

B.L.D.E.Association's

S.B. Arts and K.C.P. Science College

Vijayapur

DEPARTMENT OF CHEMISTRY

GUEST LECTURE 2018-19

By

Prof. K. B. Gudasi

For

B.Sc. Students

Topic: Co-ordination Chemistry

VENUE

Seminar Hall,

S.B.Arts and K.C.P.Science college

Vijayapur.

Notice

Date: 18/01/2019

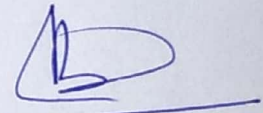
All the B.Sc students are hereby informed to attend the guest lecture organised by Department of Chemistry on the Topic: **co-ordination chemistry** on 20/01/2019 in seminar hall at 10am.



Head
Dept. of Chemistry
SB Arts & KCP Sc. College,
Vijayapur.



Principal,
S.B. Arts and KCP Science College
VIJAYAPUR



IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijayapur.

Dr. K. S. Gudari is the prof. of chemistry in Karnataka University Dharwad. He was came here to discuss the very important topic called co-ordination chemistry. He briefly discussed about the Crystal Field Theory (CFT). 77 B.Sc. students of our college were attained to this programme.

TOPIC: CO-ORDINATION CHEMISTRY

Co-ordination Compound: A compound containing coordinate bonds, typically between a central atom and a number of other atoms or groups. Ligands are Lewis bases and the Central metal atom is Lewis acid.

BONDING THEORIES in CO-ORDINATION CHEMISTRY.

There are many theories in co-ordination chemistry and the important one is Crystal Field Theory (CFT).

CRYSTAL FIELD THEORY:

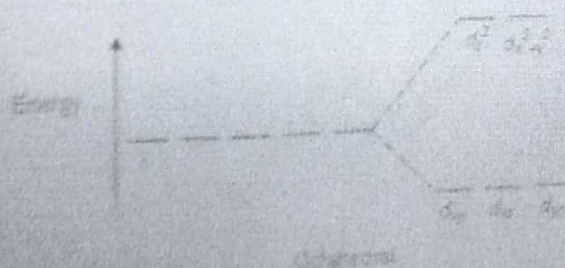
This theory was first proposed by Bethe in 1929. It was further modified by Van Vleck in 1935. Crystal Field splitting was first introduced to explain the properties of crystalline substances.

BASIC FEATURES OF CFT:

- 1) Ligands as the point like charges.
- 2) No covalent interaction.
- 3) Wave mechanical identity of the atomic orbitals of the metal centre.
- 4) Electrostatic perturbation of the metal orbital electrons by the ligands.
- 5) Effect of energy and degeneracy of the metal orbital.

SPLITTING OF ORBITALS:

- 1) Splitting of orbitals in octahedral field:



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CRYSTAL FIELD THEORY:

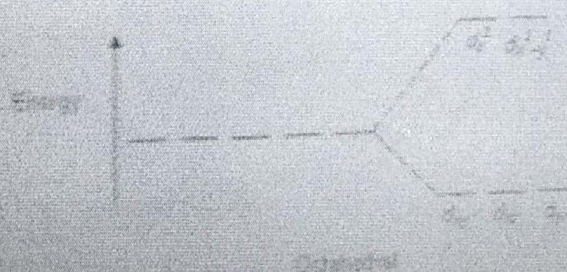
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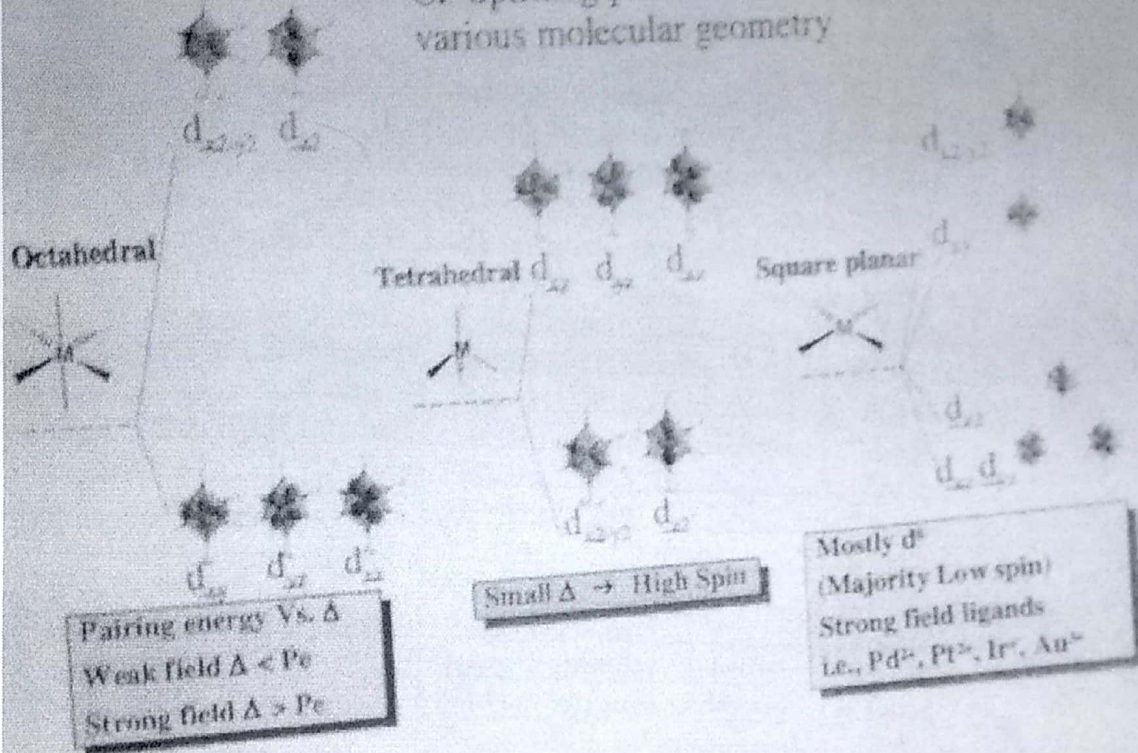
SPLITTING OF ORBITALS:

- 1) Splitting of orbitals in octahedral field.



Octahedral, Tetrahedral & Square Planar

CF Splitting pattern for various molecular geometry



SPECTROCHEMICAL SERIES:

If the ligands are arranged in order of their crystal field splitting power, the series obtained is described as Spectrochemical series

Date - 20-01-2019

10 a.m.

□□□□□

Sr. No.	Roll No.	Seat No.	Name	Signature
1	530		Ashwini. S. Chaudhi	<i>Ashwini</i>
2	521		Jyoti. B. Teradav	<i>Jyoti</i>
3	454		Jyoti. D. Paltad	<i>Jyoti</i>
4	369		Shreya. S. Anagawadi	<i>S.S. Anagawadi</i>
5	606		Priyanka. M. Pirabadi	<i>Priyanka</i>
6	195		Rahul. S. Biradar	<i>Rahul</i>
7	192		Sheshadri. Hemath	<i>Sheshadri</i>
8	402	S1721903	Prakruti B. Chandakavate	<i>Prakruti</i>
9	401	S1721756	Geeta. B. Bajababakar	<i>Geeta</i>
10	414	S1721713	Bheerappa. B. Pujari	<i>Bheerappa</i>
11	410	S1722065	Somanath. S. G	<i>Somanath</i>
12	524	S1721864	P. S. Mattihal	<i>P. S. Mattihal</i>
13	389	S1722067	Somashekhar. M. Patil	<i>Somashekhar</i>
14	503	S1721913	Praveen. B. Biradar	<i>Praveen</i>
15	392	S1722055	Siddanagaud. Biradar	<i>Siddanagaud</i>
16	398	S1722094	Shweta. Teli	<i>Shweta</i>
17	403	S1721675	Asha. Atgasi	<i>Asha</i>
18	30	S1622518	Vidyalaxmi. C. Ajad	<i>Vidyalaxmi</i>
19	425		Reshma. D. Tarse	<i>Reshma</i>
20	412		Preeti. Kumari	<i>Preeti</i>
21	535		Kaesthi. -Biradar	<i>Kaesthi</i>
22	395		Siddasamyya. S. Sattigeri	<i>Siddasamyya</i>
23	373		Deepo. S. Kanchappanavon	<i>Deepo</i>
24	354		Suma. M. Nugar	<i>Suma</i>
25	375		Mikita. S. Gidaveer	<i>Mikita</i>
26	350		Aishwarya. Kotali	<i>Aishwarya</i>
27	360		Pruma. Koralli	<i>Pruma</i>
28	386		Paaja. U. Saboji	<i>Paaja</i>
29	385		Basamma. M. Hatti	<i>Basamma</i>
30	366		VijayaLaxmi. S. Navi	<i>VijayaLaxmi</i>
31	372		Neelamma. A. Solapur	<i>Neelamma</i>
32	355		Balakraishna. R. Putbani	<i>Balakraishna</i>
33	348		Ambarish. H. Navi	<i>Ambarish</i>
34	353		Kiran Kumar. B. Patil	<i>Kiran Kumar</i>
35	376		Prabakar. G	<i>Prabakar</i>
36	554		Arinash. R. Masali	<i>Arinash</i>

Continued---

Name	Roll No	Signature
1) Rekha. B. Teli	10	
2) Bhagyashree. Narasi	49	
3) Aishwarya. Shetty	104	
4) Pournima. J. Kesti	103	
5) Anjali. S. Rudagi	156	
6) Rekha. Mali	157	
7) Akshata. A. Sajjan	83	
8) Umavati. v. Pujari	20	
9) Soumya. N. Galagond	110	
10) Ravi. Mataphati	111	
11) Shrutti. S. Tawarakhed	168	
12) Sangeeta. B. Kallusa	169	
13) Keerthi. S. Satihal	170	
14) Manjula. S. Hastalli	25	
15) Shweta. C. Kanameshwar	17	
16) Manjula. S. Godihal	78	
17) Hrishikesh. R. Dixit	06	
18) Vishal. Y. Biradar	243	
19) Kashinatha. M. Bagau	210	
20) Siddhanam. C. Kottalagi	195	

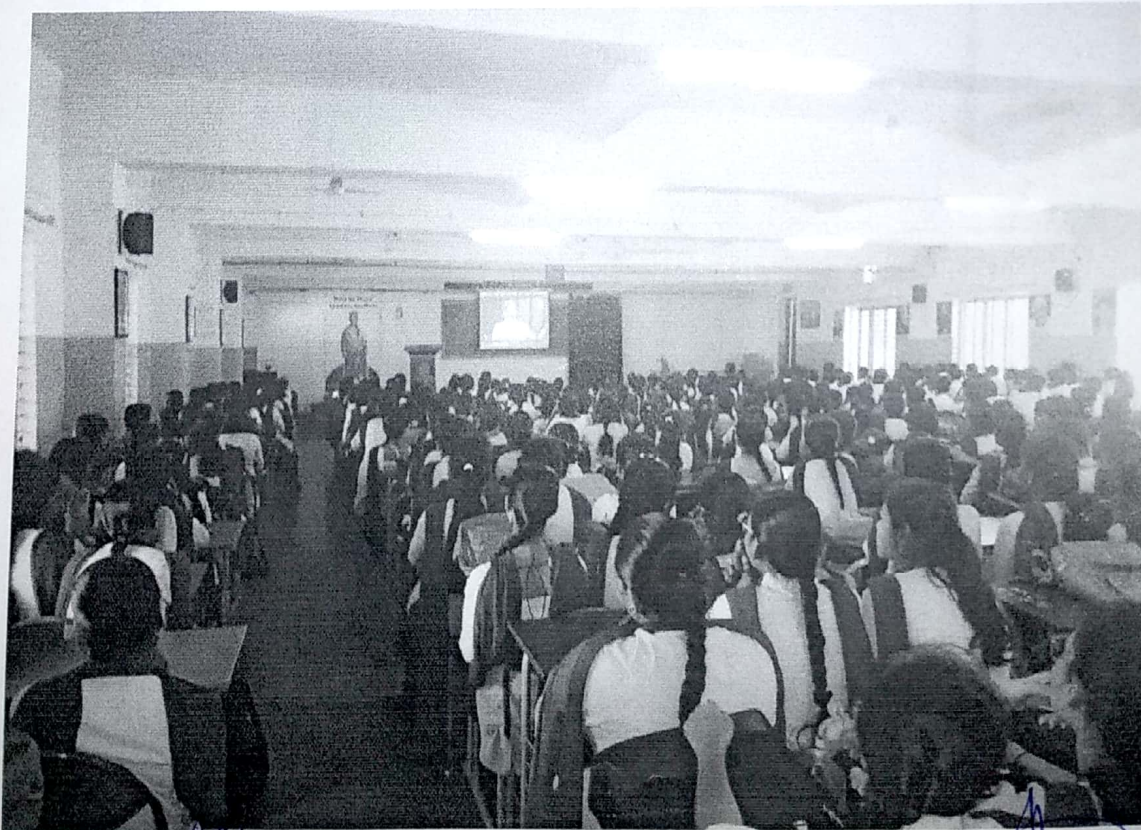
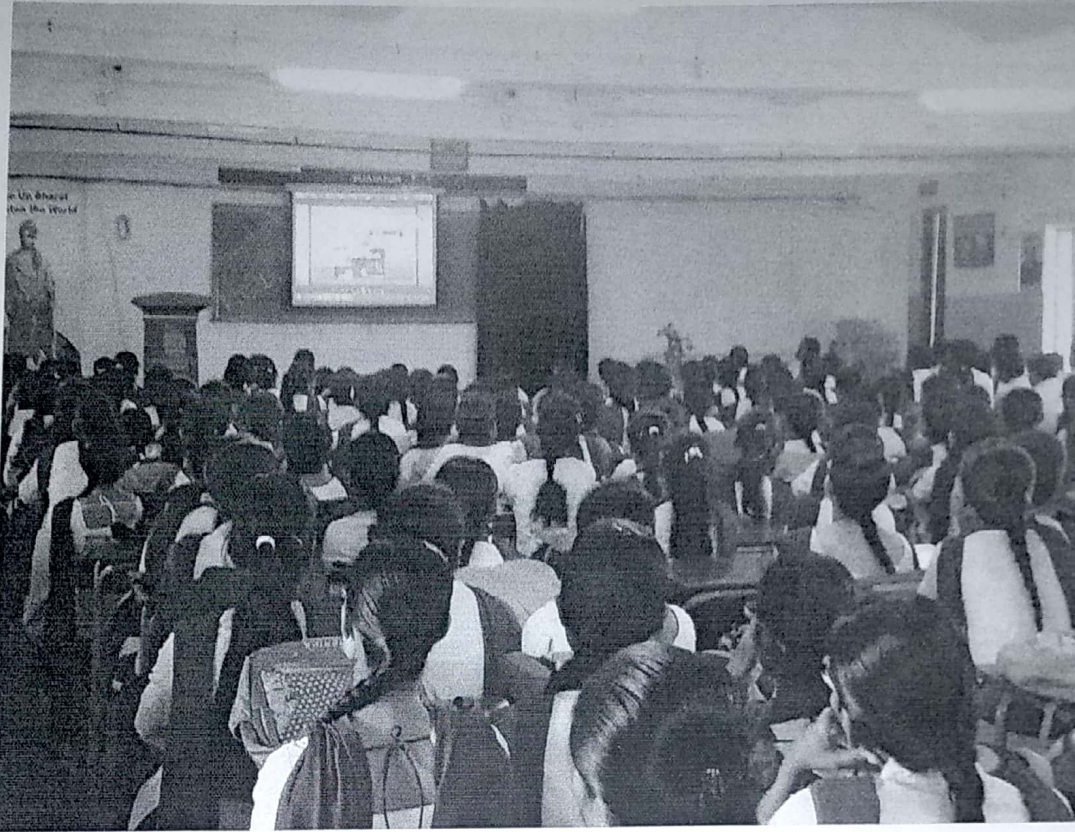
Total no. of students = 56.

Head
 Dept. of Chemistry
 SB Arts & KCP Sc. College,
 Vijayapur.

IQAC, Co-ordinator
 S.B.Arts & K.C.P.Science College,
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Principal,
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Lecture by Dr. K.B. Gudasi.



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Vijayapur

DEPARTMENT OF CHEMISTRY

GUEST LECTURE 2018-2019

By

Dr. Channabasappa. Yelamogad

Topic: LIQUID CRYSTAL

For

B.Sc. and M.Sc Students

Date: 5th Sept. 2018

Time: 4:00pm.

VENUE

Seminar Hall,

S.B.Arts and K.C.P.Science College

Vijayapur.

Notice

Date: 03/09/18

All the B.Sc and M.Sc students are hereby informed to attend the guest lecture organised by Department of Chemistry on the Topic: **LIQUID CRYSTAL** on 05/09/2018 in seminar hall at 04:00 pm to 05:00pm.



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Dept. of Chemistry
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Vijayapur.



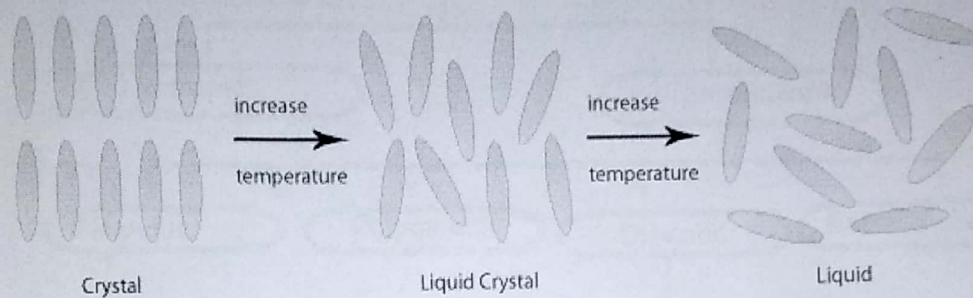
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INTRODUCTION:

Liquid crystals are a state of matter which has properties lies between those of conventional liquids and those of solid crystals. For instance, a liquid crystal flow like a liquid, but its molecule may be oriented in a crystal like way.



TYPES OF LIQUID CRYSTALS:

Liquid crystals can be classified into two main categories.

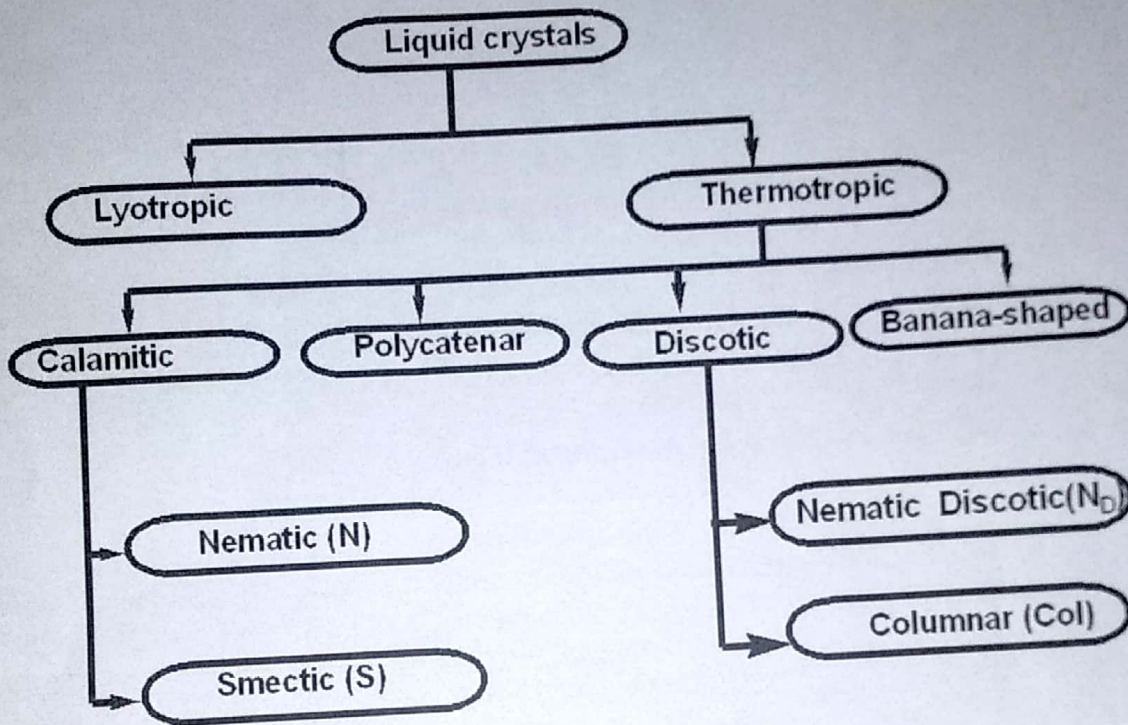
I) Thermotropic liquid crystals: Thermotropic transitions occur in most liquid crystals, and they are defined by the fact that the transitions to the liquid crystalline state are induced thermally.

Thermotropic liquid crystals classified into two categories.

- a) Enantiotropic liquid crystals, which can be changed into the liquid crystal state from either lowering the temperature of a liquid or rising the temperature of the solid.
- b) Monotropic liquid crystals, which can only be changed into the liquid crystal state from either an increase in the temperature of a solid.

II) Lyotropic liquid crystals: Lyotropic liquid crystal transitions occurs with the influence of solvents, not by change in temperature.

Types of Liquid Crystals



Uses of liquid crystals:

- 1) LCD Displays.
- 2) Microprocessor.
- 3) Digital watches.
- 4) Communication lines.
- 5) Calculators.
- 6) Digital cameras.

Attendance sheet:

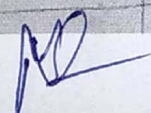
Date : 05/09/2018.

	Roll No	Seat No.	Name	Sign
1	265		Kaveri. S. Tilshat	
2	89		Sahana. R. Wale	
3	553		Bhagyashree. Majagi	
4	280		Renuka Gorggaon	
5	256		Reshma. L. Pourn	
6	244		Safiya. P. Mujawar	
7	223		Ladanya. M. Godekar	
8	293		Smriti. V. Naik	
9	602		Aishwarya. M. Kabad	
10	224		Mallanagowda. B. Patil	
11	67		Mallikarjun. R. Budikot	
12	58		Shridhan. C. Balawat	
13	288		Vidyanand. B. Lolasang	
14	255		Pragati. Nandur	
15	289		Pooja. Badsu. Naik	
16	44		Parnavi. B. Bador	
17	12		Basamma. Muddakar	
18	240		Bhuvanashree. B. Chaudhari	
19	283		Chaitra. S. Adak	
20	266		SATAPPA. B. B. Bador	
21	260		Shreshth. R. Dhavalagi	
22	251		Chetan. B. Nayak	
23	579		BHEEMU SANGAM	
24	226		Nagaraj. S. Muttagi	
25	241		Channaveer. M. Badiger	
26	287		Shivanand. S. Pudar	
27	252		Avinash. B. Patil	
28	231		Sanganna. S. Karande	
29	469		Bharati. J. Hugar	
30	194		Smriti. Jinnadi	
31	04		patil. soundarya. A	
32	92		Roshika. M. Madiwal	
33	82	S1622452	Snaha. A. Pargudhale	
34	81	S1622205	Mallika. N. B. Bador	
35	83	S1722060	Snaha. Salapoor	

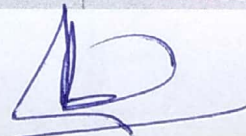
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36	125	S1721705	Ushagyashree. Mullisani	Buni
37	84	S1721711	Bhazani. S. udachen	Bsyf
38	123	S1721858	Nivedita. G. Magadum	MS
39	65	S1721658	Ankita. S. B	SB
40	50	S1721945	Rani. P. Bijjala	DDI
41	25	S1622083	Bhagya. A. Subbi	Bagubbi
42	77	S1622472	Sufata. M. kambalshetti	Sub
43	97	S1622153	Jyoti. S. Hiremath	S. H
44	79	S1622352	Salona B. Bannad	Bannad

Total no. of Students = 44



Head
 Dept. of Chemistry
 SB Arts & KCP Sc. College,
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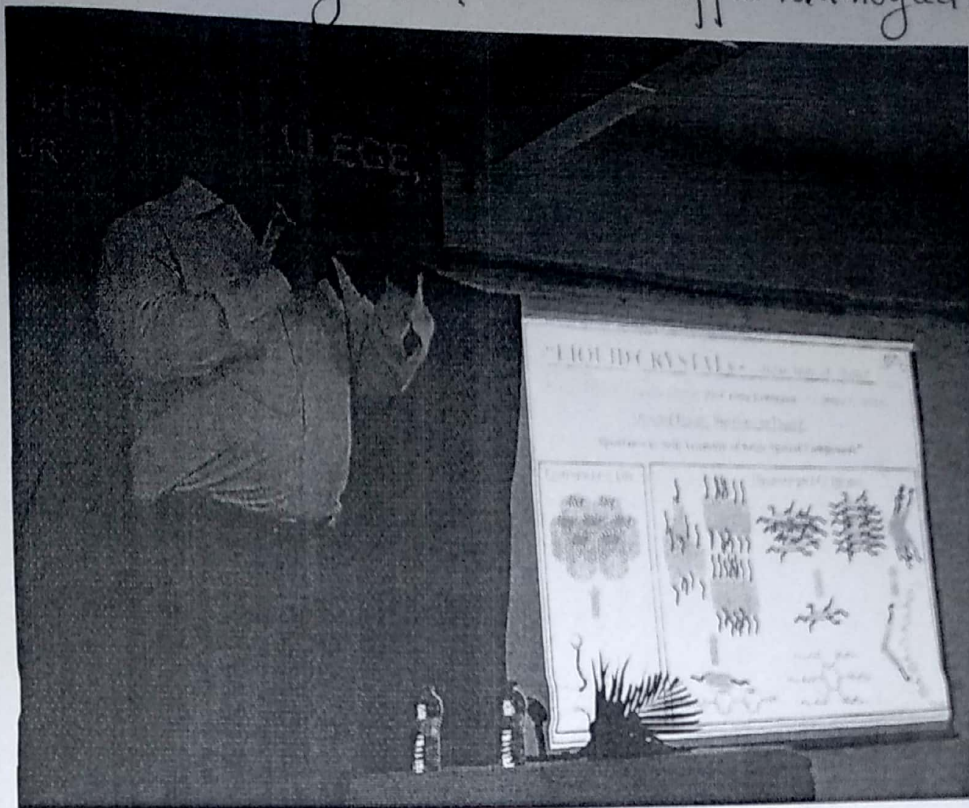



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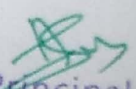
Principal,
 S.B. Arts and KCP Science College
 VIJAYAPUR

Lecture by Dr. Channabasappa Yadamogad,




Head
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Vijayapur

DEPARTMENT OF CHEMISTRY

GUEST LECTURE 2018-2019

By

Dr. MAHESH PADAKI

Topic: SPECTROSCOPY

For

B.Sc. and M.Sc Students

Date: 7th sept, 2018

Time:10 a.m.

VENUE

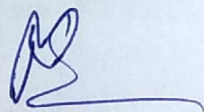
Seminar Hall,

S.B.Arts and K.C.P.Science college

Notice

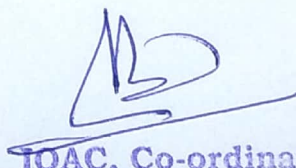
Date: 05/09/18

All the B.Sc and M.Sc students are hereby informed to attend the guest lecture organised by Department of Chemistry on the Topic: **SPECTROSCOPY** on 07/09/2018 in seminar hall at 04:00 pm to 05:00pm.



Head

Dept. of Chemistry
B Arts & KCP Sc. College,
Vijayapur.



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S.B. Arts and KCP Science College
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Dr. MAHESH PADAKI.

Dr. MAHESH PADAKI came from Jain University Bangalore on 7th sept, 2018. He came to our college to give a lecture on spectroscopic topics. All B.Sc, M.Sc and staff members were attended to this lecture. He spoke on some spectroscopic techniques which includes IR, UV and NMR spectroscopy.

He discussed some important points regarding spectroscopy as follows:

1) Infrared Spectroscopy:

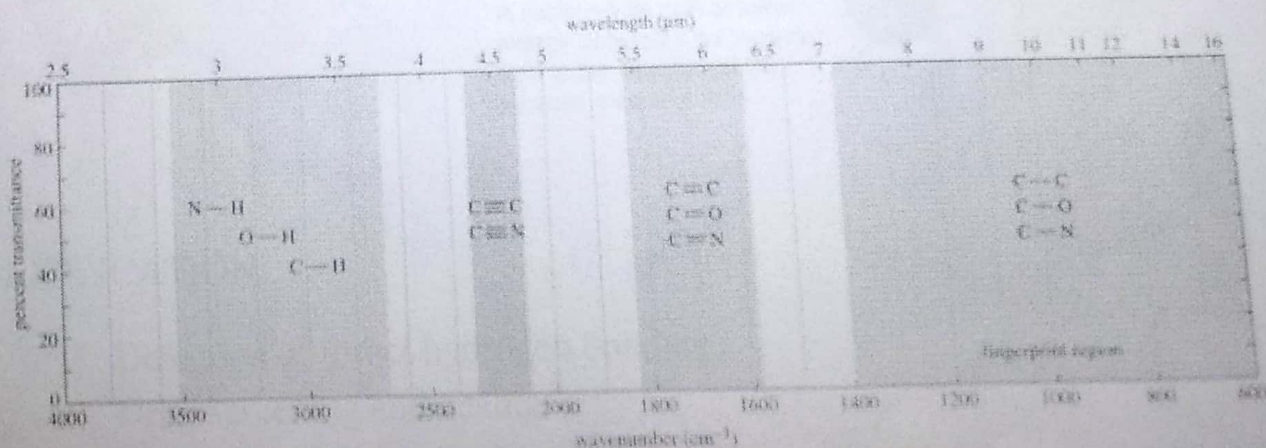
Principle: IR spectroscopy is concerned with the study of absorption of infrared radiations, which causes vibrational transition in the molecule. Hence, IR spectroscopy also known as vibrational spectroscopy.

Types of Vibration: Two types of vibrations are observed

- 1) Stretching vibrations
- 2) Bending vibrations.

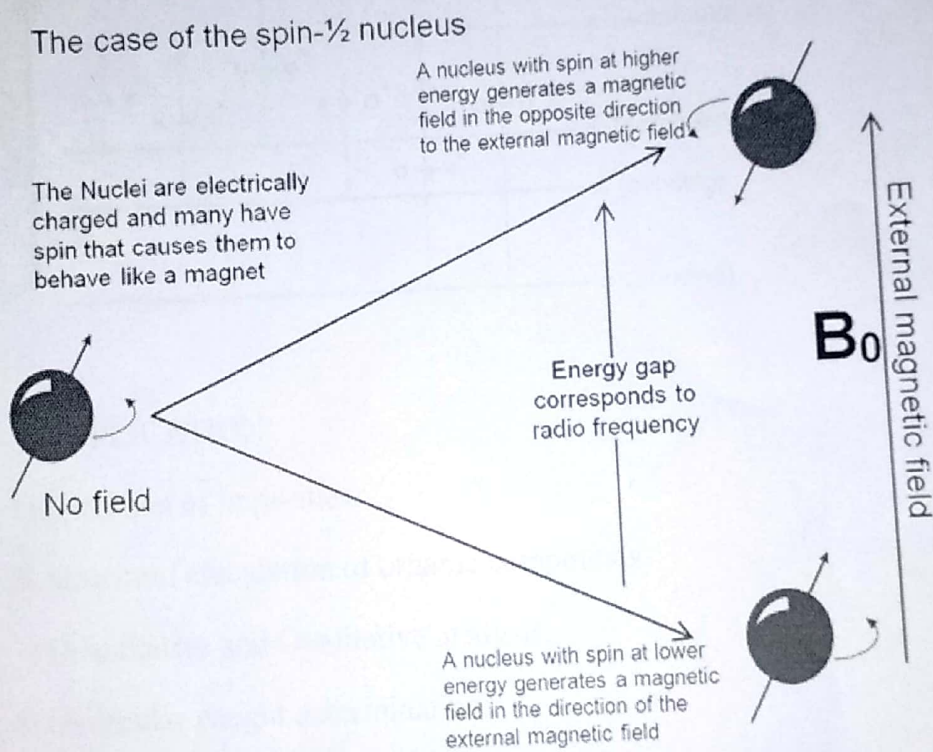
IR spectroscopy is mainly used in structure elucidation to determine the functional groups.

IR absorption ranges:



2) Nuclear Magnetic Resonance Spectroscopy:

Principle: The principle behind NMR is that many nuclear have spin and all nuclei are electrically charged. If an external magnetic field is applied, an energy transfer is possible between the base energy to a higher energy level.



APPLICATION:

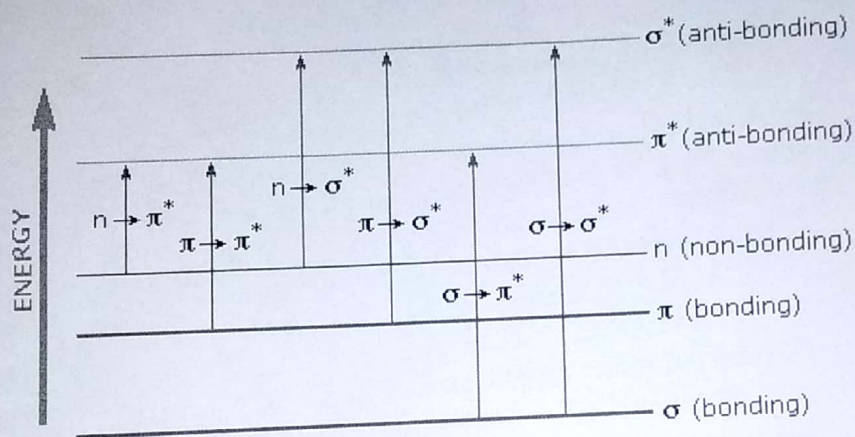
- 1) Detection of direct hydrogen bonding.
- 2) Drug screening and desing.
- 3) Metabolite and chemical analysis.

4) Material science.

3) Ultra Violet - Visible Spectroscopy:

Principle: It is the measurement of the attenuation of a beam of light passes through a sample or after reflection from a sample surface.

TYPES OF TRANSITION:



APPLICATION:

- 1) Detection of impurities.
- 2) Structural elucidation of organic compounds.
- 3) Quantitative and Qualitative analysis.
- 4) Molecular weight determination.

Date : 07/09/2018.

Attendance sheet:

No.	Roll No.	Name of Student	Signature
1	565	Bhuvaneshwar G. Mmadhapus	BKS
2	450	Secma N. Hiramat	Secma
3	524	Shoulami S. Kamshetty	Smitly
4	265	Kaveri S. Pillihal	Bhuvaneshwar
5	553	Bhagyashree. Mayjagi	Suresh
6	89	Sahana P. Wali	SA
7	256	Reshma L. Jawar	Reshma
8	280	Renuka M. Goragani	Renuka
9	244	Safyo P. Mujawar	Safyo
10	223	Kavanya N. Godekar	Kavanya
11	293	Gmsniti V. Naik	Gmsniti
12	602	Aishwarya M. Khabde	Aishwarya
13	224	Mallanagawda B. Patil	Mallanagawda
14	267	Mallikarjun R. Budihal	Mallikarjun
15	253	Shaidhan C. Balawat	Shaidhan
16	288	Vidyaasani K. Lalasong	Vidyaasani
17	255	Pragati Nander	Pragati
18	289	Pooja Badar Naik	Pooja
19	544	Parvati Biradas	Parvati
20	592	Basamma Madduraki	Basamma
21	272	Kajal K. Halakude	Kajal
22	240	Bhuvaneshwar B. Choudari	Bhuvaneshwar
23	283	Chaitra S. A	Chaitra
24	266	SATAPPA B. Biradasi	SATAPPA
25	260	Shreshth N. Dhavolagi	Shreshth
26	251	Chetan B. Nayak	Chetan
27	579	BHEEMU SANGAM	BHEEMU
28	226	Nagaraj S. Muttagi	Nagaraj
29	241	Chauhanveer M. Badiger	Chauhanveer
30	287	Shivnand S. Pudami	Shivnand
31	252	Avinash B. Patil	Avinash
32	231	Sauganna S. Karande	Sauganna

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33	399	SI722067	Soma & Shekhar M. Patil	S.M. Patil
	503	SI721913	Praveen B. Biorad	Biorad
34	392	SI722055	Siddharagudra Biorad	Perz
35	398	SI722054	Shweta. Tele	Dr
36	403	SI721675	Asha G. Argani	Amargani
37	30	SI622518	Vidyalaxmi. C. Ajud	Aji
38	28	SI622302	Priyanka. R. Hallale	PH
39	29	SI622339	Rekha. S. Tikkundi	Rekha
40	26	SI622182	Madhu. S. Malavanashetty	Seethi
41	425		Reshma. D. Tarse.	Reshma
42	412		Preeti Kumari	Preeti
43	636		Koratti. - Biorad	Biorad
44	395		Siddharmayya. S. Sattiger	Amu
45	573		Deepa. B. Kunchappanava	Dr
46	354		Suma. M. Hugas	Suma
47	375		Nikita. S. Gidarees	Adik
48	350		Ashwarya. Kotali	Adi
49	360		Pooja. Koralli	Pravali
50	386		Pooja. U. Saboji	Prat
51	385		Basamma. M. Hatti	Dr
52	366		Vijayalaxmi. S. Navi	Dr
53	363		Bhagya. A. Nidagud	Dr
54	565		Bhuvaneshwari. Mamadapur	Dr
55	372		Neelamma. A. Solapur	N.A. Solapur
56	346		Aishwarya. S. Janginamath	Dr
57	362		Deepa. V. Rathod	Rathod
58	353 349		Ambarish. H. Navi	A. Navi
59	358		Abhishek. D. Ashtekar	Ashtekar
60	374		Shreechar. S. Hirekar	S.S.H.
61	355		Balakrishna. Puthani	Dr
62	353		Kiran Kumar. B. Patel	KBP
63	554		Anand. R. Maral	Ani
64	324		Devi. K. Kumar. M. H	Dr
65	376		Prabhakar. Jalwad	Prabhakar
66	532		Hireesh. Telagi	Hireesh
67	378		Bandhanori. M. N. N. N. N.	B. Bandhanori
68	368		Shresh. B. A	Shresh
69				

Continued...

70				
71	398	81622248	Pavan Kumar. Kambale	Prakash
72	392	81622376	Satish. S. Wadiker	S. S. Wadiker
73	243	81622207	Mulraj. K. Yantkar	MUSY
74	345	81622206	Maheshkar. Almel	MUS
75	284	81622232	Xleha. M. Umarani	Amara
76	285	81622142	Aneha. S. Saiyad	Shayad
77	365	81622392	Sheelavati. C. Sawadgi	S. C. Sawadgi
78	344	81622170	Kumar. Anbalalal	Kumar
79	305	81622002	Abdulfaqir. Chodhase	Shayad
80	368	81622122	Shanarajya. Pagar?	Shayad
81	126	81721656	Anila. C. D.	Shayad
82	376	81721773	Jyoti. S. Ned	Shayad
83	352	81622285	P. J. Kulkarni	Shayad
83	149	81622372	Sanita Kulkarni	Shayad
84	178	81622520	Ujwalaxmi. Babalshuxar	Shayad
85	147	81622155	Kanchani I Bellundagi	Shayad
86	158	81622210	Mananda. C. Kargawad	Shayad
87	230		Shreedhar S. Jamadar	Shayad
88	234		Harappa S. Bijadani	M. S. Bijadani
89	229		Kenchappa. K. Kadakadi	Shayad
90	531		Tranna S. Bijadani	Shayad
91	292		Nirith. B. P.	Shayad
92	278		Ramesh S. M.	Shayad
93	517		Akhila. S. Patil	Shayad
94	526		Ilivedita. M. Bommanahalli	Shayad
95	556		Rajashree. C. Pawar	R. C. Pawar
96	523		Pooja. B. Murjari	P. B. Murjari
97	232		Laxmi. A. Adali	Shayad
98	529		Rajshree. K. Boga	R. M. B.
99	521		Jyoti. B. Terodai	Shayad
100	574		Rooja. K. M.	Shayad
101	192		Sheshadri. Hiremath	Shayad
102	195		Rahul. S. Bijadani	Shayad
103	402	81721903	Prakruti B Chondakarate	Shayad
104	414	81721713	Bheerappa. B. Pagar?	Shayad
105	410	81722065	Somanath. S. G.	Shayad
106	504	81721864	P. S. Mattihal	Shayad

Continued --

Roll No.	Seat No.	Name	Signature
107	256	S1721645 Amrta. S. Guddapur	
108	251	S1722084 Srishri. Biladar	
109	255	S1721866 Parnati. V. Dalavayi	
110	252	S1722103 Sushra. M. Heralagi	
111	254	S1722102 Sushra. A. Biradar	
112	253	S1721919 Prema. S. Alloli	
113	192	S1721868 Laxmi. R. Patil	
114	194	S1722046 Shruati. S. Immadi	
115	182	S1722109 Shuchrta. M. Sangapur	
116	196	S1721836 Megha. M. Masari	
117	190	S1721732 Dameshwari. S. Weli	
118	313	S1722086 Sudha. G. Hilemath	
119	314	S1721923 psiyanka S. marnadpur	
120	73	S1722127 Uma. B. Navalagi	
121	411	S1721835 Megha. B. Managode	
122	412	S1721853 Nikita. S. Surpur	
123	27	S1622403 Shilpa. C. Sheelin	
124	26	S1622182 madhu. s. Malavanashetty	
125	36	S1622249 Pavitra. B. Topi	
126	35	S1622259 kavari. s. Devaraganvi	
127	196	S1622511 Venukumari. Biladar	
128	198	S1622297 Preya. C. Gabasaalagi	
129	195	S1622287 Pratima. B. Hanji	
130	200	S1622440 Shweta. P. Kenginal	
131	197	S1622442 Shweta. S. Rugi	
132	199	S1622509 Vausha. S. Topi	
133	274	S1622171 Kunjarani. Teli	
134	244	S1622024 Akshata. C. Bivadar	
135	273	S1622393 Sheetal. S. Waghmare	
136	249	S1622254 Pooja. B. Basketti	
137	226	S1622365 Santosh. B. Kamalagi	
138	227	S1622022 Prakash. Akhalakot	
139	367	S1622091 Bhavusab. Patil	
140	342	S1622169 Shrikant. Kusumant. Koli	
141	341	S1622314 Rajakumar. S. Yalameli	

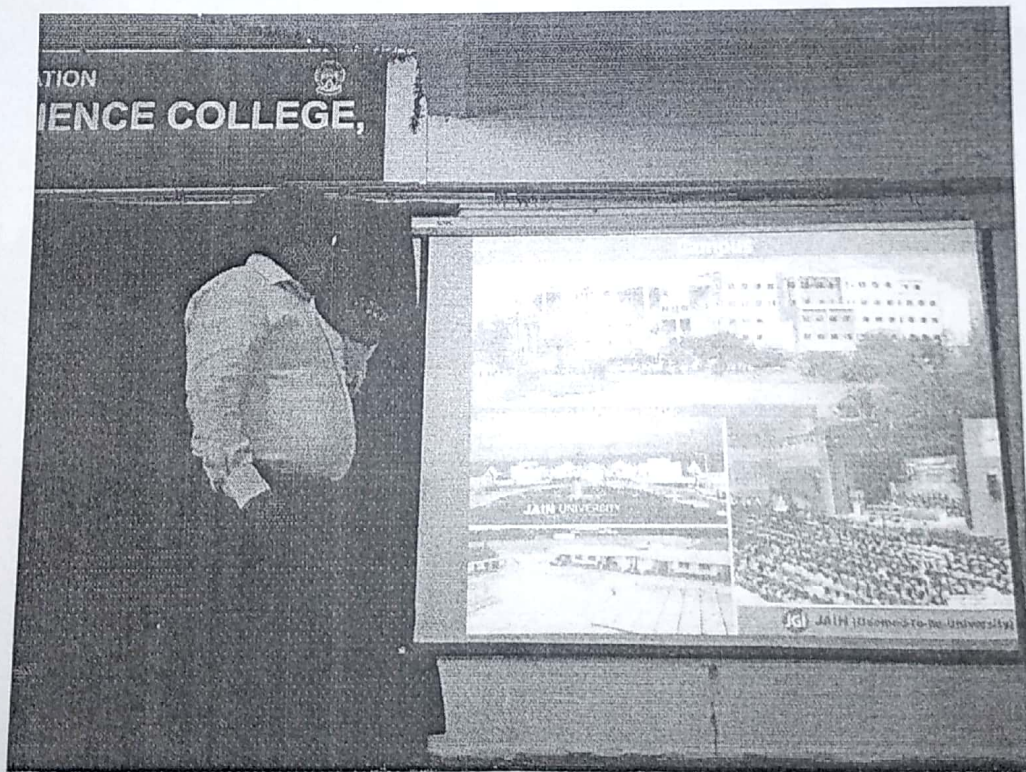
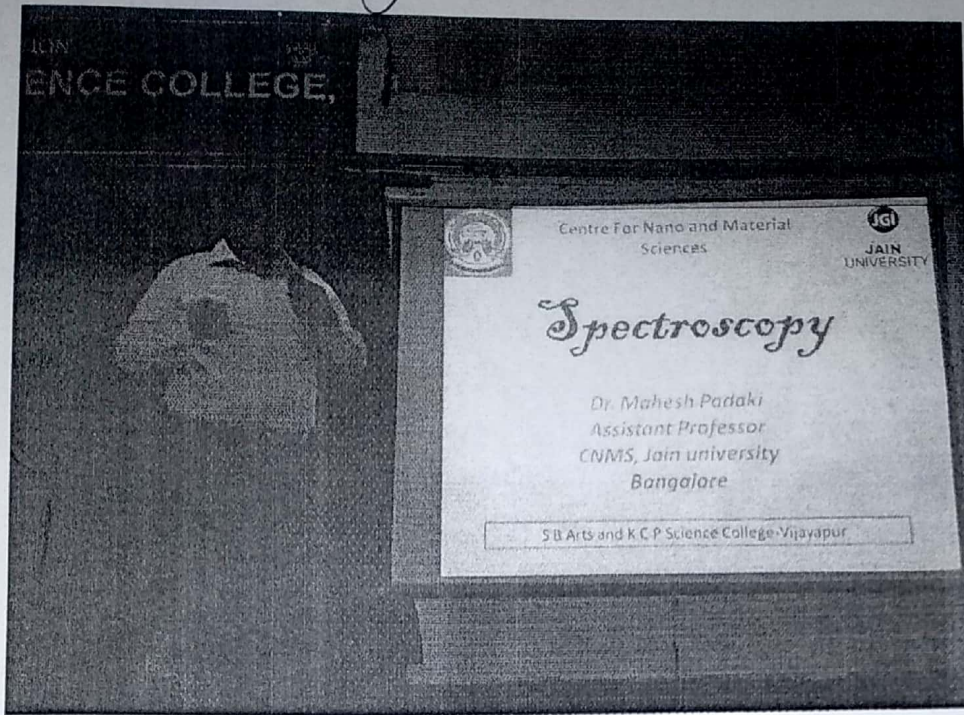
Total no. of students = 141

Head
 Dept. of Chemistry
 SB Arts & KCP Sc. College
 Vijayapur.

IQAC, Co-ordinator
 S.B.Arts & K.C.P.Science College
 Vijayapur.

Principal,
 S.B. Arts and KCP Science College
 VIJAYAPUR

Lecture by Dr. Mahesh. Padaki.



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