Personal Profile

Dr. Dwipen Kakati

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Educational Profile

Ph.D.	Dibrugarh University, Dibrugarh, Assam, INDIA (2012) Supervisor: Dr. N. C. Barua, CSIR NEIST, Jorhat, Assam, INDIA
M.Sc.	Gauhati University, Guwahati, Assam, INDIA (2006) Subject: Chemistry Specialization: Organic Chemistry
B.Sc.	Gauhati University, Guwahati, Assam, INDIA (2004) Subject: Chemistry

Professional Experience

Assistant Professor, Department of Chemistry, Rajiv Gandhi University, Arunachal Pradesh, India	October, 2016-till date

Administrative Experience

Member, Campus Maintenance Committee, Rajiv Gandhi University	January 2021-till date
Member, Departmental Council, Department of Chemistry, Rajiv Gandhi University	October 2020-till date
Member, Purchase and Tender Opening Committee (Scientific Equipment), Rajiv Gandhi University	April 2020-Dec 2020

Membership of Professional Bodies

1. Life member, The Association of Chemistry Teachers, Homi Bhaba Centre for Science Education, Tata Institute of Fundamental Research, Mumbai

Research Interests

- Isolation and characterization of new bioactive molecules from natural (plant) sources and their semisynthetic modification for beneficial applications.
- Development of environmentally benign methodologies for synthesis of fine chemicals with broad substrate scope and selectivity.
- Plant mediated synthesis of metal nanoparticles and their catalytic applications.

Research Publications

1. Green chemical synthesis of Pd nanoparticles for use as efficient catalyst in Suzuki-Miyaura cross coupling reaction: Phukan, S.; Mahanta, A.; Kakati, D.; Rashid, M. H.; *Appl. Organomet. Chem.* **2019**, *33*, e4758.
2. Use of Invasive Weed to Synthesize Shape-Tunable Gold Nanoparticles and Evaluation of their Catalytic Activities in Dye Reduction: Phukan, S.; Kakati, D.; Rashid, M. H.; *Curr. Nanosci*. **2018**, *14*, 511–519.
3. Phytochemical investigation of four legume plants with detergent and anti-lice properties from Eastern Himalayan regions of India: Bharali, P.; Gamo, Y.; Das, A. K.; Tag, H.; Baruah, A. M.; Kakati, D.: *Curr. Sci.* **2017**, *113*, 1434–1439.
4. Ethnopharmacognosy and Nutritional Composition of *Stemona tuberosa* Lour.: A potential Medicinal Plant from Arunachal Pradesh, India: Bharali, P.; Gamo, Y.; Das, A. K.; Tag, H.; Kakati, D.; Baruah, A. M.; *J. Bioresources* **2015**, *2*, 23–32.
5. Total synthesis and assignment of the absolute stereochemistry of xanthoangelol J: development of a highly efficient method for Claisen-Schmidt condensation: Kakati, D.; Barua, N. C.; *Tetrahedron* **2014**, *70*, 637–642.
6. Rapid microwave assisted synthesis and antimicrobial bioevaluation of novel steroidal chalcones: Kakati, D.; Sarma, R. K.; Saikia, R.; Barua, N. C.; Sarma, J. C.; *Steroids* **2013**, *78*, 321–326.
7. Microwave Assisted Solvent free Synthesis of 1,3-Diphenyl Propenones: Kakati, D.; Sarma, J. C.; *Chem. Cent. J.* **2011**, *5*, 8.
8. Iodine-Alumina Catalyzed Aza-Michael Addition under Solvent-Free Conditions: Saikia, M.; Kakati, D.; Joseph, M. S.; Sarma, J. C.; *Lett. Org. Chem.* **2009**, *6*, 654–658.

Book/Book Chapter published

1. Kakati, D.; Goswami, M. J.: Silver metal nanoparticles: green synthesis and promising bioactivities in *Reflection,* Eds. Kalita, U., Kakati, D., Patgiri, D, Purbayon Publication, Guwahati, 2019, pp 68–74.

Research guidance

Ph.D scholar

1. Full name of the Scholar: **Ms. Tage Seema**

   Topic of research: *A quest for bioactive molecules from selected medicinal plants of North East India*

   Year of PhD degree: Ongoing

2. Full name of the Scholar: **Mr. Utpal Dutta**

   Topic of research: *Investigation towards natural and synthetic organic compounds of biological relevance*

   Year of PhD degree: Ongoing

3. Full name of the Scholar: **Mr. Manab Jyoti Goswami**

   Topic of research: *Phytochemical investigation and bioactivity studies of selected medicinal plants of North East India*

   Year of PhD degree: Ongoing

Course/Conference/Workshop organized

1. Science academies' lecture workshop on '*Medicinal Chemistry and Natural Products: Approaches towards New Drug Discovery*' organized by Department of Chemistry, Rajiv Gandhi University, Arunachal Pradesh

   Duration: 25-27 September, 2019

   Role: Coordinator

2. The Salters' Chemistry Camp at Rajiv Gandhi University, Arunachal Pradesh

   Duration: 29-31 January, 2019

   Role: Coordinator

Course/Conference/Workshop etc. attended

1. Completed the Annual Refresher Programme in Teaching (ARPIT) via SWAYAM, MHRD, Govt. of India during September 01-December 31, 2019.

2. Completed UGC-Sponsored Orientation Programme (OP-118) at UGC-Human Resource Development Center, Gauhati University, Guwahati during December 15, 2018 - January 11, 2019.

3. Delivered talk in Entrepreneurship Development Programme on "*Rapid Water Cleaning Using Bio-Resources and other Low-Cost Materials in Arunachal Pradesh*" organized by Center for Entrepreneurship & Department of Chemistry, Rajiv Gandhi University in collaboration with EDII, Ahmedabad during October 23–November 23, 2017 as a resource person

   Title of the presentation/talk: '*An introduction to High Performance Liquid Chromatography (HPLC) and Gas chromatography (GC) and their applications'*

4. Delivered talk and technical sessions in a seven-day workshop "*Perspective traditional herbal therapy to Modern Drug Discovery*" at Department of Biotechnology, Gauhati University, Guwahati, organized by Institutional Biotech Hub, Gauhati University and Guwahati Biotech Park, Guwahati during May 22–28, 2017 as a resource person.

   Title of the presentation/talk: *'Modern Methods of Natural Products Extraction'*

5. Delivered invited Young Scientist Lecture at a National Symposium "*Natural Product Chemistry: Prospects and Perspectives (NPPP-2016)*" organized by Chemical Research Society of India (CRSI), North East Chapter in collaboration with CSIR-North East Institute of Science and Technology, Jorhat during March 21–22, 2016.

   Title of the talk: *'Synthesis of noble metal nanoparticles using common weeds of Arunachal Pradesh and their application in C–C cross-coupling reactions'*

Sponsored Project

Title of the project	**Funding agency**	**Year of sanction**	**Role**
Quest for Cancer Drugs: Screening and Bioassay Guided Phytochemical Investigation of Selected Endemic Medicinal Plants of Eastern Himalaya	DBT-New Delhi	2018	PI
Synthesis and bioactivity studies of novel carbohydrate derivatives over chalcone scaffold	UGC-New Delhi	2018	PI