

# Curriculum Vitae

**Name:** JYOTIREKHA G. HANDIQUE

**Present Position:** Professor



**Official Address:** Hiranya Chandra Bhuyan School of Science and Technology  
Krishna Kanta Handique State Open University  
NH 37, Resham Nagar, Khanapara, Guwahati – 781022

**Contact:** E-mail: [jghandique@rediffmail.com](mailto:jghandique@rediffmail.com), [jyotirekhaghandique@kkhsou.in](mailto:jyotirekhaghandique@kkhsou.in)  
Phone (M): +91-7002559099 (Whatsapp)

**Residential Address:** Syndicate Ecopolis, 6C, Block-1, Tripura Road, Jayanagar, Guwahati-28

## Educational qualification:

<b>Ph.D.</b> in Chemistry, 2002	Indian Institute of Technology (IIT), Guwahati, Assam, <i>Title of Thesis: Synthesis, Characterisation and Physicochemical Studies of Some Polyphenolic Compounds</i>
<b>M.Sc.</b> in Chemistry, 1986 (exam held in 1988)	Gauhati University, Spl.: Org Chem, 1 <sup>st</sup> Class, 70.1%
<b>B.Sc.</b> with Honours in Chemistry, 1984	J B College, Dibrugarh University, 2 <sup>nd</sup> Class, 58.3%
<b>Pre Degree (Sc.)</b> , 1981 (exam held in 1982)	J B College, Dibrugarh University, 1 <sup>st</sup> Div., Rank: 2, 84.2%
<b>High School (HSLC)</b> , 1979	Secondary Education Board Assam (SEBA), 1 <sup>st</sup> Div., 77.2%

Qualified in the **Joint CSIR-UGC NET for JRF**, in March, 1988, in Chemistry

**Field of Specialisation:** Organic Chemistry (Synthetic Organic Chemistry and Natural Products Chemistry)

## Academic distinction/Award/Accolades:

Awarded the **ACT Best Woman Chemistry Teacher Award – 2021** by the Association of Chemistry, the apex national body of Chemistry Educators, H.O. Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research (TIFR), Mumbai.

Secured **Second Position in Pre-Degree (Science) Examination** of Dibrugarh University. Secured **highest marks in Physics and Assamese** (in Science stream)

Jogendra Nath Borbora Memorial Award and Jayanta Madhab Borthakur Memorial Award for securing highest marks in Chemistry Major in B.Sc. Examination, 1984 from J B College, Jorhat

Recipient of **National Merit Scholarship** from H.S.L.C. Examination onward

## Professional Experience:

### A. Teaching Experience:

Professor (Full time, Permanent)	01.01.2021 – till date	Krishna Kanta Handiqui State Open University
Professor (Full time, Permanent)	12.05.2013 - 31.12.2020	Dept. of Chemistry, Dibrugarh University
Associate Professor (Full time, Permanent)	12.05.2010 - 11.05.2013	-do-
Reader (Full time, Permanent)	12.05.2007 - 11.05.2010	-do-
Senior Lecturer (Full time, Permanent)	09.01.2001 - 11.05.2007	-do-
Lecturer (Full time, Permanent)	29.03.1994 - 08.01.2001	-do-

#### *Worked as Part time faculty*

- i) Centre for Women Studies, DU to teach Science, Technology and Women, Upgradation of Technology Skills and Rural Technology in PGCC in Women's Studies in 2006.
- ii) Centre for Bioinformatics Studies, DU, in M.Sc. in Bioinformatics in 2010-11.

### B. Administrative Experience:

04.01.2021 - 16.03.2022: **Director**, HCB School of Science and Technology and **Director i/c**, GPD School of Interdisciplinary and Vocational Studies, KKHSOU

01.01.2018 - 30.06.2019: **Director (Honorary)**, Educational Multimedia Research Centre (EMRC), DU

02.07.2012 - 01.07.2015: **Head**, Department of Chemistry, DU

27.01.2005 - 10.04. 2011: **Warden**, Joymati Chatri Nivas (Girls' Hall 1), DU

### C. Membership in Councils/Committees/Boards etc.

1. Court Member, Bodoland University for 3 years w.e.f. January, 2020.
2. Court Member, Dibrugarh University, 03.03.2011 - 02.03.2014
3. Member, Governing Body, Sibsagar Girls' College, Sivasagar, 18.07.2018 – Dec, 2020
4. Member, Governing Body, DHSK College, Dibrugarh, 04.01.2018 – Dec, 2020
5. Member, Academic Council, North Lakhimpur College (Autonomous), 01.06.2016 – 31.05.2019
6. Member, Board of Post Graduate Studies (BPGS) in Chemistry, North eastern Hill University (NEHU), 25.08.2010 – 24.08.2013
7. Chairperson, Departmental Research Committee, Dept. of Chemistry, Dibrugarh University, 02.07.2012 - 01.07.2015
8. Chairperson, Board of Studies in Chemistry, DU, 02.07.2012 - 01.07.2015
9. Chairperson, Departmental Management Committee (DMC), Dept. of Chemistry, DU, for three terms of one year each for (i) June, 2009 – May, 2010 and ii) June, 2002 - May, 2004

10. Member, Academic Council, DU, 02.07.2012 - 01.07.2015
11. Member, Research Council in Science, DU, 02.07.2012 - 01.07.2015
12. Member, Internal Quality Assurance Cell (IQAC), DU, 2013-2015
13. Member, Quality Advisory Committee, DU, 2005
14. Member, Academic Advisory Committee, Directorate of Distance Education, DU, 2010
15. Co-Ordinator, Basic Facilities for Women, XI<sup>th</sup> Plan UGC's unassigned grant merged scheme at DU, 2008
16. Member, Academic Committee, Centre for Women Studies, DU, 2005, 2013
17. Member, Committee to examine the Dibrugarh University Research Fellowship, 2015
18. Member, Committee for setting up a Sophisticated Instrumentation Centre in DU, 2015
19. Member, Committee for Reviewing the Structure of Schools, Dibrugarh University, 2018
20. Member, Committee for Reviewing the Structure of Research Council and School Board, Dibrugarh University, 2018
21. Member, Inspection Committee for Recognition/ Introduction of new Courses under Directorate of Open and Distant Learning (DODL), DU, 2017
22. Member, Committee for Adoption of online courses available on SWAYAM by DU students, 2018
23. Member, Ethical Committee for Biomedical and Health Research involving Human Participants in Dibrugarh University, 2019

#### ***D. Various responsibilities at KKHSOU***

1. Member, Academic Council, KKHSOU
2. Member, Centre for Quality Assurance (CIQA), KKHSOU
3. Chairperson, Internal Complaint Committee, KKHSOU
4. Member, Library Advisory Committee, KKHSOU
5. Programme Coordinator, B.Sc. Programme, KKHSOU

#### ***E. Research Interests***

Synthesis of dendritic polyphenols, polyphenol conjugates and studies of their antioxidant properties, Antioxidant properties of herbal food and beverages of North East India, Chemical investigation of medicinal plants of North East India

#### ***F. Research Supervision***

##### ***PhD (Awarded): 11***

1. Dr. Manas Pratim Boruah (2013): Studies on antioxidant and antimicrobial activities of some traditional medicinal plants and preserved food additives of North East India
2. Dr. Dipika Kalita (2014): Studies on phenolic antioxidants of some medicinal plants of Assam
3. Dr. Dhrubajyoti Mahanta (2014): Design, synthesis and studies of some important properties of dendritic polyphenols
4. Dr. Dipankoj Gogoi (2017): Studies on antioxidant activities of some traditional alcoholic beverages of Assam and the plants used in their fermentation cakes

5. Dr. Romesh Borgohain (2018): Development of Synthetic Protocols and Physicochemical Studies of Derivatives of Phenolic Acids and Aldehydes
6. Dr. Gyanashree Bora (2022): Synthesis of Some Phenolic Schiff Bases and Study of Their Applications
7. Dr. Mridusmita Sarmah (2023): Biochar from Tea Waste and its Application for Sustainable Tea Cultivation: Utilizing the Unutilized
8. Dr. Nishi Gandha Gogoi (2023): Synthesis and Studies of Biological Activities of some Curcumin Conjugates and Their Role in Nanoformulations
9. Dr. Bidyot Bikash Gogoi (2024): Studies on selected trace elements in tea growing soils, tea leaves vis-à-vis made tea and infusion in some tea gardens of upper Assam
10. Dr. Prodip Kumar Goswami (2025): Synthesis and Characterization of Poly(Glycidyl Methacrylate-co-Octadecyl Methacrylate) Particles by Dispersion Radical Polymerization
11. Dr. Jitupon Gogoi (2025): Synthesis and Biological Evaluation of Some Novel Coumarin Conjugates

***Ph.D.(Pursuing) at Dibrugarh University: 1***

Kaberijyoti Konwar

***MPhil: (Awarded): 6***

1. Prakash Upadhyay (2006): Chemical Investigation of *Stephania hernandifolia*, A less known medicinal plant species of Assam, used for antifertility
2. Manas Pratim Boruah (2009): Evaluation of Antioxidant Properties of Some Herbal Food Additives and Beverages of North East India
3. Moushumi Hazarika (2010): Studies on Antioxidant and Antibacterial Properties of Some Medicinal Plants of North East India
4. Nishi Gandha Gogoi (2016): Studies on Curcumin Derived Imines as Antioxidant and Stabilizer for Nanosilver Catalyst
5. Jhorna Borah (2019): Synthesis of Some Phenolic Schiff Bases and Evaluation of their Antioxidant, Antibacterial and Ion Sensing Properties
6. Madhusmita Baruah (2020): Hydrogel Composite Fertilizer for Slow Phosphorous Delivery for Agricultural Application

***G. Research projects***

1. Synthesis, characterization and physicochemical properties of some polyphenols with simple dendritic architecture: Funded by DST, Govt. of India (2008-2012) as Principal Investigator, Amount: Rs. 31 lakh
2. Chemical prospecting of certain less known medicinal plant species of Assam used for antifertility: Funded by G B Pant Institute of Himalayan Environment and Development (GBPIHED), Govt. of India, (2004-2008) as Principal Investigator, Amount: Rs. 8.5 lakh

3. A scientific study of medicinal properties of some unexplored ethno-medicinal plants of North-East India: (SAP-DRS-I): Funded by UGC, Govt. of India (2008-2013) as Deputy Co-ordinator, Amount: Rs. 39 lakh

## H. Research Publications

### *Research papers, published in Peer-reviewed Journals*

1. Jitupon Gogoi, Prachurja Pritam Mudoi, Jayanta Dowarah, Jyotirekha G. Handique, B. Chetia (2025) Supramolecular architecture of 2-pyridone based coumarin fleximer: Crystal Structure analysis, Molecular binding interactions with Bovine serum albumin and Human serum albumin, *Journal of Molecular Structure*, 1331, 141585, Elsevier, **IF: 4.7**
2. Prodip K. Goswami, Prakash J. Saikia and Jyotirekha G. Handique (2024) RAFT mediated dispersion copolymerization of glycidyl methacrylate and octadecyl methacrylate, *Journal of Macromolecular Science, Part A, Pure and Applied Chemistry*, <https://doi.org/10.1080/10601325.2024.2345918>, Taylor and Francis, online, **IF: 2.4**
3. Bidyot Bikash Gogoi, Md Yeasin, Ranjit Kumar Paul, Diganta Deka, Harisadhan Malakar, Jiban Saikia, Feroze Hasan Rahman, C.S. Maiti, Animesh Sarkar, Jyotirekha G. Handique, Bappaditya Kanrar, A.K. Singh, Tanmoy Karak,\* (2024) Pollution indices of selected metals in tea (*Camellia sinensis* L.) growing soils of the Upper Assam region divulge a non-trifling menace of National Highway, *Science of the Total Environment* 920, 170737, Elsevier, **IF: 8.0**
4. Nishi Gandha Gogoi, Aziza Rahman, Pankaj Dutta, Jiban Saikia, Anupaul Baruah, and Jyotirekha G. Handique (2024) Design, synthesis, biological evaluation and in silico studies of curcumin pyrrole conjugates, *Chemistry and Biodiversity*, 2024, e202301605, <https://doi.org/10.1002/cbdv.202301605>, Wiley online. **IF: 2.5** (Clarivate)
5. Jitupon Gogoi, Shyamalima Saikia, Pankaj Chetia, Bolin Chetia, Jyotirekha G. Handique\* (2024) Design and synthesis of novel coumarin based 1,2,3-triazole derivatives and their antibacterial evaluation, *Russian Journal of Bioorganic Chemistry*, 50(4), 1410–1422, Springer, **IF: 1.7**
6. Arup Borgohain, Mridushmita Sarmah, Bidyot Bikash Gogoi, Kaberijyoti Konwar, Jyotirekha G. Handique, Ranjit Kumar Paul, Md. Yeasin, Versha Pandey, Ranu Yadav, Harisadhan Malakar, Jiban Saikia, Diganta Deka, Feroze Hasan Rahman, Saumik Panja, Puja Khare, Tanmoy Karak\* (2023) Can tea pruning litter biochar be a friend or foe for tea plants (*Camellia sinensis* L.) growth and regulators?: Feasible or fumes of fancy, *Industrial Crops and Products*, 194, 116394, <https://doi.org/10.1016/j.indcrop.2023.116394>, Elsevier, **IF: 6.2**
7. Mridusmita Sarmah, Arup Borgohain, Bidyot Bikash Gogoi, Md Yeasin, Ranjit K. Paul, Harisadhan Malakar, Jyotirekha G. Handique, Jiban Saikia, Diganta Deka, Puja Khare, Tanmoy Karak (2023) Insights into the effects of tea pruning litter biochar on major micronutrients (Cu, Mn, and Zn) pathway from soil to tea plant: An environmental armour, *Journal of Hazardous Material*, 442, 129970, <https://doi.org/10.1016/j.jhazmat.2022.129970>, Elsevier, **IF: 11.3**
8. Nishi Gandha Gogoi, Pankaj Dutta, Jiban Saikia and Jyotirekha G. Handique (2022), Antioxidant, Antibacterial, and BSA Binding Properties of Curcumin Caffeate Capped Silver Nanoparticles

9. Nishi Gandha Gogoi, Aziza Rahman, Jiban Saikia, Pankaj Dutta, Anupaul Baruah, and Jyotirekha G. Handique (2022), Enhanced biological activity of Curcumin Cinnamates: an experimental and computational analysis, *Medicinal Chemistry Research*, 31, 2195–2208, <https://doi.org/10.1007/s00044-022-02977-w>, Springer, **IF: 3.1**
10. Arup Borgohain, Mridusmita Sarmah, Kaberijyoti Konwar, Rimjim Gogoi, Bidyot Bikash Gogoi, Puja Khare, Ranjit Kumar Paul, Jyotirekha G. Handique, Harisadhan Malakar, Diganta Deka, Jiban Saikia, Tanmoy Karak (2022), Tea pruning litter biochar amendment in soil reduces arsenic, cadmium, and chromium in made tea (*Camellia sinensis* L.) and tea infusion: A safe drink for tea consumers, *Food Chemistry: X*, 2022, <https://doi.org/10.1016/j.fochx.2022.100255>, Elsevier, **IF: 8.2**.
11. Bidyot Bikash Gogoi, Arup Borgohain, Kaberijyoti Konwar, Jyotirekha G. Handique, Ranjit Kumar Paul, Puja Khare, Harisadhan Malakar, Jiban Saikia, Tanmoy Karak (2021), National highway induced selected chemical properties of soils across tea bowl of India: scale and assessment, *International Journal of Environmental Science and Technology* <https://doi.org/10.1007/s13762-021-03789-y>, Springer, **IF: 3.4**
12. Hanan Mohamed Fathy Elnagdy, Nishi Gandha Gogoi, Jyotirekha G. Handique, Diganta Sarma (2021), CuO-NPs/TFA: a New Catalytic System to Synthesize a Novel Series of Pyrazole Imines with High Antioxidant Properties, *BioNanoScience*, <https://doi.org/10.1007/s12668-021-00888-5>, Springer, **IF: 3.2**
13. Nishi Gandha Gogoi and Jyotirekha G. Handique\* (2019), Novel Protocol for Synthesis of 1,4-Diimino Curcumin Stabilized Silver nanoparticles and Application as Heterogenous Recyclable Catalyst and Antibacterial Agent, *Journal of Chemical Sciences* 131, 74. <https://doi.org/10.1007/s12039-019-1654-1>, Springer, **IF: 1.573**
14. Gyanashree Bora, Dipankoj Gogoi, Subhasmita Saikia, Archana Pareek and Jyotirekha G. Handique\* (2019), Stannous Chloride Catalyzed Synthesis of Schiff Bases from Hydroxybenzaldehydes and Determination of Their Antioxidant Activity by ABTS and DPPH Assay, *Journal of Chemical Sciences* 131, 68, <https://doi.org/10.1007/s12039-019-1645-2>, Springer, **IF: 1.573**
15. Prodip K. Goswami, Monsum Kashyap, Pranjal P. Das, Prakash J. Saikia & Jyotirekha G. Handique (2019), Poly(Glycidyl Methacrylate-co-Octadecyl Methacrylate) particles by dispersion radical copolymerization, *Journal of Dispersion Science and Technology*, <http://doi.org/10.1080/01932691.2019.1635026>, Taylor and Francis, **IF: 1.9**
16. Dipankoj Gogoi, Gyanashree Bora, Romesh Borgohain, Jyotirekha G. Handique\* (2018), Antioxidant Capacity and GC-MS Analysis of Hexane, Ethylacetate and Methanol Extracts of *Ficus bhotanica* – A Potential Folklore Medicinal Plant, *International Journal of Pharmacognosy and Phytochemical Research*, 10(5); 201-212

17. Romesh Borgohain, Jyotirekha G. Handique\*, Ankur Kanti Guha, Sanjay Pratihari (2017), A Theoretical Study of Antioxidant Activity of Some Schiff Bases Derived from Biologically Important Phenolic Aldehydes and Phenylenediamines, *Journal of Physical Organic Chemistry*, 2017;e3757. <http://doi.org/10.1002/poc.3757> (Wiley online), **IF: 1.8**
18. Gitalee Sharma\*, Jyotirekha G. Handique (2016) Synthesis of Series of Low Band Gap Small Organic Molecules and Evaluation of Their Solar Cell Activity, *Asian Journal of Chemistry*, 28(10), 2223-2227
19. Romesh Borgohain, Jyotirekha G. Handique\*, Ankur Kanti Guha, Sanjay Pratihari (2016), A Theoretical Study on Antioxidant Activity of Ferulic Acid and its Ester Derivatives, *Journal of Theoretical and Computational Chemistry*, 15(4), <http://doi.org/10.1142/S0219633616500280>, World Scientific, **IF: 2.8**
20. Jyotirekha G. Handique\*, Dipankoj Gogoi (2016), Antioxidant Activities of the Medicinal Plants Used for Preparation of Fermentation Cakes of “Haanj”, the Rice Based Alcoholic Beverage of Ahom Community People of Assam, India, *International Journal of Pharmacognosy and Phytochemical Research*; 8(2); 217-22
21. Alakesh Phukan, Bolin Chetia, Jyotirekha G. Handique and Devid Kardong (2016) Antimicrobial and Antioxidant Activities and RP-HPLC Analysis of Three Edible Medicinal Plants *Oxalac acuminata*, *Gnetum gnemon* and *Raphidophora hangkongensis*, *National Academy Science Letters* (published online: 9 Feb, 2016) <http://doi.org/10.1007/s40009-016-0422-8>, Springer, **IF: 1.3**
22. Romesh Borgohain, Ankur Kanti Guha, Sanjay Pratihari and Jyotirekha G. Handique\* (2015) Antioxidant Activity of Some Phenolic Aldehydes and Their Diimine Derivatives: A DFT Study, *Computational and Theoretical Chemistry*, 17-23, <http://doi.org/10.1016/j.comptc.2015.02.014> Elsevier, **IF: 2.8**
23. Manas Pratim Boruah\*, Jyotirekha G. Handique (2014) Antioxidant and Antibacterial Properties of some Traditional Medicinal Plants of North East India, *International Journal of Advances in Pharmacy Biology and Chemistry*, 3(3), 543-549
24. Manas Pratim Boruah\*, Jyotirekha G. Handique (2014) Antioxidant Behavior of some North East Indian Ethno Medicinal Vegetables and their RP-HPLC Analysis, *International Journal of Advances in Pharmacy Biology and Chemistry*, 3(2), 426-433
25. Jyotirekha G. Handique\*, Dhruvjayoti Mahanta, Archana Devi and Manas Pratim. Boruah (2013) Synthesis and Electrochemical Behavior of Some Dendritic Polyphenols as Antioxidants, *Letters in Organic Chemistry*, 10(1), 53-59, Bentham Science, **IF: 1.0**
26. Jyotirekha G. Handique\*, Manas Pratim Boruah and Dipika Kalita (2012) Antioxidant activities and total phenolic and flavonoid contents in three indigenous medicinal vegetables of North-east India, *Natural Product Communications*, 7(8), 1021-1023, Sage Journals, **IF: 1.4**
27. Manas Pratim Boruah, Dhruvjayoti Mahanta and Jyotirekha G. Handique\* (2012) Comparative evaluation of antioxidant activities of some fresh and preserved herbal products of North East India

- by cyclic voltammetry, *Indian Journal of Natural Products and Resources*, 3(1), 40-47, CSIR-NIScPR, **IF: 0.6**
28. Dipika Kalita, Rahul Kar, Jyotirekha G. Handique (2012) A Theoretical Study on the Antioxidant Property of Gallic Acid and its Derivatives, *Journal of Theoretical and Computational Chemistry*, 11(2), 391-402, World Scientific, **IF: 2.8**
  29. Dhrubajyoti Mahanta and Jyotirekha G. Handique\* (2011) Simple, Clean and Highly Efficient Synthesis of Polyphenolic Amides Catalysed by Ferric Exchanged Montmorillonite, *Letters in Organic Chemistry*, 8(9), 618-624, Bentham Science, **IF: 1.0**
  30. Dhrubajyoti Mahanta and Jyotirekha G. Handique\* (2011) Highly efficient esterification of phenolic acid over metal exchanged montmorillonite clay, *Asian Journal of Science and Technology*, 4, 51-58
  31. Jyotirekha G. Handique\*, Moushumi Hazarika, Manas Pratim Boruah and Pradip K. Gogoi (2011) Antioxidant activities of some North East Indian ethnomedicinal plants by Cyclic voltammetry, *National Academy Science Letters*, 34(3&4), 83-91, Springer, **IF: 1.3**
  32. Jyotirekha G. Handique, Jubaraj B. Baruah\* (2003) The Oligomer of 1,2,3-trihydroxybenzene with benzaldehyde, *Reactive and Functional Polymers*, 55, 319-332, Elsevier, **IF: 5.1**
  33. Jyotirekha G. Handique, Jubaraj B. Baruah\* (2002) Polyphenolic Compounds: An Overview (Review), *Reactive and Functional Polymers*, 52, 163-188 (rated as one of the TOP 25 HOTTEST ARTICLES in several periods), Elsevier, **IF: 5.1**
  34. Jyotirekha G. Handique, Jubaraj B. Baruah\* (2002) Conversion of 1,4-naphthalenediol to 1,4-naphthoquinone by 1,4-benzoquinone, *Journal of Molecular Catalysis A: Chemical* 184, 85-93, 2002, Elsevier, **IF: 5.062**
  35. Jyotirekha G. Handique, L. Baruah, Rupam J. Sharma and Jubaraj B. Baruah\* (2002) Participation of Self-generated polyaniline support in copper(II) catalysed oxidative reaction of phenyl aldimines, *Journal of Molecular Catalysis A: Chemical*, 188, 63-69, Elsevier, **IF: 4.9**
  36. Jyotirekha G. Handique, Jubaraj B. Baruah\* (2001) The oligomer of 1,6-naphthalenediol as a support in oxidative reactions of cis-bisglycinato copper(II) and hydrogen peroxide, *Journal of Molecular Catalysis A: Chemical*, 172, 19-23, Elsevier, **IF: 4.9**
  37. Jyotirekha G. Handique, Arup Purkayastha, Jubaraj B. Baruah\* (2001) Reduction of  $\alpha,\beta$ -unsaturated carbonyl compounds by  $\text{Ni}^{2+}/\text{BH}_4^-$ , *Journal of Organometallic Chemistry*, 620, 90-93, Elsevier, **IF: 2.4**
  38. Jyotirekha G. Handique, Jubaraj B. Baruah\* (2001) Oxidative oligomerisation of 2-naphthol by cis-bis glycinato copper(II) *Journal of Molecular Catalysis A: Chemical*, 166, 225-231, 2001, Elsevier, **IF: 4.9**
  39. Amrit Puzari, Jyotirekha G. Handique, Arup Purkayastha, A. Srinivasan and Jubaraj B. Baruah\* (1999) Thermoelectric switch from anilinic compounds, *Indian Journal of Chemistry*, 38A, 521-524, CSIR-NIScPR, **IF: 0.412**
  40. Jyotirekha Gogoi\* and Pabitra K. Sarma (1997) Chemical investigation of *Vangueria spinosa* Roxb. II, *Indian Drugs*, 34(109), 610-611



### ***Research papers, published in Conference Proceedings***

1. Jyotirekha G. Handique, Dipika Kalita and Pratap J. Handique (2017) A correlation study of antioxidant activity, total phenolic content and total flavonoid content of fruits of *Solanum* species of North East India, 2nd International Conference on Herbal and Traditional Medicine (HTM-2017), 25-27 January, Hosted by Khon Kaen Univ., Bangkok, Thailand
2. Jyotirekha G. Handique and Jubaraj B. Baruah (2001) *Thermochemical properties of naphthalenediol oligomers*, The 6th Asian Thermophysical Society Conference, 8-11 October, Gauhati Univ.
3. Jyotirekha Gogoi and Pabitra K. Sarma (1993) *Chemical investigation of Meyna laxiflora Robyns. syn Vangueria spinosa Roxb. III* Proc. Natl. Seminar on Chemical Reactivity: Recent Trends, 23-25 Nov, Gauhati Univ
4. Jyotirrkha Gogoi\* and Pabitra K. Sarma (1992) *Chemical investigation of Vangueria spinosa Roxb. I*, Proc. Natl. Seminar on Modern Trends in Anal. Tech.: Applications in Chemistry, 4-6 May, Gauhati University

\*Gogoi was my maiden title

### ***Book Chapters***

1. Upasana Bhuya and Jyotirekha G. Handique, Plant polyphenols as potent antioxidants: Highlighting the mechanism of antioxidant activity and synthesis/development of some polyphenol conjugates, Chapter 6, p. 243-266, *In Studies in Natural Products Chemistry: Bioactive Natural Products*, Vol. 75, Atta-ur-Rahman (Ed.), Elsevier, Amsterdam, Netherlands, ISBN: 978-0-323-91250-1, ISSN: 1572-5995, **2022**
2. Nishi Gandha Gogoi and Jyotirekha G. Handique, Biosurfactants being a potential alternative to the chemical surfactants available in the market, Chapter 9, p. 153-180 *In Advanced Research in Chemistry*, Vol. 4, D. T. Sakhare (Ed.), AkiNik Publications, Delhi, ISBN: 978-93-5570-297-5, Book DOI: <https://doi.org/10.22271/ed.book.1800>, **2022**
3. Gyanashree Bora and Jyotirekha G. Handique, Oxidation of Lignin from Wood Dust to Vanillin Using Ionic Liquid Medium and Study of Its Antioxidant Activity, Chapter 15, p. 277-296, *In Re-Use and Recycling of Materials: Solid Waste Management and Water Treatment*, Editors Jibin K. P., Nandakumar Kalarikkal, Sabu Thomas and Ange Nzihou, River Publishers, Denmark and The Netherlands, ISBN: 978-87-7022-058-3 (Hardback), 978-87-7022-057-6 (Ebook), **2019**
4. Jyotirekha G. Handique, Polyphenols as Antioxidants, Chapter 4, In "Chemistry of Phenolic Compounds: State of the Art", J.B. Baruah (Ed), Nova Science Publishers, **2011** (ISBN 978-1-61761-335-7), New York, p 31-48.

***Research papers/posters, presented in Seminars/Conferences, that received Awards***

1. Archana Devi and Jyotirekha G. Handique\* (2011) International Conference on Emerging Areas of Chemistry, 12-14 January, 2011, at Tripura University in association with IACS, Kolkata: **Best Poster Award**

***I. Seminar/Conference/Workshop/Training Programme, attended/ Paper presented***

1. 2nd International Conference on Herbal and Traditional Medicine (HTM-2017), 25-27 January, 2017, Hosted by Khon Kaen Univ., at Asia Hotel, Bangkok, Thailand
2. International Training Programme on Leadership and Career Development for Women Scientists/Technologists, organised by DST & IUSSTF & COACH-University of Oregon, USA at INSA, New Delhi, 1-5 Sept. 2014
3. International Conference on *Harnessing the sub-Himalayan Plant Diversity for Human Welfare*, Dibrugarh University, 11-13 March 2015
4. National Seminar on Recent Trends in Fundamental and Applied Chemical Sciences, Dept. of Chemistry, Dibrugarh University, 19-21 November, 2014
5. 18<sup>th</sup> International Conference (Post ISCBC- 2012) Perspective and Challenges in Chemical and Biological Sciences: Innovation Cross Roads, IASST, Guwahati, 28-30 Jan, 2012 (Oral presentation)
6. International Conference on Emerging Areas of Chemistry, held at the Department of Chemistry, Tripura University in association with Indian Association for Cultivation of Science, Kolkata, 12–14 Jan, 2011, Received the Best Poster Presentation award in the Conference.
7. National Seminar on Recent Advances in Synthesis and Catalysis, Dept of Chemistry, Dibrugarh University, 10-12 Feb, 2011
8. National Seminar on Recent Advances in Chemical Sciences, Dept. of Chemistry, Dibrugarh University, 27-28 March, 2009.
9. National Seminar on Biodiversity Conservation and Future Concern, Dept. of Biotechnology, GU, June 17-18, 2005
10. DST sponsored National Workshop on Sensors for Agricultural and Industrial Application, Dept. of Physics, Dibrugarh University, Sept. 20–Oct 1, 2004
11. National Seminar on medicinal plants in North Eastern Region, Govt. Ayurvedic College, Guwahati, 7 – 10 Oct, 2004.
12. JNCASR sponsored Frontier Lectures in Chemistry, IIT-Guwahati, Aug 29-30, 2003
13. The 6<sup>th</sup> Asian Thermophysical Society Conference, Gauhati University, 8-11 Oct., 2001
14. Workshop cum Training Programme on Utilization, Plantation and Conservation of Medicinal Plants, Gauhati University, 16-17 May, 1997
15. Assam Science Society Annual Technical Session, Dibrugarh University, 28 Dec, 1993
16. National Seminar on Chemical Reactivity: Recent Trends, Gauhati University, 23-25 Nov, 1993

17. National Seminar on Modern Trends in Anal. Tech.: Applications in Chemistry, Gauhati University, 4-6 May, 1992.

#### ***J. Plenary Lecture/Invited Talk delivered***

1. Invited Talk on “Effective Online Teaching Strategies in Higher Education” in a Faculty Development Programme (FIP-04) Aug 2-31, 2021, organized by UGC-HRDC, Gauhati University, on 17<sup>th</sup> August, 2021
2. Invited Talk on “Use of Digital Platforms for Education in India during Covid-19 situation” in a National Webinar organised by Biswanath College on 13<sup>th</sup> July, 2020
3. Refresher Course in Environmental Studies (ID) 24 Sep - 14 Oct, 2018, UGC-HRDC, Gauhati University, Resource Person on 3<sup>rd</sup> October, 2018, (Title of Talk: SWAYAM: A New Dimension in Teaching and Learning)
4. Teachers’ Day Talk, organised by Department of Chemistry Dibrugarh University, 5<sup>th</sup> August, 2018 on the topic “SWAYAM: A New Dimension in Teaching and Learning”
5. One-Day Orientation Workshop on SWAYAM and MOOCs, organised by SWAYAM Cell, IQAC, DHSK College and Assam College Teachers Association (ACTA), DHSK College unit, DHSK College, Dibrugarh, 30<sup>th</sup> August, 2018 (Invited Talk on “MOOCs for SWAYAM: Role of EMRCs”)
6. One-Day State Level Workshop on SWAYAM, organised by Kakojan College, Kakojan, 25<sup>th</sup> August, 2018 (Invited Talk on “MOOCs for SWAYAM: Role of EMRCs”)
7. One-Day Workshop on SWAYAM, organized by Department of Commerce in collaboration with Internal Quality Assurance Cell (IQAC), Margherita College, Margherita, 7<sup>th</sup> June 2018 (Invited Talk on “SWAYAM: The Digital Platform for Education: Anytime-Anywhere –Anyone”)
8. National Seminar on Indigenous Health Practices with special reference to the Tribes of North East India, Department of Anthropology, DU, 22-23 March, 2013 (Plenary Lecture) (*Topic: Antihepatotoxic Activities of Some Medicinal Plants of North-East India*)
9. Invited Lecture Programme by Women Studies Cell, MDKG College, Dibrugarh, 9<sup>th</sup> June, 2012 (*Topic: Women in Science and Technology-Perspectives and Challenges*)
10. National Workshop on Gender Budgeting and Women Empowerment, Sponsored by the Ministry of Women and Child Development, Govt. of India at Centre for Women Studies, DU, 14-16 March, 2012 (*Topic: Women in Science and Technology and Gender Budgeting*)
11. National Workshop on Drug precursors from Natural Resources under SAP-DRS-I programme, Department of Chemistry, D.U., 29<sup>th</sup> March, 2011 (*Topic: Quest for Antioxidants: In Nature and in Synthetic Ways*)

#### ***K. Other Publications of Professional Interest***

##### ***Contribution to compiled volume of literary work***

1. Contributed a chapter on **History of Chemistry** (Chapter 4) in “**Bigyanor Itihas**” (History of Science), Publication division, Dibrugarh University, **2023, p. 279-398**, ISBN 978-93-84819-25-5.
2. Contributed write-ups on science topics for “**Bishwakosh**” (Encyclopaedia), published by Axom Xahitya Xabha.

### ***L. Organising Seminar***

Organising Secretary, National Seminar on Recent Advances in Chemical Sciences, held in Department of Chemistry, DU on 26-27 March, 2009

Chairperson, Organising Committee, National Seminar on Recent Trends in Fundamental and Applied Chemical Sciences, held in Department of Chemistry, DU, on 19-21 November, 2014

### ***M. Professional Programmes Completed***

1. Attended **Assessors' Orientation Programme (AOP)**, organized by National Assessment and Accreditation Council (NAAC), at Gautam Budha University, Greater Noida, on 28th January 2019
2. Attended Co-ordination Committee/Directors Meeting & **Workshop on Integrated Pedagogy & Technology for Development of MOOCs for CEC and Media Centres**, held on 16-17 February, 2018 at Consortium for Educational Communications (CEC), IUAC Campus, New Delhi, as the Director (H), EMRC, Dibrugarh University
3. Attended Co-ordination Committee/**Directors Meeting** held on 29-30 November, 2018 at Calicut, organized by CEC, New Delhi in co-ordination with EMRC, Calicut University, as the Director (H), EMRC, Dibrugarh University
4. Attended and participated in **International Training Programme on Leadership and Career Development for Women Scientists/Technologists**, organised by DST & IUSSTF & COACH-University of Oregon, USA at INSA, New Delhi, 1-5 Sept. **2014**
5. Attended and participated in **one UGC sponsored Orientation Course** and **three UGC sponsored Refresher Courses in Chemistry** for College and University Teachers, at Academic Staff College, Gauhati University.

### ***N. Other interests***

1. Creative writing\* (Short stories, thought provoking articles, musing on personal experiences).
2. Academic administration activities
3. Women empowerment programmes

#### ***\*Creative writings***

1. *Maar Taantshal* (Mom's Loom),
2. *Joy of being known by name*, Smriti Saurobh (**Souvenir of First Alumni Meet**, Dept. of Chemistry, DU), 28 Dec, **2017**, p. 17-22
3. *Gharee* (The Clock), Nahor Deshor Galpa (A collection of short stories, published by DU Yuva Chatra Mancha), April, **2014**, p. 32-37 [Earlier published in **Prantik**, The Assamese Fortnightly Magazine, **2008**, 27(7), p. 52-54 and also in Amar Asom, (Short Story)
4. *Janapriyatar sadhana banam utkristatar sadhana* (Quest for popularity vs. quest for Excellence), **DUPGSU Magazine**, **2010**, p. 44-46 (Article)
5. *Shikshakatar Glamour: Medhai jar mul bheti* (Glamour of teaching: where talent is the basis), **DUPGSU Magazine**, **2008**, p. 17-19 (Article)
6. *Morijanjit ejobora* (A plunge in the dead river 'Morijanji'), **Amar Asom**, The Assamese Daily, **2010**, June 13-14 (Story)
7. *Raamdhanu* (The Rainbow), **Amar Asom**, The Assamese Daily, **2008**, Aug 31, p. 6-7 (Story)

8. *Madhurena samapayet* (Ending with a Sweetnote), **Amar Asom**, The Assamese Daily, **2008**, Feb. 9, p. 4, Story
9. *Chaka* (The Wheel), **Amar Asom**, The Assamese Daily, **2007**, Dec. 15, p. 4, (Story)
10. *Maar chasma* (Mom's spectacles), **Saatsori**, The Assamese Fortnightly Magazine, **2006**, July 1-15, p. 50, (Story)
11. *Katha kuthambolom* (The Saga of the *Kuthambolom*: The indigenous amphitheatre of Kerala), **Saatsori**, **2006**, May 1-15, p. 60-62, Translated from 'The God of Small Things'
12. *Byoktigata aru anusthanik* (Personal and Institutional), **Saatsori**, The Assamese Fortnightly Magazine, **2005**, Aug 15-31, p. 20-21, (Article)
13. *Methoni baganot esandhya* (An evening at the Methoni Tea Estate), **Amar Asom**, The Assamese Daily, **2004**, Aug 7, p. 4, (Story)
14. *Chorailoi sholagor suhuri* (Thanking the birds), **Purbachal**, (The Sunday supplement of *Amar Asom*, The Assamese Daily), **2002**, Oct. 13, p. 18&14, (Story)
15. *Ipsita (Oicchik) santanhinatar dharana* (Principle of Optional Childlessness), **Amar Asom**, The Assamese Daily, **2002**, Jan 3, p. 3, (Article)
16. To have or not to have, **North East Times** (High Point), **1995**, Sept 24, (Article)

#### **P. Popular Science Publications**

1. Vigyaane ki bichare? Eeshwarok ne Satyok? (What does science search for? God or Truth?), **Niyomiya Barta**, The Assamese Daily, **2018**, March 15
2. Sheri: A Call for Occupational Safety, **ChemiDUScope**, (A science magazine, published by Department of Chemistry, DU) Vol 1, September 5, **2016**, p. 13-17
3. *Antarjatik rasayanbarsha, pratyahban aru sambhabana* (International Year of Chemistry, Challenges and Prospects), **Dainik Janambhumi**, The Assamese Daily, **2011**, Mar 23, p. 4
4. *Kharga* (The Rhinohorn), **Amar Asom**, The Assamese Daily, **2008**, Feb 26, p. 4
5. *Premor bignan aru bibartanbad* (The Science and Evolution of 'Love'), **Saatsori**, The Assamese Fortnightly Magazine, **2006**, June 1-15, p. 24-27
6. Wise management of waste, **My Green Earth**, **2002**, Feb-Mar, 2(3), 4-6
7. Being rationally herbal, **North East Times** (High Point), **2000**, Feb 6, p. 3
8. *Kotkora gach* (Meyna laxiflora tree), **Prantik**, The Assamese Fortnightly Magazine, **2006**, March 16, p. 35-36
9. *Andhabiswas banam mukta manasikata*, (Superstition vs. open mindedness), **Amar Asom**, The Assamese Daily, **2004**, Aug 30, p. 4
10. *Prasadhan samagrir rasayan* (Chemistry of cosmetics), **Payobhara**, **2002**, Nov, p. 10-12
11. *Mor mother's day card: Kola mekuree nedekhile* (My mother's day card : When no 'black cat' is seen!), **Amar Asom**, The Assamese Daily, **2002**, May 12, p. 6
12. *Aksharam paramam brahmam* (Literacy is the absoluteness), **Amar Asom**, **2002**, Mar 11, p. 4
13. *Asustha namrata* (Unhealthy politeness), **Amar Asom**, The Assamese Daily, **2002**, Feb 14, p. 4

14. *Bonoushadhi, Biswakosh aru Asomiya manuhor udyam* (1) and (2) (Herbal-drug, Encyclopedia and the Assamese spirit), **Amar Asom**, The Assamese Daily, **2001**, Nov 27-28, p. 3
15. *Daini-hatya, Biswakarma puja, Aranyam sewa ityadi* (Witch-killing, Biswakarma Puja, 'Aranyam Sewa' etc.), **Amar Asom**, The Assamese Daily, **2001**, Oct 25, p. 3
16. *Dainik byabahrta samagrit rasayanik padartha* (Chemicals in daily used products), **Payobhara**, **2001**, June, p. 28-30
17. *Janapriya starat bignan shikshar prachar* (Extension of science education at popular level), **Angik**, **2001**, April, p. 17-20
18. *Bardhakya* (Ageing), **Payobhara**, **2001**, Feb, p. 21-22
19. *Keshcharcchar samagri: Rasayan aru byabasay* (Hair-care products: Chemistry and trade), **Payobhara**, **2000**, Nov, p. 20-22
20. *Bharatat aborjanar pora shakti utpadan* (Generation of energy from waste in India), **Payobhara**, **2000**, June, p. 12-15
21. *Peloniya dravyar suphaladayak byabastha* (Fruitful management of waste), **Payobhara**, **1999**, Sept, p. 36-38
22. *Paribesh sangrakshanat mahilar bhumika* (Role of women in protection of environment), **Payobhara**, **1999**, July, p. 21-23
23. *Paribeshar sampadsamuh* (The wealth of the environment), **Payobhara**, **1999**, Mar, p. 13-14
24. *Cancerkarak rasayanik dravya* (Carcinogenic chemicals), **Payobhara**, **1998**, June, p. 36-38
25. *Kuhumkanta, ebidh oushadhi udbhid* (*Kuhumkata*, a medicinal plant), **Payobhara**, **1996**, June, p. 25

**Q. Membership in National/International Forum/Association**

1. Assessor, National Assessment and Accreditation Council (NAAC)
2. Life Member, Chemical Research Society of India (CRSI)
3. Life Member, Association of Chemistry Teachers (ACT)
4. Life Member, Society for Chemical Education, Assam (SCEA)
5. Life Member, North East Biotechnological Association (NEBA)
6. Vice President, Dibrugarh University Teachers' association (DUTA) (2013-2014)

**R. Expert appointed (selected few)**

1. Vice Chancellor's nominee as Expert, Selection Committee for Selection of Regular Principal for Silapathar Town College
2. Vice Chancellor's nominee as Expert, Selection Committee for Selection of Regular Principal for Jorhat Kendriya Mahabidyalaya
3. Vice Chancellor's Nominee and also as Subject Expert in Selection Committees in Dibrugarh University and in its affiliated Colleges for recruitment of Assistant Professors and also in Screening Committees for Promotion under FDP several times
4. Member, Selection Committees for recruitment of i) Contractual teaching staff, ii) Non-teaching Staffs, iii) Research Fellows, iv) Project Assistants in Dibrugarh University

5. Expert, PhD thesis evaluation in various Universities
6. Reviewer of various Research Journals of Chemistry
7. Expert, Revision of Syllabi for Combined Competitive (Main) Examination, Assam Public Service Commission (APSC), 2015
8. Member, various Internal Enquiry Committees of Dibrugarh University

***S. Any other relevant information not covered above***

Associated with various students' welfare activities in the capacities as

1. Member, Hostel Monitoring Committee,
2. Member, Hostel Management Committee,
3. Member, Anti-ragging Squad,
4. Observer of PGSU election,
5. Judge in various competition in extra-curricular activities among students, and as a
6. Member, Campus Development Committee at Dibrugarh University

**Declaration**

The facts mentioned above about me are true to the best of my knowledge and belief.



[Jyotirekha G. Handique]

**Updated till 16.10.2025**