

RISHI KORDE

INTEGRATED MASTERS DEGREE,
INDUSTRIAL CHEMISTRY,
IIT-BHU, VARANASI,
INDIA



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OBJECTIVE

My goal is to pursue a challenging doctorate program in the organic chemistry. I am interested in developing new innovative concepts and methods in organic synthesis. I will explore my capabilities and knowledge under the esteemed guidance of world-class researchers. I am a dynamic and enthusiastic student ready to work in any area of the organic chemistry to any extent.

EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI

July 2012-current

5 Year Integrated M.Tech. Degree (IMD) in Industrial Chemistry

Current CGPA : **8.87/10**

Maximum SPI : **10/10**

Departmental **Rank: 1 (GOLD MEDALIST)**

Semester	I	II	III	IV	V	VI	VII	VIII	IX	X
SGPA	7.44	7.34	8.19	8.81	9.62	10	9.45	9.57	9.25	10
YGPA	7.39		8.51		9.81		9.51		9.63	

SKILLS AND INTERESTS

- **Research Interests: Organic Synthesis related to**
 1. **Natural Product Synthesis**
 2. **Metal Catalysis**
 3. **Medicinal chemistry**
 4. **Photo Chemistry**
- **Computational tools: Gaussian, Gauss View (for DFT analysis), Chemcraft, etc.**
- **Programming Languages: C, C++, Java (JDK 1.7), FORTRAN.**
- **TECHNOLOGIES: AutoCAD, Basics of CNC Programming and MATLAB, ChemDraw, MestReNova, etc.**
- **Algorithms: Concepts of Data Structures.**

BOOK CHAPTERS AND RESEARCH PAPERS

Book Chapter:

1. **CHAM-LAM CROSS-COUPPLING: C-ELEMENT BOND FORMATION;** Pys Lam, Bharat Kumar Allam, [Rishi Korde](#), Organic Reactions, Wiley-vch.
2. **Advancements of the use of green chemistry in controlling and inhibition of corrosion of Mild steel and Aluminium;** Dr. Sivasankaran Subbarayan, Prof. M. A. Quraishi, [Rishi Korde](#), Aluminium Alloys, Intech. ISBN 978-953-51-5577-5

Publications:

1. **An Efficient denitrosation of N-Nitrosamines under Metal and Acid-Free Conditions** Jeyakumar Kandasamy, Priyanka Chaudhary, [Rishi Korde](#) (In Press)
2. **Secondary Amides Transamidation using a New Activation Key: Mechanistic and computational studies.** Bharat Kumar Allam, Ankush Mishra, [Rishi Korde](#), Jeyakumar Kandasamy, Vandana Srivastava (Manuscript Under Preparation)

- International Journal of Electrochemical Science, 10 (2015) 1081 – 1093
Electrochemical and Thermo Dynamical Investigation of 5-ethyl 4-(4-methoxyphenyl)-6-methyl-2-thioxo-1, 2, 3, 4 tetrahydropyrimidine-5-carboxylate on Corrosion Inhibition Behaviour of Aluminium in 1M Hydrochloric Acid Medium; Rishi Korde, C. B. Verma, M. A. Quraishi, E. E. Ebenso
- Analytical & Bioanalytical Electrochemistry. Vol. 8, No. 8, 2016, 1012-1032
Corrosion Inhibition and Adsorption Behaviour of 5-(phenylthio)-3H-pyrrole-4-carbonitriles on Mild Steel Surface in 1M H₂SO₄ : Experimental and Computational Approach C. B. Verma, M. A. Quraishi, Rishi Korde

PROJECTS AND TECHNICAL EXPERIENCE

- Synthetic Organic Chemistry:** Dec 2016- current
Title: Synthetic Organic Chemistry: Secondary Amides Transamidation using a New Activation Key: Mechanistic and computational studies
Guide: Dr. Jeyakumar Kandasamy, Dr. Bharat Kumar Allam
- Organic Synthetic Chemistry:** (Graduate Project) May 2016- May 2017
Guide: Dr. Jeyakumar Kandasamy, IIT (BHU), Varanasi
Title: An Efficient denitrosation of N-Nitrosamines under Metal and Acid-Free Conditions
- Organic Synthetic Chemistry:** (Undergraduate Project) Dec 2015- May 2016
 Organic Synthesis of secondary amines in green way under Prof. Dr. Jeyakumar Kandasamy, IIT (BHU), Varanasi
Title: Synthesis of aryl Hydroxyl amine derivatives by Meisenheimer Rearrangement at room temperature
- Winter Research Project** CSIR National Chemical Laboratory, Pune Nov-Dec 2015
Title: Physical and Electrochemical Properties of Mn oxide Super-capacitor Electrodes Derived from Carbon Nanotube and Mn nitrates under guidance of Dr. M.V. Shelke in CSIR NCL, PUNE.
- Summer Research Project** Universitat Des Saarlandes, Germany May-July 2015
Titles:
a) Computational Chemistry: Vibrational and thermodynamic properties of Cu metal clusters with up to 150 atoms calculated by the embedded-atom method with their comparison with Classical parameters under guidance of **Prof. Dr. Michael Springborg.**
b) Joint Project of IIT (BHU) Varanasi and Universitat Des Saarlandes
Computation study of 5-(phenylthio)-3H-pyrrole-4-carbonitriles as effective corrosion inhibitors form mild steel: DFT approach under guidance of **Prof. Michael Springborg** and **Prof. Dr. M. A. Quraishi**
RESEARCH PAPER: Analytical & Bioanalytical Electrochemistry. Vol. 8, No. 8, 2016, 1012-1032
- Summer Research Project** Indian Institute of Technology (BHU), Varanasi May-July 2014
Title: Electrochemical and Thermo Dynamical Investigation of 5-ethyl 4-(4-methoxyphenyl)-6-methyl-2-thioxo-1, 2, 3, 4 tetrahydropyrimidine-5-carboxylate on Corrosion Inhibition Behaviour of Aluminium in 1M Hydrochloric Acid Medium under guidance of Prof. Dr. M. A. Quraishi
RESEARCH PAPER: International Journal of Electrochemical Science, 10 (2015) 1081 – 1093

INDUSTRIAL VISITS AND CONFERENCES

RACCB-2017 Recent Applications of Carbohydrates in Chemistry and Biology-2017 Feb 2017
INDO MAX PLANCK WORKSHOP

I did anchoring in Inauguration function of RACCB-2017 and was part of organizing Team. It was nice exposure to recent work in field of Carbohydrate Chemistry. I got opportunity to interact with honourable Scientists such as Prof. Peter Seeberger sir, Prof. Timov Basov.

ICOS-21 International Conference of Organic Synthesis at IIT Bombay, Mumbai Dec 2016

It was a great experience that gave me broad idea of Organic Synthesis work and current research developments in it. It strengthened my aim to get myself involved into Organic Synthesis.

RAAS-2014 International Conference of Analytical Chemistry at IIT (BHU), Varanasi Jan 2014

TIFR Tata Institute of Fundamental Research (TIFR) Mumbai December 2013

Research Reactor DHRUVA Bhabha Atomic Research Centre, Mumbai May 2012

Industrial Visit Chandra Industries, Satara December 2012

Industrial Visit Weikfield Foods PVT LTD., Pune December 2012

RELEVANT COURSES/LABORATORIES UNDERTAKEN

Apart from the basic courses and lab work in Chemistry, Physics, Mathematics, Electrical and Engineering, Computer Programming, following are the more relevant courses undertaken by me

Materials Science and Engineering	Chemistry		Chemical Engineering
Materials Characterization	Heterocyclic Chemistry	Metal Clusters	Heat Transfer
Corrosion Engineering	Nuclear & Radiation Chemistry	Stereo-chemistry	Instrumentation and Process Control
Synthesis of Materials: Polymers, Ceramics, Composites	Molecular Simulation and Chemo-informatics (including lab work)	Analytical Chemistry	Unit Operations
Solid State Chemistry	Statistical Thermodynamics	Chemistry of Co-ordination Compounds	Mass Transfer
Industrial Polymers	Synthetic Organic Chemistry	Environmental Engineering	Chemical Reactor Analysis
Nanomaterials and Nanostructures			

ACHIEVEMENTS/EXTRA-CURRICULAR ACTIVITIES

- **RACCB-2017 INTERNATIONAL INDO-GERMAN WORKSHOP: Anchoring** of the Inauguration Ceremony.
- **Teaching Assistant** (Tutor):
Subject: Organic & Physical Chemistry at IIT (BHU) for First Year students in **2014**.
Subject: Thermodynamics at IIT (BHU) for Second Year students in **2015**.
- Active member of **Literature club IIT BHU 2013-15**.
- Activity coordinator of **PARIVARTAN** IIT (BHU) – a **NGO** supported organization **2013-Current**.
- **Gesture control robotics** at IIT (BHU): won **First** prize in **TECHNEX'13**.
- **Ranked amongst the top 1%** of all students appearing for **IIT-JEE'12** (nearly 0.5 million).
- **IPM National Maths Exam** ranked **35/100** in **Mega-final** selected all-over India in **2008**.
- Qualified for 2nd round of **National MKCL (science) Olympiad 2007**.
- **Aero Modelling** at IIT (BHU): won **First** prize in TECHNICAL FEST **TECHNEX'12**.
- **Piano**-Keyboard arranger player at **KASHIYATRA'13, 14** Cultural fest of IIT (BHU)
- **Marketing** team member of **TECHNEX'13, 14, 15**.
- Member of **core team** of organizing of **TECHNEX'13, 14, 15**.

PERSONAL INFORMATION

Address: Room No.56, Limbdi Hostel, IIT-BHU, Varanasi, U.P., India-221005

Languages Known: English, Hindi, German, Marathi.

DECLARATION

I hereby declare that above-mentioned information is correct to the best of my knowledge and belief and I bear the responsibility for the authenticity of the mentioned particulars.