

# Curriculum Vitae

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## Mr. Amal Das

Assistant Professor  
Department of Chemistry  
Guwahati College  
Bamunimaidam, Guwahati-21, Assam  
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## Educational Qualification

**2002-2004**

**M.Sc. in Chemistry (Specialization: Organic Chemistry)**

Gauhati Univeristy, Guwahati, Assam, India

**1999-2002**

**B.Sc. in Chemistry**

GauhatiUniveristy, (B. Borooah College), Guwahati, Assam, India

## Research Profile



[Amal Das-Google Scholar](#)



[Amal Das-Researchgate](#)

## Awards/Fellowship Received:

- 1) Received **Best Poster Award (3<sup>rd</sup> Prize)** in 49<sup>th</sup> National Seminar on Crystallography (49<sup>th</sup>-NSC,2022) in Honour of Prof. T.N. Guru Row organized by The Chemical Crystallography Laboratory, University of Jammu, India from 28<sup>th</sup> to 30<sup>th</sup> November 2022.

## Research Interests:

Supramolecular chemistry, Computational chemistry, Anticancer drugs.

## Work Experience (in years):

	Institute	No. of years
Teaching	Guwahati College	14 + years (01/08/2008 to till date)

**Members of Scientific Bodies:** Life membership of Indian Crystallographic Association

# Curriculum Vitae

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## Publications:

1. "Synthesis, Structural Topologies and Anticancer Evaluation of Phenanthroline-based 2,6-Pyridinedicarboxylato Cu(II) and Ni(II) Compounds" *Polyhedron*, 2022, **213**, 115632. [Accepted: 30/11/2021] DOI:[10.1016/j.poly.2021.115632](https://doi.org/10.1016/j.poly.2021.115632)  
**Amal Das**, Pranay Sharma, Rosa M. Gomila, Antonio Frontera, Akalesh K. Verma, Bipul Sarma and Manjit K. Bhattacharyya
2. "Supramolecular Assemblies involving Biologically relevant Antiparallel  $\pi$ -stacking and Unconventional Solvent Driven Structural Topology in Maleato and Fumarato bridged Zn(II) Coordination Polymers: Antiproliferative Evaluation and Theoretical Studies" *New J. Chem.*, 2021,**45**, 13040-13055 [Accepted: 11/06/2021] DOI:[10.1039/D1NJ00619C](https://doi.org/10.1039/D1NJ00619C)  
**Amal Das**, Pranay Sharma, Antonio Frontera, Miquel Barcelo-Oliver, Akalesh K. Verma, Ruksana Sultana Ahmed, Sahid Hussain and Manjit K. Bhattacharyya
3. "Energetically significant nitrile...nitrile and unconventional C–H... $\pi$ (nitrile) interactions in pyridine based Ni(II) and Zn(II) coordination compounds: Antiproliferative evaluation and theoretical studies" *J. Mol. Struct.* 2021, **1223**, 129246. [Accepted: 10/09/2020] DOI:[10.1016/j.molstruc.2020.129246](https://doi.org/10.1016/j.molstruc.2020.129246)  
**Amal Das**, Pranay Sharma, Antonio Frontera, Akalesh K. Verma, Miquel Barcelo-Oliver, Sahid Hussain, Manjit K. Bhattacharyya
4. "Energetically Significant antiparallel  $\pi$ -stacking contacts in Co(II), Ni(II) and Cu(II) Coordination Compounds of Pyridine-2,6- dicarboxylates: Antiproliferative Evaluation and Theoretical Studies" *Inorganica Chimica Acta*, 2020,**501**, 119233. [Accepted: 28/10/2019] DOI:[10.1016/j.ica.2019.119233](https://doi.org/10.1016/j.ica.2019.119233)  
Manjit K. Bhattacharyya, Debajit Dutta, Swah Mohd. Nashre-ul-Islam, Antonio Frontera, Pranay Sharma, Akalesh K. Verma, **Amal Das**
5. "Unconventional DNA-relevant  $\pi$ -stacked Hydrogen bonded array involving supramolecular guest benzoate dimer and Cooperative anion–  $\pi/\pi$ - $\pi/\pi$ -anion contacts in Coordination Compounds of Co(II) and Zn(II) phenanthroline: Experimental and Theoretical studies" *New J. Chem.*, 2020, **44**, 4504. [Accepted: 09/02/2020]

## Curriculum Vitae

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DOI:[10.1039/C9NJ05727G](https://doi.org/10.1039/C9NJ05727G)

Manjit K. Bhattacharyya, Utpal Saha , Debajit Dutta , Antonio Frontera , Akalesh K. Verma, Pranay Sharma , **Amal Das**

6. “Energetically significant unconventional O–H···  $\pi$  Contacts involving Discrete Guest (H<sub>2</sub>O)<sub>8</sub> Clusters in a Fumarato bridged Polymeric Supramolecular Host of Ni(II) Phenanthroline: Antiproliferative Evaluation and Theoretical studies” *Polyhedron*, 2020, **176**, 114266. [Accepted: 09/11/2019] DOI:[10.1016/j.poly.2019.114266](https://doi.org/10.1016/j.poly.2019.114266)  
Hiren Nath, Pranay Sharma , Antonio Frontera, Akalesh K. Verma, **Amal Das**, Miquel Barceló-Oliver, Manjit K. Bhattacharyya
7. “Solvent-driven structural topology involving energetically significant intra- and intermolecular chelate ring contacts and anticancer activities of Cu(II) phenanthroline complexes involving benzoates: experimental and theoretical studies” *RSC Advances* 2019, **9**, 16339. [Accepted: 15/05/2019] DOI:[10.1039/c9ra01181a](https://doi.org/10.1039/c9ra01181a)  
Manjit K. Bhattacharyya, Utpal Saha, Debajit Dutta, **Amal Das**, Akalesh K. Verma, Antonio Frontera
8. “Energetically significant unconventional  $\pi$ - $\pi$  contacts involving fumarate in a novel coordination polymer of Zn(II): In-vitro anticancer evaluation and theoretical studies” *Inorganica Chimica Acta*, 2019, **493**, 1. [Accepted: 25/04/2019] DOI:[10.1016/j.ica.2019.04.047](https://doi.org/10.1016/j.ica.2019.04.047)  
Anshuman Gogoi, Amal Das, Antonio Frontera, Akalesh K. Verma, Manjit K. Bhattacharyya
9. “Mixed ligand cobalt (II) complex as an efficient catalyst for oxidative deoxygenation using hydrogen peroxide” *Indian Journal of Chemistry*, 2010, **49B**, 1140 [Accepted: 20/03/2010] Pranab J Das, **Amal Das**, Akashi Baruah

### **Paper (Poster) Presented in Seminar / Conference /Symposium:**

1. Presented a poster entitled “Supramolecular Assemblies, Computational Studies and Antiproliferative activities of Phenanthroline-based Metal-organic Cu(II) and Ni(II) Pyridinedicarboxylates” at 49<sup>th</sup> National Seminar on Crystallography (49<sup>th</sup>-NSC,2022) organized by The Chemical Crystallography Laboratory, University of Jammu, India on 28-30 November 2022.

## Curriculum Vitae

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2. Presented a poster entitled **“Supramolecular assemblies in Ni(II) and Zn(II) Coordination Compounds involving Unconventional nitrile based interactions: Antiproliferative Evaluation and Theoretical Studies”** at **Sixth Conference (virtual) of Bangladesh Crystallographic Association** on **15-16 January 2021**.
3. Presented a poster entitled **“Unconventional nitrile based Supramolecular assemblies in Ni(II) and Zn(II) Coordination Compounds: Antiproliferative Evaluation and Theoretical Studies”** at **2nd International Conference on Future Aspects of Sustainable Technologies (FAST 2.0)**, Department of Chemistry, Central Institute of Technology Kokrajhar (Deemed to be University MHRD, Govt. of India), Kokrajhar, Assam, India, on **20-21 October 2020**.
4. Presented a poster entitled **“Unconventional Supramolecular contacts involving nitrile in Pyridine based Ni(II) and Zn (II) Coordination Compounds : Antiproliferative Evaluation and Theoretical Studies”** in the **National Seminar “Science for Sustainable Development “** organized by Department of Chemistry , B.Borooah College in association with Assam Science Technology & Environment Council (ASTEC), Department of Science & Technology, Govt. of Assam on **25-26 September 2020**.
5. Presented a poster entitled **“Solvent Driven Structural Topology in Cu(II) Phenanthroline Complexes: Antiproliferative Evaluation and Theoretical Studies”** in International Conference on **“Emerging Trends in Chemical Sciences” (ETCS-2020)** organized by Gauhati University on **13– 15 February, 2020**.
6. Presented a poster entitled **“Energetically favorable anti-electrostatic hydrogen bonded cationic clusters in Ni(II) 3,5-DimethylPyrazole Complexes: Anticancer Evaluation and Theoretical Studies”** in International Conference on **“Modern Trends in Inorganic Chemistry” (MTIC XVIII)** organized by IIT, Guwahati on **11-14 December, 2019**.
7. Presented a poster entitled **“Effect of Solvent in the Structural Topology of Cu(II) Phenanthroline Complexes involving Energetically Significant Intra and Intermolecular Chelate Ring Contacts: Anticancer Evaluation and Theoretical studies”** in International Conference on **“Future Aspects of Sustainable Technologies” (FAST 2019)** organized by CIT, Kokrajhar on **11-12 November, 2019**.
8. Presented a poster entitled **“Energetically significant unconventional  $\pi$ - $\pi$  contacts**

## Curriculum Vitae

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**involving fumarate in a novel coordination polymer of Zn(II): Anticancer Evaluation and Theoretical studies”** in TEQIP-III sponsored National Conference on **“Recent Advances in Applied Sciences”** (RAAS’19) at Gauhati University 17-18<sup>th</sup> May, 2019.

9. Presented a poster at **International Symposium** on **“Advances in Chemical Sciences 2012”** organized by IIT, Guwahati and the Royal Society of Chemistry, UK on 30<sup>th</sup> January, 2012.

### **Faculty Development Programmes / Short Term Course (STC) Attended:**

1. Attended **One Week Online National Faculty Development Program** on **“Use of ICT Tools for Enhancing Quality of Higher Education in India”** from **09-15 February 2022** jointly organized by Khandesh College Education Society’s College of Engineering and Management, Jalgaon and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNM**TT) of Ministry of Education. [UNIQUE CERTIFICATE No : OFDP-73/085]
2. Attended **One Week Online National Faculty Development Program** on **“Developing Positive Mental Health for Teaching-Learning Environment”** from **25-31 January 2022** organized by Guru Angad Dev Teaching Learning Centre, a Centre under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNM**TT) of Ministry of Education, SGTB Khalsa College, University of Delhi. [UNIQUE CERTIFICATE No: OFDP-71/015]
3. Attended **UGC Sponsored Online Short Term Course** on **“How to develop e-content for Online Teaching”** from **06-12 November 2021** organized by UGC Human Resource Development Centre, **Aligarh Muslim University**, Aligarh. [E-Certificate No. S. No./21-22/STC-EC-31]
4. Attended **One Week Online National Faculty Development Program** on **“Strengthening Academic & Research Pursuit in the 21st Century”** from **28 June-04 July 2021** jointly organized by Department of Chemistry and Biochemistry, School of Basic Sciences and Research, Sharda University, Greater Noida and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNM**TT)

## Curriculum Vitae

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of Ministry of Education. [UNIQUE CERTIFICATE No : GAD-TLC/21-22/OFDP47/009]

5. Attended **TEQIP III Sponsored One week Short Term Course** on “**Intellectual Property Rights**” from **07-11 September 2020** organized by Department of Chemistry, Dr. B. R. Ambedkar National Institute of Technology Jalandhar.[ CERTIFICATE No 4XASCI-CE000301]
6. Attended **7-Days Faculty Development Programme** from 08-15 June 2020 organized by SNMV College of Arts Science Institute of Management,
7. Attended **One Week Faculty Development Program** on “**Online Teaching & Learning in India**” from **17-22 June 2020** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNTT**) of MHRD in collaboration with **Bodoland University**, Assam. [UNIQUE CERTIFICATE No: GAD-TLC/2020-21/OFDP7/7278]
8. Attended **One Week International Faculty Development Programme** on “**Skilling Teachers for Online Education**” from **02-06 June 2020** organized by **Uka Tarsadia University**.
9. Attended **2 weeks UGC- Sponsored Refresher Course** on “**ICT & MOOC (IDC)**” from **04-17 July 2019** organized by **HRDC, Gauhati University**.

### Training Courses, Seminar, Workshop Attended:

1. Workshop on “**Plagiarism and Reference Management**” organized by Department of Economics, Guwahati College in association with IQAC, Guwahati College on 3rd January, 2019.
2. National Workshop on “**Research Methodology**” organized by IQAC, Guwahati College on 7-13 June, 2018.
3. Workshop on “**Training of Trainers on Gender Equity**” organized by RGNIYD in collaboration with KKHSOU at Guwahati College on 8-10 January, 2018.
4. Master Training Workshop on “**Implementing ICT in Higher Education**” Organized by B. Borooah College in association with Spoken Tutorial IIT Bombay on 18th May, 2017.
5. National Seminar on “**Human Rights & Global Challenges**” Organized by IQAC, Guwahati College on 20-21 May, 2017.

## Curriculum Vitae

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6. National Seminar on “**Gender Sensitisation and Women Empowerment: issues and Challenges**” Organized by IQAC, Guwahati College 25-26 June, 2016.
7. Seminar on “**Non-Conventional Sources of Energy: Prospects and Challenges**” (NCSE’16) organized by Royal Group of Institutions on 30th January, 2016.
8. National Workshop on “**Setting of Question Papers and Evaluation of Answer Scripts in Higher Education: Issues and challenges**” organized by Nagaon GNDG Commerce College on 29th April, 2015.
9. National Seminar on “**Issues on Economics of Education with Special Reference to North East India**” organized by Department of Economics, Guwahati College in collaboration with Gyanam Educational Trust Society on 16-17 June, 2013.
10. Science Academies’ **Lecture Workshop on “Modern Trends in Chemistry and Chemistry Education**” organized by University of North Bengal, West Bengal on 22-23 November, 2012.

### **Professional & Academic Responsibilities Taken:**

1. **Member of Organizing committee of National Conference** on “Green, Sustainable And Evolving Sciences” (GSES-2019) at Cotton University on 28-29 June, 2019.
2. **Nodal Teacher**, Guwahati College Scholarship Unit (NSP).
3. **Core Committee Member** of Guwahati College Admission Committee.
4. **Convener** of College Website and Online Services Management Cell.
5. **External Evaluator** of “GUNOTSAV-2023”, an initiative of the Government of Assam.
6. **Member of Examination Committee** of Guwahati College from 2020-2022.