

Curriculum Vitae

Dr. ABDUL ASHIK KHAN (W. B. E. S.)

Designation in (subject): Assistant Professor, Department of Chemistry

Darjeeling Government College, Darjeeling, West Bengal

Highest qualification: M. Sc, Ph.D. (Organic Chemistry)

Contact details/ Office address: Department of Chemistry,
Darjeeling Government College, Darjeeling,
West Bengal, Pin-734101



Vidwan ID: 391346

Email id: abdulashik0@gmail.com

Date of joining to this institution: 01.10.2020.

Date of joining W.B.E.S.: 01.10.2020.

Previous position(s) held/ Additional charges: Nil

Teaching experience in years & months: 3.6 Years.

Fellowship, Awards, Recognition and Honours (if any): Nil

Courses taught:

- Under graduate (Honours & Programme)
- In the UG level, my teaching area are organic chemistry, analytical chemistry and polymer chemistry for UG course.
- Laboratory Experiments based on organic chemistry, analytical chemistry and polymer chemistry for UG course.

Research area/ interest:

- Development of catalyst for the conversion of CO₂ to the valuable fuels and chemicals with DFT.
- Development of green methodology for multi-component reaction (MCR).
- Design new synthetic pathway for the formation of highly functionalised quinazoline derivatives.
- Molecular Docking study with Auto-dock vina, Swiss Dock and iGEMDock with Molecular Dynamics in GROMACS programme.

List of publications:

1. "Microwave Promoted Y(NO₃)₃.6H₂O Catalyzed Biginelli Synthesis Of Dihydropyrimidin-2-Ones and Mechanistic Investigation" **Abdul Ashik Khan**, Kanchan Mitra, Mohabul A Mondal. *Asian Journal of Chemistry* 2017, 29, 529-534. **Impact Factor: 0.535**
DOI: [10.14233/ajchem.2017.20219](https://doi.org/10.14233/ajchem.2017.20219)

2. "Yttrium nitrate Catalyzed Synthesis and Photophysical Study of 2,3-Dihydroquinazolin-4(1H)-ones"
Abdul Ashik Khan, Kanchan Mitra, Abhijit Mandal, Nabajyoti Baildya, Mohabul A Mondal.
Heteroatom Chemistry July 2017, Issue 4, Volume 28. **Impact Factor: 1.32**
DOI: [10.1002/hc.21379](https://doi.org/10.1002/hc.21379)
3. "Tetrazole 5-Acetic Acid Catalyzed Synthesis and Photophysical Study of 2-aryl-2,3-dihydroquinolin-4(1H)-ones". Mohabul Alam Mondal, **Abdul Ashik Khan**; Kanchan Mitra; *Letters in Organic Chemistry*, September 2018. **Impact Factor: 0.867**
DOI: [10.2174/1570178615666180904110642](https://doi.org/10.2174/1570178615666180904110642)
4. "Iron (III)-catalyzed Selective Direct Olefination of Dihydropyrimidinone with Aromatic Aldehyde". Mohabul A Mondal, **Abdul Ashik Khan**, Kanchan Mitra, *Journal of Chemical Sciences*. November 2018. **Impact Factor: 1.573**
DOI: [10.1007/s12039-018-1543-z](https://doi.org/10.1007/s12039-018-1543-z)
5. "A mechanistic insight into the acid catalysed, one-pot synthesis of isoindole-fused quinazolin 4-ones"
Mohabul A Mondal, Sudipta Mondal, **Abdul Ashik Khan**. *Journal of Chemical Sciences*. November 2019. **Impact Factor: 1.573**
DOI: [10.1007/s12039-020-01768-3](https://doi.org/10.1007/s12039-020-01768-3)
6. "Screening of potential drug from Azadiractha Indica (Neem) extracts for SARS-CoV-2: An insight from molecular docking and MD-simulation studies" Nabajyoti Baildya, **Abdul Ashik Khan**, Narendra Nath Ghosh, Tanmoy Dutta, Asoke P. Chattopadhyay. *Journal of Molecular Structure*. October 2020. **Impact Factor: 3.841**
DOI: <https://doi.org/10.1016/j.molstruc.2020.129390>
7. "Inhibitory efficiency of potential drugs against SARS-CoV-2 by blocking human Angiotensin converting enzyme-2: Virtual screening and molecular dynamics study." **Abdul Ashik Khan**, Nabajyoti Baildya, Tanmoy Dutta, Narendra Nath Ghosh, *Microbial Pathogenesis*. Volume 152, March 2021, 104762. **Impact Factor: 3.79**
DOI: <https://doi.org/10.1016/j.micpath.2021.104762>
8. Screening of potential anti-HIV compounds from *Achyranthes aspera* extracts for SARS-CoV-2: An insight from molecular docking study. Tanmoy Dutta, Sajal Ghorai, **Abdul Ashik Khan**, Nabajyoti Baildya, Narendra Nath Ghosh, *J. Phys.: Conf. Ser.* March 2021. **Impact Factor:**
DOI: <https://doi.org/10.1088/1742-6596/1797/1/012042>
9. "Inhibitory efficacy of RNA virus drugs against SARS-CoV-2 proteins : An extensive study." Manab Mandal, Swapan Kumar Chowdhury, **Abdul Ashik Khan**, Nabajyoti Baildya, Narendra Nath Ghosh, Tanmoy Dutta, Debabrata Misra. *Journal of Molecular Structure*. Volume 1234, 15 June 2021, 130152. **Impact Factor: 3.841**
DOI: <https://doi.org/10.1016/j.molstruc.2021.130152>
10. 'Inhibitory effect of anti-HIV compounds extracted from Indian medicinal plants to retard the replication and transcription process of SARS-CoV-2: an insight from molecular docking and MD-simulation studies.' Tanmoy Dutta, Nabajyoti Baildya, **Abdul Ashik Khan**, Narendra Nath Ghosh.

Network Modeling Analysis in Health Informatics and Bioinformatics, August 2020. **Impact Factor: 2.045**

DOI: <https://doi.org/10.1007/s13721-021-00309-3>

11. “Comparative study of CO₂ activation on alkali metals encapsulated III–V hollow nanocages: an insight from first-Principles Calculations.” Rituparna Maiti, Narendra Nath Ghosh, **Abdul Ashik Khan**, Nabajyoti Baildya, Dilip K Maiti. *Physics Letter A*, August 2021. **Impact Factor: 2.707**
DOI: [10.1016/j.physleta.2021.127554](https://doi.org/10.1016/j.physleta.2021.127554)
12. “Novel Coronavirus Disease (COVID-19): An extensive study on evolution, global health, drug targets and vaccines.” **Abdul Ashik Khan**, Tanmoy Dutta, Palas Mondal, Manab Mandal, Swapan Kumar Chowdhury, Minhajuddin Ahmed, Nabajyoti Baildya, Sourav Mazumdar, Narendra Nath Ghosh. *International Journal of Clinical Virology*, July 2021. **Impact Factor: 0**
DOI: <https://doi.org/10.29328/journal.ijcv.1001036>
13. “Exhaled Volatile Organic Compounds (VOCs) : A potential biomarkers for chronic disease diagnosis.” Palas Mondal, Debabrata Misra, Tanmoy Dutta, Nabajyoti Baildya, **Abdul Ashik Khan**, Manab Mandal, Swapan Kumar Chowdhury, Rahimasoom Reza, Minhajuddin Ahmed, Vivekananda Mandal, Narendra Nath Ghosh, *Scientific Journal of Biology*, July 2021. **Impact Factor: 0**
DOI: [10.13140/RG.2.2.10135.50083](https://doi.org/10.13140/RG.2.2.10135.50083)
14. “CO₂ activation on transition metal decorated graphene quantum dots: An insight from first principles.” Kinkar Ghosh, **Abdul Ashik Khan**, Tanmoy Dutta, Nabajyoti Baildya, Kinkar Biswas, Narendra Nath Ghosh. *Physica E: Low-dimensional Systems and Nanostructures*, Volume 135, January 2022, 114993. **Impact Factor: 3.369**
DOI: [10.1016/j.physe.2021.114993](https://doi.org/10.1016/j.physe.2021.114993)
15. “Synthesis of Functionalized Quinazolinones via Acid-Catalyzed Redox Neutral Reaction.” Mohabul Alam Mondal; Sudipta Mondal; **Abdul A. Khan**. *Chemistry Select*. 2021. **Impact Factor: 2.307**
DOI: [10.1002/slct.202102976](https://doi.org/10.1002/slct.202102976)
16. “Repurposing of anti-lung cancer drugs as multi-target inhibitors of SARS-CoV-2 proteins: an insight from molecular docking and MD-simulation study.” Rahimasoom Reza; Tanmoy Dutta; Nabajyoti Baildya; Narendra Nath Ghosh; **Abdul Ashik Khan**, Dr. Rajesh Kumar Das. *Microbial Pathogenesis*, June 2022. **Impact Factor: 3.79**
DOI: [10.1016/j.micpath.2022.105615](https://doi.org/10.1016/j.micpath.2022.105615)
17. “Influence of ortho group in rhodamine B hydrazide based Schiff base for selective recognition of Cu²⁺ and Fe³⁺ ions: A mechanistic approach by DFT and colorimetric studies.” Mintu Thakur, Kingkar Ghosh, Narendra Nath Ghosh; **Abdul Ashik Khan**, *Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy* 290:122271, December 2022. **Impact Factor: 4.48**
DOI: [10.1016/j.saa.2022.122271](https://doi.org/10.1016/j.saa.2022.122271)
18. “Comparative study of the efficiency of Silicon carbide, Boron Nitride and Carbon nanotube to deliver cancerous drug, Azacitidine: An insight from first principles” Palas Mondal, Manab Mandal, Swapankr Chowdhury, **Abdul Ashik Khan**, Tanmoy Dutta, Nabajyoti Baildya, Rahimasoom Reza, Sourav

Majumdar, and Narendra Nath Ghosh. *Computers in Biology and Medicine*. April 2022. **Impact Factor: 6.698**

DOI: [10.1016/j.combiomed.2023.106593](https://doi.org/10.1016/j.combiomed.2023.106593)

19. “Comparative study of electron transfer dynamics in Re(I)-polypyridyl Cd-chalcogenide nanocomposites for high-performance dye-sensitized solar cells” Subhankar Choudhury, **Abdul Ashik Khan**, Subhadeep Saha, Narendra Nath Ghosh, *Structural Chemistry*, 2023. **Impact Factor: 1.4**

DOI: [10.1007/s11224-023-02187-z](https://doi.org/10.1007/s11224-023-02187-z)

20. “Activity of pure flavonoid-based green silver nano particles against breast cancer: A combined experimental and computational investigation”. Tanmoy Dutta, Atanu Maity, **Abdul Ashik Khan**, Narendra Nath Ghosh; *Journal of Molecular Structure*. 2024. **Impact Factor: 3.841**

DOI: [10.1016/j.molstruc.2024.138348](https://doi.org/10.1016/j.molstruc.2024.138348)

BOOK CHAPTER:

1. Green chemistry: Effectiveness and multidimensional applications: Tanmoy Dutta, Sandip Mondal, Sudipta Kr Kundu, **Abdul Ashik Khan**; First Published, 2021; ISBN: 978-93-91681-17-3; Published by : *Bharti Publications*; New Delhi- 110002 (INDIA).

2. Preparation of ZnO/chitosan nanocomposite and its applications to durable antibacterial, UV-blocking and textile properties. Tanmoy Dutta, **Abdul Ashik Khan**, Nabajyoti Baildya, Narendra Nath Ghosh. September 2022; DOI:10.1007/978-3-031-13343-5_6; In book: *Biodegradable and Environmental Applications of Bio-nanocomposites* (pp.169-187)

3. Microalgae: Utilities and Production for Commercialization. Joydeep Chakraborty, Debabrata Misra, Tanmoy Dutta, **Abdul Ashik Khan**. First Published, 2022; ISBN: 978-3-96492-304-2; Published by: *Weser Books*; 02763 Zittau, GERMANY.

4. Application of Nanotechnology for energy, **Abdul Ashik Khan**, Tanmoy Dutta, Sudipta Kr Kundu, Sandip Mondal, First Published, 2021; ISBN: 978-93-91681-74-6; Published by : *Bharti Publications*; New Delhi- 110002 (INDIA).

PRESENTED POSTER ON:

1. “Application of $Y(NO_3)_3 \cdot 6H_2O$ as a versatile catalyst for organic transformation” in the International Symposium on “Chemistry for the Human Welfare” held on 07 April 2017 organized by Department of Chemistry, University of Gour Banga, Malda.
2. “Designing, Synthesis and Biological study of Quinazoline Derivative as Tyrosine Kinase Inhibitor” in the “National Levels Seminar on Current Research in Biological and Biomedical Sciences” held on 09 Feb 2016 organized by Department of Zoology, University of Gour Banga, Malda.
3. “Designing, Synthesis and Biological Study Of Pyrimidinone Derivative As Tyrosine Kinase Inhibitors” in the “National Symposium In Chemical Sciences” held on 12 March 2016 organized by Department of Chemistry, University of Gour Banga, Malda.

4. "Tetrazole 5-Acetic Acid Catalysed Synthesis of 2-Aryl-2,3-Dihydroquinolin-4(1*H*)-ones and Study of Antibacterial Activity" in the International Seminar on "Frontiers in Chemistry 2018" held on 27 August 2018 organized by Department of Chemistry, University of North Bengal, Darjeeling.
5. "Tetrazole 5-Acetic Acid Catalyzed Synthesis and Photophysical Study of 2-aryl-2,3-dihydroquinolin-4(1*H*)-ones" in the National Symposium on "Emerging trends in Chemical Sciences (NSETCS-2018)" held on 17-18 November 2018 organized by Department of Chemistry, Banaras Hindu University, Uttar Pradesh.
6. "Comparative study of CO₂ activation on alkali metals encapsulated III–V nano cages: An Insight from first-Principles Calculations" in the International Conference on Chemistry for Human Development (ICCHD-2020) held on 9-11 January 2020 organized by Department of Chemistry, University of Calcutta, Kolkata.
7. "Screening of potential anti-HIV compounds from *Achyranthes aspera* extracts for SARS-CoV-2: An insight from molecular docking study" in the International Online Conference on Engineering Response to COVID-19 at JIS College of Engineering, Kalyani, held during 8-9, October 2020.

WORKSHOP ATTENDED:

1. Indian Chemical Society Lecture Workshop on "Modern Trends in Chemistry – Teaching and Research" held on 17-18 February, 2018 organized by the Department of Chemistry, Malda College, Malda.
2. Science Academies' Education Programmes Workshop on "Advances in Chemistry Education and Research" held on 23-24 July, 2015 organized by Department of Chemistry, University of Gour Banga, Malda.
3. Trends in Surface Science and Related Areas (TSSRA) V held on 6th December, 2008 organized by Department of Chemistry, University of North Bengal, Darjeeling.
4. "Recent Trends in Chemistry" held on 16th October, 2020 organized by Department of Chemistry, University of North Bengal in collaboration with Chemical Research Society of India, North Bengal Local Chapter.

CONFERENCE PAPER:

- SERS and DFT study of 1*H*-2(Phenylazo) imidazole Abdul Ashik Khan, Washim Hossain, Dilip K Debnath, C R Sinha, M Ghosh and Uttam K Sarkar Conference: International Conference on Laser Spectroscopy (ICOLS)At: Beerkeley, California, USA, June 2013.
- "Screening of potential anti-HIV compounds from *Achyranthes aspera* extracts for SARS-CoV-2 : An insight from molecular docking study" in the International Online Conference on Engineering Response to COVID-19 at JIS College of Engineering, Kalyani, held during 8-9, October 2020.

RESEARCH ARTICLE REVIEWER:

No. of research article reviewed	Name of the Journals
5	1. Vegetos (Springer Nature) 2. Scientific Reports (Nature) 3. Journal of Molecular Modeling; (Springer Nature) 4. Trends in Horticulture (EnPress) 5. BMC Research Notes (Springer Nature)

Google Scholar link/ / ORCID ID ((if any): <https://orcid.org/0000-0002-4411-5462>

ResearchGate link: <https://www.researchgate.net/profile/Abdul-Khan-129>

Details regarding participation in FIP/OP/RC:

Sl. No.	Programme	Duration	Organized by
1.	UGC-Sponsored Refresher Course in Chemistry	16 th March to 31 st March 2021	University of Calcutta
2	UGC-Sponsored 4 th Faculty Induction Programme (Guru Dakshta)	31 st September 2021 to 7 th October 2021	Jadavpur University, Kolkata

Academic Membership: Nil