

Curriculum Vitae



Name: **Mgr. Jindřich Nejedlý**
Date of birth: 21st May 1988
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Affiliation: Institute of Organic Chemistry and Biochemistry
CAS, Flemingovo nám. 2, 166 10 Prague 6, Czech Republic
Department of Organic Chemistry, Charles University in Prague, Faculty
of Science, Hlavova 2030/8, 128 43 Prague 2, Czech Republic

Work experience

2012 - Present Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague, Chemistry of Functional Molecules Research Group, under supervision of Dr. I. Starý, position: PhD Student
2009 - 2012 Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague, Chemistry of Functional Molecules Research Group, under supervision of Dr. I. Starý, position: Laboratory technician
2007-2009 Laboratory training courses, under supervision of Dr. P. Holý, Chemistry of Functional Molecules Research Group, Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague

Education

2012 – Present Progressing towards a Ph.D. Degree in Organic Chemistry at the Faculty of Natural Sciences, Charles University, Prague
2010 - 2012 Mgr. Degree in Organic Chemistry at the Faculty of Natural Sciences, Charles University, Prague
(MSc. Thesis: *The tetrathiofulvalene derivatives: Their synthesis and properties*; under supervision of Dr. Ivo Starý, IOCB Prague)
2007 – 2010 Bc. Degree in Organic Chemistry at the Faculty of Natural Sciences, Charles University, Prague
(Bc. Thesis: *The synthesis of thiamacrocycles and the study of their properties*; under supervision of Dr. Ivo Starý, IOCB Prague)

Language skills

- English: FCE Level
- German: Intermediate

Computational skills

- ChemSketch, ChemDraw, Chimera, VMD
- SciFinder, Reaxys, Mnova Mbook, Zotero
- Basics of LabView, Gaussian G09, Quantum ATK, OpecScad,
- Mnova NMR, Agilent GC-MS, MS software, MS Office

Research skills

- Use of UHV-physical vapor deposition system, NMR spectrometer, GS-MS system, scanning electron microscope, SFC-MS instrument, high-pressure high-temperature flow reactor
- Operate STM-BJ device, MCBJ device
- Handling in clean-room and glove-box environment

Publications

- (1) Nejedlý, J.; Šámal, M.; Rybáček, J.; Gay Sánchez, I.; Houska, V.; Warzecha, T.; Vacek, J.; Sieger, L.; Buděšínský, M.; Bednářová, L.; Fiedler, P.; Císařová, I.; Starý, I.; Stará, I. G. Synthesis of Racemic, Diastereopure, and Enantiopure Carba- or Oxa[5]-, [6]-, [7]-, and -[19]Helicene (Di)Thiol Derivatives. *J. Org. Chem.* **2020**, *85* (1), 248–276. <https://doi.org/10.1021/acs.joc.9b02965>.
- (2) Stetsovych, O.; Mutombo, P.; Švec, M.; Šámal, M.; Nejedlý, J.; Císařová, I.; Vázquez, H.; Moro-Lagares, M.; Berger, J.; Vacek, J.; Stará, I. G.; Starý, I.; Jelínek, P. Large Converse Piezoelectric Effect Measured on a Single Molecule on a Metallic Surface. *J. Am. Chem. Soc.* **2018**, *140* (3), 940–946. <https://doi.org/10.1021/jacs.7b08729>.
- (3) Nejedlý, J.; Šámal, M.; Rybáček, J.; Tobrmanová, M.; Szydło, F.; Coudret, C.; Neumeier, M.; Vacek, J.; Vacek-Chocholoušová, J.; Buděšínský, M.; Šaman, D.; Bednářová, L.; Sieger, L.; Stará, I. G.; Starý, I. Synthesis of Long Oxahelicenes by Polycyclization in a Flow Reactor. *Angew. Chem. Int. Ed.* **2017**, *56* (21), 5839–5843. <https://doi.org/10.1002/anie.201700341>.
- (4) Gay Sánchez, I.; Šámal, M.; Nejedlý, J.; Karras, M.; Klívar, J.; Rybáček, J.; Buděšínský, M.; Bednářová, L.; Seidlerová, B.; Stará, I. G.; Starý, I. Oxahelicene NHC Ligands in the Asymmetric Synthesis of Nonracemic Helicenes. *Chem. Commun.* **2017**, *53* (31), 4370–4373. <https://doi.org/10.1039/C7CC00781G>.

Oral communications

- 2017 *The MCBJ Measurement of (M,R,R)-Diaza[9]helicene Conductance.* 52th Conference „Advances in Organic, Bioorganic and Pharmaceutical Chemistry 2017, Liblice 2017“, Lázně Bělohrad, Czech Republic.
- 2015 *Extremely Long Aromatics: Diastereomerically Pure [19]Helicene.* Conference XV. Interdisciplinary Meeting of Young Biologists, Biochemists and Chemists, Milovy, Czech Republic.

Posters

- 2019 Jindřich Nejedlý, Jaroslav Vacek, Ladislav Sieger, Irena G. Stará, Ivo Starý, *The Synthesis of [19]Helicene and its Conductance Measurement*. 10th Barrande-Vltava French-Czech Chemistry Meeting – “Barrande-Vltava 2019”

- 2017 Nejedlý J., Rybáček J., Stará I. G., Starý I., *Extremely Long Aromatics Diastereomerically Pure [19]Helicene*.
20th European Symposium on Organic Chemistry (ESOC 2017), Cologne, Germany.
- 2016 Nejedlý J., Vacek J., Sieger L., Šámal M. , Stará I. G., Starý I., *The MCBJ Measurement of (M,R,R)-Diaza[9]helicene Conductance*. (Poster Award)
7th French-Czech “Vltava Chemistry Meeting-Vltava 2016”, Orleans, France.
- 2015 Nejedlý J., Rybáček J., Stará I. G., Starý I., *Extremely Long Aromatics: Diastereomerically Pure [19]Helicene*. (Poster Award)
50th Conference “Advances in Organic, Bioorganic and Pharmaceutical Chemistry 2015“, Olomouc, Czech Republic.

References

- RNDr. Ivo Starý, CSc., Institute of Organic Chemistry and Biochemistry CAS,
Flemingovo nám. 2, 166 10 Prague 6 (Czech Republic)
- RNDr. Jaroslav Vacek, PhD., Institute of Organic Chemistry and Biochemistry CAS,
Flemingovo nám. 2, 166 10 Prague 6 (Czech Republic)
- Ing. Ladislav Sieger, CSc., Department of Physics, CTU in Prague, Faculty of Electrical
Engineering, Technická 2, 166 27 Prague 6 (Czech Republic)