



Curriculum vitae



Martin Kotora

Born on 21. 11. 1963 in Pilsen (Plzeň), Czech Republic.

Scientific Curriculum vitae

- 1981–1986 Faculty of Science, Charles University, Prague, Czechoslovakia (MSc 1986), specialization: nuclear chemistry.
- 1986–1991 PhD study at Institute of Chemical Process Fundamentals (ICPF), Czechoslovak Academy of Sciences (Dr. Hájek).
- 1991–1993 Researcher at ICPF.
- 1993–1995 JSPS (Japanese Society for the Promotion of Science) Postdoctoral Fellow, Institute for Molecular Science, Okazaki, Japan (Prof. T. Takahashi).
- 1995–1996 Postdoctoral Research Fellow, Purdue University, Indiana, USA (Prof. E. Negishi).
- 1996–2000 Associate Professor, Catalysis Research Center, Hokkaido University, Japan.
- 2000–2002 Assistant professor, Department of Organic Chemistry, Faculty of Science, Charles University, Prague, Czech Republic.
- 2002–2006 Associate Professor
- 2003–present Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic (since 2013 Adjunct professor)
- 2006–present Professor.
- 2008 (07–10) Visiting Professor at the Institute for Chemical Research, Kyoto University, Japan
- 2013 (02–03) Visiting Professor at the Catalysis Research Center, Hokkaido University, Japan
- 2014 (07–08) Visiting Professor at the Catalysis Research Center, Hokkaido University, Japan

Research interests

Organometallic chemistry, homogeneous catalysis, organocatalysis, asymmetric synthesis, and their application in organic synthesis and biologically active compounds.

Publications

Autor and coauthor of 154 papers, 8 books or book chapters, 5 patents
Scientometric data: H index = 35
Citations: 4014, 3410 without self citations (as of 3.12 2016)

Awards

- 1993 JSPS Postdoctoral fellowship.
- 1996 Negishi's group research accomplishments award.
- 2011 Prize of Academy of Sciences of the Czech Republic for an Outstanding Scientific Achievement (as a member of the research team).
- 2013 Rudolf Lukeš Prize for achievements in organic chemistry, Czech Chemical Society

Other activities

- 2003–present A member „Aldrich Award for Young Scientists“ committee (in the Czech Republic).
- 2004–2011 Head of department (Department of Organic and Nuclear Chemistry, Charles University)
- 2006–2008 A member of „Alfred Bader Prize“ committee (in the Czech Republic)“.
- 2007–present A representative of the Czech Chemical Society at EUCHEMSOD (EUCHEMS, organic division).
- 2008–present A member of the ERC (Starting Independent Researcher Grant) evaluation committee
- 2013–present A member of the evaluation committee of the Czech Science Foundation
- 2015–present A member of the International Advisory Board of *European Journal of Organic Chemistry*.

Research activity within the last 5 years (2011-2016)

1. Development of new axially chiral organocatalysts possessing bipyridine *N,N'*-dioxide scaffold for enantioselective allylation of aldehydes. This work also included application of the developer methodology for synthesis of biologically active and natural compounds.
2. Development of a new methodology for racemic and enantioselective total syntheses of steroids with unnatural configurations and synthesis of unnatural steroid derivatives. This project also encompasses syntheses of other terpenoid compounds.
3. Catalytic C-C bond activation in strained hydrocarbons and cyclotrimerization reactions.
4. Dewar benzenes and synthesis of polyaromatic compounds by using catalytic alkyne transformations.
5. Development of a new perfluoroalkylation methodology based on cross-metathesis of perfluoropropenes and its application in synthesis of modified natural compounds.
6. Development of new approaches to catalytic cyclotrimerization of alkynes and alkynes with nitriles.
7. Other project encompassing cross-coupling reactions, chemistry of *C*-nucleosides, and synthesis of natural compounds.

Selected recent papers

1. Matoušová, E.; Koukal, P.; Formánek, B.; Kotora, M. *Org. Lett.* **2016**, *18*, 5656-5659. Enantioselective Synthesis of the Unsaturated Fragment of Callyspongiolide
2. Topolovčan, N.; Panov, I.; Kotora, M. *Org. Lett.* **2016**, *18*, 3634-3637. Synthesis of 1,2-Disubstituted Cyclopentadienes from Alkynes Using a Catalytic Haloallylation/Cross-Coupling/Metathesis Relay.
3. Matoušová, E.; Gyepes, R.; Císařová, I.; Kotora, M. *Adv. Synth. Catal.* **2016**, *358*, 254-267. [2+2+2]-Cyclotrimerization of 1-Cyclopropyl-1,6-diynes with Alkynes: Formation of Cyclopropylarenes.
4. Bednářová, E.; Colacino, E.; Lamaty, F.; Kotora, M. *Adv. Synth. Catal.* **2016**, *358*, 1916-1923. A Ruthenium Complex-Catalyzed Cyclotrimerization of Halodiyne with Nitriles. Synthesis of 2- and 3-Halopyridines
5. Kaiser, R. P.; Hessler, F.; Mosinger, J.; Císařová, I.; Kotora, M. *Chem. Eur. J.* **2015**, *21*, 13577-13582. [2+2+2]Cyclotrimerization Approach to Selectively Substituted Fluorenes and Fluorenols, and Their Conversion to 9,9'-Spirobifluorenes. (Hot paper)
6. Koukal, P.; Kotora, M. *Chem. Eur. J.* **2015**, *21*, 7408-7412. Enantioselective Allylation of (2*E*,4*E*)-2,4-Dimethylhexadienal: Synthesis of (5*R*,6*S*)-(+)-Pteroenone.
7. Parkan, K.; Pohl, R.; Kotora, M. *Chem. Eur. J.* **2014**, *20*, 4414-4419. Cross-Coupling Reaction of Saccharide-Based Alkenyl Boronic Acids with Aryl Halides: The Synthesis of Bergenin
8. Motloch, P.; Valterová, I.; Kotora, M. *Adv. Synth. Catal.* **2014**, *356*, 199-204. Enantioselective Allylation of Thiophene-2-carbaldehyde. Formal Total Synthesis of Duloxetine.
9. Korotvička, A.; Císařová, I.; Roithová, J.; Kotora, M. *Chem. Eur. J.* **2012**, *18*, 4200-4207. Synthesis of Aromatic Compounds by Catalytic C-C Bond Activation of Biphenylene and Angular [3]Phenylene.
10. Hessler, F.; Císařová, I.; Sedlák, D.; Bartůněk, P.; Kotora, M. *Chem. Eur. J.* **2012**, *18*, 5515-5518. Synthesis of Ferrocenestrone: the First Metallocene Based Steroid Analogue.

Contact

Address Charles University, Faculty of Science, Dept. of Organic Chemistry, Albertov 6, 128 43 Praha 2, Czech Republic
E-mail: kotora@natur.cuni.cz, Fax: +420 220 951 326, Phone: +420 220 951 058