



1. Name in Full : DR. RAJU OJAH

2. Address for Correspondence: Associate Professor

Department of Chemistry, Chaiduar College,

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3. Date of birth: 01 -03- 1973

4. Nationality: Indian

5. Married / ~~Single~~: Married

6. Male /~~Female~~: Male

7. Blood Group: 'O' +ve

8. Educational / Professional Qualifications

Certificate/Degree	College Univ./Institute	Year
Graduate	Darrang college, Gauhati University	1993
Post Graduate	Cotton college, Gauhati University	1996
Ph.D	Tezpur University, Tezpur	2006

9. Present Occupation: Associate Professor

10. Subject in Master Degree: Chemistry

11. Subject in Ph. D. Degree: Polymer Science

12. Area of Specializations: Organic Chemistry

13. Teaching Experience in years

(a) Under Graduate Level: 25 Years

(b) Post Graduate Level: Guest faculty in Rajib Gandhi University, 1- 31th March, 2012, Itanagar, India.

14. Research Experience: Pre Doctoral 7 years and Post Doctoral 8 years

15. Date of joining: 16-06-1997

16. Date of effect of Approval by the DPI Assam: 25-03-1998

17. Letter No. & date of Approval: G(B) AC 18/99/277 dtd. 29-05-1999

18. Letter No. & date of Confirmation: G(B) AC/ Conf./14/2000/87 dtd. 21-06-2000

19 OC, DDU Gorakhpur, 18 Aug-14 Sep 2001

20. RC, The University of Burdwan, WB, 11-31 Dec 2002

21. RC, NEHU Shillong, 20 Sep-12 Oct 2007

22. RC, BHU UP, 07-27 Feb 2009

A. Research experience

Exposure to Research

Joined as a Research Scholar in the department of Chemical Sciences, Tezpur University (under UGC, FIP deputation) in the research titled ‘A study of photopolymerization of vinyl monomers and their graft copolymerization onto silk’, under the guidance of Prof. Swapan Kr. Dolui, Tezpur University.

Ph.D work

Methyl methacrylate (MMA) has been chosen from wide variety of vinyl monomer for photopolymerization. Similarly, CdS is selected among the different semiconductors. The semiconductor photo catalyst has been used for photopolymerization of MMA in sunlight as well as in mercury vapour lamp. The efficiency of semiconductor has been observed in different conditions. Besides these, the semiconductor as photo catalyst has been used in graft copolymerization of *Bombyx mori* (one type of silk).

Post – Doctoral work

The project titled as “*Development of amphiphilic core-shell polymer and their application towards synthesis of nanotubes, microrods and microfibers*” was implemented for synthesis of amphiphilic core-shell polymer and their applications. This work was emphasized on the employment of semiconductor based photocatalyst and subsequent characterization of grafted products. This involved on the synthesis & stabilization of colloidal CdS in various methods which subsequently applied as photocatalyst in development of amphiphilic core-shell polymer.

Sophisticated Instrument handled

1. UV-Visible spectrophotometer (Hitachi)
2. FTIR (Nicolet)
3. Spectrofluorimeter (Spex Fluoromax)
4. Electron Paramagnetic Resonance spectrometer (Bruker EMX)
5. Universal Testing Machine (Zwick)

B. Research Projects carried out

Title	Year	Sponsored	Status	Cost Rs.(Lakh)
1. Chemical modification of Silk	2007	UGC, NERO	Completed	0.70
2. Development of amphiphilic core-shell polymer and their application towards synthesis of nanotubes, microrods and microfibers	2009	UGC, New Delhi, Post Doctoral Research Award, UGC (2009)	Completed	3.0
3. Outreach programme by college in rural schools	2018	ASTEC, Guw	Completed	1.45
4. Effect of pesticides on male fertility and genotoxicity of albino mice.	2023	DBT, New Delhi	Sanctioned	57.0

Research Awards:

- i) Faculty Improvement Programme, UGC (2004)
- ii) Post Doctoral Research Award, UGC (2009)

Other Awards: i) Best Teacher of the year 2023 offered by Civil Administration, Gohpur, Biswanath, Assam

C. Patents: Nil

D. Publication

A. Journal

1. *Photopolymerization of methyl methacrylate using dye-sensitized semiconductor based photocatalyst.* Raju Ojah and S. K. Dolui. J. Photochem. Photobiol. A: Chem., 2005; 172, 121. ISSN 1010-6030.
2. *Graft copolymerization of methyl methacrylate onto Bombyx mori initiated by semiconductor-based photocatalyst.* Raju Ojah and S. K. Dolui. Bioresource Technology, 2006; 97, 1529. ISSN 0960-8524.
3. *Solar radiation induced polymerization of methyl methacrylate in presence of semiconductor based photocatalyst.* Raju Ojah and S. K. Dolui. Solar Energy Materials & Solar Cells, 2006; 90, 1615. ISSN 0927-0248.
4. *Graft copolymerization of vinyl monomers through CdS onto silk fibre.* Journal of Applied Polymer Science, 2007; 105 (4), 2164. ISSN 0021-8995.
5. *Effects of Additives on Semiconductor-Based Catalyst in Photopolymerization of Methyl methacrylate.* Raju Ojah and S. K. Dolui. Journal of Polymer Mater, 2009, 28 (1), 1. ISSN 0091-8995.

B. Proceedings

1. *Photochemical conversion of methyl methacrylate monomer to polymethyl methacrylate.* R. Ojah and S. K. Dolui, in proceedings of International Conferences on Polymer Characterization. Polychar-8, 2000; University of North Texas, USA.
2. *Photopolymerization of methyl methacrylate using semiconductor-based photocatalyst.* R. Ojah and S. K. Dolui, in proceedings of National Workshop on Catalysis, CATWORK, 2002; Gauhati University, Assam, India.
3. *Graft copolymerization of methyl methacrylate onto Bombyx mori initiated by semiconductor-based photocatalyst.* R. Ojah and S. K. Dolui, in proceedings of National Conference on High Performance Polymer and Its applications, 2002; Jadavpur University, Kolkata, India.
4. *Photopolymerization of methyl methacrylate.* R. Ojah and S. K. Dolui, in proceedings of National Symposium in Chemistry, 2002; National Chemical Laboratory, Pune, India.
5. *Improvement of silk by graft copolymerization technique.* R. Ojah and S. K. Dolui, in proceedings of National Workshop on Science and Technology for Regional Development: Case for North East India, 2004; IIT, Guwahati, Assam, India.
6. *Effect of additives on semiconductor-based photocatalyst in photopolymerization of methyl methacrylate.* R. Ojah and S. K. Dolui, in proceedings of National Seminar on Current Trends in Chemical Research, 2005; Chaiduar College, Assam, India.

7. *Effect of additives on semiconductor-based photopolymerization*. R. Ojah and S. K. Dolui, in proceedings of International Seminar on Frontier in Polymer Science and Technology (Poly-2007) Guwahati, Assam, India.

E. Book

1. Babaharik Bigyan (For High School level) (2012)
2. Numerical Problems in Chemistry: A new Approach; A book for H.S. (Science Students). (2000)
3. The Mathematic of Chemistry (ISBN: 978-93-272-1705-6) (2013)
4. Chemistry for Polytechnic (First Semester) (ISBN: 978-93-272-2453-5) (2nd Ed. 2015)
5. Chemistry for Polytechnic (Second Semester) (ISBN: 978-93-272-3685-9) (2nd Ed. 2015)
6. Uchhartar Madhyamik Rochayan (H.S. First Year) (ISBN: 978-81-920160-3-0) (2nd Ed. 2014)
7. Uchhartar Madhyamik Rochayan (H.S. Second Year) (ISBN: 978-93-82384-07-6) (2nd Ed. 2014)
8. Uchhartar Madhyamik Babaharik Rochyan Bigyan (H.S. First Year) (ISBN: 978-93-272-3045-1) (2013)
9. Uchhartar Madhyamik Babaharik Rochyan Bigyan (H.S. Second Year) (ISBN: 978-93-272-2468-9) (2013)
10. Practical Chemistry (H.S. Second Year) (ISBN: 978-93-272-3038-3) (2014)
11. Practical Chemistry (ASTU, DU) (ISBN: 978-93-272-4093-1) (2014)
12. Undergraduate Practical Chemistry (GU) (ISBN: 978-93-82384-65-6) (2014)
13. Laboratory manual for Outreach Programme under Assam Science Tech and Env Council & Dept. of Sci & Tech, Govt. of Assam, 2019.
14. Applied Chemistry & Lab in the Assamese Language (Reviewer), 2022.

F. General Sciences

1. Vol. 2nd 2004; *Bigyan Jouti* (A bi-monthly Assamese Science magazine)
2. Vol 5th 2005; *Bigyan Jouti*.
3. Vol 1st 2007; *Bigyan Jouti*

G. Popular Articles in Journals

1. Investigatory Projects for Undergraduate Students. Chemical Education, Vol 22, No. 1 & 2, Jan-June 2013 (ISSN 0971-7498).
2. Raise your voice, not the sea levels. Chemical Education, Vol 23, No. 1, Jan-June 2014 (ISSN 0971-7498).
3. Chemistry of fireworks. Chemical Education, Vol 23, No. 2, July-Dec 2014 (ISSN 0971-7498).
4. Fifty Great Scientists & Mathematicians (2014). Edited book by Publication Cell, Jagiroad College, Assam (ISBN: 978-93-5087-586-5).
5. The (un)tasty Momosodium Glutamate. Chemical Education, Vol 24, No. 1, Jan-July 2015 (ISSN 0971-7498).
6. Karl Landsteiner: the path finder of human blood grouping. 30th Annual State Conference of the Indian Society of Anesthesiologists, Assam State Branch: 19-21 Jan 2018.

H. Guide of any University: Guided an M. Phil (Chemistry) student of Peryier University, Salem, TN (2009).

I. Participation in workshop/seminar etc

1. STEM Teacher Training Workshop to Develop Research Pedagogical Tools, 10-12 March 2016, IISER, Pune, India
2. IGNOU science counselors Orientation Programe for B.Sc. programe, 17-19 November, 2016, NEHU, Shillong.
3. Exposure camp in Chemistry Olympiad, 21-24 November, 2016 Homi Bhabha Centre for Science Education (HBCSE), Tata Institute of Fundamental Research, Mumbai.
4. STEM Teacher Training Workshop to Develop Research Pedagogical Tools, 27-29 Jan 2017, Tezpur University, India
5. Workshop on ICT Tools for Classroom Teaching organized by Electronics & ICT Academy, IIT Guwahati, 1-6 July 2017 at Chaiduar College, Biswanath, Assam.
6. STEM Teacher Training Regional Workshop to Develop Research Pedagogical Tools, 7-9 Aug 2017, J N U College, Pasighat, Arunachal Pradesh, India.
7. Nominated to participate as one of delegate in the India International Science Festival organized by Ministry of Science & Technology, Vijnana Bharati, and Ministry of Earth Science Gov. of India and hosted by Indira Gandhi Pratishthan, Lucknow, 5th-8th October 2018, Uttar Pradesh.

J. Participation as resource person in workshop/seminar etc

1. Participated as one of the resource person in 5 Days District Level Training for Teachers on Science and Mathematics, 2-11th March 2015, organized by Rashtriya Madhyamik Sikshs Abhijan, Assam
2. Participated as one of the resource person in Two Days Training for Teachers on Science and Mathematics, 27-28th May 2016, organized by Assam Science Society: Madhya Chaiduar Branch, Ghahigaon, Assam India.
3. Participated as one of the panelist in a Symposium organized by Children Education Committee in Annual Terminal Gyan-Bigyan Mala held in Jyog Nath memorial Sankar Deva Sisu Niketan, Barangabari, 10-12 Sep 2016, Barangabari, Biswanath, Assam.
4. Participated as one of the panelist in a Workshop organized by Bidya Bharati in Science Workshop held in Sankar Deva Sisu Niketan, Hawajan, 28 Sep 2016, Hawajan, Biswanath, Assam.
5. Participated as one of the resource person in the Science Popularization Programme organized by STAR college scheme of Chaiduar College, and hosted by Sankar Deva Sisu Niketan, Hawajan, 07 Nov 2016, Hawajan, Biswanath, Assam.
6. Participated as one of the resource person in the Science Popularization Programme organized by STAR college scheme of Chaiduar College, and hosted by Gamera High School, 07 Nov 2016, Gamera, Biswanath, Assam.
7. Participated as one of the resource person in the Guide Teachers Training for Project preparation for District Level Children Science Congress organized by Biswanath District

committee and hosted by Gohpur Girls' High School, 19 June 2017, Gohpur, Biswanath, Assam.

8. Organized 25th National Children's Science Congress, 2017 at Chaiduar College, Gohpur, Assam on 23th Sep 2017 in association with District Organizing Committee.
9. Participated as one of the evaluator of science based competition in the Regional level National Science Day 2018 at Biswanath College, Biswanath, Assam.
10. Participated as one of the resource persons in the Science Popularization Programme organized by STAR college scheme of Chaiduar College, and hosted by BKV, 20 June 2018, Arunachal Pradesh.
11. Participated as Evaluator in 26th National Children's Science Congress, 2018 at Nagsankar High School on 29th Sep 2018.
12. Participated as resource person for a Popular Talk, organized by Darrang College, Sonitpur on 07th June 2023.
13. Participated as one of the resource person in the Stress Management workshop, organized by Chaiduar College, Gohpur on 25th July 2023.
14. Participated as one of the resource person in the Workshop on Taxonomy, organized by Zoological Survey of India, Arunachal Pradesh and Chaiduar College, Gohpur from 21th to 23rd Aug 2023.
15. Participated as one of the resource person in 1-day Workshop on "Solid WasteManagement" organized by Biswanath College, Biswanath on 06-06-2024.

K. Invited as Subject Expert

1. Invited as member of Selection Committee for the post of Assistant Professor of Chemistry in Biswanath College, Biswanath, Assam on 20th July 2013.
2. Invited as subject expert in promotional interview of Assistant Professor (Grade-I) in Bineswar Bramha Engineering College, Kokrajhar, Assam on 10th Aug 2016.
3. Invited as subject expert in promotional interview of Assistant Professor (Grade-I) in Lokanayak Omeo Kumar Das College, Dhekiajuli, Assam on 10th Sep 2018.
4. Invited a Subject Expert of the Selection Committee for the interview of Assistant Professor of Chemistry in Behali Degree College, Borgang, Assam on 23rd Sep 2020.
5. Invited a Subject Expert of the Selection Committee for the interview of Assistant Professor of Chemistry in Behali Degree College, Borgang, Assam on 19th May 2022.

L. Examination Work

1. Appointed as Paper Setter in B. Voc. 1st Semester Examination, 2015 by Gauhati University.
2. Appointed as Paper Setter in B. Voc. 1st Semester Examination, 2016 by Gauhati University.

3. Appointed as Assistant Zonal Offices in TDC 1st Semester Examination, 2017 by Gauhati University.
4. Appointed as Assistant Zonal Offices in TDC 6th Semester Examination, 2017 by Gauhati University.
5. Appointed as Paper Setter in B. Voc. 1st Semester Examination, 2017 by Gauhati University.
6. Appointed as Assistant Zonal Offices in HS 2nd Year Final Examination, 2018 by AHSEC, Guwahati.
7. Appointed as Moderator in Even Semester Examination, 2018 by North Lakhimpur College (Autonomus) on 23-04-2018.
8. Appointed as Moderator in Odd Semester Examination, 2018 by North Lakhimpur College (Autonomus) on 08-11-2018.
9. Appointed as Paper Setter in B. Sc. (Core) 4th and 6th Semester Examination, 2019 by North Lakhimpur College (Autonomus).

M. Administrative work

1. Appointed as Co-ordinator of Chaiduar College Study Centre of IGNOU Convergence Scheme from 2009 to 2013.
2. Appointed as Co-ordinator of Chaiduar College Study Centre of Krishna Kanta Handiqui State University from 2018 to 2023.

N. Additional Duty

1. Appointed as State Level Master Trainer by ECI, Guwahati for smooth conducting of Parliamentary Election, 2024.