



Date: 29-09-2020

Report on One Day Webinar on “Advance Level Study on Chemical Sciences”
Organised by the Department of Chemistry,
School of Sciences, Netaji Subhas Open University, on 23rd September, 2020

1. Preamble

According to the proposal given vide Memo number Memo No. SoSci /CH/001 dated 28-08-2020, the Department of Chemistry, School of Sciences; Netaji Subhas Open University organized a one day webinar on “*Advance level Study on Chemical Sciences*” on 23rd September, 2020. The webinar was open to students of UG and PG, research scholars and faculties in academics, industries as well as research institutions who are interested in chemistry. The organizing committee of the webinar was as follows

Organizing Committee:

Chairperson: Professor Kajal De, Director of School of Sciences, NSOU

Organizing Secretary: Dr. Sanjay Roy, Associate Professor of Chemistry

Convenor: Dr. Sintu Ganai, Assistant Professor of Chemistry

Members:

Dr. Puspal Mukherjee, Assistant Professor of Chemistry

Dr. Asimesh Dutta Gupta, Associate Professor of Chemistry

Dr. Goutam Kumar Mukherjee, Associate Professor of Chemistry

The webinar was conducted via online platform ZOOM and YouTube Live. M/S School guru took technical responsibilities for the webinar.

2. Details of the Technical Sessions

The webinar was conducted in two technical sessions: Technical Session I and Technical Session II.

Technical Session I started at 10:45 A.M. and continued to 1:10 P.M. At the beginning, welcome address was conveyed by Dr. Sintu Ganai, Convenor of the organizing committee and inaugural speech was delivered by our Hon’ble Director, School of Sciences, NSOU and Chairperson of the webinar, Professor Kajal De. The lecture session was chaired by Dr. Sanjay Roy, Organizing Secretary. In this Session-I, the speaker was Dr. Arnab Halder, Associate Professor of Chemistry, Presidency University, Kolkata, India. Dr. Halder delivered his speech on ‘*Fluorescence Spectroscopy from Molecule to Materials*’. The abstract of the lecture is given below.

“Fluorescence Spectroscopy: from molecules to nanomaterials: Fluorescence spectroscopy is not only an important as well as exciting area in the field of natural science but also an excellent experimental tool to explore a wide range of natural phenomena. This presentation is focused on the basic principles of fluorescence spectroscopy highlighting the theoretical background and the chronological development which will help to understand the underlying idea. As, the research on material science and nanomaterials have drawn tremendous attention in the 21st century, it is intended to shed light on the fluorescence of such materials too.”



The lecture session was followed by a short question answer session conducted by Dr. Puspall Mukherjee where the questions from the participants were discussed. After that the technical session came to a close with permission from the chairperson.

Technical Session II started at 2.50 P.M. and it was continued upto 5.30 P.M. In this session the welcome address was delivered by Dr. Goutam Mukherjee and the session was chaired by Dr. Asimesh Datta Gupta. In this session, the speaker was Professor Bhaskar Biswas, Department of Chemistry, North Bengal University, Darjeeling, India. He delivered his speech on ‘*Synthetic Coordination Chemistry: Biological Perspectives*’. It is to be noted that in the beginning of the lecture session, Prof. Biswas was facing a technical fault to deliver his speech through online system but it was solved after some time. After that the webinar was continued smoothly with satisfactory discussion about the topic. The abstract of the lecture is given below.

“Synthetic Coordination Chemistry: Biological Perspectives: The desire in deep understanding about the molecules in developing the processes involved in cells organization, interaction, and communication to form living world has lead to the burgeoning field of Biochemistry. The small molecules especially the synthetic or naturally occurring coordination compounds in biological systems represent primarily three fundamental pillar of living system – 1) Photosynthesis 2) Respiration 3) Nitrogen fixation. The class of metallo-proteins has further enriched the importance of coordination compounds in biology. The synthetic coordination compounds based on judicious selection of ligand systems may significantly affect the biochemical function (Bio-mimics) leading to significant insights in chemical biology, pharmacology and medicine. While small molecules are usually implied as being organic compounds, inorganic small molecules also have a long history in both biology and medicine. In this context, synthetic coordination compounds have been evolved as an emergent class of compounds in the realm of chemical biology, since their distinctive electronic, chemical, and photo physical properties render them particularly useful for a variety of natural processes and applications.”

In this session question-answer session was conducted by Dr. Sanjay Roy. At the end of technical session II, official vote of thanks was conveyed by Dr. Puspall Mukherjee. Finally, the session II and overall webinar was declared end by our Hon’ble Director, School of Sciences, Netaji Subhas Open University, Professor Kajal De.

3. Participation

The banner and the registration link for the webinar were floated in the NSOU official website. Registration procedure for the webinar started on 12th September and it was continued till 20th September, 2020. More than 470 participants registered through Google form, from India and outside. Individual mails containing the registration link was sent to each prospective participant by School Guru. In technical session I, ~ 150 participants joined through ZOOM platform and ~30 participants joined on YouTube Live. In technical session II, the numbers were 80 and 30 respectively. At the end of technical session II, feedback form was given and it was kept open for next 15 hours. A total of **144** numbers of feedbacks was received and **144** numbers of certificates were issued.

For reference organizing committee attached few documents like programme banner, programme schedule, and few screenshots during the lecture sessions, and sample certificate with the report.

Organizing Committee,
School of Sciences, NSOU



NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

H.Q.: DD-26, Salt Lake, Sector-I, Kolkata – 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235

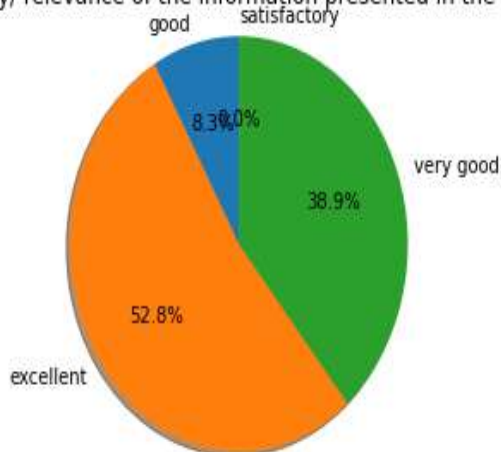
Website: www.wbnsou.ac.in

Programme Schedule

Session	Time	Particulars	Address by
Technical Session: I	11:00 AM to 11:05 AM	Welcome address	Dr. Sintu Ganai
	11:05 AM to 11:10 AM	Inauguration address	Prof. Kajal De Director, School of Sciences
	11:10 AM to 12:55 PM	Lecture of Distinguished Speaker-1 chaired by Dr. Sanjay Roy & Question Session	Dr. Arnab Halder
Technical Session: II	3:00 PM to 3:05 PM	Welcome address	Dr. Goutam Kumar Mukherjee
	3:05 PM to 4:50 PM	Lecture of Distinguished Speaker-2 chaired by Dr. Asimesh Dutta Gupta & Question Session	Prof. Bhaskar Biswas
	4:50 AM to 4:55 PM	Vote of Thanks	Dr. Puspall Mukherjee

Feedbacks at a Glance

Applicability/ relevance of the information presented in the webinar?





NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

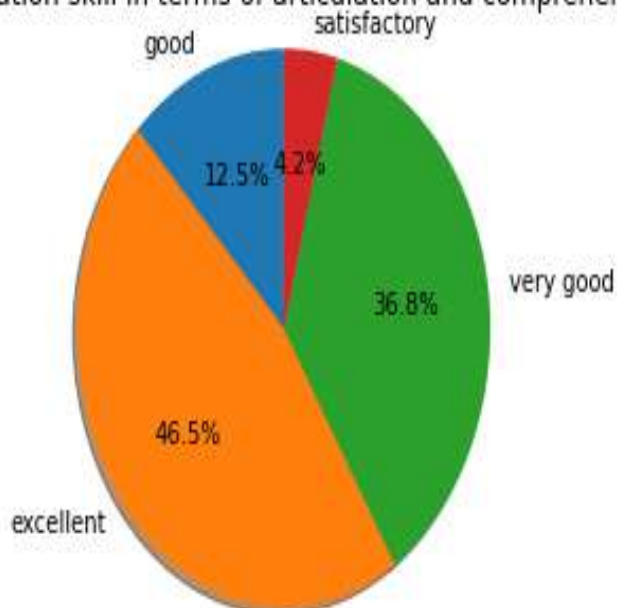
H.Q.: DD-26, Salt Lake, Sector-I, Kolkata – 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

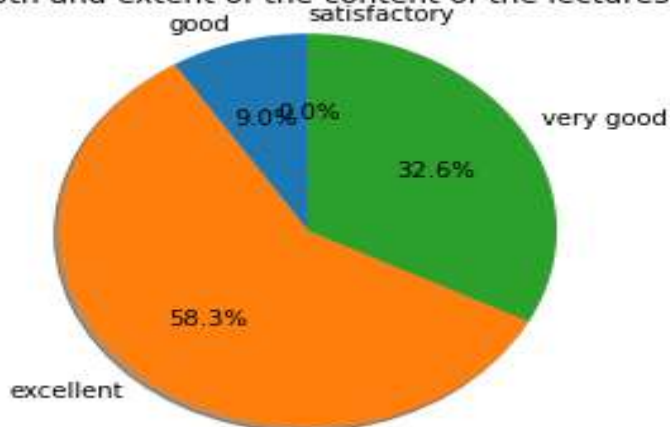
Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235

Website: www.wbnsou.ac.in

Communication skill in terms of articulation and comprehensibility



Depth and extent of the content of the lectures





NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

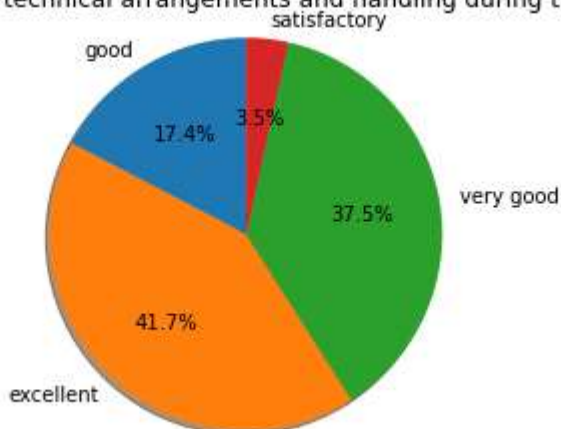
H.Q.: DD-26, Salt Lake, Sector-I, Kolkata – 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

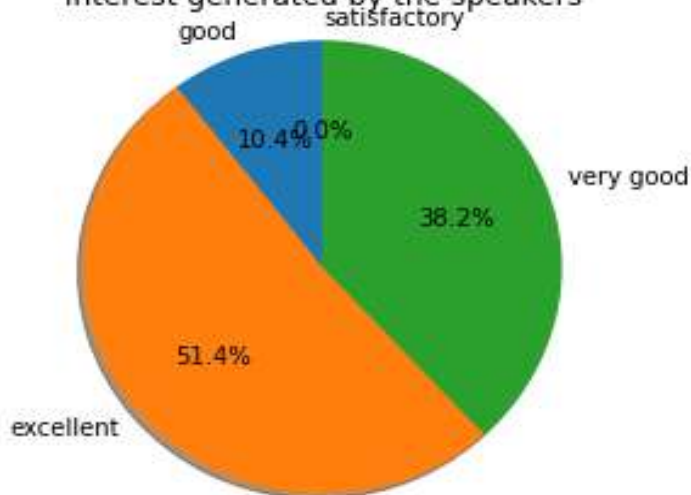
Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235

Website: www.wbnsou.ac.in

Overall, how would you rate the technical arrangements and handling during the sessions in the webinar



Interest generated by the speakers





NETAJI SUBHAS OPEN UNIVERSITY

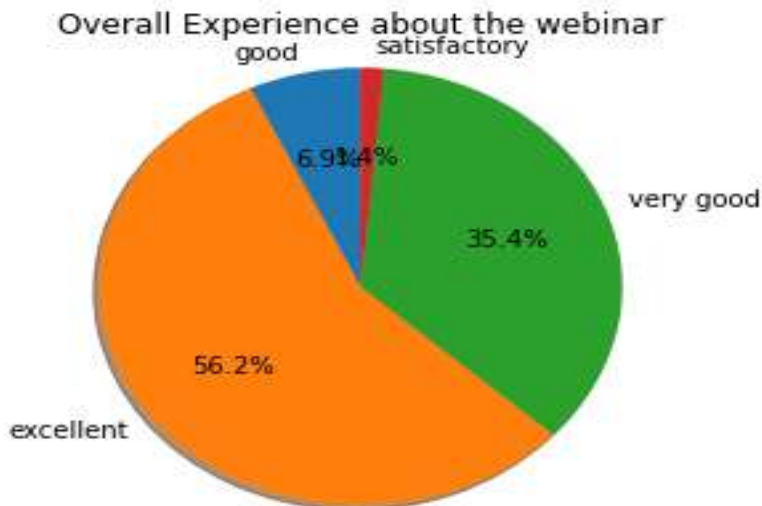
SCHOOL OF SCIENCES

H.Q.: DD-26, Salt Lake, Sector-I, Kolkata – 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235

Website: www.wbnsou.ac.in



ScreenShots from Session 1

**Fluorescence Spectroscopy:
from molecules to materials**

Arnab Halder
Department of Chemistry
Presidency University
Email: arnab.chem@presidency.ac.in

Participants (117)

- Dr. Sanjoy Roy (Me)
- Patil_Trainer 65 (Host)
- Arnab (Co-host)
- Sayan_trainer 64 (Co-host)
- trainer 66 (Co-host)

Chat

From RETWIS BAG to Everyone: yes sir

From ANUSKA DAS to Everyone: yes sir

From SUBHANKAR GHOSH to Everyone: SUBHANKAR GHOSH, ASSISTANT CHEMIST, CENTRAL CHEMICAL LABORATORY, GEOLOGICAL SURVEY OF INDIA, GOVT. OF INDIA.



Other Excited State Processes

Delayed Fluorescence: A weak emission with the same characteristics (wavelength and relative intensity) as fluorescence, but with a life time like phosphorescence

- P – Type Delayed Fluorescence (Triplet-Triplet Annihilation)
- E – Type Delayed Fluorescence

Excimer Emission: Emission from the short-lived excited state dimer
- special kind of quenching: self-quenching

Exciplex Emission: Emission as a result of formation of a complex in excited state

zoom

Live chat

Top chat 56



11:26 AM sourav goswami Sourav Goswami ...M.Sc 3rd sem...Department of Chemistry , Presidency University

11:31 AM Sintu Ganai You are requested to post lecture related academic questions if any in chat box..

11:32 AM Ismatara Siddika Department of chemistry

11:33 AM Nabanita Majumder Nabanita Majumder, M.sc chemistry, Presidency University, Kolkata

11:33 AM Vikash Shaw Good morning. Vikash Shaw from Shibpur Dinobundhoo College

11:34 AM Ismatara Siddika zoom a add hota pari ne tai youtube a add hoye che. 1st Yr student

11:35 AM Biswarup Mandal Myself Dr. Biswarup Mandal Sitananda College Nandigram Purba Medinipore

11:35 AM Soumalya Pramanik What is the Physical significance of radiative and irradiative pathway?



NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

H.Q.: DD-26, Salt Lake, Sector-I, Kolkata — 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235


Website: www.wbnsou.ac.in

ScreenShots from Session 2

The screenshot shows a Zoom meeting interface. At the top, there are video thumbnails for participants: Dr. Sanjay Roy, Palash, Goutam Muk..., and Bhaskar Biswas. A 'Recording LIVE' indicator is visible. The main content is a presentation slide with the following text:

Advance Level Study on Chemical Sciences, NSOU

**Synthetic Coordination Chemistry:
Biological Perspectives**



DR.BHASKAR BISWAS
Professor
Dept. of Chemistry
University of North Bengal
Darjeeling 734013
India
Email: bhaskarbiswas@nbu.ac.in
https://www.researchgate.net/profile/Bhaskar_Biswas2

23/09/2020

On the right side, the 'Participants (71)' list is visible, including:

- BHASKAR BIS... (Co-host)
- DHRUBAJYOTI MAJUMDAR
- trainer 64 (Co-host)
- adutt
- Dr. Sanjay Roy
- Abhijit Mukherjee
- AKASH SADHUKHAN
- ANANYA DAS
- Ananya Ghosh
- ANIRBAN SARKAR
- Anushree Chakraborty
- Arabinda Mandal
- Arnab Banerjee

Buttons for 'Invite', 'Unmute Me', and 'Raise Hand' are at the bottom right of the participant list.



NETAJI SUBHAS OPEN UNIVERSITY

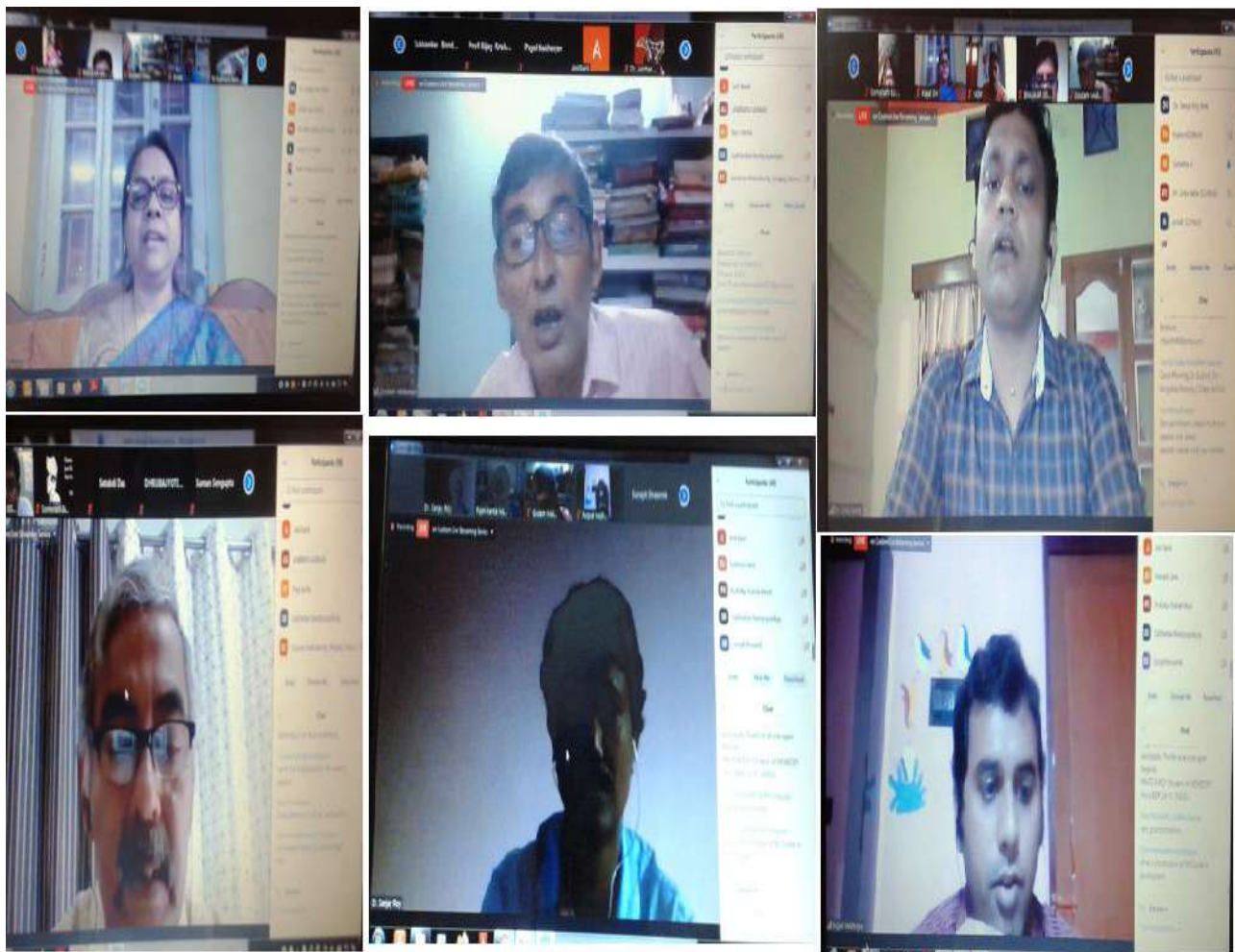
SCHOOL OF SCIENCES

H.Q.: DD-26, Salt Lake, Sector-I, Kolkata — 700 064

City Campus: K-2, Bidhannagar Fire Station, Sector- V, Salt Lake, Kolkata-700 091

Kalyani Campus: First Floor, Academic Building, Kalyani Ghoshpara, Kalyani 741235

Website: www.wbnsou.ac.in



Zoom Meeting

Dr. Sintu Ganai SUBHAS GARAI

Ligand Classification

Ligand

Werner type
Classical

non-Werner type
non-classical

Ligand

σ donor π donor σ donor
π acceptor

Bridging Ligand

End-on End-End

Chelating Ligand
bi-, tri-, tetra-, penta-, hexa, octa- etc

Ambidentate Ligands

Flexidentate Ligands

Compartmental Ligands

Macrocyclic Ligands

Metallo-ligands

Redox Active and Redox inactive Ligands

Spectator Ligands

Participants (74)

Dr. Sintu Ganai (Me) trainer 64 (Host) trainer 64 (Co-host) Rajani kanta Mahato (Co-host) SUBHAJIT SARKAR Abhijit Mukherjee

Zoom Group Chat

From Ogy to Everyone: Thank you for giving feedback link. Excellent session.

From Me to Everyone: Please fill up the feedback form within 10 AM of the next date (24.09.2020). Certificates will be given after successful submission of feedback.

To: Everyone

Type message here...

Wednesday, September 23, 2020 4:29 PM

Zoom Meeting

Dr. Sintu Ganai adutt Dr. Sanjay Roy Pritam Bahadur...

Coordination compounds as potential drugs

N[C@@H]1CC[C@H](N)CC1

Cisplatin
(FDA approved)

CC1(C)CC[C@H](N1)Pt(=O)(O)O

Oxaliplatin
(FDA approved)

C1=CC=C(C=C1)Pt(=O)(O)O

Nedaplatin
(approved for use in Japan)

CC1(C)CC[C@H](N1)Pt(=O)(O)O

Heptaplatin
(approved for use in South Korea)

CC1(C)CC[C@H](N1)Pt(=O)(O)O

Carboplatin
(FDA approved)

CC1(C)CC[C@H](N1)Pt(=O)(O)O

Lebaplatin

Zoom Group Chat

From MBAN MSHRA to Everyone: Nice Presentation

From DEBASISH DATTA to Everyone: Helpful session

From Subrata Sarkar to Everyone: thank you sir this is really helpful presentation for us.

From Me to Everyone: Feedback Link: https://docs.google.com/forms/d/e/1FAIpQLSci7G1w18R01_1x1q4fcc5j7qii-LG8Kv7h3kAWK52p13q/viewform?c=0&c=0&w=18&f=0&wq=7628

Certificates will be send to your email id within 15 days after successful submission of feedback form.

From DEBASISH DATTA to Everyone: Successfully submitted feedback form thank you very much

From Prof. Bijoy Krishna Dolai to Everyone: Nice collection by Prof. Biswas. It will be helpful to all kinds of researcher to develop co-ordination chemistry, inorganic chemistry and bio-inorganic chemistry. Thanks to organizers for arranging such fruitful webinar.

To: Everyone

Type message here...

5:11 PM 9/23/2020