

DSM Science & Technology Awards (SOUTH) 2008

Name	Victoria H. Gessner
University	University of Würzburg (D)
Department	Institute for Anorganic Chemistry
PhD Supervisor	Dr. C. Strohmann

Viktoria Gessner is working on the reactivity of Lewis base coordinated lithiumorganics, their application in synthesis and their intramolecular lithiation. These commonly used compounds possess great importance in all fields of chemistry as strong bases and nucleophiles, especially in asymmetric synthesis. Hereby, Viktoria Gessner has succeeded in the elucidation of reactive intermediates of these reactions and thus could vitally contribute to the understanding of their mechanisms, regio- and stereoselectivities. She made significant contribution to the direct deprotonation of tertiary methylamines, enabling the access to new nitrogen compounds and ligand systems, even with stereoinformation in the molecule. Such compounds play a decisive role in stereoselective synthesis, catalysis and in the preparation of pharmaceutical products and fine chemicals. The success of her work is strongly connected with the integration of several techniques, such as organic and inorganic synthesis, cryo-x-ray diffraction and computational approaches. The research of Viktoria has already resulted in several publications in high-ranking journals.