

RESUME

SAMIK NANDA

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OBJECTIVE

To carry out challenging and cutting edge research in an academic setting utilizing my experience in asymmetric organic synthesis related knowledge.

HIGHLIGHTS OF QUALIFICATIONS

- Extensive research experience in organic synthesis: Total synthesis of biologically active complex natural products of marine origin.
- Chemoenzymatic synthesis: Application of enzyme based asymmetric transformations in organic synthesis such as EKR (enzymatic kinetic resolution), EED (Enantioselective enzymatic desymmetrization), ME-DKR (metal enzyme combined dynamic kinetic resolution).
- Research experience in combinatorial chemistry: Operating knowledge in MOS for the parallel synthesis of small molecular libraries both in solid phase as well as liquid phase.
- Screening for novel plant and microbial enzymes in asymmetric organic synthesis.

EDUCATION

Ph.D. / Organic Synthesis

Indian Institute of Chemical Technology, Hyderabad, India, 2002

Thesis: **Application of enzymes in organic synthesis** (Advisor: Dr. J. S. Yadav)

M. Sc. / Organic Chemistry

Thesis: "Application of a novel 1, 4 dipolar synthon in organic synthesis"

Indian Institute of Technology, Kharagpur, India, 1997

EXPERIENCE

1. **2006 April-Onwards, Department of Chemistry, IIT-Kharagpur**, Assistant Professor. **Research area:** Total synthesis of natural products, Combinatorial biocatalysis, Asymmetric synthesis, Highthroughput screening & assay for novel enzymes.

2. 2004 June- Onwards **Biotechnology Research Center**, Toyama Pref Univ, Japan. Post Doctoral Research Associate (JSPS) with **Prof. Y. Asano**. Screening for novel plant and microbial enzymes in asymmetric synthesis.
3. 2002 -2004 **Department of Chemistry**, Texas A & M University, College Station, Texas, USA. **Postdoctoral Research Associate** (With Prof. **A. Ian. Scott**). Genetically engineered synthesis of Taxoids. Design and synthesis of glycouril based templates for efficient intramolecular Carbon-Carbon bond forming condensation reaction.
4. 1997-2002 **Indian Institute of Chemical Technology Doctoral Research (Thesis title: Application of enzymes in organic synthesis)**
Explored the synthetic utility of several enzymes mainly hydrolase's and oxidoreductase. Developed new methods for asymmetric hydroxylation with lipoxygenase, reduction of prochiral ketones. Synthesized some biologically active arylethanolamine drugs e.g., Denopamine, Tembamide and Ageniline.

AFFILIATIONS

Young associates of the Indian Academy of Sciences, Bangalore (2010)
American Chemical Society (Member)
Sigma Xi (Member)
JSBBA (Japan society for bioscience bioengineering and agrochemistry)
BCJ (Biocatalysis society of Japan)

No of PhD students produced: 5