

# CURRICULUM VITAE

**M. Shyam Sundar, Ph.D.**

Institute of Organic and Biomolecular Chemistry

Georg-August University Gottingen

Tammannstr. 2, 37077 Gottingen, Germany

Mobile no. +4915751039971

Email: [smothuk@gwdg.de](mailto:smothuk@gwdg.de)

---

## *Professional Qualification*

<b>Ph.D.</b> (Organic Chemistry) Oct. 2010 – Dec. 2016	Thesis title: “ <i>Synthesis and Study of Novel Atroisomeric Molecules</i> ” Supervisor: Prof. Ashutosh V. Bedekar, The Maharaja Sayajirao University of Baroda, Gujarat, India.
<b>Masters of Science</b> July 2007–Aug. 2009	In Organic Chemistry with <b>distinction</b> , Post Graduate College of Science, Osmania University, Hyderabad, Telangana, India.
<b>Bachelor of Science</b> July 2003–June 2006	In Chemistry with first-class, Post Graduate College of Science, Osmania University, Hyderabad, Telangana, India.

## *Research Experience:*

<b>Postdoctoral Fellow</b> Apr 2021 – till date	The Institute of Organic and Biomolecular Chemistry, Georg-August University Goettingen, Germany, under the guidance of Prof. Dr. Lutz F. Tietze
<b>Postdoctoral Fellow</b> Feb 2017 – Mar 2021	The Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic, under the guidance of Dr. Ivo Starý.

## *Awards and Scholarships:*

1. International IOBC Postdoctoral Fellowship for 6 months (2021) awarded by the Georg-August University Gottingen, Germany.
2. International IOCB Postdoctoral Fellowship for two years (2017-2019) awarded by the Institute of Organic Chemistry and Biochemistry (IOCB), The Czech Academy of Sciences of the Czech Republic, Czech Republic.
3. National level Senior Research Fellow (CSIR-SRF Direct) awarded for two years (2014-2016) by Council of Scientific & Industrial Research, India.
4. The national-level CSIR-NET examination was cleared in 2009 by the Council of Scientific & Industrial Research, India.

### Research Interest:

1. General synthetic methodology development for bioactive molecules and natural products.
2. Development of unique chiral ligands having planar- or axial chirality in a molecule and apply them to catalytic enantioselective reactions.
3. Multi-step synthesis of organic compounds using traditional and modern approaches.

### List of Publication:

1. **M. Shyam Sundar,\*** Rabindranath Lo, Martin Dračinský, Blanka Klepetářová, Synthesis and Stereochemical behavior of oxa[6]heterohelicene, *ChemistrySelect* **2021**, *17*, 4035-4040 \* (as a corresponding author)
2. Bahaaddin Irziqat, Jan Berger, Jesús I. Mendieta-Moreno, **M. Shyam Sundar**, Ashutosh V. Bedekar, Karl-Heinz Ernst, Front Cover: Transition from Homochiral Clusters to Racemate Monolayers during 2D Crystallization of Trioxa[11]helicene on Ag(100) (ChemPhysChem 3/2021), *ChemPhysChem*, **2021**, *22*, 228-228
3. Taye. Demissie, **M. Shyam Sundar**, Karthick Thangavel, Valery Andrushchenko, Ashutosh V. Bedekar, Petr Bouř, Origins of Optical Activity in an oxo-Helicene: A Synergistic Experimental and Computational Study, *ACS Omega*, **2021**, *6*, 2420–2428
4. Bahaaddin Irziqat, Jan Berger, Jesús I. Mendieta-Moreno, **M. Shyam Sundar**, Ashutosh V. Bedekar, Karl-Heinz Ernst, Transition from Homochiral Clusters to Racemate Monolayers During 2D Crystallization of Trioxa[11]helicene on Ag(100), *ChemPhysChem*, **2021**, *22*, 293–297
5. **M. ShamSundar,\*** Blanka Klepetářová, Lucie Bednarova, Synthesis, Chiral resolution and Optical properties of 2,18-dihydroxy-5,10,15-trioxa-[9]helicene, *European Journal of Organic Chemistry*, **2021**, 146-150 \* (as a corresponding author)
6. **M. Shyam Sundar**, Gajendra Singh, Ravi S. Ampapathi, Ashutosh V. Bedekar, Conformational Study and Stereo Dynamics of *ortho*-Substituted *ortho*-Terphenyl and its Derivatives, *Journal of Molecular Structure*, **2017**, *1147*, 495-501
7. **M. Shyam Sundar**, Sibaprasad Sahoo, Ashutosh V. Bedekar, Synthesis and Structural Properties of Oxa[5]helicene Derivatives, *Tetrahedron: Asymmetry*, **2016**, *27*, 777-781
8. **M. Shyam Sundar**, Ashutosh V. Bedekar, Synthesis of Enantiomerically Pure Helicene-like Mono 1,3-Oxazines from 1,1'-Binaphthyl-2,2',7-triol and Study of their Chiroptical Properties, *RSC Advances*, **2016**, *6*, 46258-46269
9. **M. Shyam Sundar**, Ashutosh V. Bedekar, Synthesis and Study of 7,12,17-Trioxa[11]helicene, *Synfacts*, **2016**, *12*, 150

10. **M. Shyam Sundar**, Ashutosh V. Bedekar, Synthesis and Study of 7,12,17-Trioxa[11]helicene, *Organic Letters*, 2015, 17, 5808–5811
11. **M. Shyam Sundar**, Ashutosh V. Bedekar, Synthesis of Biphenyl-Based Ligand: Application in Copper-Mediated Chemoselective Michael Reaction, *Synthetic Communications*, 2014, 44, 3582–3593
12. **M. Shyam Sundar**, Harish R. Talele, Hemant M. Mande, Ashutosh V. Bedekar, Roberto C. Tovar, Gilles Muller, Synthesis of Enantiomerically Pure Helicene Like Bis-oxazines from Atropisomeric 7,7'-Dihydroxy BINOL: Preliminary Measurements of the Circularly Polarized Luminescence, *Tetrahedron Letters*, 2014, 55, 1760–1764
13. Ashutosh V. Bedekar, Anju R. Chaudhary, **M. Shyam Sundar**, Murali Rajapp, Expenditious Synthesis of Fluorinated Styrylbenzenes and Polyaromatic Hydrocarbons, *Tetrahedron Letters*, 2013, 54, 392–396
14. **M. Shyam Sundar**, Ashutosh V. Bedekar, An Unexpected Formation of Benzoyl Benzoin from Benzil during the Attempted Knoevenagel Type Condensation with Dimethylmalonate (or Malononitrile), *Tetrahedron Letters*, 2012, 53, 2745–2747

#### Conferences attended:

1. **Poster Presentation:** Advances in Organic, Bioorganic, and Pharmaceutical Chemistry - “Liblice 2018”, Czech Republic.
2. **Oral Presentation:** *National Conference on Chirality (NCC-2015)*, M. S. University of Baroda, December 2015.
3. **Poster Presentation:** 10<sup>th</sup> Mid-Year Chemical Research Society of India (**CRSI-2015**) Symposium in Chemistry, NIT Trichy, July 2015.
4. **Oral Presentation:** *Advanced in Synthetic and Materials Chemistry (NCASMC-2014)*, University of Mumbai. March 2014.
5. **Oral Presentation:** *1<sup>st</sup> annual national conference on Science: Emerging Scenario & Future Challenges*, Solan, Himachal Pradesh. March 2013.
6. **Poster Presentation:** *National Conference on Chirality (NCC-2013)*, M. S. University of Baroda, December 2013.

#### Workshop and meeting Attended

1. VALTAVA 2017, 8<sup>th</sup> French-Czech Chemistry Meeting 4-5 September, Prague, Czech Republic.
2. *National Seminar on Frontier Areas in Chemical Sciences*, M. S. University of Baroda, March 2016.
3. *National School on NMR Spectrometry*, M. S. University of Baroda, September 2015.
4. SERB School on “*Density Functional Theory and Beyond: Computational Materials*

- Science and Materials Design*” M. S. University of Baroda, December 2014.
5. *National Conference on Chirality* (NCC-2011), M. S. University of Baroda, December 2011.
  6. *International Conference on Synthetic and Structural Chemistry* (ICSSC-2011), Mangalore University, December 2011.
  7. *Western India Research Scholars’ Meet* (WIRSM-2011), M. S. University of Baroda, September 2011.
  8. *National Workshop on Combined Application of Spectroscopy* (CAS-2011), Sardar Patel University, February 2011.

### ***Personal Profile***

Date of Birth	: 02.08.1986
Gender	: Male
Marital Status	: Married
Languages known	: English, Hindi, Telugu
Nationality	: Indian
Parmanent Address	: Ramakkapet, Bubbak, Siddipet, Telangana 502108, India.

### **References:**

1. **Prof. Dr. Dr. h.c. Lutz F. Tietze**  
Institute of Organic and Biomolecular Chemistry  
Georg-August University Goettingen  
Tammannstr. 2, 37077 Goettingen, Germany  
Tel: +49551 3933271, FAX: +49551 399476  
E-mail: [ltietze@gwdg.de](mailto:ltietze@gwdg.de)
2. **Dr. Ivo Starý**  
Institute of Organic Chemistry and Biochemistry  
Flemingovonám. 2, CZ-166 10 Prague 6, Czech Republic  
Mobile: +420 731 447 870, Office: +420 220483315  
E-mail: [ivo.stary@uochb.cas.cz](mailto:ivo.stary@uochb.cas.cz)
3. **Prof. Ashutosh V. Bedekar**  
Department of Chemistry  
M.S. University of Baroda  
Vadodara, 390002, India  
Mobile: +91 9898530266  
E-mail: [avbedekar@yahoo.co.in](mailto:avbedekar@yahoo.co.in)

I hereby declare that all the information given by me is true to the best of my knowledge and belief. I assure that my performance will do the best of my ability and to the satisfaction of the concerned.

**M. Shyam Sundar.**