman effect is an optical phenomenon that occurs when light interacts with matter, particularly molecules, and some of the light scatters off with different energy levels

Principle of Raman Scattering:

When a photon interacts with a molecule or particle, it can either be absorbed, transmitted, or scattered. In Raman scattering, the photon is scattered inelastically, meaning it transfers energy to or from the molecule. This energy transfer causes a change in the vibrational or rotational state of the molecule.

Types of Raman Scattering:

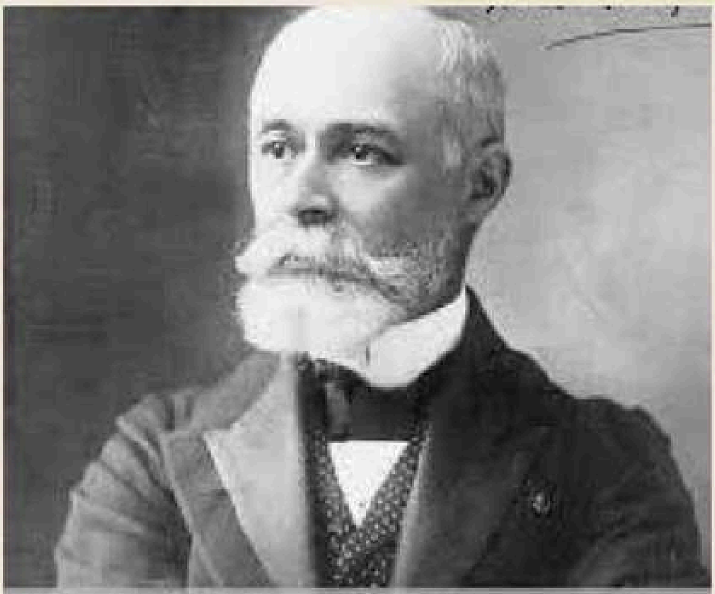
- Stokes Raman Scattering:The scattered photon has lower energy (longer wavelength)than the incident photon.
- Anti-Stokes Raman Scattering:The scattered photon has higher energy (shorter wavelength)than the incident photon.
- Resonance Raman Scattering:The incident photon energy matches the energy difference between two molecular energy levels, enhancing the Raman signal.



Department of Chemistry

DISCOVERY OF RADIOACTIVITY

March-1, 1896



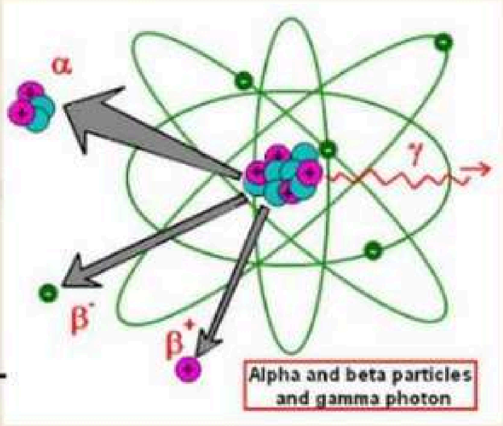
Henri Becquerel

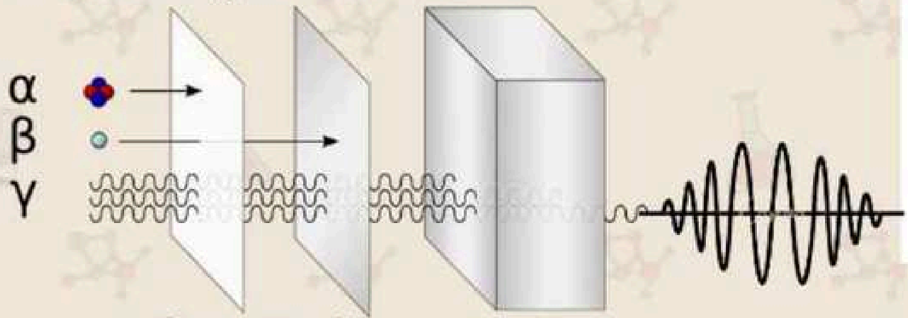
What is radioactivity?

radioactivity is thenatural phenomena of emitting radiation spontaneously.

Becquerel discovered that potassium uranium sulfate crystals can produce images on photographic plates even when kept in the dark. He deduced that the crystals must spontaneously emit radiation, which earned him the Nobel Prize in Physics in 1903 along with Marie Cure.

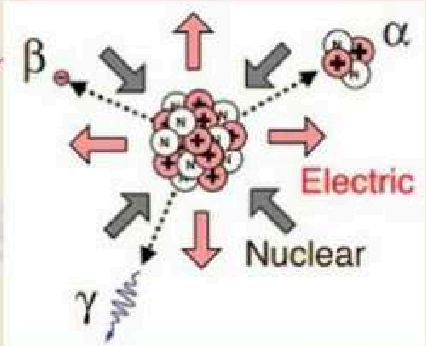
What is Radiation?





The release of energy from matter in the form of particles or waves.

electromagnetic radiation consisting of photons, such as radio waves, microwaves, infrared, visible light, ultraviolet, x-rays, and gamma radiation (y)



- ***Sources of Radiation:-***

92 U Uranium 238.0289	84 Po Polonium 208.9871	90 Th Thorium 232.0381

α	→(+ve) charged particle
β	→(-ve) charged particle
γ	→chargeless electromagnetic wave

Department of Chemistry

MENDELEEV'S PERIODIC TABLE

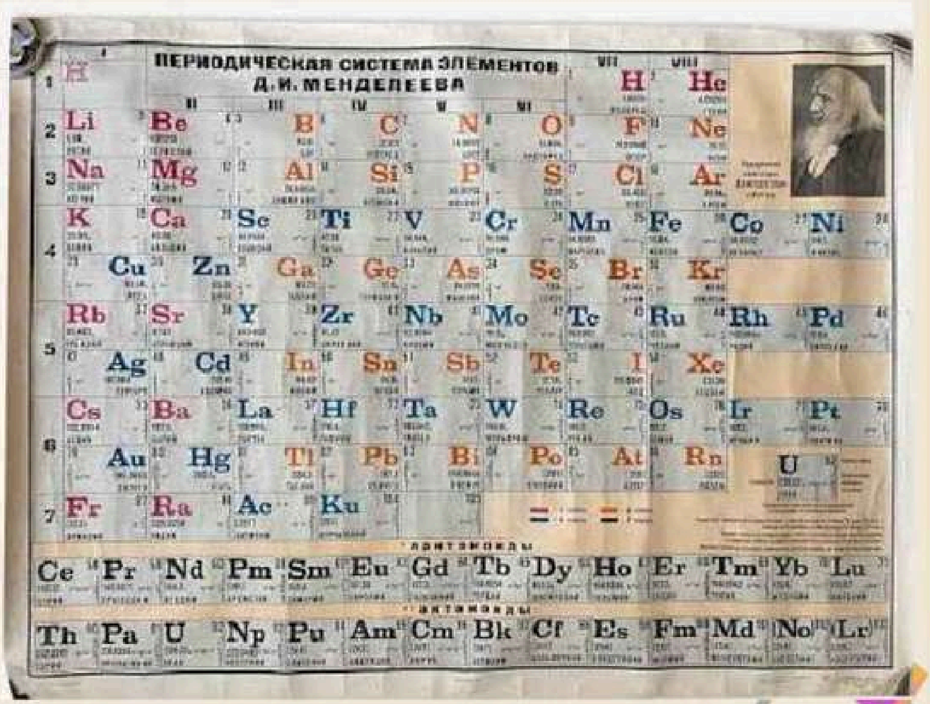
March-06,1869

Discovered elements were arranging in table.

Mendeleev's Periodic Law:

"The properties of the elements are a periodic function of their atomic masses."

Dmitri Mendeleev presented his first periodic table to the Russian Chemical Society on March 6, 1869. This marked the formal introduction of his groundbreaking system for organizing elements based on their atomic weights and recurring properties.

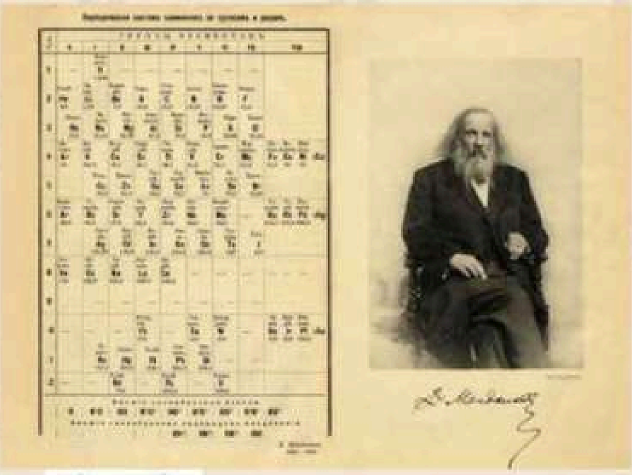


- He arranged elements in order of increasing atomic mass.
- Elements with similar properties like valencies,chemical behavior were placed in the same column.
- He left blank spaces for undiscoverd elements and even predicted their properties. e.g **Eka-Aluminum-Gallium,Eka-Boron-Scandium,Eka-Silicone-Germenium**
- It helped understand the relationship between different elements.

The horizontal rows are called period & the vertical columns are called group.

- 6 periodsinhis table.
- And 8 groups (I to VIII), each divided into subgroups A and B.

Although this was not the first attempt to systematically order the chemical elements, Mendeleev's table was unique, allowing him to predict undiscovered elements as well as revealing inaccuracies in some of the measured atomic weights.



Limitations of Mendeleev's Table:

1. Position of Hydrogen
2. Isotopes were not explained,
3. elements with higher atomic mass came before lower ones,(e.g., Co and Ni).
4. No clear place for noble gases

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Department of Chemistry

Wolfgang Pauli

(25 April, 1900 - 15 Dec, 1958)

Wolfgang Ernst Pauli was an Austrian theoretical physicist and a pioneer of quantum mechanics. In 1945, after having been nominated by Albert Einstein, Pauli received the Nobel Prize in Physics "for the discovery of the Exclusion Principle, also called the Pauli Principle".

Pauli's exclusion principle:

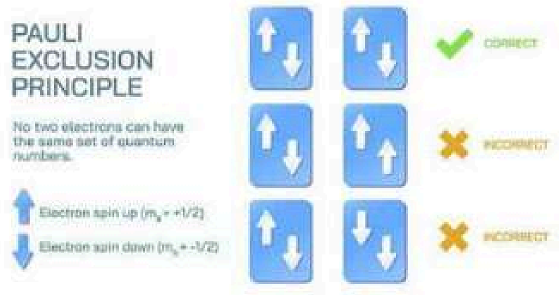
It states that no two electrons in the same atom can have identical values for all four of their quantum numbers; for their individuality they must differ atleast in one quantum number.

$$\psi = \psi_1(a)\psi_2(b)$$

ψ = probability amplitude that electron 1 is in state a and electron 2 is in state b

$\psi_1(a)$ = probability amplitude that electron 1 is in state a

$\psi_2(b)$ = probability amplitude that electron 2 is in state b



Applications:

- Theprincipledictates how electrons fill electron shells and subshells within an atom.
- It is vital for understanding how atoms share electrons to form chemical bonds.
- It is crucial in understanding the structure and behavior of stars.
- The principle is a cornerstone of quantum mechanics, particularly in the study of fermions (particles with half-integer spin).

DISCOVERY OF ELECTRON

30th April 1897

Discovery:

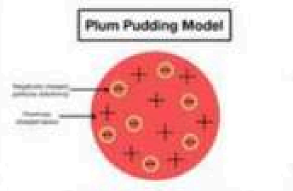
In1897, J.J. Thomson was conductingexperimentsoncathoderays,whichwere streams of negatively charged particlesemittedfromthecathodeofavacuum tube. Thomson measured the charge-to-massratiooftheseparticlesandfound that they were much smaller than atoms.

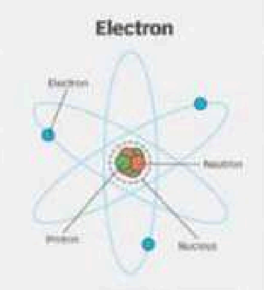
Thomson's experiments led himtoproposethe"plumpudding"modelof the atom, where atoms were composed ofapositivelychargedspherewith negatively charged electrons embedded within.

Thomson (born December 18, 1856, Cheetham Hill, near Manchester, England—died August 30, 1940, Cambridge, Cambridgeshire) was an English physicist who helped revolutionize the knowledge of atomic structure by his discovery of the electron (1897). He received the Nobel Prize for Physics in 1906 and was knighted in 1908.

Plum Pudding Model:

ThePlum Pudding Model, also known as the Thomson Model,was a historical atomic model proposed by J.J. Thomson in 1897. It was a significant step in the development of modern atomic theory.





Key features of Plum Pudding Model:

Positive Charge Sphere: The atom was envisioned as a sphere of positive charge, similar to a pudding.

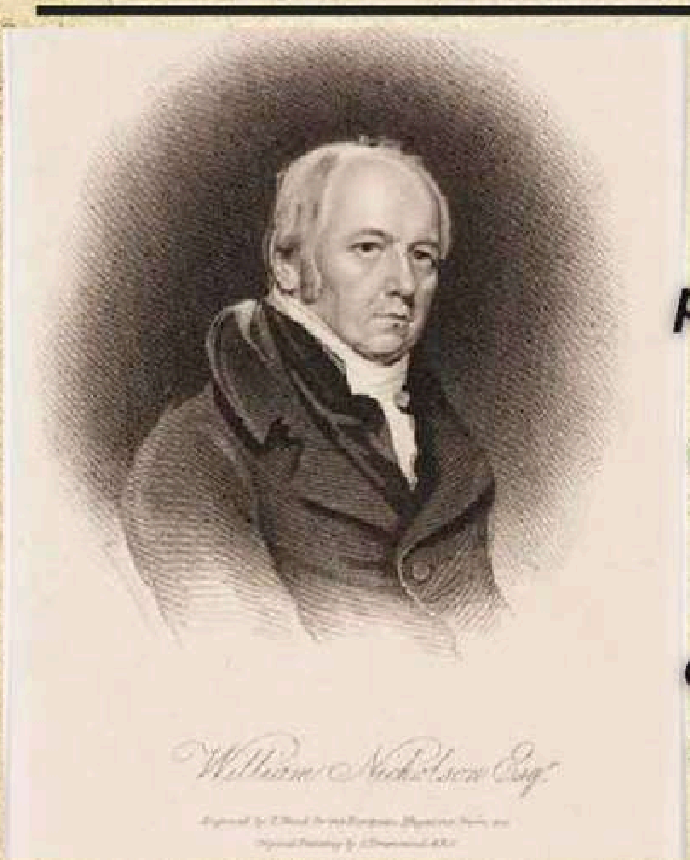
Negative Charge Electrons: Electrons were embedded within the positive charge sphere, like plums within the pudding

Static Atoms: The electrons were stationary and evenly distributed throughout the positive charge sphere.

Department Of Chemistry

MAY 02, 1800

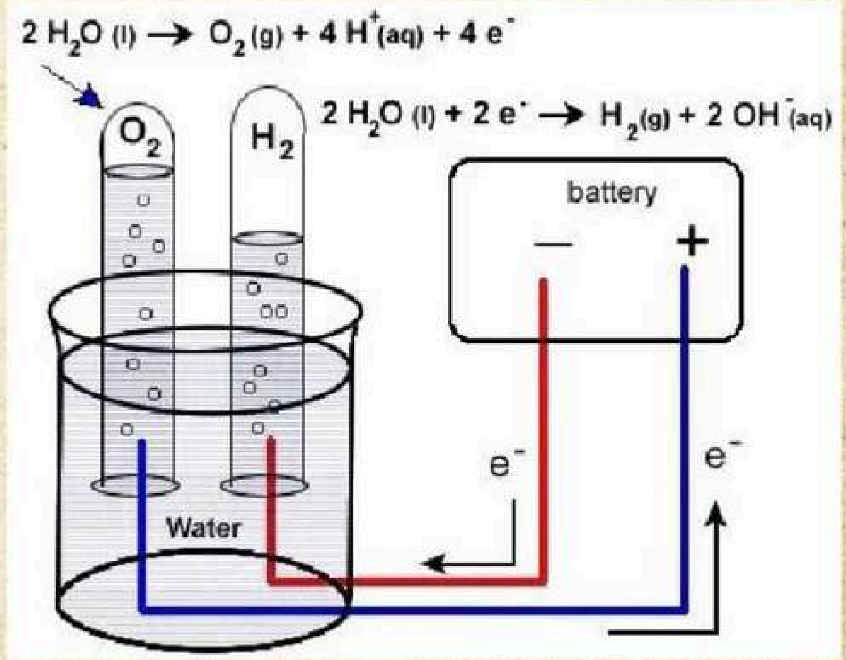
DISCOVERY OFELECTROLYSIS OF WATER.



English chemist William Nicholson was the first to produce a chemical reaction by electricity. He had been working with Anthony Carlisle experimenting with Allesandro Volta's voltaic pile.

DID YOU KNOW?

Electrolysis is used in several industries, including food, metallurgy, and power generation.



BARASAT GOVT. COLLEGE | DEPARTMENT OF CHEMISTRY

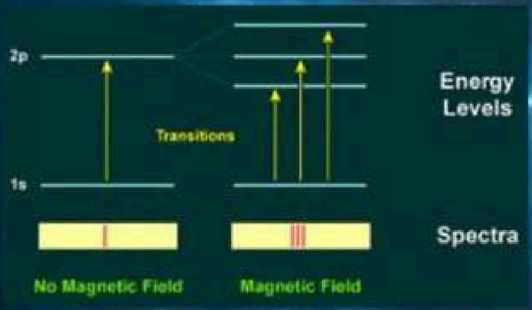
Pieter Zeeman

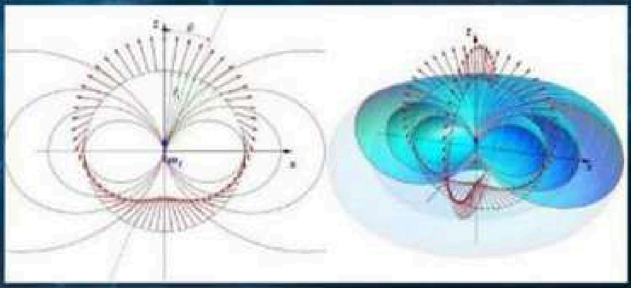
(25 May ,1865 - 9 Oct , 1943)

Pieter Zeeman was a Dutch physicist who shared the 1902 Nobel Prize in Physics with Hendrik Lorentz for their discovery and theoretical explanation of the Zeeman effect.

The Zeeman effect :

TheZeeman effect isthe splitting of spectral lines of atoms or molecules when subjected to an external magnetic field. This splitting occurs because the magnetic field interacts with the magnetic dipole moment of the atom, causing its energy levels to split into multiple sublevels





Applications:

- Determiningenergy levels within the atom and molecules ;
- Studying atomic nuclei ;
- Measuring magnetic fields in stars ;
- Studying magnetic fields in interstellar space ;
- It helps in understanding the properties of plasma ;

Department of Chemistry

JUNE

SADI CARNOT

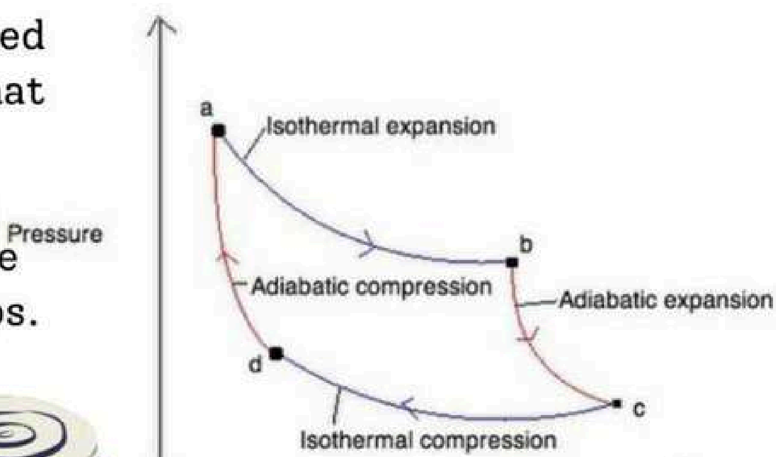
June 1, 1796 - August 24, 1832

Nicolas Léonard Sadi Carnot served as an officer in the Engineering Arm (le génie) of the French Army. He is known as 'Father of Thermodynamics ' due to his groundbreaking work on the efficiency of heat engines

CARNOT CYCLE

ACarnot cycle is anideal thermodynamic cycle proposed by French physicist Sadi Carnot in 1824

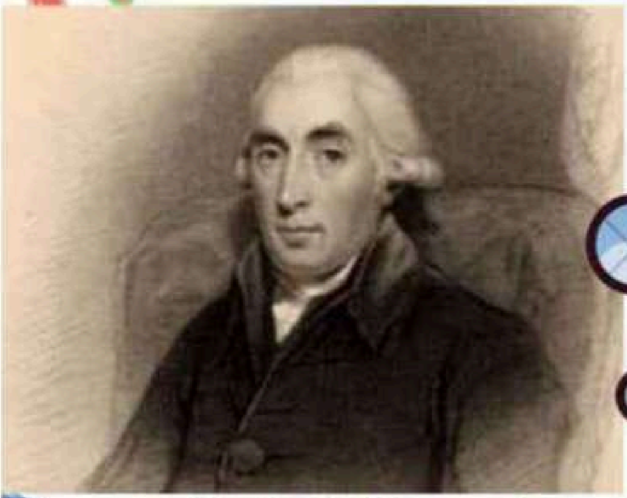
A Carnot cycle is defined as a reversible cycle that consists of two isothermal steps at different temperature and two adiabatic steps.

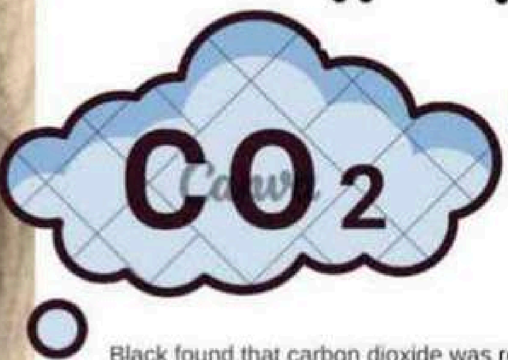


DISCOVERY OF CARBON DIOXIDE GAS

June-11,1754

$\ddot{O}=C=\ddot{O}$





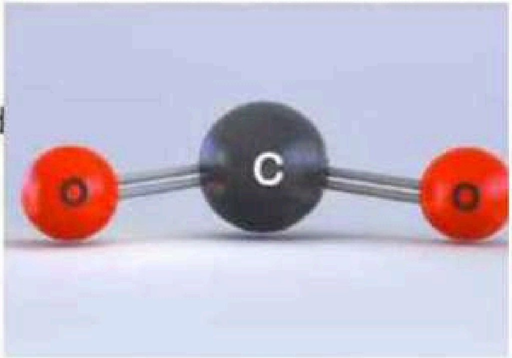
Black found that carbon dioxide was released from many sources, including mineral water, fermenting yeast, burning coal and oil, cremating corpses, and human

On This Day - June 11 :

The Scottish chemist Joseph Black discovered carbon dioxide on this day in 1754. Black noticed that upon heating, calcium carbonate (CaCO3) produced a gas that was denser than air and could not sustain fire or animal life

$$CaCO_3 \xrightarrow{\Delta} CaO + CO_2 \uparrow$$

Black conducted experiments on limestone and acids, isolating carbon dioxide and calling it "fixed air." He described its properties, including its inability to support life or combustion.



Black called this gas "fixed air" because it could be returned, or fixed, into the solids from which it was produced.

- CO2 is → colourless
- CO2 is→odourless
- CO2 is faintly acitic&
- Non flammable gas

Department of Chemistry

Department of Chemistry

LIQUID HELIUM

JULY, 1908

01

On July 10, 1908 Onnes made liquid helium

02

Helium has the lowest boiling point of the elements at -269 °C, or 4 Kelvin on the absolute temperature scale. It must be cooled down to between 1 and 4 K to exist as a liquid.

03

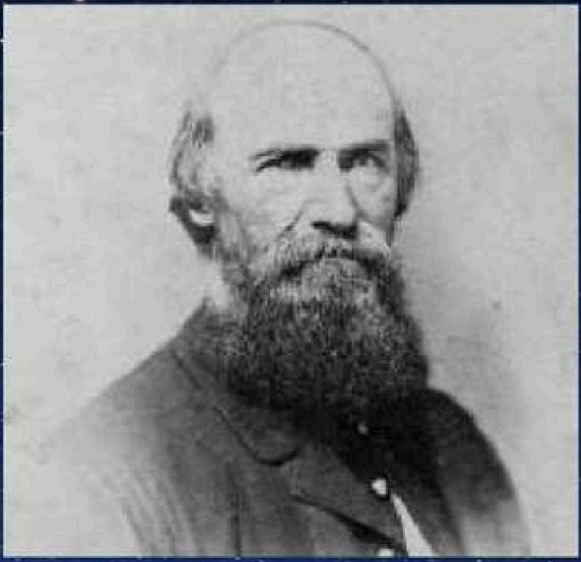
Onnes used several precooling stages and the Hampson–Linde cycle based on the Joule–Thomson effect.

04

- Liquid helium is used to produce low temperatures for scientific studies and experiments.
- Liquid helium is used as an inert gas shield for arc welding.
- Liquid helium is used to fill light bulbs.

August Beer

(31 July, 1825 - 18 Nov , 1863)

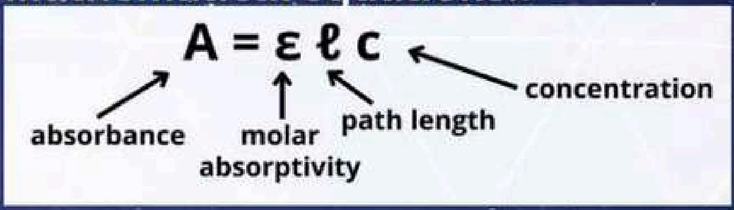


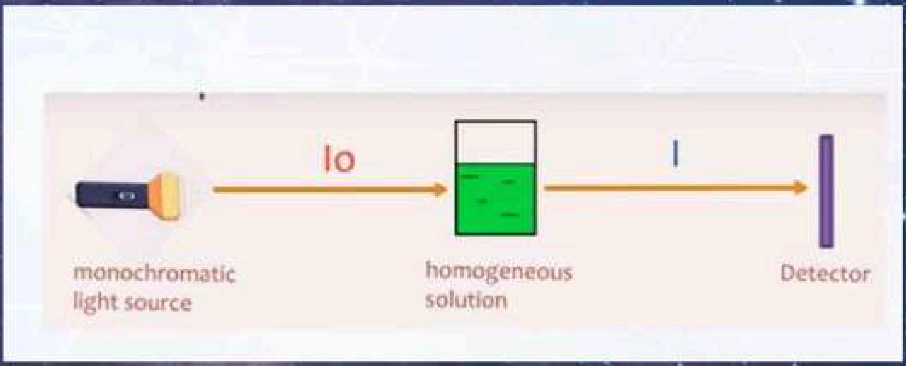
August Beer was a German physicist, chemist, and mathematician of Jewish descent. He discovered that absorbance is proportional to concentration in 1852.

Beer-Lambert law :

Itstates that:for a given material sample path length and concentration of the sample are directly proportional to the absorbance of the light.

Mathematical equations:





Applications :

- Spectrophotometry:

The most common application is in spectrophotometry, where a spectrophotometer measures the amount of light absorbed by a sample at a specific wavelength.

Concentration Determination:

By knowing the absorbance and using the Beer-Lambert law, the concentration of a substance can be calculated.

◆Department of Chemistry

Preparation of Oxygen August 1, 1774

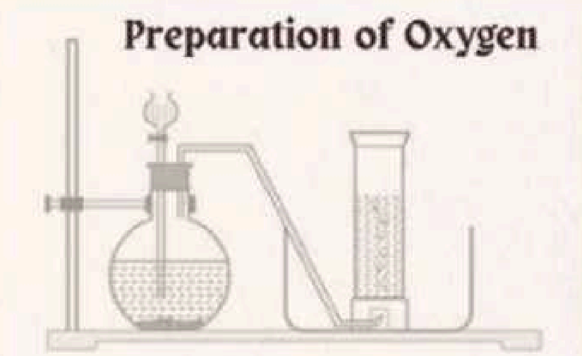
Joseph Priestley FRS was an English chemist, Unitarian, natural philosopher, separatist theologian, grammarian, multi-subject educator and classical liberal political theorist. Joseph Priestley first prepared oxygen on August 1, 1774.

Discovery :

He discovered that heating the compound produced a colorless gas, which he named "**dephlogisticated air**".French chemist Antoine-Laurent Lavoisier later named the element oxygen from the Greek words for “acid former”

Method :

Priestley used a magnifying glass to focus the sun's rays on a sample of mercury(II) oxide (HgO).



Observations :

In this environment a mouse could live four times longer than normal.

de Broglie hypothesis

Louis de Broglie, born- 15 August 1892, Nobel prize in 1929

A photon of light of frequency ν has the momentum

$$p = \frac{h\nu}{c} = \frac{h}{\lambda}$$

since $\lambda\nu = c$. The wavelength of a photon is therefore specified by its momentum according to the relation

Photon wavelength $$\lambda = \frac{h}{p} \tag{3.1}$$

De Broglie suggested that Eq. (3.1) is a completely general one that applies to material particles as well as to photons. The momentum of a particle of mass m and velocity v is $p = \gamma mv$, and its **de Broglie wavelength** is accordingly

De Broglie wavelength $$\lambda = \frac{h}{\gamma mv} \tag{3.2}$$

Matter wave is the wave associated with the particle . It is formed by the superposition of finite number of plane waves.

It tells us about the dual nature of matter.

Application :

1. It can explain the Bohr's stationary orbit.

2. It can explain Bohr's quantization of angular momentum.

3. It can explain the energy of a particle in a 1-D box.

SCIENTIA

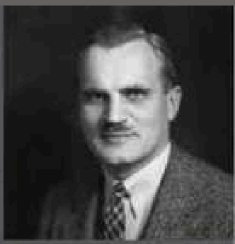
September

COMPTON SCATTERING

Arthur Holly Compton

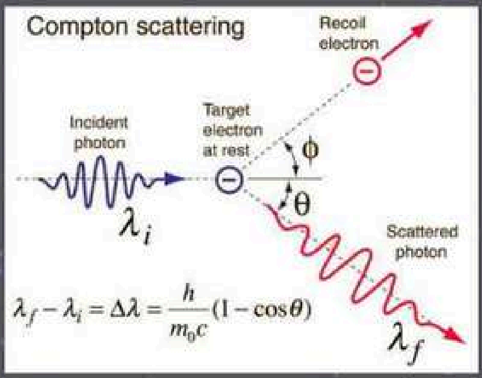
(Born- 10 September 1892, Nobel prize in 1927)

Further confirmation of the photon model



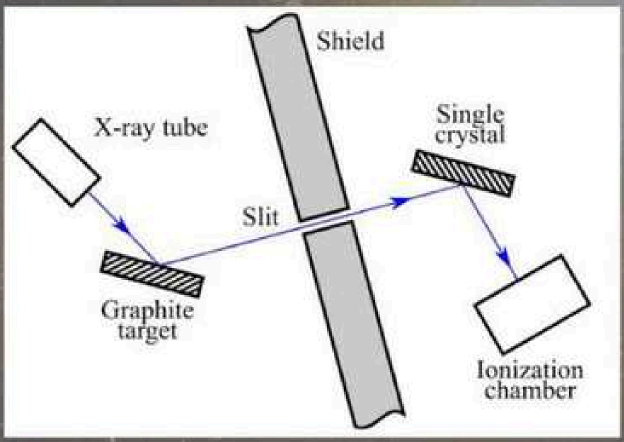
Compton scattering (or the Compton effect) is the quantum theory of high frequency photons scattering following an interaction with a charged particle, usually an electron. Specifically, when the photon hits electrons, it releases loosely bound electrons from the outer valence shells of atoms or molecules.

When a high frequency photon scatters due to an interaction with a charged particle, there is a decrease in the energy of the photon and thus, an increase in its wavelength. This tradeoff between wavelength and energy in response to the collision is the Compton effect. Because of conservation of energy, the lost energy from the photon is transferred to the recoiling particle (such an electron would be called a "Compton Recoil electron").



Applications are - Compton scattering is of prime importance to radiobiology, as it is the most probable interaction of gamma rays and high energy X-rays with atoms in living beings and is applied in radiation therapy.

The quantity h/m^0c is known as the Compton wavelength of the electron; it is equal to 2.43×10-12 m. The wavelength shift $\lambda' - \lambda$ is at least zero (for $\theta = 0^\circ$) and at most twice the Compton wavelength of the electron (for $\theta = 180^\circ$).



CHEMICAL STRUCTURE

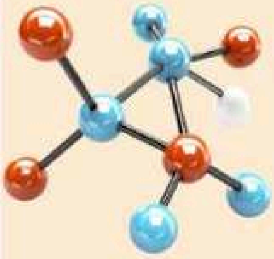
19th September 1861

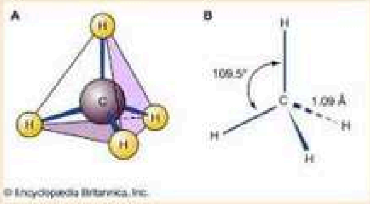
About Alexander Butlerov

Alexander Mikhaylovich Butlerov (15 September 1828 – 17 August 1886) was a Russian chemist, one of the principal creators of the theory of chemical structure (1857–1861), the first to incorporate double bonds into structural formulas, the discoverer of hexamine (1859), the discoverer of formaldehyde (1859) and the discoverer of the formose reaction (1861). He first proposed the idea of possible tetrahedral arrangement of valence bonds in carbon compounds in 1862.

Definition

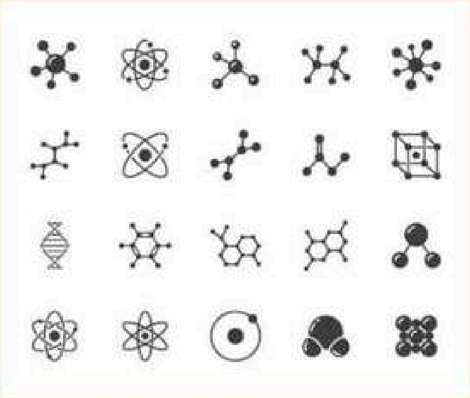
Chemical Structureis thespatial arrangement of atoms in amolecule. Chemical structure determines the molecular geometry of the molecule. Russian Chemist Alexander Butlerov acknowledged that molecules are not random clusters of atoms and functional groups but are arranged in a concrete pattern.





Types of Chemicals Structures

1. Molecular Structure: Describes the arrangement of atoms within a molecule.
2. Crystal Structure: Describes the arrangement of atoms within a crystalline solid.
3. Bonding Structure: Describes the types of chemical bonds between atoms.



Department of Chemistry

LE CHATELIER

(Oct 8, 1850- Jun 17, 1936)

Henry Louis Le Chatelier was a French chemist of the late 19th and early 20th centuries. He devised Le Chatelier's principle, used by chemists and chemical engineers to predict the effect a changing condition has on a system in chemical equilibrium.

Le Chatelier's principle:

Le Chatelier's principle states that if a dynamic equilibrium is disturbed by changing the conditions, the position of equilibrium shifts to counteract the change to reestablish an equilibrium.

Effect of temperature, pressure and concentration:

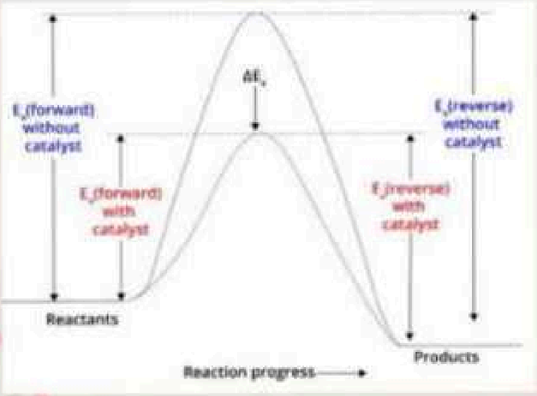
Disturbing a system at dynamic equilibrium shifts the equilibrium in the direction that counteracts the change

$A + B \rightleftharpoons C + D$

Concentration	Temperature	Pressure
↑ reactant concentration ↑ favors product formation	↑ temperature favors endothermic reaction	↑ pressure favors side with fewer molecules
↑ product concentration ↑ favors reactant formation	↓ temperature favors exothermic reaction	↓ pressure favors side with more molecules

Effect of catalyst:

A catalyst increases the rate of the chemical reaction without taking part in the reaction. It is possible because the catalyst shifts the reaction to a low energy pathway. It does not affect equilibrium. The catalyst decreases the activation energy for the forward and reverse reactions by exactly the same amount.

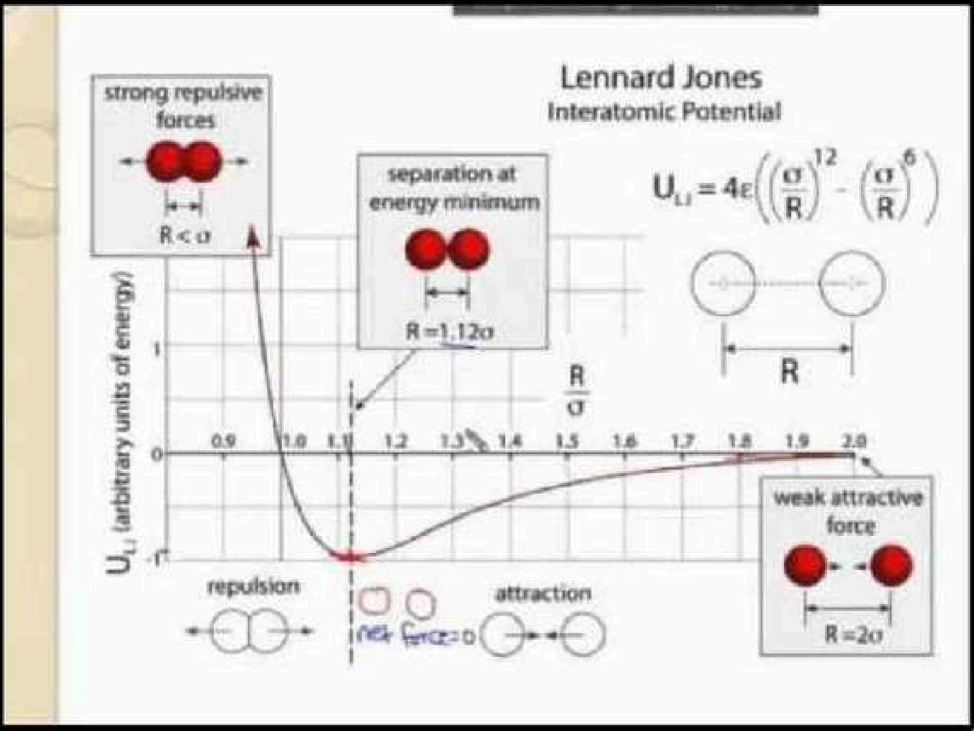


LENNARD-JONES POTENTIAL

JohnLennard-jones(Born-27October1894)

the Lennard-Jones potential (also termed the LJ potential or 12-6 potential; named for John Lennard-Jones) is an intermolecular pair potential. Out of all the intermolecular potentials, the Lennard-Jones potential is probably the one that has been the most extensively studied.It is considered an archetype model for simple yet realistic intermolecular interactions. The Lennard-Jones potential is often used as a building block in molecular models (a.k.a. force fields) for more complex substances. Many studies of the idealized "Lennard-Jones substance" use the potential to understand the physical nature of matter.

$$V(r) = 4\varepsilon \left[\left(\frac{\sigma}{r}\right)^{12} - \left(\frac{\sigma}{r}\right)^{6} \right]$$



CHARLE'S LAW

(Jacques Charles , Born- 12 November, 1745)

Charles law states that the volume of an ideal gas is directly proportional to the absolute temperature at constant pressure. The law also states that the Kelvin temperature and the volume will be in direct proportion when the pressure exerted on a sample of a dry gas is held constant.

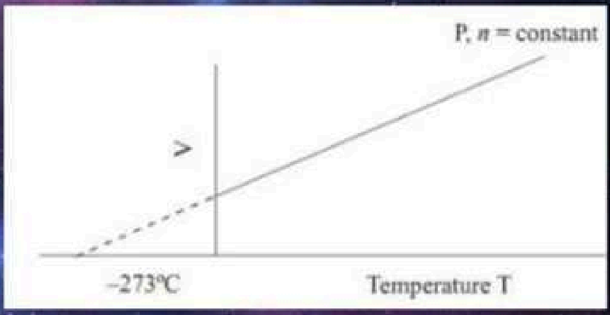
When we compare a substance under two different conditions, from the above statement, we can write this in the following manner:

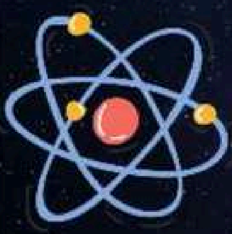
$$V_2/V_1=T_2/T_1$$

Or, $V_1T_2=V_2T_1$

This above equation depicts that as absolute temperature increases, the volume of the gas also goes up in proportion.

The graph between V and T at constant pressure is known as isobar or isoplestics, and it always gives a straight line. A plot of V versus T (°C) at constant pressure is a straight line at -273.15°C. -273.15 - degree Celcius is the lowest possible temperature.





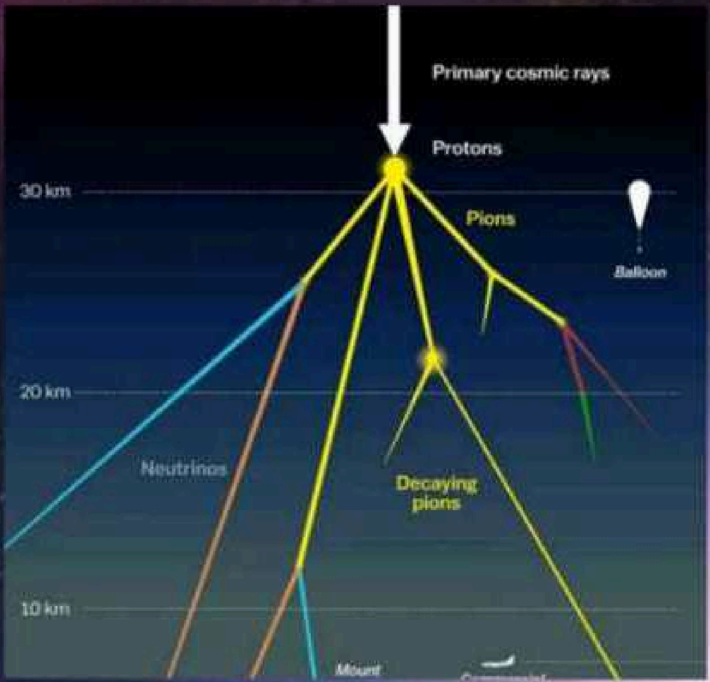
INVENSION OF COSMIC RAYS

NOVEMBER, 1912

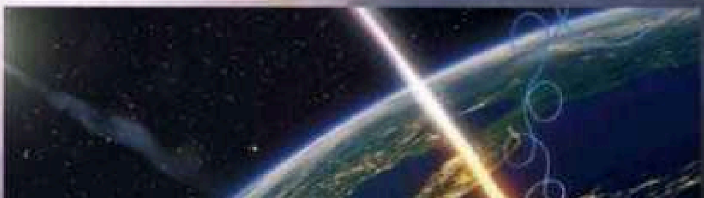
Austrian physicist Victor Hess discovered cosmic rays in 1912 during a series of balloon flights to measure radiation in the atmosphere. He was awarded Noble prize in 1936 for his discovery.

What is cosmic rays??

Cosmic rays are high-energy particles, mostly protons that originate from outside the Earth's atmosphere. They come from the sun, other stars, supernovae, and even distant galaxies.



Cosmic rays travel at nearly the speed of light.



The Earth's atmosphere usually blocks cosmic rays, making them harmless to humans.

DEPARTMENT OF CHEMISTRY

Werner Heisenberg

(5thDec,1901 - 1Feb,1976)

Werner Karl Heisenberg was a German theoretical physicist, one of the main pioneers of the theory of quantum mechanics and a principal scientist in the German nuclear program during World War II. He published his Umdeutung paper in 1925, a major reinterpretation of old quantum theory.

Heisenberg uncertainty principle:

It states that there's a limit to how precisely we can know certain pairs of physical properties of a particle, specifically position and momentum (or velocity), simultaneously.

Mathemetical expression:

$$\Delta x \Delta p \geq \frac{h}{4\pi}$$

Where

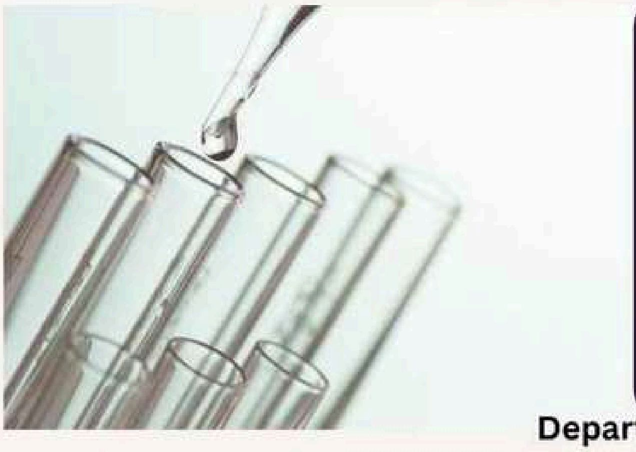
$\Delta x =$ Uncertainty in Position

$\Delta p =$ Uncertainty in momentum

$h =$ Planck's Constant

Applications :

- Non-existence of electrons in the nucleus .
- It can be used to estimate the ground state energy of a system (like a box) . Understanding wave-particle duality.
- Spectral line widths:
-



Limitation:

- The uncertainty principle primarily applies to microscopic particles (electrons, atoms, etc.) and not macroscopic objects like a car, where the effects of quantum uncertainty are negligible

MAX PLANCK QUANTUM THEORY

-DEC 14, 1900

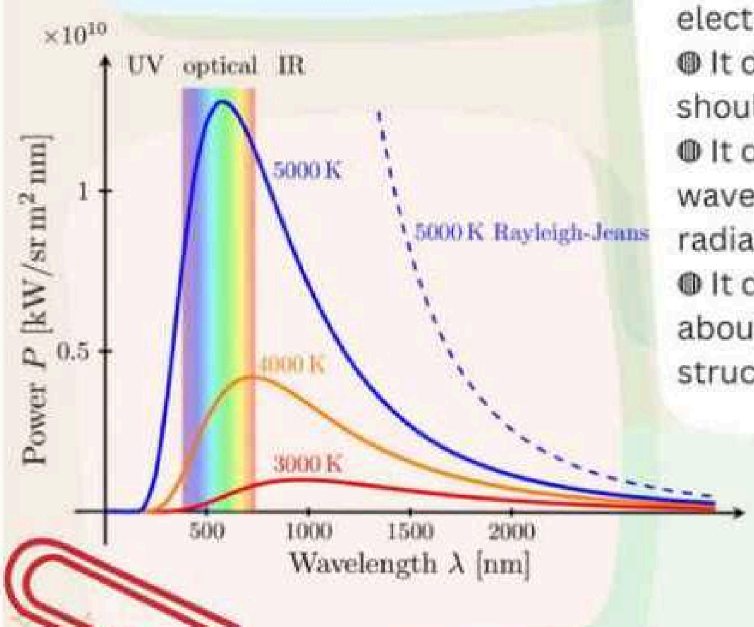
Planck's quantum theory is one of the most important principles of quantum mechanics. It was published in 1900 and was later applied to other systems, such as heat and electricity.

Max Planck's quantum theory of radiation explains how matter absorbs and emits energy in discrete packets called quanta

- Matter can only absorb or emit energy in whole-number multiples of a quantum, such as hf, 2hf, 3hf and so on.
- The energy of a quantum is directly proportional to the frequency of the radiation.

LIMITATIONS

- It only considered the quantization of energy for electromagnetic radiation.
- It didn't explain why energy should be quantized.
- It didn't incorporate the wave-like properties of radiation.
- It didn't make predictions about atomic or molecular structure.



DEPARTMENT OF CHEMISTRY

Where One Journey Ends, Another Begins

As we reach the final page of this special edition, we look back with pride and gratitude. This magazine has been more than just a compilation of facts and events — it has been a tribute to the scientists who changed the world and the timeless spirit of discovery that continues to guide us.

Through this academic calendar, we have walked alongside great minds, celebrated turning points in science, and rediscovered the beauty of learning. We hope these stories spark the same curiosity in you that inspired us to bring this publication to life.

- From Editorial Team
Yasmin Ara
Department of Chemistry

Barasat Govt. College