

Dr Togapur Pavan Kumar

Senior Scientist

CSIR-Institute of Minerals & Materials Technology (IMMT)

Bhubaneswar- 751013; Odisha, India

Personal

Date of Birth : June 10, 1982
 Nationality/Sex/Marital Status : Indian/Male/Married
 Languages Known : English, Hindi, Telugu and Kannada
 E-mail : pavantogapur@immt.res.in / pavantogapur@gmail.com
 Mobile : +91-8008105781

Education

Name of the Exam	Board/ University	Year of Passing	Major Subjects	% of Marks	Rank
BSc	Osmania	2002	Microbiology, Zoology & Chemistry	78.5	1 st (in College)
MSc	Osmania	2004	Organic Chemistry(<i>Drug Design</i>)	83.2	1 st (in University)
PhD	Osmania (CSIR- IICT)	2011	Organic Chemistry <i>Thesis title: "Synthesis and Applications of Pyrrolidine Based Amino Acids and Hydroxylamine Derivatives"</i>		
PG Diploma in Patents Law	NALSAR	2014	Patents Law with "A" grade		

IP and Management Courses

Name of the Course	Board/ University	Year of Passing	%Marks/ Grade
General Course on Intellectual Property	WIPO Academy	2016	91 / A
Advanced Course on Patent Drafting	WIPO Academy	2016	72
Course on Patent Cooperation Treaty	WIPO Academy	2016	A
Diploma in Business Management & Entrepreneurship	ALISON Academy	2016	90
Diploma in Project Management	ALISON Academy	2016	93
Intellectual Property Management	WIPO Academy	2017	RA
Promoting Access to Medical Technologies and Innovation	WIPO Academy	2017	RA

Employment

Organization	Designation	From	To	Nature of duties
Tagore Govt. Arts & Science College	Assistant Professor	Jan 2018	Sep 2019	Teaching, Research & Academic Management activities
CSIR-IICT	INSPIRE Faculty & AcSIR-Assistant Professor	May 2012	Jan 2018	Research & Development; Academic activities; IP Activities Intellectual Property, Technology Development, Management and Commercialization
DOLCERA	IP Scientist	Jan 2011	May 2012	IP Search, Analytics, Training, Documentation and Management
CSIR-IICT	Research Fellow	Feb 2006	Dec 2010	Basic Research & Scientific activities
LOYOLA ACADEMY	Lecturer	Dec 2004	Feb 2006	Teaching & Academic management activities
DR REDDYS LABS	Technical Trainee	May 2004	Dec 2004	Research and Development/ Analytical / Documentation
NDSU-USA	Visiting Fellow	April 2015	July 2015	R&D, IP Activities
NRDC	Manager	Nov 2016	Jun 2017	Intellectual Property (IP) and Technology Transfer (TT)

Work / Research Experience**Research/Technology Skills**

- **Basic Research:** Organocatalysis-Asymmetric Synthesis; Nucleic Acid Chemistry; Process Chemistry, Medicinal Chemistry; Natural Product Synthesis & Flow Chemistry
- **Technology:** Process/Technology Development and Demonstration, Client management, Project execution and monitoring, Documentation and Result submission etc.
- **Academic Teaching:** Organic Chemistry Courses and Intellectual Property (IP), Patent Search and Analytics

Information Analytics/IP Skills/Management

Patent and non-patent literature searches and analytics using various databases/STN Search and Markush Structure Analysis/Drafting and Management

- **Search/Analysis Skills:** Structure, Reaction, Formulation, Keyword, Class code, Patentability, Invalidation, FTO, Landscape, Technology Trends and Updates etc.
- **General Databases:** Sci-Finder, Reaxys, Scirus, PubMed, SureChem, ISI web of Knowledge, Chemspider, Google Scholar, One-Source, ISYS, Lexis-Nexis, Engineering Village etc.
- **Patent Search Databases:** Micropat, Thomson Innovation, Total Patent, Free Patents Online, Google patents, Questel Orbit, IPO, SIP, EPO, USPTO, JPO, WIPO etc.

- **STN Databases:** Marpat, Registry, Caplus, Casreact, Djmsonline, Drugu, Cheminformrx, Medline, Wpindex etc.
- **Patent Drafting:** Courses/Training from WIPO, RGNIPM, CSIR-NISCAIR, ni-msme and drafted about 15 patents in the fields of Chemistry, Chemical Engineering and Biology
- **IP Management:** Involved in all kinds of IP activities of the organization/s-Awareness and promotion, Identification of potential inventive works, Patentability opinion, Search and Analysis, Invention disclosure, patent writing, Filing process, Responding to queries at different stages and IP Trend analysis project with INAE etc.

Contribution towards Process /Technology Projects

Process Technology	Level	Output
Lipoic acid	Ready to transfer	Patent Application Submitted for Filing
Acetaminophen	Scale-up studies	Continuous method
Nicotine	Ready to transfer	Patent filed IN201611002388 Dated 8th Jan, 2016 WO2017/119003 Dated 13th July, 2017
Etodolac	Feasibility studies	Ongoing

Research Projects as PI

Grant Title	Grant Agency	Year	Grant Value
INSPIRE Faculty Award	DST	2012-2017	35 Lakh
Fast Track Young Scientist	SERB	2015-2018	28.6 Lakh

Patent Writing/Drafting Activities

Project/Research Group	Organization	IP Support Carried out	Output/Remarks
HH Project	CSIR-IICT & GACL	IP Generation/Protection	Patent filed
Dr K Srigiridhar	CSIR-IICT&CSIR-CCMB	IP Generation/Protection	3 Patents filed / US Patent Published
Prof C Suresh Reddy / Dr U Ramesh	SV University & CSIR-IICT	IP Generation/Protection	Patent Submitted
Dr ChRaji Reddy / Dr B Nagendra Babu	CSIR-IICT & NIPER	IP Generation/Protection	Patent filed
Dr Rajiv Trivedi / Dr Amitava Das	CSIR-IICT	IP Generation/Protection	Patent filed
Dr P Srihari / Prof G Mehta	CSIR-IICT & HCU	IP Generation/Protection	Patent filed
Dr K V Raghavan	INAE-IICT	IP Project	Proposal granted
Dr B V Rao	CSIR-IICT	IP Generation/Protection	Patent filed

Details of Awards/Fellowships/Honours

Award Type	Award Name	Awarding Agency	Year
National Level	Summer Research Fellowship	Indian Science Academies	2019
National Level	Refresher Course in Chemistry	Indian Science Academies	2018
National Level	Refresher Course in Material Synthesis	Indian Science Academies	2018
International Level	Scholarship for Patent Information Search	WIPO	2017
International Level	Scholarship for course on Patents	WIPO	2017
State Level	Young Scientist	Telangana Academy of Sciences	2016
International Level	Scholarship for Patent Drafting course	WIPO	2016
International Level	Visiting Fellowship	North Dakota State University	2015
International Level	Post-Doctoral Fellowship	Dalhousie University (Did not avail)	2015
State Level	Associate Fellow	AP Academy of Sciences	2015
National Level	Young Scientist - (Fast-track)	DST-SERB	2015
National Level	Assistant Professor	AcSIR	2014
National Level	INSPIRE Faculty	DST	2012
National Level	CSIR-UGC-NET	CSIR	2005
National Level	CSIR-JRF	CSIR	2006
National Level	CSIR-SRF	CSIR	2008
University Level	University FIRST in MSc Chemistry	Osmania University	2008
University Level	V Bheemaiah Memorial Gold Medal	Osmania University	2008
University Level	Dr Sadashiv D Thatte Memorial Gold Medal	Osmania University	2008
University Level	Prof N VSubba Rao Memorial Gold Medal	Osmania University	2008

University Level	Dr KAnji Reddy Gold Medal	Osmania University	2008
College Level	Gold Medal	Vivek Vardhini College	2003
District Level	Fellowship for school & college education	MHRD, GoI	1992-99

Publications / Patents

Total Publications	21	Total Patents	19
International	20	National/International Filed	14 (487/DEL/2015; 201611000697; 201611002388; 201611008487; 201611028762; <i>P1013151GB</i>)
Single Author	2		
Corresponding/First Author	10	International Published	2(US20160244470A1); (WO2017/119003)
Others	8		
National	1	Submitted to IP Cell	--

Recognitions/Memberships

Recognition/Membership	Agency	Year
Associate Fellow	Andhra Pradesh Academy of Sciences - APAS	2014
Life member (1616)	Chemical Research Society of India - CRSI	2013
Assistant Professor (1297)	AcSIR	2014
INSPIRE Faculty (IFA12CH30)	Department of Science & Technology - DST	2012
Fast Track Scientist	Science & Engineering Research Board - SERB	2015
Life member (2959)	Material Research Society of India - MRSI	2018
Life member	Indian Society of Chemists & Biologists - ISCB	2018
Life Member	Indian Science Congress - ISC	2019
Member	Global Intellectual Property Convention - GIPC	2018

Scientific Programs/Courses- Participation

S No	Program / Course	Duration	Dates/Year	Institution/Organizers
1	MOOCs- NPTEL Online Certification Programme in Managing Intellectual Properties in Universities	--	April 2019	IIT Madras (MHRD, GoI)
2	MOOCs- (ARPIT) - Online Refresher Course in Chemistry for Higher Education Faculty	--	April 2019	UGC-SWAYAM

3	Science Academies Refresher Course on 'Upskilling Chemistry teachers on latest pedagogical tools for impactful teaching'	15 days	Nov 27- Dec 11, 2018	Vignan's –VFSTR-University, Vadlamudi, Guntur-522213, Andhra Pradesh
4	UGC sponsored Orientation Programme	28 days	May 24-June 20, 2018	UGC-HRDC, University of Madras, Chennai, Tamilnadu
5	Science Academies Refresher Course	14 days	May 7-20, 2018	Saiva Bhanu Kshatriya College, Arippukottai, Tamilnadu

IP Training/Workshop Attended

S No	Training/Workshop	Duration	Dates/Year	Institution/Organizers
1	Managing IP Assets for Business and Academic Competence-MIPCON 2016	2 d	Sep 8-9/2016	APTDC-CII, Hyderabad
2	Patent Strategy for Entrepreneurs, Scientists and Engineers	3 d	Aug 10-12/2016	ni-msme, Hyderabad
3	Patent Drafting	5 d	Jun 13-17/2016	CSIR-NISCAIR, New Delhi
4	Introduction to Intellectual Property Rights	2 d	Apr 9-10/2016	IPAI, New Delhi
5	Patents for Entrepreneurs, Scientists & Engineers-Wave 3	2 d	Feb 11-12/2016	NCL-Innovation, Pune
6	Patinformatics for technological competitive intelligence and licensing	3 d	Dec 7-9/2015	CSIR-URDIP, Pune
7	The European Patent System and EPO Examination Practice	1 d	Oct 7/2015	NCL-Innovation, Pune
8	Patenting System in India	5 d	Aug 10-14/2015	RGNIIPM, Nagpur
9	Patent Drafting and Claims Interpretation	5 d	Nov 24-28/2014	ni-msme, Hyderabad
10	Management of Patent Portfolio Pharmaceutical, Biotech & Chemical	3 d	Sep 26-28/2013	IIPRD, Mumbai

Conferenec / Workshop – Talks/Presentations

S No	Conference/Workshop	Title of the talk/presentation	Dates/Year	Institute/Organizer	
1	Internationsl Conference on Strategic Management, Decision Theory & Data Science –SMTDS 2020		3 d	Jan 4-6, 2020	CSIR-CGCRI, Kolkata
2	IISF –Young Scientists Conference-2019		4 d	Nov 5-8, 2019	IISF, Kolkata
3	IPR Awareness Program	Importance and Applications of IPR		July 20, 2019	NIT - Puducherry
4	Recent Advances in Chemistry (RAC-19)	Strategies for Protecting Chemical Inventions		Jan 5, 2019	Department of Chemistry, Anna University, Chennai
5	Recent Advancements in Nanotechnology (RAN-2018)	Spirooxy indole compounds as GSK3 inhibitors and process for preparation of these compounds		Sep 19-20, 2018	NIT - Puducherry
6	Sustainable Chemistry for Health, Environment and Materials (SuCHEM-2018)	Improved Process for Production of Lipoic Acid		Aug 5-8, 2018	CSIR-IICT, Hyderabad

7	Managing IP Assets for Business and Academic Competence-MIPCON 2016	Introduction and overall view of IPR/Patents & Industrial designs for innovative Products	Oct 27, 2016	MSME-DI, Hyderabad
8	Intellectual Property Rights & Implications for MSMEs	Intellectual Property: Strategies for Protection and Commercialization	Oct 20, 2016	ni-msme, Hyderabad
9	Frontiers at the Chemistry - Allied Sciences Interface (FCASI)	Intellectual Property: Strategies for Protection of Inventions	April 26, 2016	University of Rajasthan, Jaipur
10	Promotion and Awareness Programme	Intellectual Property: Strategies for Protection of Inventions for all	Feb 24, 2016	CSIR-IICT, Hyderabad
11	Group Seminar Activity	Intellectual Property: Strategies for Protection of Inventions for Research Scholars	July 2, 2016	DNPC-IICT, Hyderabad
12	Promotion and Awareness Programme	Asymmetric synthesis and IPR for PG Students	Dec 2015	Loyola Academy, Hyderabad
13	One week course faculty	Science, Technology and Innovation	Aug 2016	CU Gujarat, Gandhinagar
14	Visiting/Guest Lectures Visiting/Guest Lectures	Organic Synthesis and Spectroscopy	Feb 2010	Andhra Loyola College-Vijayawada
15	Visiting/Guest Lectures	Photochemistry, Heterocyclic chemistry, Spectroscopy & Asymmetric synthesis	Aug 2009/Apr 2011	Adarsh College, Mahabubnagar
16	Visiting/Guest Lectures	Asymmetric synthesis & Nucleic acids	Aug 2009/Dec 2011/Oct 2012	Sri Chaitanya College, Mahabubnagar
17				
18	Visiting/Guest Lectures	Asymmetric synthesis, Photochemistry & Nucleic acids	Feb 2009/Apr 2010	Pragathi College, Hyderabad
19	Visiting/Guest Lectures	Photochemistry, Heterocyclic chemistry, Spectroscopy & Asymmetric synthesis	2006-2015	Loyola Academy-Secunderabad
20	Awareness Sessions	Patent Search and Analysis Patent search and analysis	2013 onwards	AcSIR; CSIR-IICT
21	Group Seminar	C-C bond formation via C-H activation	----	CSIR-IICT
22	Group Seminar	Asymmetric Organocatalytic Domino Reactions	----	CSIR-IICT
23	Group Seminar	Asymmetric Multi Component Reactions	----	CSIR-IICT
24	Group Seminar	Basics and importance of Intellectual Property	----	CSIR-IICT

Scientific Conferences- Participation

S No	Conference/Symposium	Duration	Dates/Year	Institution/Organizers
1	International Symposium "Nature Inspired Initiatives in Chemical Trends (NICT)	2 d	Sep 8-9/2016	CSIR-IICT, Hyderabad
2	CRSI National Symposium in Chemistry- CRSI NSC-19	3 d	Jul 14-16/2016	North Bengal University, Silguri

3	International Conference Frontiers at the Chemistry - Allied Sciences Interface (FCASI)	2 d	Apr 25-26/2016	University of Rajasthan, Jaipur
4	National Conference on "Drug Discovery and Development in Chemistry- Applications in Pharma Industry (DDCC)	2 d	Sep 14-15/2015	SV University, Tirupati
5	International Symposium "Nature Inspired Initiatives in Chemical Trends (NICT)	3 d	Mar 2-5/2014	CSIR-IICT, Hyderabad
6	International Symposium "Chemistry and Chemical Biology of Natural Products (CCBNP)	3 d	Aug 2-4/2012	CSIR-IICT, Hyderabad
7	International Symposium "Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges (OSHWB)	5 d	Aug 1-4/2010	CSIR-IICT, Hyderabad
8	National conference on Recent advances in Chemical Research (NCRACR)	2 d	Feb 6-7/2009	Osmania University, Hyderabad
9	Symposium on Modern Aspects of Organic Spectroscopy and Drug Chemistry	2 d	Feb 26-27/2009	Loyola Academy, Hyderabad
10	NMRS-Symposium for NMR Trends	4 d	Feb 2-5/2009	CSIR-IICT, Hyderabad
11	Asian Symposium on Medicinal Plants, Spices & Other Natural Products (ASOMPS-XIII)		Nov 3-5/2008	CSIR-IICT, Hyderabad
12	Symposium "FRONTIERS IN CHEMISTRY	2 d	Feb 17-18/2006	Loyola Academy, Hyderabad
13	Workshop for Chemistry teachers of postgraduate colleges	2 d	Jul 22-23/2005	Osmania University, Hyderabad
14	CHEMILUMINESCENS" an inter-college Faculty level Seminar	2 d	Aug 24-25/2005	St. Ann's College, Hyderabad
15	Educational exhibition conducted by JNVS Hyderabad region	3 d	Sep 19-21/1997	JNV- Karimnagar

List of Patents

1. Synthesis and biological evaluation of mitochondria-targeted esculetin for its anti-atherosclerotic and age delaying effects: KotamrajuSrigiridhar, Santosh Kumar, **TogapurPavan Kumar**, B. V. S. Reddy, Mahesh Kumar (*Indian Patent Application No: 478/DEL/2015; US Publication No:US20160244470A1; GB Application No: P1013151GB*)
2. Oxy imido triazoles and oxime ethers from hydroxylamine derivatives: Srivari Chandrasekhar, **Togapur Pavan Kumar**, VidyavathiPatro, Prathama S Mainkar, ChadaRaji Reddy (*Indian Patent Application No: 201611000697*).
3. A process for the preparation of nicotine: Prathama S Mainkar,KondepudiSugnana Sunder, **Togapur Pavan Kumar**, Srivari Chandrasekhar (*Indian Patent Application No: 201611002388; PCT Publication No: WO2017/119003; EP Application No: 17707968.8*).
4. Spirooxindole compounds as GSK3 inhibitors and process for preparation thereof: Prathama S Mainkar, Mohammad Abdul Sattar, Mallesham, **Togapur Pavan Kumar**,

- Ummanni Ramesh, DivyaDuscharla, Srivari Chandrasekhar (*Indian Patent Application No: 201611008487; PCT Application No: PCT/IN2018/050134*).
- An improved process for the production of lipoic acid: Srivari Chandrasekhar, **Togapur Pavan Kumar**, KondepudiSugana Sunder, Vanka Uma MaheshwaraSarma, Prathama S Mainkar (*Indian Patent Application No: 201811016688*).
 - Isothiocyanate compounds as SMAR1 stabilizers: Srivari Chandrasekhar, **Togapur Pavan Kumar**, Prathama S Mainkar, SamitChatopadhyay, Shruti Joshi, Venkatraju Chippala(*Indian Patent Application No: 201611028762*).
 - Nimbolide derivatives as anticancer agents and their preparation thereof: Srivari Chandrasekhar, Prathama S Mainkar, KarreNagaraju,**Togapur Pavan Kumar**, , Ummani Ramesh, KanchanapalliTejaswini, K. Suresh Babu, B S Sastry, DebabrataMukhopadhyay(*Indian Patent Application No: 201811000561*).
 - Indole (sulfomyl) N-hydroxy benzamide derivatives as selectiveHDAC inhibitors:Srivari Chandrasekhar, Prathama S Mainkar, Chada Raji Reddy, KotamrajuSrigiridhar, **Togapur Pavan Kumar**, Muppidi Mohan Venkata Subbarao, somesh Sharma, Ashok Kumar Jha, PremkumarArumugam(*Indian Patent Application No: 201711042426; PCT Application No: PCT/IN2018/050514*).
 - Process for the preparation of zafirlukast and analogs theeof: Srivari Chandrasekhar, Paladugu Srinu, Prathama S Mainkar , **Togapur Pavan Kumar**, (*Indian Patent Application No: 201711046976; PCT Application No: PCT/IN2018/050513*).

List of publications

- Enantioselective Michael addition of aldehydes to nitroolefins catalyzed by pyrrolidine-HOBt: **Togapur Pavan Kumar***, Mohammad Abdul Sattar, Sthanikam Siva Prasad, Kothapalli Haribabu, Cirandur Suresh Reddy(*Tetrahedron: Asymmetry*, **2017**, *28*, 401-409).
- Pyrrolidine-HOBt: an oxytriazole catalyst for the enantioselective Michael addition of cyclohexanone to nitroolefins in water:**Togapur Pavan Kumar***, Sthanikam Siva Prasad Kothapalli Haribabu, Veerjala Naveen Kumar Cirandur Suresh Reddy(*Tetrahedron: Asymmetry*, **2016**, *27*, 1133-1138).
- Chiral Pyrrolidine-Pyrazole Catalyzed Enantioselective Michael Addition: a Mechanistic Study by Computational Methods: Ramesh Kumar Chitumalla,**Pavan Kumar Togapur** and Joonkyung Jang* (*Bull. Korean Chem. Soc*, **2016**, *37*, 1554-1555).
- Asymmetric aldol reaction of isatins catalyzed by phthalimido-prolinamide: **Togapur Pavan Kumar***, Nemali Manjula, Kumar Katragunta(*Tetrahedron: Asymmetry*, **2015**, *26*, 1281-1284).
- Pyrrolidine-oxyimide catalyzed asymmetric Michael addition of α,α -disubstituted aldehydes to nitroolefins: **Togapur Pavan Kumar***(*Tetrahedron: Asymmetry*, **2015**, *26*,907-911).

6. Myrtanyl-prolinamide: a new chiral organocatalyst for stereoselective aldol reactions **Togapur Pavan Kumar***, Rapelli Chandra Shekhar, Kondepudi Sugnana Sunder, Rajesh Vadaparthi (*Tetrahedron: Asymmetry*, **2015**, *26*, 543-547).
7. Pyrrolidine-oxyimides: new chiral catalysts for enantioselective Michael addition of ketones to nitroolefins in water: **Togapur Pavan Kumar***, Laghuvarapu Radhika, Kothapalli Haribabu, Veerjala Naveen Kumar (*Tetrahedron: Asymmetry*, **2014**, *25*, 1555-1560).
8. AZT-prolinamide: the nucleoside derived pyrrolidine catalysts for asymmetric aldol reactions in water: Tumma Naresh, **Togapur Pavan Kumar**, Kothapalli Haribabu, Srivari Chandrasekhar* (*Tetrahedron: Asymmetry*, **2014**, *25*, 1340-1345).
9. Intellectual Property Rights-Patents and their application procedures: **Togapur Pavan Kumar*** (*Proceedings of APAS, Special Issue on Science for Society, December 2014*, *16*, 29-42).
10. Asymmetric Michael addition of aldehydes to nitroolefins catalyzed by pyrrolidine-pyrazole: **Togapur Pavan Kumar*** (*Tetrahedron: Asymmetry*, **2014**, *25*, 1286-1291).
11. Enantioselective Michael addition of α,α -disubstituted aldehydes to nitroolefins catalyzed by pyrrolidine-pyrazole: **Togapur Pavan Kumar***, Kothapalli Haribabu (*Tetrahedron: Asymmetry*, **2014**, *25*, 1129-1132).
12. Peptidomimetic Organocatalysts: Efficient Michael addition onto Nitroolefins with very low catalyst loading: S. Chandrasekhar*, Ch. Praveen Kumar, **T. Pavan Kumar**, K. Haribabu, B. Jagadeesh*, J. K. Lakshmi, Prathama S Mainkar* (*RSC Advances*, **2014**, *4*, 33025-33031).
13. Phthalimido-prolinamide: a new chiral catalyst for solvent free enantioselective aldol reaction; **Togapur Pavan Kumar***, Namdevrao Chethan Vavle, Vidyavathi Patro, Kothapalli Haribabu (*Tetrahedron: Asymmetry*, **2014**, *25*, 457-461).
14. Sugar amide-pyrrolidine catalyst for asymmetric Michael addition of ketones to nitroolefins; **Togapur Pavan Kumar***, Sirinyam Venugopal Balaji (*Tetrahedron: Asymmetry* **2014**, *25*, 473-477).
15. Direct asymmetric Michael addition of ketones to chalcones catalyzed by hydroxyphthalimide derived triazole-pyrrolidine; **Togapur Pavan Kumar***, Mohammad Abdul Sattar, Vanka Uma Maheshwara Sarma (*Tetrahedron: Asymmetry*, **2013**, *24*, 1615-19).
16. Asymmetric synthesis of all stereoisomers of 3-hydroxyproline: The constituent of several bioactive compounds: **Togapur Pavan Kumar**, Srivari Chandrasekhar* (*Synthesis*, **2012**, *44*, 2889).
17. First acid-catalyzed entry to *O*-alkylated hydroximides from benzylic alcohols: Srivari Chandrasekhar, Laghuvarapu Radhika, **Togapur Pavan Kumar** and Chada Raji Reddy* (*European Journal of Organic Chemistry*, **2011**, *30*, 5967-5970).

18. Chiral pyrrolidine-pyrazole catalyst for enantioselective Michael addition of carbonyls to nitroolefins: Srivari Chandrasekhar*, **Togapur Pavan Kumar**, Kothapalli Haribabu, Chada Raji Reddy, Chittumalla Ramesh Kumar (*Tetrahedron:Asymmetry*, **2011**, *22*, 697-702).
 19. Hydroxyphthalimide allied triazole-pyrrolidine catalyst for Michael addition in water: Srivari Chandrasekhar*,**TogapurPavan Kumar**, KothapalliHaribabu, ChadaRaji Reddy (*Tetrahedron:Asymmetry*, **2010**, *21*, 2372-2375).
 20. Hydroxylamine derivatives as nucleophiles in Ferrier glycosylation: Synthesis of aminoxpseudoglycals: Ch. Raji Reddy*, Y.S. Rao, **T. Pavan Kumar**, K.V. Reddy and S. Chandrasekhar (*Synthesis*, **2008**, *1*, 122-126).
- =====