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Current Position

Since 12/2015 Professorship for chemical technology (permanent, W3), Chemistry Department, Technische Universität Darmstadt

Previous Positions

04/2015-11/2015 Professorship for Catalytic Materials (permanent, W2), Chemical- and Biological Engineering Department of Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)

05/2014 Offer for a full professorship for Chemical Engineering at an excellent UK university (Russell international excellence group).

01/2010-03/2015 Juniorprofessor for Catalytic Materials (tenure track, W1) assistant professorship (Juniorprofessur) within the Chemical- and Biological Engineering Department of the FAU

01/2011-06/2011 Drexel University, Feodor-Lynen Research Fellow (Alexander von Humboldt-Foundation), Materials Science and Engineering, Philadelphia

04/2008 - 12/2009 Postdoctoral fellow, Cluster of Excellence "Engineering of Advanced Materials", FAU

11/2004 - 03/2008 PhD, research assistant, University of Bayreuth, Chemical Engineering, Bayreuth

Education

- 2007 **Dr.-Ing. (Ph.D.) in Chemical Engineering**
University of Bayreuth, Germany
Thesis: "Epimerisation of the Menthol stereoisomers:
kinetic studies for the heterogeneously catalysed
menthol synthesis" (summa cum laude)
Advisor: Prof. A. Jess
- 2004 **Dipl.-Ing. (M.Sc.) in Chemical Engineering**
University of Erlangen-Nürnberg, Germany
Thesis: "Coating of carbon short fibres via chemical vapour deposition (CVD)"
Advisor: Prof. N. Popovska
- 2008 **Dipl.-Kfm. (M.Sc.) in Economics**
University of Hagen
Thesis: "Organizational intelligence - a critical analysis"
Advisor: Prof. J. Weibler

Awards

- 04/2016 Awarded by the ERC with a Consolidator Grant
- 04/2014 Awarded by the Chinese-German Center for Promotion of Science (CDZ)
with a scholarship to support cooperation of excellent young German
scientist with Chinese colleges
- 03/2012 Awarded by an Erasmus Mundus Scholarship as a visiting lecturer for the
international Master Course 'Materials for Energy Storage and
Conversion' (MESC)
- 01/2011 Awarded by the Feodor Lynen Research Fellowship from the Alexander
von Humboldt-Foundation
- 11/2011 Awarded by the Griess Lecture award 2011 of the Royal Society of
Chemistry East Midlands Section
- 01/2010 Awarded by a tenure track position within the Rising Star program of the
cluster of excellence „Engineering of Advanced Materials“ of the
University of Erlangen-Nürnberg
- 08/2009 Awarded by the Travel Award of the 1st Nano Today Conference 2009 in
Singapore
- 06/2009 Awarded by the ProcessNet "Fachgemeinschaft Chemische
Reaktionstechnik" with the Hanns Hofmann price
- 05/2009 Awarded by the Honda German Initiation Grant 2009
- 04/2009 Awarded by the E.ON. Research Initiative 2008

Service to the Scientific Community

since 2019	Vice-Dean of the Chemistry Department at the Technische Universität Darmstadt
since 2019	Member of the steering group (Lenkungskreis) of the German Catalysis Society (GeCatS)
since 2019	Member of the editorial board of the ASEAN Journal of Chemical Engineering
since 2017	Board member of the ProcessNet section division 'reaction engineering'
since 2017	Vice president of the German carbon group (Arbeitskreis Kohlenstoff)
2018	Organisation of the 2 nd joint German-Chinese Symposium "Development and Technology of Carbon Materials", Shenzhen, China
2016	Co-organisation of the Carbocat CarboCat-VII Symposium, Strasbourg, France
2014	Organisation of the Summer School in Chemical Reaction Engineering, Aachen, Germany
2013-2015	Member of the council of the school of engineering (Technische Fakultät), FAU Erlangen-Nürnberg, Germany
2012-2016	Coordinator of the international EU-FP7 project SusFuelCat
2011-2013	Founding and board member of the young chemical reaction engineering section (Nachwuchsgruppe Reaktionstechnik), ProcessNet, Germany

Research statement

The challenges arising with the needed global energy change as also future sustainable feedstock supply for chemical industry is major guideline for the research in the *etzoldlab*. From the perspective of chemical engineering, a multidisciplinary approach is employed to provide scientific solutions for these challenges, especially for the complex interplay of catalytic materials within a full process or device. In the scientific approach benchmark experiments play a dominant role, which allow to control process conditions from highly idealized towards technically realistic and are combined with diagnostics providing *in-situ* information. These experimental insights are complemented by chemical reaction engineering simulations, giving especially insights for complex mass transfer phenomena, making a more holistic picture possible. As a future sustainable energy and chemical industry will need a concerted interaction of electrochemical and classical heterogeneous catalysed processes both are studied. Based on this strategy the research of the *etzoldlab* can be divided in three strongly interacting sub-groups:

- Advanced Catalytic Materials
- Electrochemical Energy Conversion Processes
- Heterogeneous Catalysis and Processes