

Curriculum Vitae

Name: Dr. Sanjay Kumar Gautam
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Educational Qualification:

Ph.D. (Chemistry) In Synthetic Organic Chemistry /Medicinal Chemistry from University of Lucknow, Lucknow, India.
Master of Science (M.Sc.) In Chemistry from University of Lucknow, Lucknow, India,
Bachelor of Science (B.Sc.) In Chemistry and Biology from University of Lucknow, Lucknow, India.
Proficiency In German from University of Lucknow, Lucknow, India.

Academic Research Experience:

- Ph.D. thesis entitled “**VERSATILITY OF NAPHTHOXEPINE[5,4]PYRAN-2-ONE FOR THE CONSTRUCTION OF ARENES AND HETEROARENES**”
- Worked as a Project Fellow on a project of University Grant Commission (UGC-SAP), New Delhi, India. Project entitled “**Organometallic and Supramolecular Chemistry of Tin and Tellurium.**”

Awards and achievements:

UGC-CSIR/NET/JRF Chemical Sciences.

Academic Experience: (9 Years U.G. & P.G. Level)

- **Assistant Professor, Department of Chemistry, University of Lucknow, Lucknow, U.P. India, (01.07.2022-till date)**
- **Assistant Professor, Department of Chemistry, Mahatma Gandhi (Postgraduate) College, Gorakhpur, U.P. India, (05.09.2019-30.06.2022).**
- **Assistant Professor, Department of Chemistry, Dr. Sakuntla Mishra National Rehabilitation University, Lucknow U.P. India, (04.08.2017-25.03.2019).**
- **Assistant Professor, Department of Chemistry, Baba Saheb Bhimrao Ambedkar University (Central University) Lucknow U.P. India, (07.10.2014-31.05.2016).**
- **Assistant Professor, Department of Chemistry, Navyug Kanya Mahavidyalaya, Rajendra Nagar, Lucknow U.P. India, (30.07.2013-31.08.2014).**

LIST OF PUBLICATIONS:

Published (7):

1. **Sanjay K. Gautam**, Hardesh K. Maurya Ramendra Pratap, Brijesh Kumar, Abhinav Kumar, Vishnu K. Tandon, * and Vishnu Ji Ram* Strategy to Construct Stair-Shaped Partially Reduced Naphtho[1,2-b] pyrano[2,3-d]oxepines and Dinaphtho[1,2-b,d]oxepines J. Heterocyclic Chem., 53, 2070 (2016).
2. Hardesh K. Maurya, **Sanjay K. Gautam**, Ramendra Pratap, Vishnu K. Tandon ,Abhinav Kumar, Brijesh Kumar, Shruti Saxena, Deepti Tripathi, Meenakshi Rajwanshi, Mukul Das, Vishnu Ji Ram,*Regioselective synthesis of polycyclic aza-oxa and aza-oxa-thia heteroarenes as Colo-205 and HepG2 carcinoma cells growth inhibitors, European Journal of Medicinal Chemistry 81 (2014) 367e377.
3. Hardesh K. Maurya, **Sanjay K. Gautam**, Ramendra Pratap, Vishnu K. Tandon,* Abhinav Kumar, Vikas Bajpai, Brijesh Kumar and Vishnu Ji Ram* Sequential approach to the synthesis of ‘U and Z’ shaped polycyclic Heteroarenes. Org. Biomol. Chem., 2012, 10, 4977
4. Pushyamitra Mishra, Sandeep Kumar, Hardesh K. Maurya, **Sanjay K. Gautam**, Brijesh Kumar,a Vishnu K. Tandon,* and Vishnu Ji Ram* A DIVERSIFIED APPROACH TO THE SYNTHESIS OF HIGHLY FUNCTIONALIZED NOVEL AZINES AND AZOLES FROM 2H-PYRAN-2-ONES HETEROCYCLES, Vol. 86, No. 1, 2012,
5. Vishnu K. Tandon,* Anoop K. Awasthi, Kunwar A. Singh, Hardesh K. Maurya, and **Sanjay K. Gautam** NICKEL – PROMOTED FAVORSKII TYPE REARRANGEMENT OF CYCLIC α -BROMOKETONES HETEROCYCLES, Vol. 80, No. 1, 2010

National:

6. **SANJAY KUMAR GAUTAM**, AZAD KUMAR, NAVDEEP SINGH, BHOPAL SINGH“ANTIBACTERIAL COATING MATERIAL AND METHOD FOR FORMING ANTIBACTERIAL INTELLIGENT COATING FILM”Intellectual Property India, 2020
7. AZAD KUMAR, NAVDEEP SINGH, BHOPAL SINGH, **SANJAY KUMAR GAUTAM**,“IPP-NANO-STRUCTURES: INTELLIGENT PROCESS FOR THE PRODUCTION OF NANO-STRUCTURES”Intellectual Property India, 2020

Abstracts published in International Seminars:

1. **Sanjay K. Gautam**; Vishnu K. Tandon;* Vishnu Ji Ram,* “An efficient Synthesis of U and Z shaped heterocyclic compounds” International Conference & Humboldt Kolleg 2012 P-55.
2. **Sanjay K. Gautam**; Vishnu K. Tandon;* Vishnu Ji Ram,* “Synthesis of novel tetracyclic lactones from 1-naphthoxepines” ISCB- 2010; P-58.
3. Vishnu K. Tandon; Anoop K. Awasthi; Hardesh K. Maurya, Kunwar A. Singh, **Sanjay K. Gautam** “Copper–promoted favorskii type rearrangement of cyclic α -bromoketones” *Med. Chem. Res.*, 2010, 19, S115.
4. **Sanjay K. Gautam**; Vishnu K. Tandon;* Vishnu Ji Ram,* “Pentacyclic Heteroarenes: An innovative concise synthesis of naphthoxepinone-pyrano pyrans” Challenges in Drug Discovery and Development (CDDD-2011) organized by Indian society of Chemists and Biologists. CSIR- Central Drug Research Institute Lucknow, U.P. India.

INTRNATIONAL/NATIONAL SEMINARS & CONFERENCES ATTENDED:

1. **14th ISCB International Conference** on “CHEMICAL BIOLOGY FOR DISCOVERY, PERSPECTIVES AND CHALLENGES” 15-18 January 2010, at Central Drug Research Institute, Lucknow, during January 15 – 18, 2010.
2. **4th International symposium** CURRENT TRENDS IN DRUGS DISCOVERY RESEARCH (CTDDR) on 17-21 Feb. 2010 at Central Drug Research Institute, Lucknow.
3. **International conference & Humboldt Kolleg** “Resent aspect of Organic / Organometallic compounds and their Usefulness and materials Industries” 3-6 January 2012, organized by Chemistry Department, University of Lucknow, Lucknow-India.
4. National Symposium on “Application of Analytical Techniques for the Characterization of Biomolecules” 2nd & 3rd Aug 2008 at Malviya Hall, University of Lucknow, Lucknow organized by University of Lucknow, Lucknow and ISAS-DC , Delhi.

5. Seminar on frontiers of Spectroscopy “SFS-2008” 10-11th Nov. 2008, University of Lucknow, Lucknow organized by University of Lucknow, Lucknow and MRSI , Lucknow Chapter.
6. Challenges in Drug Discovery and Development (CDDD-2011) 9-10 December 201, organized by Indian society of Chemists and Biologists. CSIR- Central Drug Research Institute Lucknow, U.P.
7. National Symposium on Advances in Chemical and Material Sciences organized by University of Lucknow, Lucknow and MRSI , Lucknow Chapter. 11-12 May 2007.
8. Seminar on Organometallic Chemistry organized by Special Assistance Programme (SAP) (University Grant Commission) Department of Chemistry University of Lucknow, Lucknow. March 31 2010.
9. National Seminar on Supramolecular and Organometallic Chemistry organized by Special Assistance Programme (SAP) (University Grant Commission) Department of Chemistry University of Lucknow, Lucknow. March 25 2011.
10. CarboXX (XX Carbohydrate conference) November 24-26 2005 organized by Department of Chemistry University of Lucknow, Lucknow and Association of Charbohydrate Chemist and Technologists India.
11. 2nd National Symposium on Modern trends in Defferential Geometry and Mathematical Modelling in Bio-Sciences. Department of Mathematics, University of Lucknow, Lucknow. 9-10 January 2010.

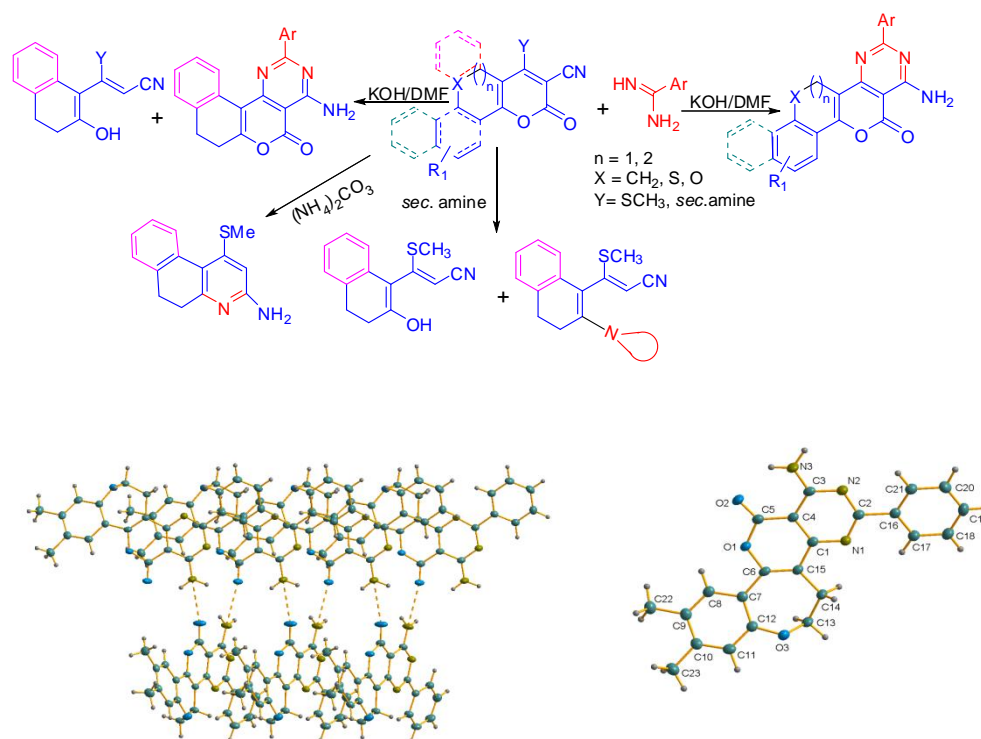
SUMMARY OF RESEARCH WORK

Current Work: Responsible for Drug discovery programs

1. Pyrazolo-pyrans (Anticancer agents)
2. Pyrazolo-diazepines (Anticancer agents)
3. Isoxazoles (Anticancer agents)
4. Thienopyrans and thieno-oxepines (Under biological evaluation)

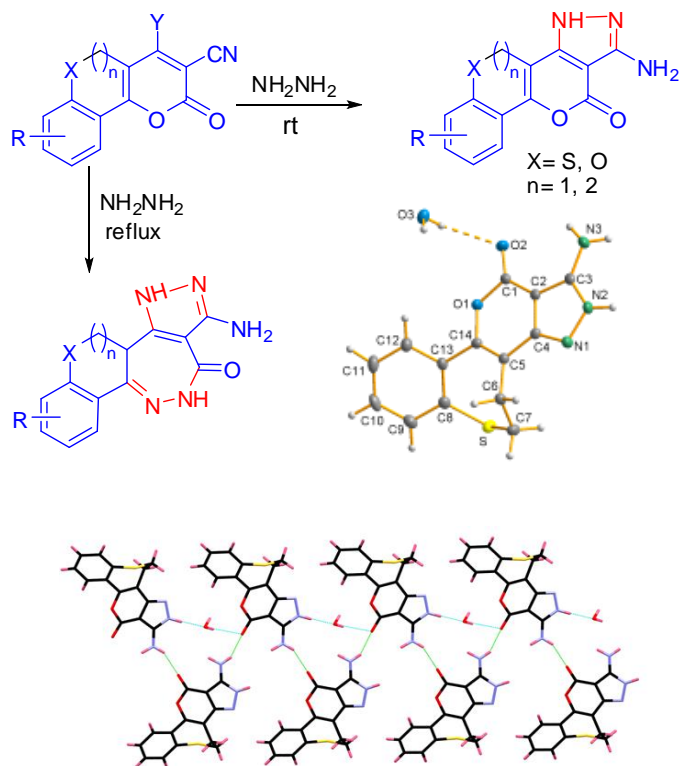
Research Work on Benzoxipines Naphthoxepin And 2H-Pyran-2-ones Chemistry:

Scheme 1: Sequential approach to the synthesis of ‘U and Z’ shaped polycyclic heteroarenes

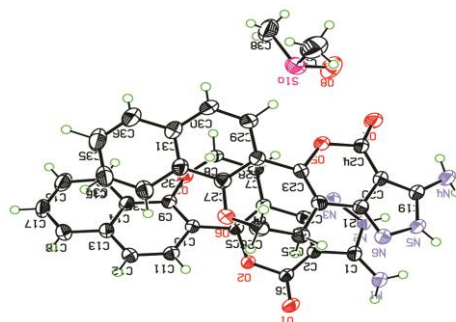
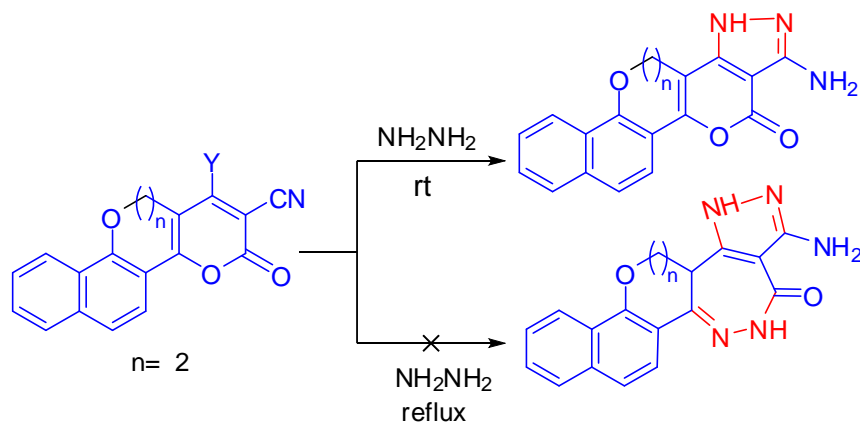


(*Org. Biomol. Chem.*, 2012, 10, 4977)

Scheme 2 (a): An innovative regioselective synthesis of diheteroaryl[b,d]pyrans and iheteroaryl-[c,e][1,2]diazepines with steroid like skeleton through inter and intramolecular C-N bond formation.

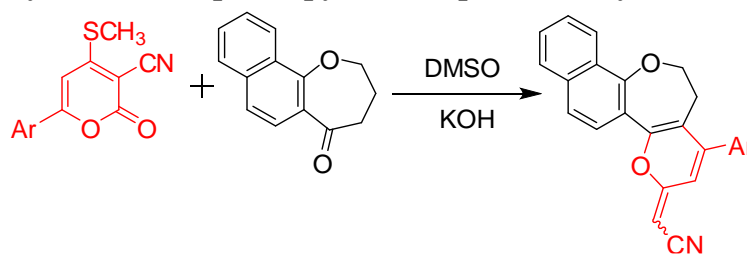


Scheme 2 (b): Synthesis of 1,4-dihydropyrano[4,3-c]-pyrazoles.

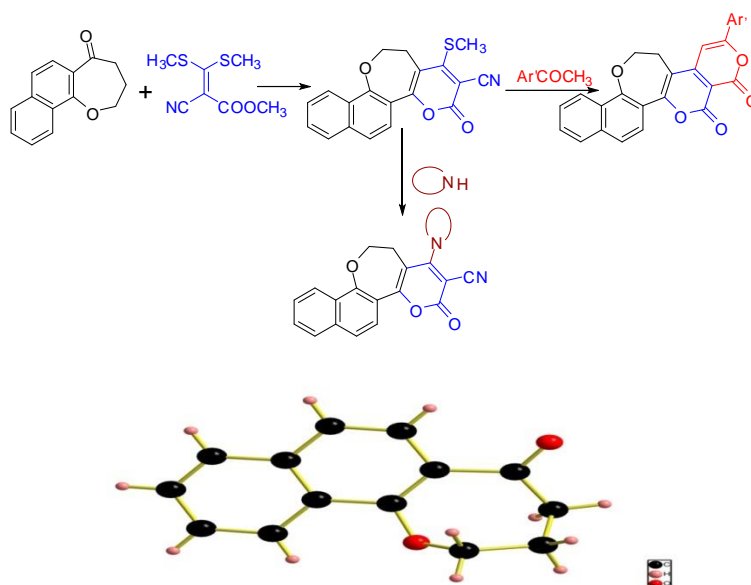


(European Journal of Medicinal Chemistry 81 (2014) 367e377)

Scheme 3 (a): Synthesis of naphtha-pyrano-oxepine-6(3H)-ylidene) acetonitriles

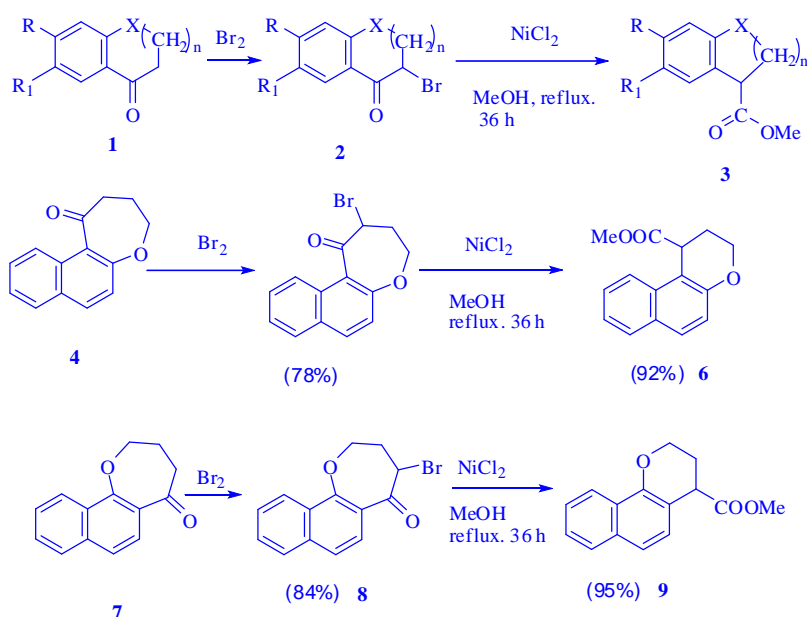


Scheme 3 (b): An Efficient Synthesis of Stair Shaped Partially Reduced Naphtho[1,2-b]pyrano [2,3-d]oxepines and Dinaphtho[1,2-b,d]oxepines



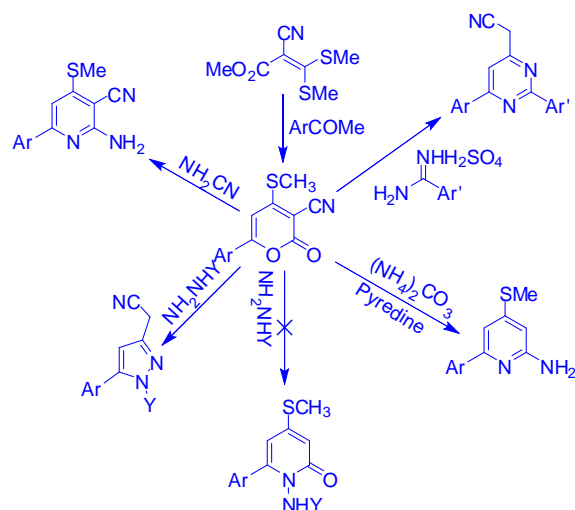
(J. Heterocyclic Chem., 53, 2070 2016)

Scheme 4: NICKEL-PROMOTED FEVORUSKY TYPE OF REARENGEMENT OF CYCLIC α - BROMOKETONES



Nickel and copper-promoted Favorskii rearrangement; *Heterocycles*. 2010, 80, 593

Scheme 5: Highly functionalized novel azines and azoles from 2H-pyran-2-ones:



Heterocycles 2012, 86, (N)1

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