

ISABEL GAY SÁNCHEZ

Date of birth: 01.10.1982
+420 220 183 226
Flemingovo nám. 542/2
166 10 Praha 6
Czech Republic
sanchez@uochb.cas.cz



EDUCATION

2011–PRESENT

PhD. Studies Organic Chemistry, CHARLES UNIVERSITY OF PRAGUE, CZECH REPUBLIC

2010–2011

BSc. Chemistry to MSc. Chemistry, NOSTRIFICATION FROM MASARYK UNIVERSITY OF BRNO, CZECH REPUBLIC

2003–2009

BSc. Chemistry, FACULTY OF SCIENCE, UNIVERSIDAD AUTONOMA DE MADRID, SPAIN

RESEARCH EXPERIENCE

2011–PRESENT

PhD. Candidate Organic Chemistry, INSTITUTE OF ORGANIC CHEMISTRY AND BIOCHEMISTRY OF CAS

Synthesis, characterisation and application of novel helically chiral imidazolium salts in the Ni-catalysed [2+2+2] cyclotrimerisation. Under the supervision of Dr. Ivo Starý.

2010–2011

Technician, INSTITUTE OF ORGANIC CHEMISTRY AND BIOCHEMISTRY OF CAS

Synthesis and characterisation of sulfur derivatives for further studies in palladium catalysed cross-coupling reactions. Under the supervision of Dr. Jiří Šrogl.

LIST OF PUBLICATIONS

- **Synthesis of Racemic, Diastereopure, and Enantiopure Carba- or Oxa[5]-, [6]-, [7]-, and [19]helicene (Di)thiol Derivatives.**
J. Nejedlý, M. Šámal, J. Rybáček, I. G. Sánchez, V. Houska, T. Warzecha, J. Vacek, L. Sieger, M. Buděšínský, L. Bednárová, P. Fiedler, I. Císařová, I. Starý, I. G. Stará. *J. Org. Chem.* **2020**, *85*, 248–276.
- **Oxahelicene NHC Ligands in the Asymmetric Synthesis of Nonracemic Helicenes.**
I. G. Sánchez, M. Šámal, J. Nejedlý, M. Karras, J. Klívar, J. Rybáček, M. Buděšínský, L. Bednárová, B. Seidlerová, I. G. Stará, I. Starý. *Chem. Commun.* **2017**, *53*, 4370–4373.

LIST OF CONFERENCES

Oral communications:

- 53rd Advances in Organic, Bioorganic and Pharmaceutical Chemistry “Liblice 2018”, Lázně Bělohrad, Czech Republic. “Helicene-Based N-Heterocyclic Carbene Ligands”
- 8th French – Czech Vltava Chemistry Meeting, Prague, Czech Republic 2017. “Synthesis and Application of Helicene-Based N-Heterocyclic Carbene Ligands”.
- XVI. Mezioborové setkání mladých biologů, biochemiků a chemiků, Milovy, Czech Republic. 2016. “Synthesis of Optically Pure Helically Chiral 2-Amino Heterohelicenes as Precursors for NHC Ligands”.

Poster presentations:

- 52nd Advances in Organic, Bioorganic and Pharmaceutical Chemistry “Liblice 2017”, Lázně Bělohrad, Czech Republic. “Synthesis and Application of Helicene-Based N-Heterocyclic Carbene Ligands”.
- 20th European Symposium on Organic Chemistry (ESOC 2017), Cologne, Germany. “Synthesis and Application of Helicene-Based N-Heterocyclic Carbene Ligands”.
- Advances in Organic Chemistry, Smolenice, Slovak Republic 2016. “Synthesis of Optically Pure Helically Chiral 2-Amino Helicenes as Precursors for NHC Ligands”.
- 50th Advances in Organic, Bioorganic and Pharmaceutical Chemistry “Liblice 2015”, Czech Republic. “Synthesis of Optically Pure Helically Chiral 2-Amino Heterohelicenes as Precursors for NHC Ligands”.
- 6th French – Czech Vltava Chemistry Meeting, Brno, Czech Republic 2015. “Synthesis of Optically Pure Helically Chiral 2-Amino Helicenes as Precursors for NHC Ligands”.
- 46th Advances in Organic, Bioorganic and Pharmaceutical Chemistry “Liblice 2011”, Lázně Bělohrad, Czech Republic. “The Influence of Ortho Substitutions and Steric Effects on Cross Coupling Reactions”.

AWARDS

- 6th French – Czech “Vltava” Chemistry Meeting, Brno, Czech Republic 2015. **Best Poster Award** “Synthesis of Optically Pure Helically Chiral 2-Amino Helicenes as Precursors for NHC Ligands”.

LANGUAGES

- English (Fluent, FCE 2013)
- Academic Writing Course (2013-2014, Department of Language Studies of CAS)
- Scientific Writing Course (2017-2018, Czech Technical University CTU and National Technical Library NTK)
- Czech (A2 level)
- Spanish (Native)

RESEARCH SKILLS

- Use of NMR, IR, GC-MS, glove-box, chiral HPLC.

COMPUTATIONAL SKILLS

- MS office
- SciFinder, Reaxys, Zotero
- ChemDraw, ChemSketch, VMD, Chimera
- Mnova NMR, Mnova Mbook

REFERENCES

- Dr. Ivo Starý, Institute of Organic Chemistry and Biochemistry of CAS, Flemingovo nám. 2, 166 10 Praha 6, Czech Republic.
- Dr. Svatava Voltrová, Institute of Organic Chemistry and Biochemistry of CAS, Flemingovo nám, 166 10 Praha 6, Czech Republic.