# CSIR- INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY TARNAKA, HYDERABAD-500 007, INDIA

Dr. K. SRINIVAS
Senior Principal Scientist,
Fluoro Agrochemicals Division



#### **CERTIFICATE**

This is to certify that, BAKKI SRIVARSHINI has carried out dissertation work on the project entitled "SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL 2-AMINOPYRIMIDINE DERIVATIVES" for the partial fulfillment of award of degree under my supervision during the period of from 1st June 2022 to 31st August 2022.

(Dr. K. SRINIVAS)

Research Guide

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kantevari@gmail.com



# CSIR-Indian Institute of Chemical Technology



(Council of Scientific & Industrial Research)
Tarnaka, Hyderabad-500 007India

#### Dr. PRAVEEN KUMAR REDDY ADIYALA

Scientist,

Organic Synthesis and Process Chemistry

D	ate:		_	

#### **CERTIFICATE**

This is to certify that Ms. Kanuganti Bhargavi student of MSc. 5 years integrated Chemistry, Department of Chemistry, Kakatiya University, Warangal, has successfully completed the research project entitled on "Synthesis of highly Substituted Pyrroles in Regioselective manner with silver catalysis" for fulfilment of degree under my supervision during the period of 30th May 2022 to 30<sup>th</sup> Nov 2022.

Dr. A. Praveen Kuman Birdiyala

Organic Synthesis & Process Chem Div.

CSIR-Indian Dervisor Chemical Technology
CSIR-Indian Pervisor Chemical Technology
Govt of India.

Ministry of Science & Technology, Govt of India.

Tanks Jerohad - 500 007, Telangana, India.

Organic Synthesis and Process Chemistry, Email: praveenreddy@iict.res.in



# NATIONAL INSTITUTE OF TECHNOLOGY

WARANGAL TELANGANA, INDIA-506004

#### **CERTIFICATE**

This is to certify that the project work on "Preparation of 1,2,3,4-tetrahydroacridine-9-carboxylic acid derivatives by Pfitzinger reaction of isatins with cyclohexanone" is the bonafide work carried out by Ms. ARIKANTHAM RAMADEVI, H.T.No: 18000S8003 in Integrated M.Sc. Chemistry under my supervision at Department of Chemistry, National Institute of Technology, Warangal, during the period from 1st JUNE 2022 to 6th AUGUST 2022.

Prof. D. Kashinath

Professor, Dept. of Chemistry

NIT Warangal
Warangal — 506004, Telangana
प्राध्वापक / Professor
रसायन विभाग / Department of Chemistry
राष्ट्रीय प्रोधोगिकी संरथन, वरंगल - ५०६ ००४ आं.प्र.
National Institute of Technology,
Warangal - 506 004

1108/201

Prof. Vishnu shanker

Head of the Department, Dept of Chemistry

NIT Warangal
Warangal -506004, Telangana
विभागाध्यक्ष / Professor & Head
रसायन विभाग / Department of Chemistry
राष्ट्रीय प्रौधोगिकी संस्थान, वरंगल - ५०६ ००४
National Institute of Technology,
Warangal - 506 004



# Yajushi Chemistry Solutions LLP.



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#### CERTIFICATE

This is to certify that the dissertation work carried out by M. VAISHNAVI [18000S8004] at, YAJUSHI CHEMISTRY SOLUTIONS LLP, IDA, Cherlapally, Hyderabad, is a bonafide research work carried out under my supervision during the period 01.06.2022 to 31.07.2022. The thesis entitled "SYNTHESIS OF 1,3,4- TRISUBSTITUTED-1H-PYRAZOLE DERIVATIVES" in partial fulfilment of Master of Science in Chemistry.

DATE:

PLACE: Hyderabad

[Dr. K. RAVINDER RE

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Plot No. 103/1, Opp. CIPET, Phase II, IDA, Cherlapally Hyderabad 500 051. Mobile: +91-63094 38436 Email: info@yajushichem.com Website: www.yajushichem.com

#### CERTIFICATE

This is to certify that the dissertation work carried out by B. SHIRISHA [18000S8005] at Department of Organic Synthesis and Process Chemistry, YAJUSHI CHEMISTRY SOLUTIONS LLP, IDA Cherlapally, Hyderabad is a bonafide research work carried out under my supervision during the period 01.06.2022 to 31.07.2022. The thesis entitled "SYNTHESIS OF 2,2-DISUBSTITUTED 4,5-DIPHENYL-2H-IMIDAZOLE DERIVATIVES" in partial fulfilment of Master of Science in Chemistry.

DATE:

**PLACE: Hyderabad** 

(Dr. K. RAVINDER

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# NATIONAL INSTITUTE OF TECHNOLOGY

#### WARANGAL

**TELANGANA, INDIA-506004** 

#### **CERTIFICATE**

This is to certify that the project work on "Metal Free Synthesis of 1,2,3,4- tetrahydroacridine derivatives using 1,3-dimethylurea (DMU) and L-tartaric acid as a Deep Eutectic Solvent" is the bonafide work carried out by Ms. TANKASHALA SUKANYA, H.T.No: 18000S8006 in Integrated M.Sc. Chemistry X semester under my supervision at Department of Chemistry, National Institute of Technology, Warangal, during the period from 1st JUNE 2022 to 6th AUGUST 2022.

Prof. D. Kashinath

Professor, Dept. of Chemistry

NIT Warangal

Warangal – 506004, Telangana.

प्राध्यापक / Professor रसायन विभाग / Department of Chemistry राष्ट्रीय प्रोधोजिकी संस्थन, वरंजल - ५०६ ००४ आं.प्र National Institute of Technology,

Warangal - 506 004

Prof. Vishnu Shankar

Head of the Department, Dept of chemistry

NIT Warangal

Warangal – 506004, Telangana चिभागाध्यक्ष / Professor & Head रसायन विभाग / Department of Chemistry राष्ट्रीय प्रौधोगिकी संस्थन, वरंगल - ९०६ ००४ National Institute of Technology,

Warangal - 506 004



#### NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL TELANGANA, INDIA-506004

#### **CERTIFICATE**

This is to certify that Ms. PRAVALIKA SAVASI (18000S8007), 5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation word entitled "SYNTHESIS OF CuFe<sub>2</sub>O<sub>4</sub> NANO CATALYST AND IT'S ORGANIC

APPLICATIONS" under my supervision in Department of Chemistry, National Institute of Technology, Warangal, during the period from 10<sup>th</sup> JUNE 2022 to 16<sup>th</sup> AGUST 2022.

Dr. M. Raghasudha

march

(Assistant Professor, Department of chemistry,

सहायक प्राप्ट्यापक (Assistance) रसायबं विभाग / Department of Chemistry राष्ट्रीय प्रोग्नोगिकी संस्थन, यरंगल - ५०६ ००४ आं.प्र National Institute of Technology,

Warangal - 506 004



# National Institute of Technology Warangal Department of Chemistry

#### **CERTIFICATE**

This is to certify that Mr. ULLERAO KISHOR (18000S8008), 5 Year Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanumakonda, had carried out the dissertation work entitled "Synthesis and Characterization of (NiZn)Co<sub>2</sub>O<sub>4</sub> and (NiCu)Co<sub>2</sub>O<sub>4</sub> Materials for Direct Methanol Fuel Cell" under my guidance at Department of Chemistry, National Institute of Technology Warangal during the period from 1<sup>st</sup> June 2022 to 6<sup>th</sup> August 2022.

Dr. G. Rajeshkhanna Assistant Professor Department of Chemistry NIT Warangal



This is to certify that Mr. MAMIDI SANJAY KUMAR, (18000S8009), 5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation word entitled "DETERMINATION AND METHOD DEVELOPMENT OF ATORVASTATIN BY HPLC" under my guidance and supervision in HETERO LABS Pvt Ltd, Jeedimetla, Hyderabad, during the period from 1st JUNE 2022 to 30th JULY



G.RAMA KRISHNA

(Head of Department, Analytical R&D)

Plot No 14, Sy No: 50, Phase III, IDA Jeedimetla

Hyderabad-500055



#### Certificate

This is certify that the dissertation work carried out by B.VENKATA NARASAMMA (18000S8010) at INNOSYN LIFE SCIENCES Pvt Ltd, Cherlapallym Hyderabad is a bonafide research work carried out under my supervision during the period 01.06.2022 to 31.07.2022. The thesis entitled "TOTAL SYNTHESIS OF HYDROXY - FLUMAZENIL" in partial fulfillment of Master of Science in Chemistry.

DATE:

PLACE: Hyderabad



This is to certify that Ms. KODARI MOUNIKA, (18000S8011), 5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation work entitled "SUMMARY OF METHOD DEVELOPMENT REPORT FOR THE DETERMINATION OF RELATED COMPOUNDS IN PERAMPANEL (PMP) BY HPLC" under my guidance and supervision in Kemiezen Life Sciences Pvt Ltd. Hyderabad, during the period from 1<sup>st</sup> June 2022 to 30<sup>th</sup> July 2022.

Dr. P. SATYANARAYANA Managing Director

Kemiezen

IDA Kukatpally, Hyderabad - 500072.



This is to certify that *Mr*, *DONGRI RAJENDAR* (18000S8012),5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation work entitled "SUMMARY OF METHOD DEVELOPMENT REPORT FOR THE DETERMINATION OF RELATED COMPOUNDS IN APIXABAN(APB) BY HPLC" under my guidance and supervision in *HETERO LABS Pvt Ltd*, *Jeedimetla*, Hyderabad, during the period from 6<sup>th</sup>June 2022 to 7<sup>th</sup> Aug 2022.



Suraram, IDA Jeedimetla, Hydarabad, 500055



#### NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL TELANGANA, INDIA-506004

#### CERTIFICATE

This is to certify that Ms. MOUNIKA BINGI (18000S8013), 5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation word entitled "SYNTHESIS OF Fe<sub>3</sub>O<sub>4</sub>@CS-Ag NANO CATALYST AND IT'S APPLICATION IN ONE POT THREE-COMPONENT COUPLING REACTION" under my supervision in Department of Chemistry, National Institute of Technology, Warangal, during the period from 10th JUNE 2022 to 16th AGUST 2022.

Dr. M. Raghasudha

maade

(Assistant Professor, Department of chemistry,

NIT Warangal रसायन विभाग / Department of Chemistry

राष्ट्रीय प्रौधोगिकी संरयन, वरंगल - ५०६ ००४ औ. ए.

National Institute of Technology, Warangal - 568 004



### CSIR-Indian Institute of Chemical Technology



(Council of Scientific & Industrial Research)
Tarnaka, Hyderabad-500 007India

#### Dr.KAKI SHIVA SHANKER

Senior Scientist,

Centre for Lipid Science and Technology Division

#### **CERTIFICATE**

This is to certify that Mr.ThatikondaVinay student of 5year integrated M.Sc. Chemistry of Department of Chemistry, Kakatiya University, Warangal, has successfully completed the research project entitled SYNTHESIS AND CHARACTERIZATION OF NOVEL FATTY ACID DERIVATIVES for fulfilment of degree under my supervision during the period of 30<sup>th</sup> May 2022 to 30<sup>th</sup> Nov 2022.

Place:

Dr.Kaki Shiva Shanker Supervisor



# National Institute of Technology Warangal Department of Chemistry

#### **CERTIFICATE**

This is to certify that Mr. PERAM SRINADH, (18000S8016), 5 Year Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation work entitled "Design and Synthesis of Antioxidant Conjugated Terpyridyl Metal Complexes" under my guidance at Department of Chemistry, National Institute of Technology Warangal during the period from 1<sup>st</sup> June 2022 to 6<sup>th</sup> August 2022.

Dr. Jugun Prakash Chinta
Assistant Professor
Department of Chemistry

सहायक प्राध्यापक / Asst. Professor रसायन विभाग / Department of Chemistry राष्ट्रीय प्रौधोणिकी संस्थन, वरंगल - ५०६ ००४ आं.प्र National Institute of Technology, Warangal - 506 004





### **UGC Networking Resource Centre** School of Chemistry, University of Hyderabad Hyderabad 500 046, INDIA

#### **CERTIFICATE**

The above statement is verified and it is certified that Mr. BANOTH RAHUL has carried outa Project in the laboratory of Prof. SRINIVASA RAO YARAGORLA, School of Chemistry, University of Hyderabad, supported by the UGC Networking Resource Centre, during the period 05-05-2021 to 25-06-2021.

Dr. Srinivasarao Yaragorla Associate Professor School of Chemistry University of Hyderabad Hyderabad-500 046, India.

Faculty Supervisor

UGC Netw source Centre Schoo

Coordinator, UGC-NRC

Kumara Swarmfill

School of Chemistry University of Hyderabad Hyderabad-500046 Telangana Dean, School of Chemistry



This is to certify that project report entitled "TOTAL SYNTHESIS OF O-DESMETHYLASTEMIZOLE" submitted to KAKATIYA UNIVERSITY for the degree award of 5 YEARS INTEGRATED M.Sc CHEMISTRY, is a bonafide record of the work carried out by G.MANASA [18000S8019] during the period 01.06.2022 to 31.07.2022 under the supervision of E.Lingamurthy, Principal Scientist, INNOSYN LIFE SCIENCES Pvt Ltd, Cherlapally, Hyderabad.

HOD

Department of Chemistry, KAKATIYA UNIVERSITY,

WARANGAL

Prof. G. Brahmeshwari
HEAD, Dept. of Chemistry
Kakatiya University
Warangal-506009.

Chairman, Board of Studies .
F. Dept. of Chemistro
KAKACINA UNIVERSITY
Watengal-506 J09 (T.S.) india

EXTERNAL EXAMINER

INTERNAL EXAMINER



### NATIONAL INSTITUTE OF TECHNOLOGY

#### WARANGAL

TELANGANA, INDIA-506004

#### **CERTIFICATE**

This is to certify that the project work on "Preparation of quinoline derivatives via Friedlander annulation" is the bonafide work carried out by Ms. GATTU ROJA, H.T.No: 18000S8020 in Integrated M.Sc. Chemistry under my supervision at Department of Chemistry, National Institute of Technology, Warangal, during the period from 1st JUNE 2022 to 6th AUGUST 2022.

Prof. D. Kashinath

Professor, Dept. of Chemistry

NIT Warangal

Warangal 506004 Telangana. Professor रसायन विभाग / Department of Chemistry राष्ट्रीय प्रौधोजिकी संस्थन, वरंगल - ५०६ ००४ आं.म National Institute of Technology.

Warangal - 506 004

Prof. Vishnu Shankar

Head of the Department, Dept of chemistry

NIT Warangal

Warangal – 506004, Telangana. विभागाध्यक्ष / Professor & Head रसायन विभाग / Department of Chemistry राष्ट्रीय प्रौधोगिकी संस्थन, वरंगल - ५०६ ००४ National Institute of Technology, Warangal - 506 004



# CSIR-Indian Institute of Chemical Technology

(Council of Scientific & Industrial Research) Tarnaka, Hyderabad-500 007India



Dr. SAIBAL DAS
PRINCIPAL SCIENTIST,
Organic Synthesis and Process Chemistry

Date: 22-9.2022

#### **CERTIFICATE**

This is to certify that Ms. GONTLA DEEPIKA student of MSc. 5 years integrated Course in Chemistry, Department of Chemistry in KAKATIYA UNIVERSITY, WARANGAL, has successfully completed the research project entitled "SYNTHESIS OF VARIOUS N-SUBSTITUTED MALEIMIDES AND THEIR APPLICATIONS" for fulfilment of degree under my supervision during the period of 01st JUNE 2022 to 31st AUGUST 2022.

Dr. SAIBAL DAS

(Supervisor)



# INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY



TARNAKA, HYDERABAD-500 007, INDIA. (COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)

#### **CERTIFICATE**

This is to certify that dissertation work entitled "LIPASE-CATALYZED SYNTHESIS OF GLUCOSE-LAURIC ACID ESTERS IN DIFFERENT SOLVENTS" is a bonafide work done by DEVASANI AMRUTH 5<sup>TH</sup> year of Integrated M.Sc. Chemistry. The report is submitted to KAKATIYA UNIVERSITY, WARANGAL, towards the completion of 5 years Integrated M.Sc. chemistry under my supervision. The work embodied in this dissertation is output from CSIR-IICT and is the strictly confidential and sole property of CSIR-IICT. This work presented in this thesis should not be published/used in part or full or patented without the prior permission of the Director, CSIR-IICT.

Dr. Ram Chandra Reddy Jala

Senior Scientist

Place: Hyderabad

Date: 13/09/2022



# NATIONAL INSTITUTE TECHNOLOGY WARANGAL DEPARTMENT OF CHEMISTRY

#### **CERTIFICATE**

This is to certify that Ms. YALAGANDULA THRIVENI, (18000S8023), 5 Year Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanamkonda, has carried out the dissertation word entitled "SOLUTION PHASE PEPTIDE SYNTHESIS OF PROTECTED DIPEPTIDES" under my guidance and supervision in NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL, during the period from 1<sup>st</sup> JUNE 2022 to 6<sup>th</sup> August 2022.

Dr. JUGUN PRAKASH CHINTA

Assistant Professor

Department of Chemistry

National Institute of Technology

Warangal

सहायक प्राध्यापक / Asst. Professor रसायम विभाग / Department of Chemistry राष्ट्रीय प्रौद्योगिकी संस्थन, वरंगल - ५०६ ००४ आं.प्र National Institute of Technology, Warangal - 506 004



This is to certify that Mr. GUNDALA SRIKANTH, (18000S8024),
5 Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya
University, Warangal, has carried out the dissertation work entitled "Method
Development of Azelnidipine tablets by using HPLC" under my
guidance and supervision in the Hetero labs Pvt. Ltd, Hyderabad, during the
period from 1st June, 2022 to 31st July, 2022.

(G. Rama krishna) (HOD of Analytical R&D)



# NATIONAL INSTITUTE OF TECHNOLOGY

WARANGAL

(MoE, Govt. of India)

Warangal, Telangana, India-506004

#### Certificate

This is to certify that the project work on report entitled "SYNTHESIS OF 2-OXINDOLES FROM 3,3-DICHLOROOXINDOLES BY THIOUREA DIOXIDE" is based on the bonafide work done by Ms. RALLABANDI SHIVANI (H.T.No. 18000S8025) in 5-YEARS INTEGRATED M.Sc CHEMISTRY (Kakatiya university) under my guidance in the Department of Chemistry, National Institute of Technology, Warangal, during the period from 1<sup>st</sup> JUNE 2022 to 10<sup>th</sup> AUGUST 2022.

Dr. K. HARI PRASAD

Associate Professor

Department of Chemistry

NIT Warangal-506004 सह-प्राध्यापक / Associate Professor रसायन विभाग / Department of Chemistry राष्ट्रीय प्रोधोगिकी संख्यन, वरंगत - ५०६ ००४ औ.प्र. National Institute of Technology, Warangal - 506 004 A.P



# National Institute of Technology Warangal Department of Chemistry

### CERTIFICATE

This is to certify that Mr.DANDU KALEBU, (18000S8026), 5 Year Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Warangal, has carried out the dissertation work entitled "Synthesis and Characterization of (NiZn)Co<sub>2</sub>S<sub>4</sub> and (NiCu)Co<sub>2</sub>S<sub>4</sub> For Supercapacitors Applications" under my guidance at Department of Chemistry, National Institute of Technology Warangal during the period from 10<sup>th</sup> June 2022 to 16<sup>th</sup> August 2022.

Dr. Rajeshkhanna Gaddam

**Assistant Professor** 

**Department of Chemistry** 

NIT Warangal



### NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Warangal, Telangana, India-506004

#### Certificate

This is to certify that the project work on report entitled "Multi-chromophore Functionalized Aza-Borondipyrromethenes for Light Energy Harvesting Application" is based on the bonafide work done by Ms. VARAKA AKANKSHA (H.T. No. 18000S8027) in Integrated M.Sc. chemistry (Kakatiya university) under my guidance in the Department of Chemistry, National Institute of Technology, Warangal, during the period from 10-06-2022 to 16-08-2022.

Dr. Raghu Chitta

Associate Professor

Dept of Chemistry

NIT Warangal-506004

Telangana.

सह-प्राध्यापक / Associate Professor रसायन विभाग / Department of Chemistry राष्ट्रीय प्रौधोजिकी संरयन, वरंजल - ५०६ ००४ आं.प्र National Institute of Technology, Warangal - 506 004 A.P



This is to certify that Ms. BHUKYA SHAILAJA, (18000S8028), 5Years Integrated M.Sc. Chemistry, Department of Chemistry, Kakatiya University, Hanmkonda, has carried out the dissertation work entitled "DETERMINATION OF RELATED SUBSTANCES OF RIVAROXABAN BY HPLC" under my guidance and supervision in Kemiezen Life Sciences Pvt. Ltd Hyderabad, during the period from 1<sup>st</sup> JUNE 2022 to 30<sup>th</sup> JULY 2022.

Dr. P. SATYANARAYANA

**Managing Director** 

Kemiezen

IDA Kukatpally, Hyderabad - 500072.

Plot No.89, H.No.5-9-286/2/89, Rajiv Gandhine dec IDA Kukatpally, Hyderabad – 500 072

This is to certify that Mr. VELPULA VENKATESWARA RAO (HT. No: 18000S8029) Integrated M Sc Chemistry, Department of Chemistry, Kakatiya University, Warangal, has carried out the dissertation work entitled "METHOD DEVELOPMENT AND REPORT FOR REFLUXACIN HCL BY REVERSE PHASE HIGH PERFORMANCE LIQUID CHROMATOGRAPHY" under my guidance and supervision in POLARIS ANALYTICAL AND TESTING LABOARATORY PVT LTD, Hyderabad. During the period from 5<sup>th</sup> June 2022 to 7<sup>th</sup> August 2022.

Asst Manager 039
Department of Research and Development



# Yajushi Chemistry Solutions LLP.



Plot No. 103/1, Opp. CIPET, Phase II, IDA, Cherlapally Hyderabad 500 051. Mobile: +91-63094 38436 Email: info@yajushichem.com Website: www.yajushichem.com

#### CERTIFICATE

This is to certify that the dissertation work carried out by **B. THRISHA** [18000S8030] at Yajushi Chemistry Solutions LLP. Cherlapally, Hyderabad is a bonafide research work carried out under my supervision during the period 01.06.2022 to 30.07.2022. The thesis entitled "SYNTHESIS OF HALOSUBSTITUTED PHENYL HYDRAZINES" in partial fulfilment of Master of Science in Chemistry.

DATE:

PLACE: Hyderabad

Dr. K. RAVINDER

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