

Name **DR. ASISH K. BHATTACHARYA**

Division ORGANIC CHEMISTRY

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Subjects Natural products chemistry/Synthetic organic chemistry

Education and experience

- Ph.D. (Chem.): CIMAP, Lucknow, 1998 (Advisor: Dr. Ram P. Sharma, FASc)
- DAAD Post-Doctoral research in the group of Prof. Dr. R. R. Schmidt, Universitaet Konstanz, Germany (1999-2001)
- Scientist, Division of Organic Chemistry, NCL, Pune (2005-till date)

Achievements

- Fellow, Maharashtra Academy of Sciences (2012).
- Young Scientist Award of *Council of Science & Technology*, Ministry of Science & Technology, Government of Uttar Pradesh (2003).
- DAAD Post-Doctoral Fellowship (1999-2001).
- CSIR Shield for Process Technology for developing a production technology of antimalarial drug, artemisinin from the plant *Artemisia annua* (as team member, 1998).

Research Area

- Chemistry of natural products
- Chemical transformations of abundant natural products
- Semi-synthesis of biologically active molecules from abundant natural products
- Total synthesis of bioactive natural products
- Design and synthesis of enzyme inhibitors

Recent publications

- Diversity-oriented synthesis of α -aminophosphonates: a new class of potential anticancer agents, **A. K. Bhattacharya**,* D. S. Raut, K. C. Rana, I. K. Polanki, M. S. Khan and S. Iram, *Eur. J. Med. Chem.* **2013**, DOI: 10.1016/j.ejmech.2013.05.036 (in press).
- Antimycobacterial agent, (E)-phytol and lauric amide from the plant *Lagascea mollis*, **A. K. Bhattacharya*** and K. C. Rana, *Ind. J. Chem., Sec. B* **2013** (in press).
- An efficient synthesis of a hydroxyethylamine (HEA) isostere and its α -aminophosphonate and phosphoramidate derivatives as potential anti-HIV agent, **A. K. Bhattacharya**,* K. C. Rana, C. Pannecouque and E. De Clercq, *ChemMedChem* **2012**, 7(9), 1601-1611.
- **A. K. Bhattacharya*** and K. C. Rana, Design, synthesis and biological evaluation of peptidyl-vinylaminophosphonates as novel cysteine protease inhibitors, *Bioorg. Med. Chem.* **2011**, 19(23), 7129.
- **A. K. Bhattacharya**,* K. C. Rana, D. S. Raut, V. P. Mhaindarkar and M. I. Khan, An efficient synthesis of benzodiazepinyl phosphonates as clostripain inhibitors via FeCl_3 catalyzed four-component reaction, *Org. Biomol. Chem.* **2011**, 9, 5407-5413 (**Cover Page Article**).
- **A. K. Bhattacharya*** and K. C. Rana, Amberlite-IR 120 catalyzed three-component synthesis of α -amino phosphonates in one-pot, *Tetrahedron Lett.* **2008**, 49(16), 2598-2601.