

BIO – DATA

Contact Information:

Dr Hemlata Bhatt, Assistant Professor, Department of Chemistry

M. B. Govt. Postgraduate College Haldwani, Nainital

Email: hemlatabhatt2021@gmail.com

Mobile: 9411517236

AADHAAR: 5665 1642 2254

Employee Code no. 45660113F400

Orchid ID: 0009-0003-8663-3350

Google Scholar ID: In process

Address (Residence): Sri Ram Colony Phase-1, Himmatpur Talla
Kamaluaganja, Haldwani (Nainital)



Educational Qualifications:

Exam	Passing Year	Board/ University	Subject	Division
10 th	1992	UP Board	Hindi, English, Science-2, Maths 2, Social Science, Biology	I
12 th	1994	UP Board	Hindi, English, Biology, Physics, Chemistry	I
B.Sc.	1997	Kumaon University, Nainital	Zoology, Botany, Chemistry,	I
M.Sc.	1999	Kumaon University, Nainital	Organic Chemistry	I
Ph.D.	2005	Kumaon University, Nainital	Chemistry	-

Title of PhD. Thesis: “*Studies in some aspects of prebiotic synthesis of bio-monomers and their oligomers on mineral surfaces*”.

PROFESSIONAL PROFILE

Experienced academician and researcher specializing in **prebiotic chemistry, amino acid synthesis, clay–biomolecule interactions, and origin-of-life studies**. Over two decades of teaching and research experience with multiple publications in reputed journals and active participation in national and international conferences.

FACULTY DEVELOPMENT PROGRAMS / REFRESHER & ORIENTATION COURSES

Year	Title of professional development programme	Duration
2018	Orientation Programme- organised by UGC-HRDC DDU Gorakhpur, Uttar Pradesh	06.01.2018 to 02.02.2018
2020	Refresher Course in Basic Science organised by UGC HRDC- Guru Nanak Dev University, Amritsar	22.09.2020 to 05.10.2020

2021	Refresher Course in Environmental Science organised by UGC-HRDC- AMU, Aligarh, Uttar Pradesh	25.10.2021 to 09.11.2022
2022	Refresher Course in Chemistry organised by the Teaching Learning Centre of Education, Ramanujan College, University of Delhi	29.11.2022 to 13.12.2022
2023	One Week FDP in National Education Policy-2020 by Teaching Learning Centre of Education, Ramanujan College, University of Delhi	01.02.2023 to 07.02.2023
2023	Refresher Course in Chemistry organised by the Teaching Learning Centre of Education, Ramanujan College, University of Delhi	15.12.2023 to 29.12.2023
2024	One Week FDP in National Education Policy-2020 by Aligarh Muslim University	06.01.2024 to 15. 06.2024

Research Papers / Articles Published in Journals & Proceedings

2006

1. Proceedings of Trombay Symposium on Radiation & Photochemistry (TSRP).

Authors: C. K. Pant, K. Bargali, Hemlata, H. D. Pathak

Volume: 11

Pages: 293–294

Year: 2006

2007

2. Heat-initiated prebiotic formation of peptides from glycine-aspartic acid and glycine-valine.

Authors: C. K. Pant, Hemlata, J. N. Pant, H. D. Pathak, M. S. Mehata

Conference: International Conference on Photochemistry

Pages: 185

Year: 2007

3. Prebiotic synthesis of AMP and CMP via adsorption-desorption on clay surface.

Authors: C. K. Pant, Hemlata, M. S. Mehata, H. D. Pathak

Conference: 2nd Uttarakhand Science Congress

Pages: 73

Year: 2007

2008

3. Heat-induced synthesis of nucleic acid bases with methane–ammonia–water in presence of montmorillonite.

Authors: C. K. Pant, Hemlata, S. Kaur, N. Pandey

Conference: UCOST 3rd Uttarakhand Science & Technology Congress

Pages: 130

Year: 2008

2009

4. Formation of peptides from Glycine-aspartic acid and Glycine-valine in aqueous environment and clay Suspension,

Authors: Chandra Kala Pant, Hemlata, M. S. Mehata, H. D. Pathak

Journal: International Journal of Astrobiology

Volume: 8(2)
Pages: 107–115
Year: 2009

2016

5. Adsorption of Bionanomolecules on Clay minerals in Relevance to Chemistry - Biology Interfacial Phenomenon,

Authors: Preeti Bhatt, Hemlata, C. K. Pant

Journal: J. Chem. Eng. Chem. Res.

Volume: 3(11)

Pages: 1075–1078

Year: 2016

2019

6. Thermal synthesis of Amino acid from the aqueous solution of Ammonium acetate in presence and absence of Silica and Alumina under drying - wetting cycles of primitive Earth

Authors: Hemlata Bhatt, Namrata Pandey, C. K. Pant

Journal: ISRO–Journal of Applied Chemistry

Volume: 12(8)

Pages: 67–73

Year: 2019

2020

7. Adsorption of Adenine (nucleic Acid Bases) on Metal Ferrocyanide in Relevance to Origin of Life

Authors: Namrata Pandey, Hemlata Bhatt, A. M. Painuly, R. Raturi

Journal: International Journal of Scientific & Technology Research

Volume: 8(10)

Year: 2020

8. Role of Transition Metal ferrocyanide in the Synthesis of Amino acid from Reaction System of CO₂, N₂ and water vapours under Hydrothermal conditions

Authors: Namrata Pandey, Hemlata Bhatt, C. K. Pant

Journal: International Journal of Scientific & Technology Research

Volume: 9(1)

Year: 2020

9. Surface Interaction of Montmorillonite clay and Cation-exchanged Montmorillonite with L-valine Amino Acid,

Authors: Hemlata Bhatt, Namrata Pandey, Chandra Kala Pant

Journal: International Journal of Innovative Research in Technology

Volume: 8(3)

Year: 2020

2022

10. Adsorption of L-Aspartic Acid onto Montmorillonite Clay and Cations Exchanged Montmorillonite Clays,

Authors: Bhatt Hemlata, Pant Chandra Kala

Journal: International Journal of Scientific Research and Reviews

Volume: 11(4)

Pages: 86–93

Year: 2022

(UGC care list no. 11424 and J. No. 63179).

2024

11. Montmorillonite cation incorporated synthesis of amino acids from methane–ammonia–water vapour.

Authors: Bhatt Hemlata, Pant Chandra Kala

Journal: IJSRR

Volume: 13(1)

Pages: 46–56

Year: 2024

2025

12. Investigating Metal Oxide - Catalysed Thermal Reaction for Prebiotic Peptides Synthesis: A Comparative Study

Authors: Hemlata Bhatt, Chandra Kala Pant

Journal: International Journal for Multidisciplinary Research (IJFMR)

Volume: 7(1)

Pages: 1–14

Year: 2025

2025

13. Eco-friendly Adsorption of Adenine on MMT: A Green Chemistry Approach to Prebiotic Surface Processes

Authors: Hemlata Bhatt

Journal: International Research Journal of Pure and Applied Chemistry (IRJPAC)

Volume: 26(6)

Pages: 160-170

Year: 2025

Workshops, Seminars & Conferences (Selected Highlights)

Participated in over 23 national and international seminars, conferences, symposia, and workshops between 2006–2020.

Major events include:

- Trombay Symposium on Radiation & Photochemistry (BARC), 2006
- International Conference on Photochemistry, 2007
- UCOST Science Congress (2007, 2008)
- International Workshop on Chemical Evolution & Origin of Life, IIT Roorkee, 2008
- National Seminars on Chemistry–Biology Interface (2010, 2011)
- International Conferences on Climate Change & Natural Resources (2019)
- Multiple national webinars and online research methodology events (2020)

Patents Filed and Granted as Co-Inventor

- Development of Solvent-Free Eco-Friendly Method for Isolating Heat-Stable Anthocyanins from High Altitude Himalayan Flora and Fauna (**Application No. 202411072426**). The patent application was filed on 25 September 2024 and published on 11 October 2024.
- AI-Integrated Microbial and Parasite Detector Device (**Application No. 481474-001**). The patent application was filed on 25 November 2025 and published on 14 January 2026.
- Nano Carrier-Based Chemical Composition for Targeted Therapeutic Molecule Delivery (**Application No. 202611049560A**). The patent application was filed on 18 April 2026 and published on 29 May 2026.

Other Activities

- Programme Officer, **National Service Scheme (NSS) Girls Unit**, 2019–2021
 - **Life Memberships:**
 - Indian Council of Chemists (LF/1807)
 - Indian Chemical Society
-

Updated: 31/05/26

Place: Haldwani

Signature: Dr Hemlata Bhatt