

## Curriculum Vitae

**J. Nagamaiah. Ph.D.**

School of chemistry

University of Hyderabad

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### ACADEMIC QULIFICATION:

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| <b>2014 -2022</b> | Ph.D. thesis in Organic chemistry/ Porphyrinoid chemistry, university of Hyderabad, India.<br><br><b>Thesis Title: Novel 3,6,13,16-Tetraalkylporphycenes: Rational Synthesis and Studies of Positional Effect of Alkyl Groups Towards Design and Control of Structural and Photophysical Properties.</b> |
| <b>2009-2011</b>  | Master of Science (M.Sc) in Organic chemistry-66.6%, Jawaharlal Nehru technological University, Anantapur, Andhra Pradesh, India.  |
| <b>2005-2008</b>  | Bachelor of Science (B.Sc) with Botany, Zoology, Chemistry - 69%.<br>PSC&KVSC Government dgree collage, Nandyal, Sri Krishnadevaraya University, Andhra Pradesh.   |

### ACADEMIC RESEARCH SKILLS

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- Literature search (Sci finder, Reaxys, Sci-hub and Patent) and designing feasible synthetic route for the Target molecule.
- Designing cost effective synthetic route for the given target molecule and demonstration of proof of concept experiment for the selected synthetic route.
- Procurement of raw materials for the selected feasibility scheme and timely completion of target molecule with structure conformation.
- Communication of weekly update about the project progress to the supervisor and responds to his queries.
- Working plan, maintain the paper laboratory note book, problems solving during the execution of proposed synthetic schemes and technical support to lab members.
- Preparation of structure conformation report and along with impurities their structure conformation.

## Research Related Experience

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- Ph.D. in Organic chemistry/Porphyrinoid chemistry and adequate experience in synthesis and development of novel porphyrinoids under supervision of **Prof. Pradeepta K. Panda**.
- Worked as project assistant, Technical trainee at Dr. Reddy's Laboratories Ltd, CTO-Unit-IV, Hyderabad from 1<sup>st</sup> April 2010 to 23<sup>rd</sup> March -2011.
- Multistep synthesis including process development of porphyrinoid molecules, which are most useful in medicinal chemistry as well as industrial applications.
- Handling of hazardous chemicals like *n*-BuLi, LiAlH<sub>4</sub>, LiH, Dibal-H, NaH, TMSBr etc
- Good experimental knowledge in synthetic organic chemistry.
- To handle different synthetic schemes at the same time.
- Very good knowledge in isolation of desired compounds with column chromatography (silica-gel, alumina), preparative TLC and recrystallization.
- Handling different Project students in various projects with, synthesis, writing lab report and complete to the project within the period.
- During doctoral programme, involved in a research projects entitled
  - (1) **"Synthesis and characterization of novel  $\beta$ -Octahaloporphycene and its photophysical properties"**.
  - (2) **"A Novel Approach towards the Synthesis of Push Pull A2B2 Porphyrin"** sponsored by UGC-UPE-Phase II".
- During doctoral programme, involved in the preparation of pyrrole derivatives, bipyrrrole derivatives, dipyrromethanes, tripyrrromethanes and oligopyrrole pyrrole derivatives for synthesis of novel porphyrinoids.

## Role and Responsibility during Ph.D.

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- Familiar to use NMR data processing software's such as Topspin and MestreNova and exposure to ChemDraw and other database.
- Characterization of organic compounds using NMR 1D (<sup>1</sup>H, <sup>13</sup>C, DEPT-135), IR, UV, HRMS, Fluorescence and XRD data.
- NMR instruments operator (Bruker) for three years during Ph.D. in university of Hyderabad.
- **Instrument operated:** NMR, UV, IR and melting range apparatus.
- Familiar handling pressure reaction and reaction under nitrogen/ oxygen / Hydrogen atmosphere and low temperature reaction using cryo bath (Julabo).
- Handled different type of protection and deprotection strategy in organic synthesis.
- Used different type of oxidizing and reducing reagents

- Handled very sensitive reaction like McMurry, liquid ammonia, n-butyl lithium and PIFA coupling reactions etc.
- Very good knowledge of safety practice in the laboratory operation.

#### LIST OF PUBLICATIONS:

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1. **3,6,13,16-Tetrapropylporphycene: Rational synthesis, Complexation and Halogenation.** Jodukathula Nagamaiah, Arnab Dutta, Narendra Nath Pati, Sameeta Sahoo, Rahul Soman and Pradeepta K. Panda. *J. Org. Chem.* **2022**, *87*, 2721.
2. **3,6,13,16-Tetraalkylporphycene: Effect of Alkyl Groups on Complexation, Basicity and Photophysical Properties.** Jodukathula Nagamaiah, Arnab Dutta, Sameeta Sahoo, Sipra Sucharita Sahoo and Pradeepta K. Panda. (*Communicated in J. Org. Chem.*).
3. **A Novel Approach towards the Synthesis of Push Pull A2B2 Porphyrin.** Jodukathula Nagamaiah and Pradeepta K. Panda. (*Manuscript under the preparation*).

#### AWARDS AND FELLOSHIPS:

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1. Qualified **UGC-BSR, Junior Research Fellowship (JRF 2014-2017 and SRF July - 2017 to July-2019)**, University Grants Commission (UGC) India in **June 2014**.
2. Qualified Graduate Aptitude Test in Engineering (GATE), Government of India, 2016.
3. Project assistant (2020-2021).
4. Best oral award for **3,6,13,16-Tetrapropylporphycene: Rational synthesis, Complexation and Halogenation** in the “Recent Advances in bis and tetra-Pyrrolic Molecular Materials” from 24-26<sup>th</sup> August, 2020 held at Central University of Kerala, Kerala.
5. Active participated award for **3,6,13,16-Tetrapropylporphycene: Rational synthesis, Complexation and Halogenation** in the “Recent Advances in bis and tetra-Pyrrolic Molecular Materials” from 24-26<sup>th</sup> August, 2020 held at Central University of Kerala, Kerala.

#### CONFERENCES AND POSTER PRESENTATIONS

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1. Participated and presented an oral and a poster at the chemfest-2020 a 20<sup>th</sup> annual in house symposium organized by the school of chemistry (Feb-27-28), University of Hyderabad, India.

2. Participated and presented an oral and a poster at the “Recent Advances in bis and tetra-Pyrrolic Molecular Materials” from 24-26<sup>th</sup> August, 2020 held at Central University of Kerala, Kerala.

## PERSONAL DETAILS:

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**Male/Indian/Married**

**Date of Birth: 05/06/1988**

**Language: Telugu/English/Hindi**

**Present Address:** Prof. P. K. Panda research group, School of Chemistry, University of Hyderabad  
Hyderabad-500046, India.

**Permanent Address:** C/O- J. Naganna, H.No. 4/174. Konapuram (vil), Mettupalli (post), Kurnool  
(Dist), Andhra Pradesh-518122.

**Personal Attributes:** Interdisciplinary, co-operative (teamwork), experienced and capable for managing and supervising team members, technical and independent research abilities in diverse areas. Participating in social activities, happy to help older and needy people and Donate blood once or twice per year to needy people.

**Prof. Pradeepta K. Panda** ([Ph. D. Supervisor](#))

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Hyderabad-500046, India

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**Prof. R. Balamurugan**

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## **DECLARATION:**

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I hereby declare that the details furnished above are true to the best of my knowledge.

**Place: Hyderabad**

**April 2022**

(J.Nagamaiah)