

Msci. Martin Hulla Ph.D.

Assistant Professor at Charles University

Mezibranska 11, Prague 1, 110 00, Czech Republic

Email: HullaM@natur.cuni.cz

Nationality: Czech



Professional experience

- 2019 Charles University – Prague, Czech Republic**
Assistant Professor in Inorganic Chemistry
- 2015 - 2019 École Polytechnique Fédérale de Lausanne (EPFL) - Switzerland**
Doctoral assistant
- Research of organic and salt catalysts in reactions involving CO₂
 - Undergraduate laboratory teaching and supervision
- 2013 - 2014 Velocys – Abingdon, United Kingdom**
Catalyst testing operator
- Heterogenous catalyst activity and lifetime testing for steam methane reforming and Fisher-Tropsch reactions in micro-channel reactors
- 2011 - 2012 Cambridge Display Technology – Cambridge, United Kingdom**
Technical assistant and Research trainee
- Novel microelectronic device design, fabrication process development and characterization
-

Education

- 2015 - 2019 École Polytechnique Fédérale de Lausanne (EPFL) - Switzerland**
Doctoral assistant (Ph.D.)
- Doctoral Thesis (**Prof. Paul J. Dyson**): “Organocatalysts in C-N bond forming reactions of amines with carbon dioxide”
- 2008 - 2013 Imperial College London – United Kingdom**
Master of Science in Chemistry with a Year in Industry (incorporating Bachelor’s level study); graduated with First Class Honours
- Master Thesis (**Dr. James Wilton-Ely**): “The catalytic activity of Rhodium Complexes with 1,1-dithio ligands”
- Industrial Research Project in collaboration with Cambridge Display Technology (**Dr. Chris Newman**): “Large area molecular junctions – device development for contact and access resistance measurement in organic thin film transistors”
-

Teaching experience

- 2018 - 2019 Supervision of trainee laboratory technician** - practical school student
- Student training in basic laboratory techniques
- 2015 - 2018 Practical laboratories in Inorganic chemistry**, EPFL - undergraduate students
- Design of synthetic and analytical experiments
 - Practical demonstrations and supervision of students
 - Laboratory practical and report marking

2017 - 2018 Supervision and marking of exams in general chemistry

Spring 2018 **Semester project supervision**, EPFL - undergraduate student
- Project design, supervision and marking

First author publications

- 2020 Martin Hulla, Paul J. Dyson: Pivotal Role of the Basic Character of Organic and Salt Catalysts in C–N Bond Forming Reactions of Amines with CO₂, *Angew. Chem. Int. Ed.*, **2020**, 59, 1002-1017
- 2019 Martin Hulla, Simon Nussbaum, Alexy R. Bonnin, Paul J. Dyson: The dilemma between acid and base catalysis in the synthesis of benzimidazole from o-phenylenediamine and carbon dioxide, *Chem. Comm.*, **2019**, 55, 13089-13092
- Martin Hulla, Daniel Ortiz, Sergey Katsyuba, Dmitry Vasyliiev, Paul J. Dyson: Delineation of the Critical Parameters of Salt Catalysts in the N-Formylation of Amines with CO₂, *Chem. Eur. J.*, **2019**, 25, 11074-11079
- 2018 Martin Hulla, Gabor Laurency, and Paul J. Dyson: Mechanism study of the N-formylation of amines with CO₂ and hydrosilanes, *ACS Catalysis*, **2018**, 8, 10619-10630
- 2017 Martin Hulla, Sami M. A. Chamam, Gabor Laurency, Shoubhik Das and Paul J. Dyson: Delineating the mechanism of ionic liquids in the synthesis of quinazoline-2,4(1H,3H)-dione from 2-aminobenzonitrile and CO₂, *Angew. Chem. Int. Ed.*, **2017**, 56, 10559-10563
- 2016 Martin Hulla, Felix D. Bobbink, Shoubhik Das, and Paul J. Dyson: Carbon dioxide based N-formylation of amines catalysed by fluoride and hydroxide anions, *ChemCatChem*, **2016**, 8, 3338-3342

Professional memberships

- 2013 Member of the Royal Academy of Science (United Kingdom)
2017 Member of the Swiss Chemical Society (Switzerland)

Language and Computer Skills

Czech	Native
English	Fluent (C2) - With over 11 years of education, teaching and work experience in English
French	Intermediate (B1)
Computer skills	OS Windows, MS Office ChemDraw, MestReNova, Basic Labview programming

Interests

Member of the voluntary society of Hradek

The society preserves and maintains a castle ruin in the Czech Republic

Adventure travel and trekking

Himalayas (Nepal and India), Andes (Peru), Fann Mountains (Tajikistan), Altai (Mongolia), Daba Mountains (China) and others
