



Newsletter (2019-2020)

Department of Chemistry JNTUH University College of Engineering, Kukatpally, Hyderabad (T.S.) – 500085 INDIA.



Greetings from Department of Chemistry, JNTUH.

The Department of Chemistry was established at the inception of the Jawaharlal Nehru Technological University Hyderabad. The Department of Chemistry has become one of the important science departments of the University. The department also has dedicated and enthusiastic group of faculty members involved in research activities at the Ph.D level. The areas include Synthetic Organic Chemistry, Spectroscopy, Inorganic Metal-Complexes, Analytical Chemistry and Natural Products of Biological importance. The department has grants from CSIR, UGC. The Department of Chemistry stood as one of the highly prolific institutions carrying research in organic chemistry from 2010 to till today.

VISION:

The Department is committed to raise the intellectual tone of the young students in understanding and incorporating the basics of rapidly progressing changes in the fields of Science & Technology, with an objective of enhancing their competence by applying their proficiency and skill for industrial and economic development by creating better living environment in the society.



Dr. M. Thirumala Chary,
Professor & Head
Depat. Of Chemistry, JNTUH.

MISSION:

- To identify, scientifically evaluate and implement proven, prevention-oriented, forward-looking solutions to critical scientific and technological problems.
- To make technology a principal instrument of economic development of the country and to improve the quality of life of the people through technological education, innovation, research, training and consultancy.
- The Department has a small but enthusiastic group of Teaching Faculty who has taken to teaching of Chemistry and Chemical research wholeheartedly. The Department has good laboratories and infrastructural facilities with financial inputs from the University, the College, the UGC and CSIR.






THE GOALS:

- To strengthen the edifice of Engineering and Technological Education on the four pillars teaching, research, training and consultancy.
- To play the lead role in harnessing and developing human resources towards economic, industrial, management through Chemistry.
- To attain technical excellence.
- To stimulate, support and collaborate in R & D efforts with industry.
- To pioneer and actively participate in evolving appropriate technologies.
- To develop native genius for the development of rural India.
- To adhere to the ethics of instruction.

INNOVATIVE PRACTICES ADOPTED:

- ❖ To incorporate fields experiences and field problems in lectures.
- ❖ To involve students in consultancy projects.
- ❖ To give practical oriented live projects for students as their project works.
- ❖ To take students to sites where some important and latest techniques are used to give latest technology exposure to students.
- ❖ To arrange guest lecturers of well-known researchers from various institutes across the globe for the benefit of the students

Courses offered by Dept. of Chemistry during 2018-19:

S.No	Name	Designation	Photo
1	Dr. Bhoomi Reddy Rama Devi	Professor	
2	Dr. Aparna Pasula	Assistant Professor	
3	Dr. Thatituri Sabithakala	Assistant Professor	
4	Prof. M. Thirumala Chary	Professor & Head of the Department	
5	Dr. Taduri Ashok Kumar	Assistant Professor (C)	

Number of Books Published during 2018-19:

Dr. B. Rama Devi, Ch. VRR & Prashanth Rath	A Text Book of Engineering Chemistry	2019	Cengage Publications
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FACULTY ACHIEVEMENTS:

Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during 2018-19:

S.No.	Name of the Research fellow	Duration of the fellowship	Type of the fellowship	Granting Agency
1.	B. Suryanarayana	2016-2021	JRF/SRF (Inspire)	DST
2.	Radhika	2017-2019	Post-Doc/ Research Associate	UGC-BRNS
3.	Riyaz Syed	2017-2021	Research Associate/ Co-PI	DST BRICS project
4.	Ch. Karuna	2018-2023	JRF/SRF (Inspire)	DST

Number of Ph.Ds awarded during the 2019-20:

Dr. M. Thirumala Chary:					
1	G. Vijaya Bhaskar	Chemistry	Dr. M. Thirumala Chary	2012	2019

Number of research papers published during 2019-20:

Dr. B. Rama Devi, Professor:

S.No.	Title of the paper	Name of the authors	Name of the journal	Year	Nat./Int
1.	A Facile Synthesis of Novel (Z)-3- (5- substituted- 1- ethyl- 3- aryl- 1H- indol- 3- yl)- 2- (1H- tetrazol- 5- yl) acrylate	Mahesh Goud Bakkolla, Ashok Kumar Taduri, Rama Devi Bhoomireddy	Journal of Heterocyclic Chemistry	2019	Int
2.	Synthesis of Substituted Azetidinones Derived from Dimer of Apremilast	Yellanki Jagannadham, Dodda Vivekananda Reddy, Bhoomireddy Ramadevi, Bethanamudi Prasanna	Chemical Science	2019	Int
4.	Palladium supported on phosphorus– nitrogen dual-doped carbon nanoparticles as cathode for hydrogen evolution in PEM water electrolyser	S Shiva Kumar, SUB Ramakrishna, KNaga Mahesh, BRama Devi, V Himabindu	Ionics	2019	Int
5.	Highly Efficient [3+2] Cycloaddition: Click Synthesis of Novel 1H- indol- 3- yl- benzo [d] imidazole Bis-triazoles	Mahesh Goud Bakkolla, Ashok Kumar Taduri, Rama Devi Bhoomireddy	Journal of Heterocyclic Chemistry	2019	Int
6.	Synthesis of Nefopam Analogues And Characterisation	Bhoomireddy Rama Devi Katuhoju Srinivasachary, Shashikant Tiwari, Y.S. Somannavar	International Journal of Pharmaceutical Sciences and Research	2019	Int

Dr. P. Aparna, Assistant Professor:

S.No.	Title of the publication	Name of the authors	Name of the journal	Year	Int. or Nat.
1	Targeting PUMA/Bcl-xL interaction by new specific compounds to unleash apoptotic process in cancer cells	Ramana Murthy AV, Narendar V, Kumar NS, Aparna P, Durga Bhavani AK, Gautier F, Barillé- Nion S, Juin P, Mosset P, Grée R, Levoine N.	European Journal of Medicinal Chemistry	2019	Int
2	An Efficient One-pot Three-component Method for the Synthesis of 5-Amino-3-(2-oxo-2H-chromen-3-yl)-7-aryl-7H-thiazolo[3,2- a]pyridine-6,8-dicarbonitriles	Kavitha Kotthireddy, Srikrishna Devulapally, Pramod Kumar Dubey, Aparna Pasula	Journal of Heterocyclic chemistry	2019	Int

3.	Novel dermacozine-1-carboxamides as promising anticancer agents with tubulin polymerization inhibitory activity	Venkata Rao Ghanta, Nagaraju Madala, Aparna Pasula, Sai Kiran S. S. Pindiprolu, Kumara Swamy Battula, Praveen T. Krishnamurthy * and Balamurali Raman*	RSC Advances	2019	Int
4	An efficient one-pot three-component synthesis of 2-(4-(2-oxo-2H-chromen-3-yl)thiazol-2-yl)-3-arylacrylonitriles and their cytotoxic activity evaluation with molecular docking	Kotthireddy Kavitha, Devulapally Srikrishna PasulaAparna	Journal of Saudi Chemical Society	2019	Int
5	An expedient one-pot tandem method for the synthesis of 3-(2-(phenylamino)thiazol-4-yl)-2H-chromen-2-ones under green conditions	K. Kavitha, D.Srikrishna, Pramod Kumar Dubey & P. Aparna	Journal of Iranian chemical society	2019	Int
7	A Green and Efficient Synthesis of Substituted 2-(4-(2-Oxo-2H-chromen-3-yl)thiazol-2-yl)-3-phenylacrylonitriles Under Environmentally Benign Conditions	Kotthireddy Kavitha, Devulapally Srikrishna, Pramod KumarDubey and Pasula Aparna*	Letters in Organic Chemistry	2019	Int
8	Synthesis and biological studies of new quinazolines with ether functions in position 2	Dabbugoddu Brahmaiah,a,b Anagani Kanaka Durga Bhavani, * Pasula Aparna, Nangunoori Sampath Kumar, Hélène Solhi,d Rémy Le Guevel, Blandine Baratte,e Sandrine Ruchaud, Stéphane Bach, Paul Mosset,and René Grée*	Arkivoc	2019	Int
9	Discovery of DB18, a potent inhibitor of CLK kinases with a high selectivity against DYRK1A kinase	Dabbugoddu Brahmaiah , Anagani Kanaka Durga Bhavani , Pasula Aparna , Nangunoori Sampath Kumar , Hélène Solhi , Rémy Le Guevel , Blandine Baratte , Sandrine Ruchaud , Stéphane Bach , Surender Singh Jadav 8, Chada	Bioorganic & Medicinal Chemistry,	2019	Int

		Raji Reddy , Thierry Roisnel , Paul Mosset, Nicolas Levoain , René Grée			
10	Synthesis and biological studies of new piperidino-1,2,3- triazole hybrids with 3-aryl isoxazole side chains	Appala Venkata Ramana Murthy, Vennu Narendar, Nangunoori Sampath Kumar,a Pasula Aparna, Anagani Kanaka Durga Bhavani, Hélène Solhi,d Rémy Le Guevel,Julie Roule, , Fabien Gautier,Philippe Juin,ChadaRaji Reddy, Paul Mosset,Nicolas LevoainRenéGrée,h*	Bioorganic & Medicinal Chemistry Letters,	2019	Int
11	A Green and Efficient Synthesis of Substituted 2-(4-(2-oxo-2H-chromen-3- yl)thiazol-2-yl)-3- phenylacrylonitriles Under Environmentally Benign Conditions	Kotthireddy Kavitha, Devulapally Srikrishna, Pramod Kumar Dubey and Pasula Aparna*	Letters in Organic Chemistry	2019	Int

Dr. M. Thirumala Chary, Professor:

S.No.	Title of the paper	Name of the authors	Name of the journal	Year	Nat/Int
1.	Synthesis and Docking studies of 1-phenyl-3-(4-(pyridin-2-ylmethyl)piperazin-1-yl)-1 <i>H</i> -pyrazolo[4,3- <i>b</i>]pyridine	Srivani, Laxminarayana, Thirumala Chary	Indian journal of heterocyclic chemistry	2019	National
2.	A facile synthesis and docking studies of 2,5-disubstituted 2 <i>H</i> -tetrazole derivatives	SrivaniLaxminarayana, Thirumala Chary	Heterocyclic letters	2019	Int
3.	Synthesis, docking studies, and biological evaluation of 1, 2, 4- triazole-linked quinoxaline derivatives	Rajani devi Laxminarayana, Thirumala Chary	Indian journal of eterocyclic chemistry	2019	National
4.	Synthesis and Characterization of 4- substituted-3,4-	Ravikumar Laxminarayana, Thirumala Chary	Organic chemistry plus	2019	Int

Dr. Ch. Venkata Ramana Reddy, Professor:

S.No.	Title of the paper	Name of the authors	Name of the journal	Year of	Nat./Int
1.	Synthesis, Crystal structure and DNA binding studies of 3-(2-(2-hydroxybenzylidene) hydrazinyl) quinoxalin-2(1h)- one	Ch. Venkata Ramana Reddy et al..	Crystallography Reports,	2019	Int
2.	Microwave-Assisted synthesis of 2,8-di(alkyl/aryl)-4,6-dichloro-2,8-dihydropyrano [3,2-g] chromene-3,7-dicarbaldehydes and their antimicrobial activity	Ch. Venkata Ramana Reddy et al..	J. Serb.Chem.	2019	Int
3.	Computational studies of 4-formylpyridinethiosemicarbazone and Structural and biological studies of its Ni(II) and Cu(II) complexes	Ch. Venkata Ramana Reddy et al..	Heteroatom Chem.	2019	Int
4.	Synthesis and biological evaluation of phenyl-amino-pyrimidine and indole/oxindole conjugates as potential BCR-ABL inhibitors	Ch. Venkata Ramana Reddy et al..	Med. Chem.	2019	Int
5.	Microwave-Assisted synthesis of 2,8-di(alkyl/aryl)-4,6- dichloro-2,8-dihydropyrano [3,2-g] chromene-3,7- dicarbaldehydes and their antimicrobial activity, J	Ch. Venkata Ramana Reddy et al..	Serb.Chem	2019	Int
6.	Equilibrium, synthesis, antioxidant and antibacterial studies on Zn(II), Cd(II) and Hg(II) complexes of 3-formylpyridinethiosemicarbazone and its N(4)-Methyl analogues	Ch. Venkata Ramana Reddy et al..	Russian J. Gen.Chem	2019	Int
7.	Computational studies of 4-formylpyridinethiosemicarbazone and Structural and biological studies of its Ni(II) and Cu(II) complexes,	Ch. Venkata Ramana Reddy et al..	Heteroatom Chem,	2019	Int
8.	Synthesis and biological evaluation of phenyl-amino-pyrimidine and indole/oxindole conjugates as potential BCR-ABL inhibitors.,	Ch. Venkata Ramana Reddy et al..	Med. Chem.	2019	Int
9.	Equilibrium, synthesis, antioxidant and antibacterial studies on Zn(II), Cd(II) and Hg(II) complexes of 3-formylpyridinethiosemicarbazone and its N(4)-Methyl analogue,	Ch. Venkata Ramana Reddy et al..	Russian J.Gen.Chem	2019	Int
10.	Identification, synthesis and evaluation of CSF1R inhibitors using fragment based drug design, Comp.	Ch. Venkata Ramana Reddy et al..	Biol. and Chem.	2019	Int
11.	Time-Domain Analysis of Molecular Dynamics Trajectories Using 2 Deep Neural Networks: Application to Activity Ranking of Tankyrase Inhibitors	Ch. Venkata Ramana Reddy et al..	J.Chem.Info. Mode	2019	Int

12.	Design, Synthesis and Anticancer Activity of 1,2,4-Thiadiazole Derivatives Bearing 1,2,4-Oxadiazole.	Ch. Venkata Ramana Reddy et al..	Russian J. Gen. Chem	2019	Int.
13.	Water Mediated One Pot and Step Wise Syntheses of Indolylidene Isoxazoles and Their Anti Cancer Activity and Molecular Modeling Studies,	Ch. Venkata Ramana Reddy et al..	Chemistry Africa	2019	Int.
14.	Synthesis of indolyl pyrazole scaffolds as potential anti-cancer agents and their molecular modeling studies,	Ch. Venkata Ramana Reddy et al..	Letters in Drug Design & Discovery	2019	
15.	An efficient approach for the synthesis of triazole conjugated pyrazole chalcone derivatives,	Ch. Venkata Ramana Reddy et al..	Chemistry Africa	2019	Int.
16.	An efficient approach for the total synthesis of balticolid,	Ch. Venkata Ramana Reddy	Tetrahedron Letters	2019	Int
17.	Microwave-Assisted synthesis of 2,8-di(alkyl/aryl)-4,6-dichloro-2,8-dihydropyrano [3,2-g] chromene-3,7-dicarbaldehydes and their antimicrobial activity, J	Ch. Venkata Ramana Reddy et al..	Serb.Chem	2019	Int
18.	Equilibrium, synthesis, antioxidant and antibacterial studies on Zn(II), Cd(II) and Hg(II) complexes of 3-formylpyridine thiosemicarbazone and its N(4)-Methyl analogue,	Ch. Venkata Ramana Reddy et al..	Russian J. Gen.Chem	2019	Int

Dr.T.Ashok Kumar, Assistant Professor (C):

S.No.	Title of the paper	Name of the authors	Name of the journal	Year	Type of publication
1.	Highly Efficient [3 + 2] Cycloaddition: Click Synthesis of Novel 1 <i>H</i> -indol-3-yl-benzo[d]imidazole Bis-triazoles	Mahesh Goud Bakkolla, Ashok Kumar Taduri , Rama Devi Bhoomireddy	Journal of Heterocyclic Chemistry	2019	Int
2.	A Facile and Microwave Assisted Solvent Free Synthesis of Novel Indole Pyrimidine Imide Derivatives	Mahesh Goud Bakkolla, Ashok Kumar Taduri , Rama Devi Bhoomireddy	Chemistry Africa A Journal of the Tunisian Chemical Society	2019	Int

Number of books and chapters in edited volumes published during 2019-20:

1. Dr. B. Rama Devi, Engineering Chemistry, Cengage

Publications Authors: Prashant Rath, B. Rama Devi, Ch. Venkata

Ramana Reddy, Subhendu Chakraborty

ISBN-13: 978-93-86668-08-0

ISBN-10: 93-86668-08-4

Year of Publication: 2019

Bibliometrics of the publications during 2019-20:**Dr. B. Rama Devi, Professor:**

S.No.	Title of the Paper	Name of the authors	Title of the Journal	Year	Citation Index
1.	A Facile Synthesis of Novel (Z)- ethyl- 3- (5- substituted- 1- alkyl/aryl- H- indol- 3- yl)- 2- (1 H- tetrazol- 5- yl) acrylate	Mahesh Goud Bakkolla, Ashok Kumar Taduri, Rama Devi Bhoomireddy	Journal of Heterocyclic Chemistry	2019	1
2.	Palladium supported on phosphorus– nitrogen dual-doped carbon nanoparticles as cathode for hydrogen evolution in PEM water electrolyser	S Shiva Kumar, SUB Ramakrishna, K Naga Mahesh, B Rama Devi , V Himabindu	Ionics	2019	12

Dr. M. Thirumala Chary, Professor:

S.No.	Title of the Paper	Name of the authors	Title of the Journal	Year	Citation Index
1.	Synthesis, docking studies, and biological evaluation of 1, 2, 4-triazole-linked quinoxaline derivatives	Rajani devi, Laxminarayana, Thirumala Chary	Indian journal of heterocyclic chemistry	2019	1

Dr. P. Aparna, Assistant Professor:

S.No.	Title of the Paper	Name of the Authors	Journal	Year	Citation
1	Targeting PUMA/Bcl-xL interaction by new specific compounds to unleash apoptotic process in cancer cells	Ramana Murthy AV, Narendar V, Kumar NS, Aparna P , Durga Bhavani AK, Gautier F, Barillé-Nion S, Juin P, Mosset P, Grée R, Levoine N.	European Journal of Medicinal Chemistry	2019	2
2	An Efficient One-pot Three-component Method for the Synthesis of 5- Amino-3-(2-oxo-2H- chromen-3-yl)-7-aryl-7H-thiazolo[3,2-a]pyridine-6,8-dicarbonitriles	Kavitha Kotthireddy, Srikrishna Devulapally, Pramod Kumar Dubey, Aparna Pasula	Journal of Heterocyclic chemistry	2019	2
3.	Novel dermacozine-1-carboxamides as promising anticancer agents with tubulin polymerization inhibitory activity	Venkata Rao Ghanta, Nagaraju Madala, Aparna Pasula, Sai Kiran S. S. Pindiprolu, Kumara Swamy Battula, Praveen T. Krishnamurthy* and Balamurali Raman*	RSC Advances	2019	5

4	An efficient one-pot three-component synthesis of 2-(4-(2-oxo-2H-chromen-3-yl)thiazol-2-yl)-3-arylacrylonitriles and their cytotoxic activity evaluation with molecular docking	Kotthireddy Kavitha Devulapally Srikrishna Pasula Aparna	Journal of Saudi Chemical Society	2019	7
5	An expedient one-pot tandem method for the synthesis of 3-(2-(phenylamino)thiazol-4-yl)-2H-chromen-2-ones under green conditions	K. Kavitha, D. Srikrishna, Pramod Kumar Dubey & P. Aparna	Journal of Iranian chemical society	2019	3
6	A Green and Efficient Synthesis of Substituted 2-(4-(2-Oxo-2H-chromen-3-yl)thiazol-2-yl)-3-phenylacrylonitriles Under Environmentally Benign Conditions	Kotthireddy Kavitha, Devulapally Srikrishna, Pramod Kumar Dubey and Pasula Aparna*	Letters in Organic Chemistry	2019	1
7	Synthesis and biological studies of new quinazolines with ether functions in position 2	Dabbugoddu Brahmaiah,a,b Anagani Kanaka Durga Bhavani, Pasula Aparna , Nangunoori Sampath Kumar, Hélène Solhi,d Rémy Le Guevel, Blandine Baratte,e Sandrine Ruchaud, Stéphane Bach, Paul Mosset and René Grée*	Arkivoc	2019	2
8	An unusual synthesis of 3-(2-(arylamino) thiazol-4-yl)-2H-chromen-2-ones from ethyl 2-(chloromethyl)-2-hydroxy-2H-chromene-3-carboxylate via benzopyran ring opening	Kotthireddy Kavitha, Devulapally Srikrishna, Balasubramanian Sridhar, Pasula Aparna	Journal Molecular Diversity	2019	2
9	Protective effects of piper betel phenol, hydroxychavicol and its derivatives against rotenone induced	Venkata Rao Ghanta, Aparna Pasula, Sai Kiran SS Pindiprolu, Praveen T Krishnamurthy, Ravi	World Journal of Pharmaceutical Research	2019	

Faculty Development Programmes (FDP) attended during 2019-20:

Dr. B. Rama Devi:

S.No.	Name of the teacher	Title of the Program	Duration (From-To)
1.	Dr. B. Rama Devi, Professor	Two Day National Seminar on Recent Trends in Research Methodology in Chemistry organized by Ideal College of Arts & Sciences, Kakinada and delivered an invited lecture on “Applications of Green Chemistry”.	15-16 th November, 2019
2.	Dr. B. Rama Devi, Professor	UGC-Sponsored Short term Course on “Technology Enhanced Learning for Academic Administrators”, UGC-HRDC, JNTUH.	18-20 th December, 2019

List of Conferences and seminars conducted:

Dr. M. Thirumala Chary, Professor:

S. No.	Name of the Dept./Centre	Name of the Faculty & Designation	Nature of the Event	Title of the Event	Duration	Grant released for conduct	No. of Participants
1.	Chemistry	Dr.M.Thirumala Chary, HOD of Chemistry and Dr. Ch. Venkata Ramana Reddy, Professor of Chemistry	Faculty development programme	AICTE sponsored Five Day Faculty Development Programme on “Engineering Chemistry”	05 days, 02-12-2019 to 06-12-2019.	NIL	40

Value Added Courses Organized:

S.No.	Name of the teacher	Title of the Program	Duration (From-To)
1.	Dr. B. Rama Devi	„Delivered guest lecture on Fuels in Avanthi College of Engineering for B.Tech students“	10 th December, 2019
2.	Dr. B. Rama Devi	„Invited lecture on Role of Chemistry in Environmental Protection, FDP for Polytechnic teachers at NITTTR, Masabtank, Hyderabad“	19-23 Feb 2019

3.	Dr. B. Rama Devi	Invited talk in HITAM college on “the applications IR and UV Instrumentation”.	28-02-2019
4.	Dr. B. Rama Devi	Invited talk on “the applications IR and UV Instrumentation” at Kommuri Pratapa Reddy Institute of Technology on the occasion of International Women’s Day	09-03-2019

BoS Conducted during 2019-20:

1. A BoS in Chemistry meeting conducted in Dept. of Chemistry on May 2nd, 2019.

MINUTES OF BOS MEETING (INTERNAL COMMITTEE) HELD ON 2 nd MAY, 2019.			
Department of Chemistry, JNTU H. Campus, Hyderabad.			
Meeting of Board of Studies in Chemistry with its internal committee held in the Department of Chemistry on 2 nd May, 2019. The meeting was held at			
1. Dr. M. Thirumala Chary	Professor of Chemistry	Chairman	
2. Dr. Ch. Venkata Ramana Reddy	Professor of Chemistry	Member	
3. Dr. A. Sabitha Kala	Professor of Chemistry	Member	
4. Dr. T. Sabitha Kala	Asst. Professor of Chemistry	Member	
5. Dr. P. Aparna	Asst. Professor of Chemistry	Member	

2. A BoS in Chemistry is conducted in Dept. of Chemistry on 19th July, 2019.

<u>Minutes of meeting</u>		
The meeting of Board of studies in Chemistry is held on 19 th July, 2019, In the Dept. of Chemistry, JNTU H-CEH. The following members are present in the meeting.		
1. Dr. M. Thirumala Chary – Professor & Head		Chairman
2. Dr. A. Panasa Reddy, Professor, Osmania University		Member
3. Dr. B. Srinivasa Reddy, Asst. Professor (Alumni)		Member
4. Dr. Ch. Venkata Ramana Reddy-Prof of Chemistry		Member
5. Dr. B. Rama devi – Prof of Chemistry		Member
6. Dr. T. Sabitha kala – Asst. Professor		Member
7. Dr. P. Aparna – Asst. Professor		Member