



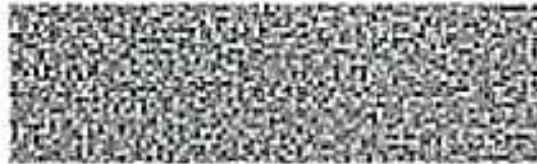
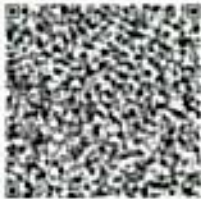
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MEMORANDUM OF UNDERSTANDING (MOU)

This memorandum of understanding is made on 20-03-2023 for the Period of five years from this date.

BETWEEN

2...

Statutory Alert

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The Principal MGVC Arts, Commerce and Science College, Muddebihal represented by Head, Department of Physics here in called as the **FIRST PARTY** have agreed upon as mentioned follow.

AND

The Principal SSPO GFG College, Muddebihal represented by Head, Department of Physics here in called as the **SECOND PARTY** have agreed upon as mentioned follow.

- 1) The allow faculty and Student of the student of the **FIRST PARTY** to visit the institution with prior Permission of **SECOND PARTY**.
- 2) To expose the Teachers and Student of **FIRST PARTY** in academic activities and sharing of the facilities of **SECOND PARTY**.
- 3) Service Provided by **SECOND PARTY** such as resource of the Department Consultancy, Guidance and Experties to **FIRST PARTY** will be at no cost.


FIRST PARTY


PRINCIPAL,

M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

Witness

1) 
(S.M. Ximbalagundi)


2) 
(C.A. I. Bagawan)

SECOND PARTY


Principal
PRINCIPAL,

Shah S. P. Oswal
Govt. First Grade College
Muddebihal-586212.

Witness

1) 
(W. N. D. D. D.)

2) 
(M.B. Yalwan)



S.G.V.C Vidya Prasarak Trust's
**M.G.V.C Arts,
Commerce and Science
College, Muddebihal**
Department of Physics
Organizes



Special Guest Lecture (MoU) on Basic Atomic Model

Date: 25-09-2025 Time: 10.30am

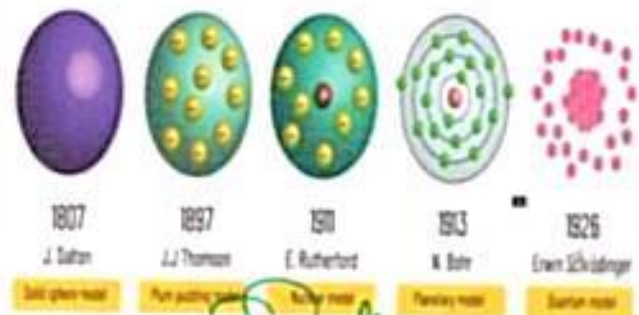


Academic Year- 2025-26

ATOMIC MODELS



Atomic models



PRINCIPAL,

**M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijavapur.**



S. G. V. C. Vidya Prasarak Trust's,
**Matoshri Gangamma Veerappa Chiniwar
Arts, Commerce & Science College,**

MUDDEBIHAL-586212. Dist. Vijayapur (Karnataka)

(Accredited with CGPA of 3.31 on seven point scale at 'A+' Grade)

Affiliated to Rani Channamma University, Belgavi



• email : princmgvc@gmail.com • www.mgvcmbi.in • 9035103184 •

Ref. No. :

Date :

NOTICE

Department of Physics organized Special Guest Lecture topic is "Basic Atomic Model" by Prof. Prakash, Faculty Government First grade college Muddebihal on 25.09.2025 at 10.30.am in conference hall. Hence all the teaching, non-teaching staff members and students are here by informed to attend the function.

PRINCIPAL,

M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



S.G.V.C Vidya Prasarak Trust's
**M.G.V.C Arts, Commerce
and Science College,
Muddebihal**
Department of Physics
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Special Guest Lecture (MoU) on Basic Atomic Model

Date: 25-09-2025 Time: 10.30am

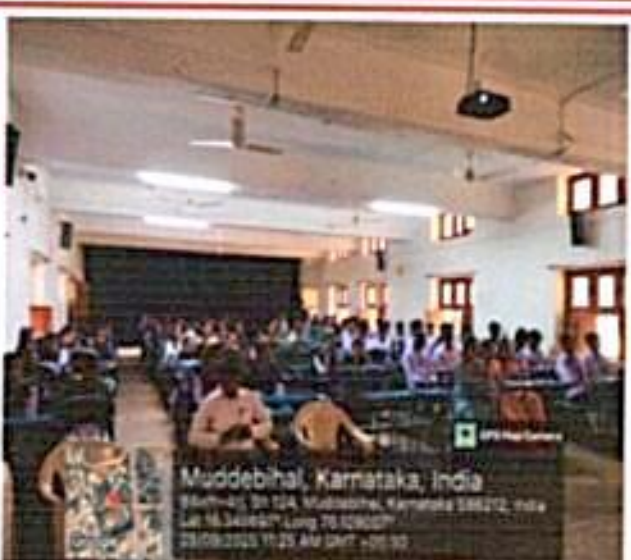
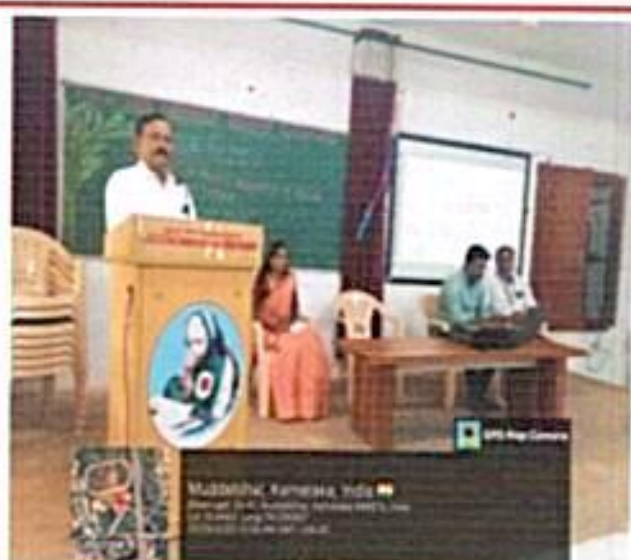




S.G.V.C Vidya Prasarak Trust's
**M.G.V.C Arts, Commerce
and Science College,
Muddebihal**
Department of Physics
Organizes



Special Guest Lecture (MoU) on Basic Atomic Model





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• email : princmgvc@gmail.com • www.mgvcmbi.in • 9035103184 •

Ref. No. :

Date :

REPORT

Department of Physics organized Special Guest Lecture topic is "Basic Atomic Model" by Prof. Prakash, Faculty Government First Grade College Muddebihal on 25.09.2025 at 10.30.am. Prof. S.N. Poleshi, Principal presided over the function. Dr. M.I. Biradar, IQAC Coordinator. Prof. S.M. Nimbalegundi and all other teaching and non teaching staff members graced the occasion. Miss. A.B. Katti proposed vote of thanks.

PRINCIPAL,

M.G.V.C. Arts, Commerce & Science College

MUDDEBIHAL-586212. Dist: Vijayapur.

Objectives of the Lecture

The main goals of Prof. Prakash's lecture were:

1. To introduce the historical development of atomic models — from early to modern theories
2. To explain the strengths and limitations of each atomic model
3. To connect the models to experimental evidence (e.g. Thomson's experiments, Rutherford scattering, Bohr's postulates)
4. To encourage critical thinking about how scientific models evolve
5. To inspire students toward further study in atomic theory, quantum mechanics, or related fields

Outline & Content Covered

Below is a likely structure of the lecture based on standard pedagogy for atomic models.

Historical Origins

Dalton's Atomic Theory, Atoms as indivisible, all atoms of an element identical, chemical reactions as rearrangement.

Thomson's Model

Discovery of electrons, cathode ray experiments "Plum pudding" or "chocolate chip cookie" analogy; electrons embedded in a positive sphere.

Limitations of Thomson's Model

Why it failed, Could not explain scattering experiments, lacked a nucleus, stability issues

Rutherford's Model

Gold foil experiment, nuclear atom Most alpha particles pass, few deflect — nucleus, mostly empty space.

Problems with Rutherford's Model

Issues of electron stability, spectral lines, Classical electrodynamics says orbiting electrons should radiate energy.

Bohr's Model

Quantized orbits, angular momentum quantization, energy levels, Electrons orbit without radiation in allowed orbits; emission/absorption via transitions.

Thomson Atomic Model:

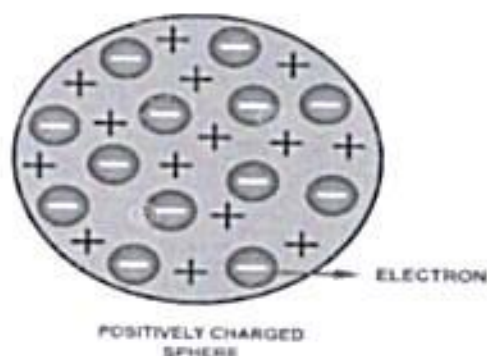
An atom is the smallest particle of a chemical element possessing the chemical properties of the element. The first model of an atom was given by J. J. Thomson in 1904. According to Thomson, an atom is a positive sphere of radius 0.53 \AA , in which the mass and charge are uniformly distributed.

The electrons are embedded in the positively charged sphere just like the plums in a pudding or the seeds in fruits like watermelon, which will give maximum stability to the atoms.

Further, the number of positive charges in an atom is equal to the number of negative charges which explains the electrical neutrality of the atom. However, this model could not explain.

- (i) The origin of spectral lines in the hydrogen atom
- (ii) The large angle of scattering of alpha particles.
- (iii) All features of optical spectra of hydrogen and other elements.

J J THOMSON ATOMIC MODEL

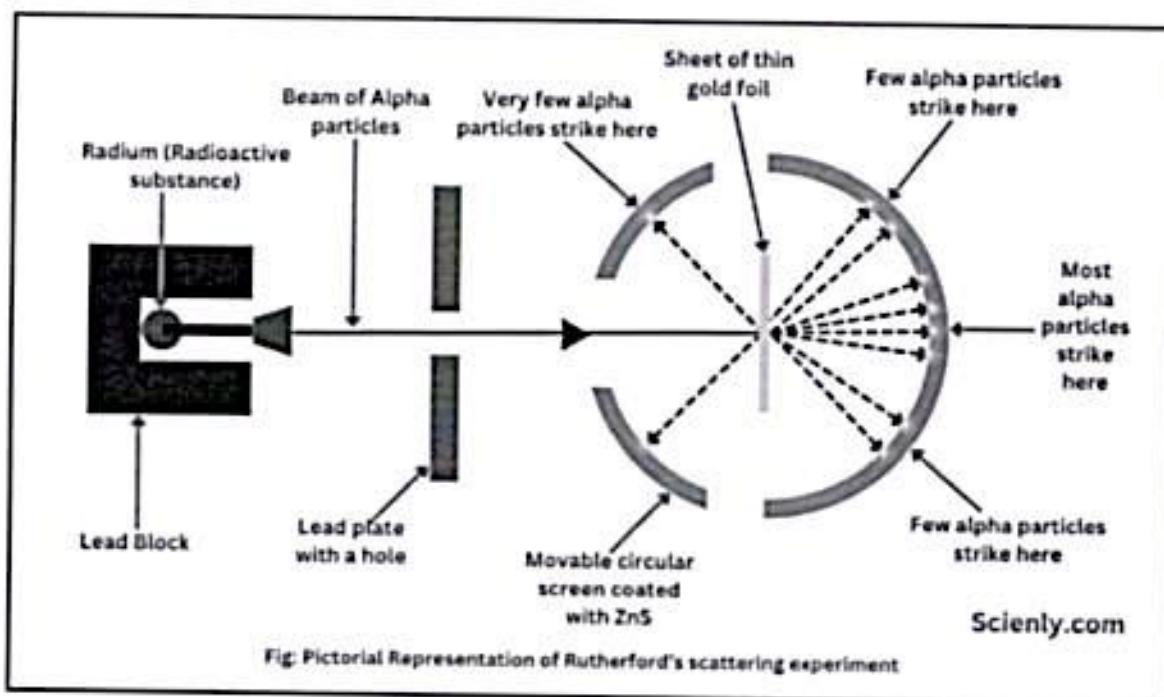


Rutherford's Experiments on Scattering of α -particles:

In 1911, Rutherford performed a number of experiments on the scattering of α -particles by a very thin gold foil. The experimental arrangement is shown in Fig. α particles are emitted by some radioactive material (polonium) R, kept inside a thick lead box. D is the lead screen with a small hole in it to select a very fine beam of α -particles. This well collimated beam is then allowed to fall on a thin gold foil F. While passing through the gold foil, the α -particles are scattered through so as to receive the α -particles, scattered from the gold foil at angles varying from 0 to 180° .

When a α -particle strikes the screen, it produces a flash of light and it is observed by the microscope M. It was found that: (1) Most of the α -particles passed through the gold foil with small deviation. (2) There were a few particles that were scattered through large angles.

Experimental results showed that one of about 8000 particles suffered angles of scattering $> 90^\circ$. A few of the α -particles were even scattered directly in the backward direction (i.e., angle of scattering = 180°). Thomson's atom model failed to explain the experimental results. Therefore, Rutherford pictured an atom as follows.



Bohr Atom Model

Bohr assumed basically Rutherford nuclear-model of the atom and tried to overcome the defects of the model. He proposed the following two postulates. Bohr's atom model is introduced in the year 1913.

Basic Postulates:

- (1) An electron cannot revolve round the nucleus in all possible orbits as suggested by the classical theory. The electron can revolve round the nucleus only in those allowed or permissible orbits for which the angular momentum of the electron is an integral multiple of $h/2\pi$.
- (2) Here, h is the Planck's constant = $6.64 \times 10^{-34} \text{ Js}$. These orbits are called stationary orbits and an electron revolving in these orbits does not radiate energy.
- (3) (For an electron of mass m , moving with a speed v in an orbit of radius r , $L = mvr = mr^2 \omega = nh/2\pi$. n is called the Principal quantum number. It takes integral values, excluding zero; $n = 1, 2, 3, 4, \dots$.) (2)
- (4) An atom radiates energy only when an electron jumps from a stationary orbit of higher energy to one of lower energy. If the electron jumps from an initial orbit of energy E_i to a final orbit of energy E_f ($E_i > E_f$), a photon of frequency $\nu = (E_i - E_f) / h$ is emitted.



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ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.



ATTENDANCE REPORT

Name of the Event : Special guest lecture on "Basic atomic model"

Class : B.Sc - I Sem

Date : 25/05/25

Time : 10:30 AM

SL NO.	NAME	SIGNATURE
UISNU2550149	Rashmi R Dodamani	Rashmi R
UISNU2550143	Susma M. Nayakomakkal	Susma M. N
UISNU2550171	Savitri N Muti	Savitri
UISNU2550023	Shrudhvi. Kadigera	Shrudhvi
UISNU2550089	Ambika M. Banoshi	Ambika
UISNU2550123	Dundamma S. Lingadahalli	Dundamma
UISNU2550033	Basamma Patil	B.B. Patil
UISNU2550032	Ashwini S. Hanamasagar	A.S.H
UISNU2550101	Sahana A. Tumbagi	Sahana
UISNU2550044	Aishwarya Shivayagimath	A.N. Shivayagimath
UISNU2550074	Bhagyashree. Patil	B.M. Patil
UISNU2550099	Chandan P. Lokore	Chandan
UISNU2550071	Shweta A. Biradar	Shweta A.B
UISNU2550072	Pratibha S. Hangaragi	Pratibha
UISNU2550135	Sangeta S. Biradar	Sangeta S.B.
UISNU2550092	Sneha A. Hirmath	Sneha
UISNU2550094	Ashwini S. Halur	Ashwini
UISNU2550077	Sheetal G. Halemani	S.G. Halemani
UISNU2550223	Rashmi M. Sasanur	Rashmi
UISNU2550145	Aishwarya M. Ibrahimpu	Aishwarya
UISNU2550148	Shireen D. Dodamani	Shireen
UISNU2550115	Renuka Kembavi	R.A. Kembavi
UISNU2550115	Aishwarya M. Vodogeri	Aishwarya
UISNU2550042	Shreedevi D. Hanamantraya	Shreedevi H
UISNU2550091	Yasamma M	Yasamma
UISNU2550092	Malkamma	Malkamma



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ATTENDANCE REPORT

Name of the Event : Special guest lecture on "Basic atomic model"

Class :

Date :

Time :

SL NO.	NAME	SIGNATURE
01) 27	Santosh Sajjan	Sajjan
02) 30	Bhimanagouda Chinchoni	Bh
03) 46	Sanjay. hangaragi	Sanjay
04) 100	Kiran. Kurvi	Kiran
05) 29	Manikandha. S. Sasaganathas:	Mani
06) 90	Hanumantray. B. Kragidach	Hanumantray
07) 45	Mahanna. M. Chittawadga:	Mahanna
08) 119	Bhosat. Kavadi. malik:	Bhosat
09) 137	Prajwal. P. B. Badar	Prajwal
10) 28	Sangamesh. B. vadavadi	Sangamesh
11) 122	Abhishek. B. Goungi:	Abhishek
12) 98	Abhishek. I. Kalun	Abhishek
13) 73	Adarsh. S. Benuur.	Adarsh
14) 43	Venayak. S. Berradar	Venayak
15) 06	Arun. R. Patil	Arun
16) 31	Chetan Goni	Chetan
17) 03	Praswal. shirasadi:	Praswal
18) 07	Siravan. M. Patil	S.M. Patil
19) 69	Rohan. S. Rudgi	Rohan
20) 52	Rakshita. A. B. Badar	R.A. B. Badar
21) 68	Bhagyashree. M. Madivalay.	Bhagyashree
22) 25	Akshara. M. Maratadieni	Akshara
23) 14	Ashwini. H. Daddamoni	Ashwini
24) 128	Lakikamma. N. Katagi	Lakikamma
25) 016	Bhagyashree Hulgappa Bantani	Bhagyashree
26) USNUGS 2018	Ashata. C. pyaligouda	Ashata. C. p.



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ATTENDANCE REPORT

Name of the Event : Guest Lecture on "Basic atomic model"

Class : B.Sc - III Sem

Date : 25/01/25

Time : 10:30 AM

SL NO.	NAME	SIGNATURE
U15NU2450075	SAGAR B	
U15NU2450133	INZAMAM. KADAGALI	
U15NU2450090	Shreeshaail R. Nagaraj	
U15NU2450030	Hanamanthya gauda. Patil	
U15NU2450115	Saogamesh B. wadawar:	
U15NU2450097	Muthanna. m. Talawar	
U15NU2450093	Amrinda. K. Gaitiger	
U15NU2450117	Gangadhar	
U15NU2450020	Prashant B N	
U15NU2450029	Yesuf. H. Turakkaragari	
U15NU2450012	Siddu B. Kulkar	
U15NU2450036	Prabhu. M. Bizardar	
U15NU2450129	Parveen Nadaf	
U15NU2450055	Najiya Walikar	
U15NU2450088	Anusadha. Badiger	
U15NU2450047	Swati. S. Bizardar	
U15NU2450044	Jayalaxmi. S. Bizardar	
U15NU2450023	Gaddeemma. B. desai	
U15NU2450070	Srashi. Wagbar	
U15NU2450074	Bonashri. mathapati	
U15NU2450058	Laxmi. Ambiger	
U15NU2450072	Nijayalaxmi. -Anandgal	
U15NU2450026	Shilpa. K. Kuri	
U15NU2450060	Afreen. R. Nadaf	
U15NU2450072	Shife. M. Bagwan	
U15NU2450091	Poojara. R. Kulkar	



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MATOSHRI GANGAMMA VEERAPPA CHINIWAR
ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.



ATTENDANCE REPORT

Name of the Event : Special guest lecture on "Basic atomic model"

Class : B.Sc - II Sem

Date : 25/09/25

Time : 10:50 AM

SL NO.	NAME	SIGNATURE
01	(U15NU2350001) Rakshita. Gulkarni	R.G. Gulkarni
U15NU2350069	Aishwarya Dindawar (B.Sc II th Sem)	A.D.
U15NU2350097	Laxmi. D. Patil	L.D.P
U15NU2350055	Pallavi. Angadi	P.Angadi
U15NU2350097	Bhagyam	Bh
U15NU2350022	Keertana. Poudag	K.P.
U15NU2350077	Jyothi. Vastrad	J.Vastrad
U15NU2350091	Shreeeraksha. Ghatge	S.G.
U15NU2350043	Amruta. S. Patil	A.S. Patil
U15NU2350009	Mubeena. S. Mulla	Mulla
U15NU2350082	Laxmi Hosamani	L.H.
U15NU2350000	Soumya Bajjan	Soumya
U15NU2360109	Renuka. N. Bhagantari	R.N.
U15NU2350028	Nisarga Gangamata	Nisarga
U15NU2350048	Soumya Hallur	S.S. Hallur
U15NU2350063	Sangana Gowd. Karad:	S.K.
U15NU2350037	Siddling S. Walikar	S.W.
U15NU2350043	Vinod. S. Angadi	V.A.
U15NU2350084	Mallibajun. Hulibari	M.H.
U15NU2350084	Pragwal. L. Talawar	P.L.