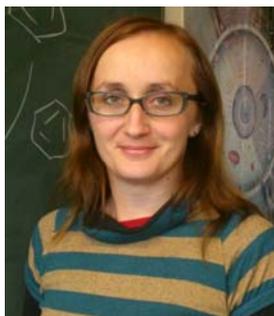


## • PERSONAL INFORMATION



Family name, First name: Fleischer, Ivana  
Researcher ID: D-2024-2013; orcid.org/0000-0002-2609-6536  
Publications (journals): 16; Citations 240; Citations / article 15,0; H Index 8  
Publications (book chapters): 1  
Patents: 5  
Nationality: Slovak  
Date of birth: 01.11.1978  
URL for web site: <http://www-oc.chemie.uni-regensburg.de/fleischer/>

## • EDUCATION

2010 PhD in Chemistry, University of Basel, Switzerland (*summa cum laude*)  
2002 Diplom (MSc.), Comenius University, Bratislava, Slovakia (*1.0, with distinction*)

## • CURRENT POSITION(S)

2013 – Assistant Professor/research group leader, Department of Organic Chemistry, University of Regensburg, Germany

## • PREVIOUS POSITIONS

2012 – 2013 Research group leader, LIKAT, Rostock, Germany  
2010 – 2013 Postdoctoral Fellow with Prof. M. Beller, LIKAT, Rostock, Germany  
2001 Erasmus Scholar (6 months) with Prof. H. Dehne, University of Rostock, Germany

## • FELLOWSHIPS AND AWARDS

2015 – Selected Member of the Fast-Track Program of the Robert-Bosch Foundation  
2014 Thieme Chemistry Journal Award  
2013 – Liebig Fellowship of the Fonds der Chemischen Industrie (FCI)  
2010 – 2012 Postdoc-Fellowship of the Swiss National Science Foundation  
2002 Award from the president of Comenius University, Bratislava  
1999 Award from the president of Comenius University, Bratislava  
1999 Winner of the research contest at Natural Sciences Students Conference in Bratislava, Slovakia  
1997 Certificate of Merit at the International Chemistry Olympiad in Montréal, Canada

## • SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2013 – 2015 2 PhD students / 3 Master students; University of Regensburg, Germany

## • TEACHING ACTIVITIES

Since 2013 Teaching organic chemistry at all levels of bachelor and master studies  
2010 – 2012 Training of participants at chemistry Olympiad, Bratislava, Slovakia

## • INSTITUTIONAL RESPONSIBILITIES

## • COMMISSIONS OF TRUST

## • MEMBERSHIPS OF SCIENTIFIC SOCIETIES

German Chemical Society (GDCh), American Chemical Society (ACS)

• **MAJOR COLLABORATIONS**

Prof. Dr. Matthias Beller, LIKAT Rostock, Germany  
Dr. Sabine Amslinger, University of Regensburg, Germany

## • RESEARCH PROFILE

1. *C1 Building blocks, carbon dioxide.* We have developed a methodology for the conversion of the greenhouse gas carbon dioxide to *N*-formylsaccharin, which can be used as solid and bench-stable carbon monoxide surrogate in carbonylations. The reactions can be performed under ambient pressure and don't require sophisticated equipment, which makes them attractive for a broader use in synthetic laboratories. In addition, the CO surrogate can be recycled, which increases the atom economy of the reaction.
2. *Homogeneous catalysis, carbonylations.* Together with the development of new C1 building blocks, we have described palladium-catalyzed alkoxy-carbonylation of alkenes, which stands out due to its broad scope, mild reaction conditions and complementary regioselectivity yielding the desired branched products from styrene derivatives and valuable linear esters from alkyl-substituted alkenes.
3. *Organocatalysis.* We have reported a mild, regiospecific Brønsted acid-catalyzed hydroarylation of activated olefins, which are capable of the formation of quinone methide-like intermediates. The reaction is based on a sequential protonation and Friedel–Crafts-type alkylation reaction of electron-rich arenes.

### 1. Five representative publications

1. *A recyclable CO surrogate in regioselective alkoxy-carbonylation of alkenes: indirect use of carbon dioxide* (Times Cited: -); P. H. Gehrtz, V. Hirschbeck, I. Fleischer\*, *Chem. Commun.* **2015**, published online. DOI: 10.1039/C5CC05012J

This manuscript reports a Pd-catalyzed alkoxy-carbonylation of alkenes based on the use of a recyclable CO<sub>2</sub> reduction product as a CO surrogate. The carbonylation proceeds under ambient conditions in an exceptionally complementary regioselective fashion.

2. *Novel ruthenium-catalyst for hydroesterification of olefins with formates* (Times Cited: 5) I. Profir, M. Beller\*, I. Fleischer\*, *Org. Biomol. Chem.* **2014**, *12*, 6972-6976. DOI: 10.1039/C4OB01246A

This paper describes the most active ruthenium-based catalyst for the hydroesterification of olefins with formates. The proposed active ruthenium complex has been isolated and characterized for the first time.

3. *From olefins to alcohols: efficient and regioselective ruthenium-catalyzed domino-hydroformylation-reduction-sequence formates* (Times Cited: 25) I. Fleischer, K. Dyballa, R. Jennerjahn, R. Jackstell, R. Franke, A. Spannenberg, M. Beller\*, *Angew. Chem. Int. Ed.* **2013**, *52*, 2949. DOI: 10.1002/anie.201207133

This report demonstrates the potential of ruthenium as a hydroformylation catalyst. For the first time, a very effective and selective catalyst, consisting of a Ru(0) source and an imidazole-substituted ligand, was used in a tandem hydroformylation/hydrogenation.

4. *Efficient and regioselective ruthenium-catalyzed hydroaminomethylation of olefins* (Times Cited: 27) L. Wu, I. Fleischer, R. Jackstell, M. Beller\*, *J. Am. Chem. Soc.* **2013**, *135*, 3989. DOI: 10.1021/ja4060977

The above mentioned ruthenium catalyst was used in regioselective hydroaminomethylation of olefins.

5. *Enantioselective Michael addition to  $\alpha,\beta$ -unsaturated aldehydes: Combinatorial catalyst preparation and screening, reaction optimization and mechanistic studies* (Times Cited: 44, highlighted in *Nachr. Chem.* **2010/2**; *Synfacts* **2010**, 236.) I. Fleischer, A. Pfaltz\*, *Chem. Eur. J.* **2010**, *16*, 95. DOI: 10.1002/chem.200902449

A mass spectrometric method for the determination of the enantioselectivity of various organocatalysts is described. The methodology is based on the detection of the intermediates of the retro-Michael reaction of quasinantiomeric products and allows for the screening of catalyst mixtures.

## **2. Granted patents**

1. L. Wu, M. Beller, R. Jackstell, Q. Liu, I. Fleischer **2015**, WO 2015018845: *Method for the synthesis of saturated carboxylic acid esters*
2. R. Franke, K. M. Dyballa, D. Hess, B. Hamers, D. Fridag, M. Beller, I. Fleischer, R. Jackstell, I. Profir, L. Wu **2014**, WO 2014118046: *Method for the carbonylation of olefins*

## **3. Invited presentations to internationally established conferences**

DocDays Technical University Graz, Austria, April 2015.

## **4. International Prizes / Awards / Academy memberships**