S.CHANDRASEKARAN -Curriculum Vitae

1.	Name & Designation	:S. Chandrasekaran : SERB Distinguished Fellow		
	(a) Department University Date of Birth	:Organic Che :Indian Inst :November 1	emistry itute of Science 15, 1945	
2.	Mailing Address	:	S. Chandrasekaran	
			Department of Organ Indian Institute of Sci Bangalore 560 012, In	ic Chemistry ience ndia.
3.	Telephone No.	:	(0) +91-80-2293 240	4,
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4. Academic Qualification

B.Sc., 1965	Madras University
	Vivekananda College, Madras
M.Sc., 1967	Madras University
	Vivekananda College, Madras
Ph.D., 1972	Madras University

5. Positions Held :

Sept. 1973 – Sept.1975	Research Associate with
Oct. 1976 – Dec. 1977	Professor E.J. Corey
	Chemistry Department, Harvard University, U.S.A.
Oct. 1975 – Oct. 1976	Research Associate,
	Syntex Research, California, U.S.A.
Jan. 1978 – Dec. 1980	Lecturer
	Department of Chemistry, Indian Institute of Technology,
	Kanpur 208 016, India
Jan. 1981 – July 1985	Assistant Professor
	Department of Chemistry, Indian Institute of Technology
	Kanpur 208 016, India

Aug. 1985 – May 1989 **Professor** Department of Chemistry, Indian Institute of Technology Kanpur 208 016, India

Positions held at IISc since 1989

Professor, Dept. of Organic Chemistry, IISc, Bangalore
Coordinator, Integrated Ph.D Program, Chemical Sciences
Chairman, Dept. of Organic Chemistry, IISc
Chairman, Division of Chemical Sciences, IISc
Convener, Divisional Chairmen, IISc
Dean, Faculty of Science, IISc
Honorary Professor, IISc
Hindustan Lever Professor, JNCASR, Jakkur
SERB Distinguished Fellow, DST, New Delhi

6. Awards

Basudev Banerji Medal & Prize, Indian Chemical Society (1988) Shanti Swarup Bhatnagar Prize, CSIR, Govt. of India (1989) Professor A.B. Kulkarni Endowment Lecturer, University of Bombav (1992) Professor N. Venkatasubramanian Endowment Lecturer, University of Madras (1993)Professor T.R. Seshadri Memorial Lecturer, Delhi University (1998) Professor Siddappa 60th Birthday Commemoration Lecturer, Dharwad Univ. (1999) Professor O.P.Vig Endowment Lecturer, Panjab University (1999) Honorary Professor: Jawaharlal Nehru Center for Advanced Scientific Research, Jakkur, Bangalore (2000 – present) Jawaharlal Nehru Birth Centenary Lecturer (2001), INSA, New Delhi (2001) Prof.T.R.Anantharaman Endowment Lecturer, Cochin University (2001) Silver Medal- Chemical Research Society of India (2002) 125 Years-Indian Association for the Cultivation of Science-Commemoration Lecturer (2002) Amrut Mody Chair Professor of Chemistry, IISc (Nov 1998- Oct 2002) Alumni Award for Excellence in Research in Science, JISc (2004) Professor Sukh Dev Endowment Lecturer, Pune University (2004) Medal of the Material Research Society of India (2005) Kalvani University Endowment Lecturer (2006) AV Rama Rao Foundation Lecture Award of JNCASR, Bangalore (2006) JC Bose National Fellowship of DST (June 2006 - November 2013) Ram S.Goval Award in Chemistry- 2006. Golden Jubilee Commemoration Medal, Indian National Science Academy, 2007 Prof.B.D Tilak Endowment Lecture, ICT, Mumbai, 2009 Prof.U.R.Ghatak Memorial Lecture, IACS, Kolkata, 2010 Doctor of Science (Honoris Causa), North Bengal University, 2011 S S Bhatnagar Memorial Lecture, IICT, Hyderabad, 2011 IYC Distinguished Lecturer, NCL, Pune 2011

Prof.K.Venkatraman Memorial Lecture, NCL, Pune, 2012 Distinguished Guest Professor, IIT, Bombay March 2014 Professor Paul Vatakancherry Memorial Lecture, CUSAT, Cochin, 2014 Scholar in Residence, Cochin University of Science & Technology, Feb 2016

7. Memberships and Fellowships of Societies, Academies, Editorial Boards.

Fellow		:	Indian Academy of Sciences (1989)	
Research Fellow	:		Indian National Science Academy (1985-87)	
Associate Editor		:	Proceedings of the Indian Academy of Sciences (Chem. Sciences) (1991-2000)	
Fellow		:	Indian National Science Academy (1992)	
Fellow	:	The Third	World Academy of Sciences, Italy (2000)	
Member	:	IUPAC Co	mmittee on Nomenclature of Org. Chemistry	
Member	:	Editorial B	oard, Indian Journal of Chemistry (1995-2001)	
Member	:	IUPAC	National Committee (1997-2011)	
Chairman		: IUPAC	C National Committee at INSA (2009-2011)	
Bureau Member	:	Interna	ational Union of Pure& Applied Chemistry	
Co-Convener	:	Indo-F	rench Centre for Organic Synthesis	
Member, Executive Committee: International Union of Pure & Applied Chemistry				
Editor		: Tetr	ahedron Letters (2007- 2014)	

Board of Consulting Editors: Tetrahedron & Tetrahedron Letters, 2015 -

8. Important Committees and Professional Service:

Member, Council of the Indian National Science Academy (1998-2000)

- Member, Program Advisory Committee in Organic Chemistry, Ministry of Science and Technology, Govt. of India (1995-2000)
- Member, Research Committee on Chemistry & Technology, CSIR (1995-2000)
- Chairman, Research Committee on Chemistry, (2006-2011)
- Member, Sectional Committee , Chemistry, Indian Academy of Sciences (91-98)
- > Member, Research Council of a number of CSIR laboratories

- > Member, Board of Studies of a number of Universities in India
- Vice President , Chemical Research Society of India (2008-10)
- > Chairman, Council, National Organic Symposium Trust (NOST), India (99-02)
- Secretary, Indian Academy of Sciences (2004 -09)
- Treasurer, Indian Academy of Sciences (2010-12)
- Secretary, Board of Trustees, NOST (2007-10)
- > Chairman, Task Force on Green Chemistry, Ministry of Science & Technology
- > Chairman, FIST program, DST, Ministry of Science & Technology
- > Chairman, Swarnajayanti Fellowship Committee, DST, New Delhi (2007)
- Member, Science & Engineering Research Council, Ministry of Science & Technology, Govt. of India (2006-2011)
- > Member, International Advisory Board, Chemistry- An Asian Journal
- Vice Chairman, National Organic Symposium Trust (NOST)(2011-14)
- > Chairman, National Organic Symposium Trust (2015-2018)
- President, Chemical Research Society of India (April 2011- March 2014)
- Chairman, Review Committee, Chemistry Department ,IIT/Madras (2013)
- Chairman, Review Committee, Chemistry Department, IISER/ Mohali(2015)
- 9. Number of Ph.D students graduated : 39
- 10. Number of PhD students at present : 01
- 11.Number of M.Sc projects guided : 45
- 12. Number of Postdoctoral fellows mentored: 42
- 13. Number of Project Assistants mentored : 54
- 14. Total number of Research Publications : 230

Research Interests

New Synthetic Methodology:

- Chemistry of Titanium (III) Tetrahydroborates and their use in Stereoselective Reductions
- Chemistry of Binary Molybdenum-Sulfur Systems as efficient Sulfur Transfer Reagents
- Development of New Protective Groups for Peptide Synthesis using Mo-S Systems.
- Study of Induced Internal Redox Reactions of Tetrathiomolybdates
- New Ruthenium (II) –Bisoxazoline Catalysts for Highly Chemoselective Aerobic Epoxidation and for Asymmetric Oxygen Transfer Reactions

- Nanostructured Amorphous Metals / Alloys as New Catalysts for Cycloalkane Oxidation and Epoxidation
- > Hybrid Organic –Inorganic Chiral Catalysts for Asymmetric Synthesis
- > Chemistry of Tetraselenotungstates as New Selenium Transfer Reagents
- > Stereo and Regioselective Synthesis of Aziridino Epoxides
- > Chemistry of vinylcyclopropanes and vinylcyclobutanes
- > Chemistry of Donor-Acceptor Substituted Cyclopropane Derivatives
- > Chemistry of Acyloxyphosphonium Salts for Organic Synthesis
- Organocatalysis with Bicyclic Amidine Derivatives

Total Synthesis of Natural Products

Application of the reagents and synthetic methodologies developed in this laboratory to the synthesis of natural products particularly Cyclic Peptides, Pyrrolo Benzodiazepine class of anti-tumor antibiotics, Carbohydrate derivatives, Cyanotoxins, Glycoaminoacids, Glycosidase / mannosidase Inhibitors, Urease Inhibitors etc, Ferrocene Conjugates, Studies on Sirutuin Inhibitors.; Protective Group –free Synthesis of Thiosugars

Organic Materials/Catalysis/Green Chemistry

Design and Synthesis of Metallorganic Chemical Vapor Deposition Precursors for Thin Film Applications.

Design and Synthesis of New Organic Non-Linear Optical Materials.

Design and Synthesis of New Organic-Inorganic Hybrid Materials as Catalysts for Asymmetric Synthesis, Heck reaction; Dimerization of Styrenes.

List of Recent Publications (2005-2015)

- R. Ramesh, R.G. Bhat and S.Chandrasekaran, Highly Selective Deblocking of Propargyl Carbonates in the presence of Propargyl Carbamates with Tetrathiomolybdate : A New Dimension to Orthogonal Protection, *J.Org.Chem.*, 2005, 70, 837-840.
- 2. Surajit Sinha, S. Tilve and S. Chandrasekaran, A Convenient Synthesis of trans-3-Hydroxy-L-Proline, *ARKIVOC*, 2005, 209-217.
- 3. P. Ramusridhar and S. Chandrasekaran, Chemistry of Tetrathiomolybdate and Tetraselenotungstate: Applications in Carbohydrate Chemistry, *Pure & Appl. Chem*, 2005, 77, 145-153.
- 4. D. Suresh Kumar, S.M. Koutha and S. Chandrasekaran, Chemistry of Tetrathiomolybdate: Aziridine Ring Opening Reactions and Facile Synthesis of Interesting Sulfur Heterocycles, *J.Am.Chem.Soc.*, 2005, 127, 12760-12761.

- R. Ramesh and S.Chandrasekaran, But-2-ynylbisoxycarbonyl Chloride: A Novel C₂₋ Symmetric Reagent for the Protection of Amines and Amino Acids, *Org. Lett.*, 2005, 7, 4947-4950.
- 6. E. Chockalingam, K. Sivapriya, S. Subramanian and S.Chandrasekaran, Rice Husk Filtrate as Nutrient Medium for the Growth of *Desulfotomaculum Nigrificans:* Charactarizationand Sulfate Reduction Studies, *Bioresource Tech.*, 2005, 96,1880-88.
- K. Shalini,S. Chandrasekaran and S.A Shivashankar, Growth of Nano crystalline TiO2 Films by MOCVD using a Novel Precursor, *J.Crsyt.Growth.* 2005, 284, 388-395.
- 8. R. Ramesh, P. Ramu Sridhar and S. Chandrasekaran, Chemistry of Thiolevoglucosans, *Proc. Ind. Natl. Sci. Acad.*, 2005, 2005, 71 A,237-243
- 9. D. Suresh Kumar, S. Maiti and S. Chandrasekaran, Stereoselective Synthesis of Aziridino Epoxides from Cyclic Dienes, *J.Org.Chem.*, 2006, 71,1653-1657.
- 10. R.Ramesh, R.Sakhthi Devi, Rohit Gupta and S.Chandrasekaran, Simultaneous Protection and Activation of Amino Acids using Propargyl Pentaflurophenyl Carbonate, **Organic. Lett.**, **2006**,8, 1933-1936.
- 11. K.Sivapriya and S.Chandrasekaran, New Conformationally Locked Thioderivatives of Mannose: Synthesis, Applications and Mechanistic Studies, *Carbohyd.Res.*2006, 341,2204-2210.
- 12. D.Suresh Kumar, Susama Maity and S.Chandrasekaran, Synthesis of Enantiopure Bis-Aziridines, Bis-Epoxides, and Aziridino- Epoxides from D-Mannitol, *Tetrahedron,2006*, 62, 10162-10170.
- 13. D.Suresh Kumar, S.Koutha, S.Maity, T.Gunasundari, V.Saravanan and S.Chandrasekaran, Tetraselenotungstate:An Efficient Selenating Reagent for the Synthesis of Organoselenium Intermediates by Aziridine and Epoxide Ring Opening Reactions, *Tetrahedron Lett.*, 2007, 48,623-626.
- A.R.Choudhuray, R.G.Bhat, T.N.Guru Row and S.Chandrasekaran, Weak C_{sp3}---H– F-C Interaction Overshadows the Strong C-C-H---O-C Hydrogen Bond: Structure of Pentafluorophenyl Prop-2-ynyl Carbonate, *Crystal Growth & Design*, 2007, 7, 844-846.
- 15. K.Sivapriya, P.Suguna, S.Shubashree, P.Ramu Sridhar and S.Chandrasekaran, Novel Chalcogenides of Thymidine and Uridine : Synthesis , Properties, and Applications, *Carbohyd.Res. 2007*, 342, 1151-1158.
- K.Sivapriya, P.Suguna and S.Chandrasekaran, Novel Cyclic Tetraselenides of Mannose: Synthesis and Mechanistic Studies, *Tetrahedron Lett.*, 2007, 48, 2091-2095.

- D.Sureshkumar, T.Gunasundari, V.Saravanan and S.Chandrasekaran, Tetraselenotungstate: An Efficient Selenating Reagent for the Synthesis of beta-Amino Diselenides by Aziridine Ring Opening Reactions, *Tetrahedron Lett.*, 2007,48, 623-626.
- 18. S.D.Haveli, P.Ramu Sridhar and S.Chandrasekaran, Efficient Synthesis of Fused Perhydrofuro(2,3-b) Pyrans and Furans by Ring Opening of 1,2-Cyclopropanated Sugar Derivatives, *Organic Lett.*, **2007**, 9, 1331-1334.
- 19. D.Sureshkumar, V.Ganesh and S.Chandrasekaran, Conformationally Locked, Bridged Bicyclic Siselenides:Synthesis, Structure, Se-O Interaction and Theoretical Studies, *J.Org.Chem.*, *2007*,72,5313-5319.
- 20. D.Sureshkumar, S.Koutha and S.Chandrasekaran, A New Selena-Aza-Payne Rearrangement of Aziridinemethyl Tosylates mediated by Tetraselenotungstate, *Eur.J.Org.Chem.*,2007,4543-4551
- R.Voggu, P.Suguna, S.Chandrasekaran and C.N.R.Rao, Assembling Covalently Linked Nanocrystals and Nanotubes through Click Chemistry, *Chem.Phys.Lett*, 2007, 443,118-121.
- 22. K.Sivapriya, S.Hariharaputran, V.L.Suhas, N.Chandra and S.Chandrasekaran, Conformationally Locked Thiosugars as Potent Alpha-Mannosidase Inhibitors: Synthesis, Biochemical and Docking Studies, *Bioorg. Med.Chem.*, 2007, 15,5659-5665.
- 23. K.Sivapriya, P.Suguna, A.Banerjee, V.Saravanan, D.N.Rao and S.Chandrasekaran, Facile One-Pot Synthesis of Thio and Selenourea Dewrivatives: A New Class of Potent Urease Inhibitors, **Bioorg. & Med. Chem. Lett.**, **2007**, 17,6387 - 6391.
- 24. R. Ramesh, Kavita De and S. Chandrasekaran, An Efficient synthesis of Dehydroamino Acids and Dehydropeptides from *O*-Cbz and *O*-Eoc Derivatives of Serine and Threonine, *Tetrahedron*, 2007, 63, 10534-10542.
- 25. R. Ramesh, Y. Chandrasekaran, R. Megha and S. Chandrasekaran, Base Catalyzed Cyclization of *N*-Aryl and *N*-Alkyl-*O*-Propargyl Carbamates to 4-Alkylidene-2-Oxazolidinones, *Tetrahedron*, 2007, 63, 9153-9162.
- 26. R. Ramesh and S.Chandrasekaran, Propargyloxy Carbonyl Chloride, *Enclyopedia* of *Reagents for Organic Synthesis*, 2007, RN 00816.

27. R.Ramesh,K.De,S.Gupta and S.Chandrasekaran, Propargyloxycarbonyl as a Protecting Group for the side chain of Serine,Threonine and Tyrosine, *J.Chem.Sci.,2008*,120, 1-11.

28. R.B.Nasir Baig,V.Sai Sudhir and S.Chandrasekaran,Simple and Efficient Synthesis of allo- and threo- 3,3'-dimethylcystine Derivatives in Enantiomerically Pure Form, *Tetrahedron: Asymm., 2008*, 19,1424-1428.

29. V.Sai Sudhir, R.B.Nasir Baig and S.Chandrasekaran, Facile Entry to 4,5,6,7-Tetrahydro-(1,2,3)-Triazolo- (1,5-a) Pyrazine-6-ones from Amines and Amino Acids, *Organic Lett., 2008,* 2423-2429.

30. R.B.Nasir Baig, V.Sai Sudhir and S.Chandrasekaran, A Novel Method for the Synthesis of Thioacetatesusing Benzyl triethylammonium Tetrathiomolybdate and Acetic Anhydride, *Synlett.* 2008, 2684-2688.

- 31. S.D.Haveli, S.Roy and S.Chandrasekaran, Synthesis of Unnatural C-2 Aminoacid Nucleosides using NIS Mediated Ring Opening of 1,2-Cyclopropane Carboxylated Sugar Derivatives, **Synlett. 2009**, 451-455.
- *32.* R.B. Nasir Baig,,C. Kanimozhi, V. Sai Sudhir and S.Chandrasekaran, Facile Synthesis of beta-aminodisulfides, cystines and their direct incorporation into Peptides, *Synlett* .*2009*,1227-1232.
- *33.* V.Sai Sudhir, Ch.Venkateswarlu, O.T.Muhammed Mustafa ,S.Sampath and S.Chandrasekaran, Click Chemistry Inspired Synthesis of Novel Ferrocenyl Substituted Aminio Acids or Peptides , *Eur.J.Org.Chem.*, *2009*, 2120-2129.
- *34.* P.Gopinath, S.V.Ravindran and S.Chandrasekaran, Synthesis of thioesters from carboxylic acids via acyloxyphosphonium intermediates using Benzyltriethylammonium tetrathiomolybdate as the sulfur transfer reagent. *J.Org.Chem.*, **2009**, 74, 6291-6294.
- *35.* V.Ganesh and s.Chandrasekaran One-Pot Synthesis of *b*-Amino/*b*-Hydroxyselenoand thioethers from Aziridines and Epoxides, *Synthesis*, 2009,3267-3278.
- *36.* B.R.Prashantha Kumar,Gopu Sankar, R.B.Nasir Baig and S.Chandrasekaran, Novel Biginelli Dihydropyrimidines with Potential Anticancer Activity: A Parallel Synthesis and CoMSIA Study, *Eur. J. Med.Chem.*,2009, 44, 4192-4198.
- 37. D.Suresh Kumar, V.Ganesh,S.V.Ravindran and S.Chandrasekaran, Direct Synthesis of Functionalized Unsymmetruical beta-Sulfanamidodisulfides by Tetrathiomolybdate Mediated Ring Opening Reactions, *J.Org.Chem.*, 2009,74,7958-61.
- 38. V.Sai Sudhir, N.Y.Phani Kumar, R.B.Nasir Baig and S.Chandrasekaran, Facile Entry into Fused Heterocycles via Sulfamidate Derived Azido-alkynes, *J.Org.Chem.*, 2009, 74,7588-91.

- R.Ramesh, R.B.Nasir Baig, Kavita De and S.Chandrasekaran, One-pot Protection and Activation of Amino Acids using Pentafluoropheny Carbonates, *J.Pep. Sci*, 2009,15, 849-855.
- 40. S. P. Chakrabarty, R.Ramesh ,R. Mishra, S. Chandrasekaran, H. Balaram, Development and characterization of lysine based tripeptide analogues as inhibitors of Sir2 activity, *Bioorg & Med.Chem.*, *2009*,17, 8060-8072.
- *41.* P.Gopinath, S.V.Ravindran and S.Chandrasekaran, Synthesis of Thioesters by Simultaneous Activation of Carboxylic Acids and Alcohols using PPh₃/NBS with Benzyltriethylammonium Tetrathiomolybdate as the Sulfur Transfer Reagent, *Eur.J.Org.Chem.,2009*, 40, 6043-47.
- *42.* V.Sai Sudhir, R.B.Nasir Baig and S.Chandrasekaran, Convenient Synthesis of Ferrocene conjugates Mediated by Benzyltriethylammonium Tetrathiomolybdate in a Multi-step Tandem Process, *Eur. J.Org.Chem.*, 2009, 5365-5372.
- *43.* V. Sai Sudhir, N. Y. Phani Kumar and S. Chandrasekaran, Click Chemistry inspired Synthesis of Ferrocene Amino acids and other derivatives, *Tetrahedron*, **2010**, 66, 1327-1334.
- *44.* R.Ramesh, R.Mishra and S.Chandrasekaran, An improved procedure for the synthesis of dehydroamino acids and dehydropeptides from the carbonate derivatives of serine and threonine using tetrabutylammonium fluoride , *J.Pept. Sci.*, **2010**, 16,123-125.
- 45. N.B Nasir Baig, R.N.Chandrakala, K.V.Sai Sudhir and S.Chandrasekaran, Synthesis of unnatural selenocystines and β-aminodiselenides via regioselective ring opening of sulfamidates using a sequential, one-pot, multistep strategy, *J.Org.Chem.*, 2010, 75, 2910-2921.
- *46.* D.Suresh Kumar, S.Koutha,V.Ganesh and S.Chandrasekaran, Tetrathiomolybdate mediated Rearrangement of Aziridinemethanol Tosylates: a Thia-Aza-Payne Rearrangement, *J.Org.Chem.*, 2010,75, 5533-5541.
- *47.* P.Gopinath, C.Debasree, R.S.Vidyarini and S.Chandrasekaran, Synthesis of S-Functionalized Thioesters using Thioaroylate ions derived from Carboxylic Acids and Tetrathiomolybdate via Acyloxyphosphonium Intermediates, *Tetrahedron, 2010*, 66, 7001-7011.
- *48.* T.Gunasundari and S.Chandrasekaran, Enantioselective and Protecting Group –free Synthesis of 1-Deoxythionojirimycin,1-deoxythiomannojirimycin and 1- deoxythiotalonojirimycin, *J.Org.Chem.*, 2010, 75, 6685-6688.

- *49.* A.K.Dikundwar, Ch.Venkateswarlu, *T.N.Guru Row and S.Chandrasekaran*, Crystal Structures of Fluorinated Aryl Biscarbonates and a Biscarbamates: A Counterpoise between Weak Intermolecular Interactions and Molecular Symmetry, *CrystEngComm*, **2011**,13, 1531-1538.
- 50. R.BNasir Baig , N.Y.Phani Kumar .,J Mannuthodikayil and S Chandrasekaran ,Synthesis of Aminothiols and Isocysteines via Regioselctive Ring Opening of Sulfamidates with Tetrathiomolybdate , *Tetrahedron*, 2011, 67, 3111-18.
- *51.* P.Gopinath and S.Chandrasekaran, Synthesis of Functionalized Dihydrothiophenes from Doubly Activated Cyclopropanes using Tetrathiomolybdate as the Sulfur Transfer Reagent, *J.Org.Chem.*, **2011**,76,700-703.
- 52. P.Gopinath and S.Chandrasekaran, Tetraethylammonium Tetraselenotungstate, *Electronic Encylopedia of Reagents for Organic Synthesis*, 2011,; DOI: 10.1002/047084289X.rn01353.
- *53.* K.De, J.Legros, B.Crousse, D.B.Delpon and S.Chandrasekaran, Synthesis of Substituted 8-Aminoquinolines and Phenanthrolines through a Povarov Approach, *Org. Biomol. Chem.*, *2011*,9,347-350.
- 54. S.P.Chakrabarty, H.Balaram and S.Chandrasekaran, Sirtuins : Multifaceted Drug Targets, *Curr.Mol.Med.* 2011, 11, 709-718.
- *55.* R.Ramesh, R.Gupta, M.Rajendran, Applications of propargyl esters of amino acids in solution phase peptide synthesis, *Intl.J.Peptides*, **2011**. doi:10.1155/2011/854952
- 56. V.Ganesh, D.Sureshkumar and S.Chandrasekaran, Tandem Ring Opening-Cyclization of Vinylcyclopropanes: A Facile Synthesis of Chiral Bicyclic Amidines, *Angew.Chem.Int.Ed.(Eng)* 2011,50,5878-5881.
- 57. V. Ganesh, V. Sai Sudhir, Taraknath Kundu, and S. Chandrasekaran, 10 Years of Click Chemistry: Synthesis and Applications of Ferrocene- Derived Triazoles, *Chem. Asian.J.*, 2011, 6, 2670-2694; (DOI: 10.1002/asia.201100408).
- 58. P.A.Deshpande, S.Polisetti, G.Madras, Divya Jyothi and S.Chandrasekaran, Dispersed ZrO2 Nanoparticles in MCM-48 with High Adsorption Activity *AIChE Journal*, 2012, *58*, 2987–2996.
- 59. Jyothi, D, Deshpande, P.A., Chandrasekaran, S. and Madras, G, Transition metal oxide loaded MCM catalysts for photocatalytic degradation of dyes, *J. Chem. Sci*.2012, *124*, 385–393.

- 60. V.Ganesh, D.Suresh Kumar, D.Chanda and S.Chandrasekaran, Bromenium Catalyzed Tandem Ring Opening/Cyclization of Vinylcyclopropanes and Vinylcyclobutanes: Metal-free [3+2+1]/ [4+2+1] Cascade for the Synthesis of Chiral Amidines and Computational Investigation , *Chem. Eur.J.*, 2012, 18, 12498–12511.
- 61. Sureshkumar, D., Gopinath , P. and <u>Chandrasekaran, S.</u>, Tetraethylammonium Tetraselenotungstate: A Versatile Selenium Transfer Reagent in Organic Synthesis. *CHIMIA*, **2012**, *66*, 921-929.
- 62. Gunasundari, T. and <u>Chandrasekaran, S</u>., Deoxythiosugar Derivatives with Furano, Pyrano, and Septano Motifs from L-Gulono-1,4-lactone and D-Glycero-D-*gulo*heptono-1,4-lactone. *Eur. J. Org. Chem.*, **2012**, 6986–6995.
- *63.* Ganesh, V., Kundu, T. and <u>Chandrasekaran, S.</u> Electrophile-Induced C–C Bond Activation of Vinylcyclopropanes for the Synthesis of Z-Alkylidenetetrahydrofurans. *J. Org. Chem.*,2013,78, 380-399.
- 64. Gunasundari, T, and S.Chandrasekaran, De Novo Synthesis of 1-Deoxythiodugars, *Carbohyd.Res.*, 2013, 382, 30-35.
- *65.* Dikundwar,A.G. ,Venkateswarlu, Ch, Chandrakala,R.N., Chandrasekaran,S. and Guru Row .T.N., H/F isosteric substitution to attest different equienergetic molecular conformations in crystals, *CrystEngComm.*, **2013**,15,5403-06.
- 66. Haveli, S.D, Sudipta Roy, Vibha Gautam, Parmar,K.C and Chandrasekaran,S., Ring opening of activated cyclopropanes with NIS/NaN3: synthesis of C-1 linked pseudodisaccharides, *Tetrahedron*, **2013**, 69,11138-43.
- 67. Ganesh,V and Chandraekaran,S,. Oxidation Adjacent to Oxygen of Alcohols by Chromium Reagents,*Comprehensive Organic Synthesis 2nd Ed.* 2014,7,277-299.
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- 69. Ganesh,V, Kundu,T and Chandrasekaran, S σ-Ferrier rearrangement of carbohydrate derived vinylcyclopropanes: a facile approach to oxepane analogs, *Tetrahedron*, 2014, 70, 7268-82.
- 70. Gade Kishore, Vibha Gautam, Chandrasekaran, S, Novel synthesis of carbohydrate fused a-amino c-lactams and glycopeptides by NIS mediated ring opening of donor– acceptor substituted cyclopropanes, *Carbohyd.Res*, **2014**,390, 1-8.

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- 74. Gopinath, P,Chandrakala,R.N and Chandrasekaran, S, A Mild Protocol for the Regioselective Ring Opening of Doubly Activated Cyclopropanes using Selenolates Generated *in situ*: Synthesis of Functionalized Organoselenium Compounds, *Synthesis*, **2015**, 47, 1488-98.
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