

Curriculum Vitae

Dr. G. S. Ananthnag

Assistant Professor

Dept. of Chemistry

B.M.S. College of Engineering

Bull Temple Road, Bengaluru, 560 019, India

E-mail: [ananthnag.chem\[at\]bmsce.ac.in](mailto:ananthnag.chem@bmsce.ac.in)

[naganantha\[at\]gmail.com](mailto:naganantha@gmail.com)

Phone: +91-9036098655, +91-9483139225



Educational Qualifications

Ph.D. Indian Institute of Technology Bombay, Mumbai (2008-2014)

Thesis title: “Transition Metal Complexes of Multidentate Phosphorus Ligands: Synthesis, Structural Studies and Catalytic Applications”

Advisor: Professor Maravanji S. Balakrishna

M.Sc. Chemistry, Kuvempu University, Shivamogga, India (2005-2007, 1st Class with distinction)

B.Sc. Chemistry with Physics and Mathematics as core subjects, Kuvempu University, India, (2002-2005, 1st Class)

Professional Experiences

Assistant Professor: Aug 2015 to till date, Dept. of Chemistry, B.M.S. College of Engineering, Bengaluru, India.

Assistant Professor: Dec 2014 to July 2015, R and D Centre, B.M.S. College of Engineering, Bengaluru, India.

Research Associate: Apr 2014 to Sep 2014, Dept. of Chemistry, Indian Institute of Technology Bombay, Mumbai, India.

Project Assistant: Dec 2007 to June 2008, NMR Research Center, Indian Institute of Science, Bengaluru, India.

Awards and Fellowships

Qualified National Eligibility Test conducted by Council of Scientific and Industrial Research (CSIR) India for Junior Research Fellowship in 2007 and 2008

Awarded Junior Research Fellowship (CSIR) From 2008-2010

Awarded Senior Research Fellowship (CSIR) From 2010-2013

Qualified Graduate Aptitude Test in Engineering (GATE) in 2007 and 2008

Research Interests

Homogeneous catalysis with transition metal complexes

Application of phosphorus(III)/nitrogen based hybrid ligands in catalysis

Coordination chemistry and catalysis

Organometallic chemistry

Research Publications

1. **Ananthnag, G. S.**[§]; Mondal, D.[§]; Mague, J. T.; Balakrishna, M. S. “Synthesis of tetrapincer nickel(II) and palladium(II) complexes of resorcin[4]arene-octophosphinite [Res(OPR2)8] and rhodium-catalyzed regioselective hydroformylation reaction” *Dalton Trans.* **2019**, 48, 14632–14641. (**highlighted in cover page**)

[§]These authors contributed equally.

2. Pandey, M. K.[§]; Kunchur, H. S.[§]; **Ananthnag, G. S.**[§]; Mague, J. T.; Balakrishna, M. S. “Catechol and 1,2,4,5-tetrahydroxybenzene functionalized cyclodiphosphazane ligands: synthesis, structural studies, and transition metal complexes” *Dalton Trans.* **2019**, 48, 3610–3624.

[§]These authors contributed equally.

3. Raghavendra, S.; Shetty, T. C.; Chidan Kumar, C. S.; Maidur, S. R.; Patil, P.S.; Quah, C. K.; **Ananthnag, G. S.**; Chandraju, S.; Dharmaprakash, S. M. “Nonlinear reverse saturation absorption, self-defocusing behavior and structure-property relationship of a novel 2,3,4-trimethoxy-4'-nitrochalcone single crystal” *J. Mol. Struct.* **2019**, 1193, 177–184.
4. Chandrashekhara Shetty, T.; Raghavendra, S.; Chidan Kumar, C. S.; Naveen, S.; Maidur, S. R.; Patil, P. S.; Chandraju, S.; **Ananthnag, G. S.**; Dharmaprakash, S. M. “Crystal structure, Hirshfeld and third-order nonlinear optical properties of 3-(4-dimethylamino)phenyl)-1-(4-methoxyphenyl)prop-2-en-1-one: A potential material for optical limiting applications” *Opt. Mater.* **2018**, 86, 138–147.
5. **Ananthnag, G. S.**^{*}; Shetti, V. S.^{*} “Synthesis, Structure and Catalysis of Organometallic Porphyrin-Pincer Hybrids: A Review” *Dalton Trans.* **2017**, 46, 14062–14082. (**corresponding author**).
6. Raghavendra, S.; Chidan Kumar, C. S.; Chandra Shekhara Shetty, T.; Lakshminarayana, B. N.; Quah, C. K.; Chandraju, S.; **Ananthnag, G. S.**; Gonsalves, R. A.; Dharmaprakash, S. M. “Structure property relationship of a new nonlinear optical organic crystal: 1-(3,4-dimethoxyphenyl)-3-(3-fluorophenyl)prop-2-en-1-one for optical power limiting applications” *Results Phys.* **2017**, 7, 2550–2556.

7. **Ananthnag, G. S.**; Mague, J. T.; Balakrishna, M. S. “Synthesis, structural and catalytic studies of cyclophane type copper(I) complexes of a C₃ symmetric tris(phosphine) ligand” *Inorg. Chem.* **2015**, *54*, 10985–10992.
 8. **Ananthnag, G. S.**; Mague, J. T.; Balakrishna, M. S. “Cyclodiphosphazane based pincer ligand, [2,6- $\{\mu\text{-}(t\text{BuN})\text{P}(t\text{BuHN})\text{PO}\}_2\text{C}_6\text{H}_3\text{I}\}$: Ni^{II}, Pd^{II}, Pt^{II} and Cu^I complexes and catalytic studies” *Dalton Trans.* **2015**, *44*, 3785–3793.
 9. **Ananthnag, G. S.**; Mague, J. T.; Balakrishna, M. S. “Cyclodiphosphazane appended with pyridyl functionalities: reactivity, transition metal chemistry and structural studies” *J. Organomet. Chem.* **2015**, *779*, 45–54.
 10. **Ananthnag, G. S.**; Mague, J. T.; Balakrishna, M. S. “A mixed-valent cyclodiphosphazane: transition metal chemistry, *cis/trans* isomerisation.” *J. Chem. Sci.* **2015**, *127*, 979–986. (**highlighted in cover page**).
 11. **Ananthnag, G. S.**; Adhikari, A.; Balakrishna, M. S. “Iron catalyzed aerobic oxidative aromatization of 1,3,5-trisubstituted pyrazolines” *Cat. Commun.* **2014**, *43*, 240–243.
 12. Rashid, A.[§]; **Ananthnag, G. S.**[§]; Naik, S.; Mague J. T.; Panda, D.; Balakrishna, M. S. “Dinuclear Cu^I complexes of pyridyl-diazadiphosphetidines and aminobis(phosphonite) ligands: synthesis, structural studies and antiproliferative activity towards human cervical, colon carcinoma and breast cancer cells” *Dalton Trans.* **2014**, *43*, 11339–11351.
- [§]These authors contributed equally.
13. Balakrishna, M. S.; Suresh, D.; **Ananthnag, G. S.**; Mague, J. T. “Quaternization and oxidation reactions of cyclodiphosphazane derivatives and their copper(I) and gold(I) complexes” *Dalton Trans.* **2014**, *43*, 8835–8848.
 14. **Ananthnag, G. S.**; Edukondulu, N.; Mague, J. T.; Balakrishna, M. S. “Copper and palladium complexes of 2-(diphenylphosphino)-N,N-dimethylbenzylamine and its selenide derivative” *Polyhedron* **2013**, *62*, 203–207.
 15. **Ananthnag, G. S.**; Kuntavalli, S.; Mague, J. T.; Balakrishna, M. S. “Resorcinol based acyclic dimeric and cyclic di- and tetrameric cyclodiphosphazanes: synthesis, structural studies, and transition metal complexes” *Inorg. Chem.* **2012**, *51*, 5919–5930.
 16. Govindaraju, S.; **Ananthnag, G. S.**; Naik, S.; Mobin, S. M.; Balakrishna, M. S. “Allyl functionalized phosphinite and phosphonite ligands: Synthesis, transition metal chemistry and orthopalladation reactions” *J. Chem. Sci.* **2012**, *124*, 773–779.

Conference Presentations/Workshop attended

1. **Ananthnag, G. S.** and Balakrishna, M. S. “Synthesis and transition metal chemistry of cyclodiphosphazanes with donor functionalities” *In-house Symposium 2010* held in the

Department of Chemistry, Indian Institute of Technology Bombay, Mumbai, on February 26, 2011. (*Poster Presentation*).

2. **Ananthnag, G. S.** and Balakrishna, M. S. “Cyclodiphosphazanes with donor functionalities: synthesis, reactivity, transition metal chemistry and their applications” Chemistry of Functional Materials, Goa, India, August 12-14, 2011. (*Poster presentation*).
3. Participated in 3rd Indo-German Symposium on “*Frontier of Chemistry*” held in the Department of Chemistry, Indian Institute of Technology Bombay, Mumbai, on September 27-29, 2011.
4. Participated in 16th National Symposium on *Chemistry* held in the Department of Chemistry, Indian Institute of Technology Bombay, Mumbai, on February 07-09, 2014.
5. Attended One Week Faculty Development Program on “Recent Advances in Chemistry of Materials for Engineering Applications (RACMEA-2016)” July 11-15, 2016 at BMSCE, Bengaluru.
6. Attended One Week Faculty Development Program “On Essentials of Pedagogy” from July 25-29, 2016, at BMSCE, Bengaluru.

Other information

- Recognized Ph. D. guide from Visvesvaraya Technological University (VTU), Belagavi, India
- Member, Departmental Academic Committee (DAC), and Departmental Purchasing Committee (DPC), Department of Chemistry, B.M.S. College of Engineering, Bengaluru
- Department Feedback Coordinator, Department Website Coordinator, Department Time Table Coordinator, Department of Chemistry, B.M.S. College of Engineering, Bengaluru