Curriculum Vitae

Dr. Nayan Ranjan Saha

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Carrier Objective:

To deliver my duty to the fullest satisfaction and to work in a competitive work environment allowing me to enhance my communication, analytical and problem-solving skills for the achievement of organizational objective as well as for self-development.

Education:

2013-2019	Doctor of Philosophy (Technology), 2019 Department of Polymer Science and Technology, University of Calcutta, India.
2010-2012	M.Sc. in Chemistry (Specialization in Inorganic Chemistry) with 1st Class (CGPA:7.44) Department of Chemistry, Ramakrishna Mission Vivekananda Centenary College (Under West Bengal State University), Rahara, West Bengal, India
2007-2010	B.Sc. Honours in Chemistry with 2nd Class (52.6%) Department of Chemistry, Ramakrishna Mission Vivekananda Centenary College (Under University of Calcutta), Rahara, West Bengal, India.
2005-2007	Higher Secondary (10+2) with 1st division (69.14%), 2007. Raja Vijoy Sing Bidya Mandir (W.B.C.H.S.E.), Jiaganj, West Bengal, India
2003-2005	Madhyamik (10th) with 1st division (73.62%), 2005. Raja Vijoy Sing Bidya Mandir (W.B.B.S.E), Jiaganj, West Bengal, India

Awards & Fellowship:

- Doctor of Philosophy in Technology (Polymer Science and Technology), 20019.
- CSIR-NET passed in the subject of Chemical Science. (4 time)
- NET-JRF Fellowship under the University Grand Commission, New Delhi, 2013
- GATE Passed, 2012

Ph.D. Thesis Title:

"***Studies On Cellulose Derivatives/Layered Silicates Based Nanocomposites***"
Supervisor: Prof. (Dr.) Dipankar Chattopadhyay, Dept. of Polymer Science and Technology, CU.

Personal Information:

Father's Name	:	Niranjan Saha
Date of Birth	:	1st May, 1990
Nationality	:	Indian
Gender	:	Male
Caste	:	General
Community	:	Hindu
Marital Status	:	Unmarried
Linguistic Proficiency	:	English, Hindi, Bengali (mother tongue)

Extra-Curricular Activities:

- Travelling
- Cooking
- Computer Skills: Chem Draw Ultra, Origin, Microsoft Office

Equipment Exposure:

Hand skill experience in

- X-ray diffraction (XRD) - X-PERT-PRO Panalytical diffractometer
- Dynamic Mechanical Analyzer
- Thermogravimetric Analysis
- Differential Scanning Calorimetry
- Fourier Transform Infrared Spectroscopy
- UV-vis spectroscopy
- Universal Testing Machine
- Dynamic Light Scattering
- Optical Microscope – Motic

Research School/ Workshop/ Conference Attended:

- National Conference on Advancement in Polymer Engineering and Industrial Challenges, University of Calcutta, Kolkata, 27th January, 2018.
- International Rubber Conference Organization (IRCO), Rubbercon 2015, Chennai, India, 1st -3rd March, 2016.
- International Symposium on Polymer Science and Technology, Macro 2015, IACS, Kolkata, India, 23rd -26th January, 2015.
- Springer Author Workshop, University of Calcutta, 20th November, 2014.
- National Conference and Nanoscience and Nanotechnology (NS&NT 2014) organized by Centre for research in Nanoscience and Nanotechnology (CRNN), Kolkata, 18th -19th September, 2014.
- An International Conference and Expo on Recent Advances in Polymer & Rubber Science & Technology (RAPT 2014), University of Calcutta (Technology Campus), Kolkata, India, 23rd -25th January, 2014.
- National Seminar on Recent Developments in Research in Chemistry, West Bengal State University, Barasat, 23rd November, 2013.
- Workshop on JEOL Electron Optics Products, University of Calcutta, India, 1st -2nd July, 2013.

List of Publications:

1. **(*)** "Studies on methylcellulose/pectin/montmorillonite nanocomposite films and their application possibilities." **N. R. Saha**, G. Sarkar, I. Roy, D. Rana, A. Bhattacharyya, A. Adhikari, A. Mukhopadhyay, & D. Chattopadhyay. *Carbohydrate polymers*, 136, 2016, 1218-1227. (Impact Factor: 6.044)
2. **(*)** "Nanocomposite films based on cellulose acetate/polyethylene glycol/modified montmorillonite as nontoxic active packaging material." **N. R. Saha**, G. Sarkar, I. Roy, A. Bhattacharyya, D. Rana, G. Dhanarajan, R. Banerjee, R. Sen, R. Mishra, & D. Chattopadhyay. *RSC Advances*, 6, 2016, 92569-92578. (Impact Factor: 3.049)
3. **(*)** "Development of active packaging material based on cellulose acetate butyrate/polyethylene glycol/aryl ammonium cation modified clay." **N. R. Saha**, I. Roy, G. Sarkar, A. Bhattacharyya, R. Das, D. Rana, R. Banerjee, A. K. Paul, R. Mishra, & D. Chattopadhyay. *Carbohydrate polymers*, 187, 2018, 8-18. (Impact Factor: 6.044)
4. "Synthesis of methylcellulose/cellulose nano-crystals nanocomposites: Material properties and study of sustained release of ketorolac tromethamine." J. T. Orasugh, **N. R. Saha**, G. Sarkar, D. Rana, R. Mishra, D. Mondal, S. K. Ghosh, & D. Chattopadhyay. *Carbohydrate polymers*, 188, 2018, 168-180. (Impact Factor: 6.044)
5. "Jute cellulose nano-fibrils/hydroxypropylmethylcellulose nanocomposite: A novel material with potential for application in packaging and transdermal drug delivery system." J. T. Orasugh, **N. R. Saha**, D. Rana, G. Sarkar, M. M. R. Mollick, A. k. Chattoapadhyay, B. C. Mitra, D. Mondal, S. K. Ghosh, & D. Chattopadhyay. *Industrial Crops and Products*, 112, 2018, 633-643. (Impact Factor: 4.191)
6. "A facile comparative approach towards utilization of waste cotton lint for the synthesis of nano-crystalline cellulose crystals along with acid recovery." J. T. Orasugh, **N. R. Saha**, G. Sarkar, D. Rana, D. Mondal, S. K. Ghosh, & D. Chattopadhyay. *International journal of biological macromolecules*, 109, 2018, 1246-1252. (Impact Factor: 4.784)
7. "Taro corms mucilage/HPMC based transdermal patch: an efficient device for delivery of diltiazem hydrochloride" G. Sarkar, **N. R. Saha**, I. Roy, A. Bhattacharyya, M. Bose, R. Mishra, D. Rana, D. Bhattacharjee, & D. Chattopadhyay, *International Journal of Biological Macromolecules*, 66, 2014, 158–165. (Impact Factor: 4.784)
8. "Cross-linked methyl cellulose/graphene oxide rate controlling membranes for in vitro and ex vivo permeation studies of diltiazem hydrochloride" G. Sarkar, **N. R. Saha**, I. Roy, A. Bhattacharyya, A. Adhikari, D. Rana, M. Bhowmik, M. Bose, R. Mishra & D. Chattopadhyay, *RSC Advance*, 6, 2016, 36136-36145. (Impact Factor: 3.049)
9. "Comparative evaluation of physico-chemical characteristics of biopolyesters P(3HB) and P(3HB-co-3HV) produced by endophytic Bacillus cereus RCL 02." R. Das, **N. R. Saha**, A. Pal, D. Chattopadhyay, & A. K. Paul. *Frontiers in Biology*, 13, 2018, 297-308. (Impact Factor: N.A.)
10. "Development of an auto-phase separable and reusable graphene oxide-potato starch based cross-linked bio-composite adsorbent for removal of methylene blue dye." A. Bhattacharyya, B. Banerjee, S. Ghorai, D. Rana, I. Roy, G. Sarkar, **N. R. Saha**, S. De, T. K. Ghosh, S. Sadhukhan, & D. Chattopadhyay. *International journal of biological macromolecules*, 116, 2018, 1037-1048. (Impact Factor: 4.784)
11. "Cellulose nanofibrils/chitosan based transdermal drug delivery vehicle for controlled release of ketorolac tromethamine." G. Sarkar, J. T. Orasugh, **N. R. Saha**, I. Roy, A. Bhattacharyya, A. K. Chattopadhyay, D. Rana, & D. Chattopadhyay. *New Journal of Chemistry*, 41, 2017, 15312-15319. (Impact Factor: 3.069)

12. "Studies of the kinetics and mechanism of the removal process of proflavine dye through adsorption by graphene oxide." A. Bhattacharyya, D. Mondal, I. Roy, G. Sarkar, **N. R. Saha**, D. Rana, T. K. Ghosh, D. Mandal, M. Chakraborty, & D. Chattopadhyay. *Journal of Molecular Liquids*, 230, 2017, 696-704. (Impact Factor: 4.561)
13. "Identifying the Correct Host–Guest Combination To Sensitize Trivalent Lanthanide (Guest) Luminescence: Titanium Dioxide Nanoparticles as a Model Host System." A. Chakraborty, G. H. Debnath, **N. R. Saha**, D. Chattopadhyay, D. H Waldeck, & P. Mukherjee. *The Journal of Physical Chemistry C*, 120, 2016, 23870-23882. (Impact Factor: 4.309)
14. "Synthesis and characterization of graphene from waste dry cell battery for electronic applications" I. Roy, G. Sarkar, S. Mondal, D. Rana, A. Bhattacharyya, **N. R. Saha**, A. Adhikari, D. Khastgir, S. Chattopadhyay and D. Chattopadhyay, *RSC Advance*, 6, 2016, 10557-10564. (Impact Factor: 3.049)
15. "Physical and electrochemical characterization of reduced graphene oxide/silver nanocompositessynthesized by adopting a green approach" I. Roy, D. Rana, G. Sarkar, A. Bhattacharyya, **N. R. Saha**, S. Mondal, S. Pattanayak, S. Chattopadhyay and D. Chattopadhyay, *RSC Advance*, 5, 2015, 25357-25364. (Impact Factor: 3.049)
16. "Effect of carrageenan and potassium chloride on an in situ gelling ophthalmic drug delivery system based on methylcellulose" B. Bhowmick, G. Sarkar, D. Rana, I. Roy, **N. R. Saha**, S. Ghosh, M. Bhowmik, D. Chattopadhyay, *RSC Advance*, 5, 2015, 60386-60391. (Impact Factor: 3.049)
17. "Dextrin-mediated synthesis of Ag NPs for colorimetric assays of Cu^{2+} ion and Au NPs for catalytic activity" K. Bankura, D. Rana, M. R. Mollick, S. Pattanayak, B. Bhowmick, **N. R. Saha**, I. Roy, T. Midya, G. Barman, D. Chattopadhyay, *International Journal of Biological Macromolecules*, 80, 2015, 309–316. (Impact Factor: 4.784)
18. "Antimicrobial activity and biodegradation behavior of poly(butylene adipate-co-terephthalate)/clay nanocomposites." D. Mondal, B. Bhowmick, M. M. R. Mollick, D. Maity, **N. R. Saha**, V. Rangarajan, D. Rana, R. Sen, & D. Chattopadhyay. *Journal of Applied Polymer Science*, 131, 2014, 40079 (1-9). (Impact Factor: 2.188)
19. "In situ synthesis of a reduced graphene oxide/cuprous oxide nanocomposite: a reusable catalyst" I. Roy, A. Bhattacharyya, G. Sarkar, **N. R. Saha**, D. Rana, P. P. Ghosh, M. Palit, A. R. Das and D. Chattopadhyay, *RSC Advance*, 4, 2014, 52044–52052. (Impact Factor: 3.049)

Declaration:

I hereby declare that the information furnished above is true to the best of my knowledge and belief

Place: Kolkata Dr. Nayan Ranjan Saha