



EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



CSC-Tübingen PhD Scholarship Program

2025 application round: prospective PhD positions at the University of Tübingen

Faculty:	<i>Faculty of Science</i>
Institute / Section / Subject:	<i>Institute of Inorganic Chemistry / Organometallic Chemistry / Homogenous Catalysis with Nucleophilic Catalysts.</i>
Supervising Professor(s):	<i>Prof. Dr. Doris Kunz</i>
About the Supervisor(s):	<i>ORCID: 0000-0002-4388-6804. Biography: Ph.D. (Uni Münster, G. Erker, 2000), Postdoc (Yale, J. F. Hartwig, 2001-2003), Habilitation (Uni Heidelberg, P. Hofmann, 2008), Prof. since 2009 (Uni Tübingen). Research interests: organometallic chemistry, homogenous catalysis, ligand design, reaction mechanisms. https://uni-tuebingen.de/kunz/</i>
Specification:	<i>Small molecule activation and homogenous catalysis with nucleophilic CNC pincer-complexes</i>
Topic Description:	<i>The project is based on the highly nucleophilic character of complexes bearing a bis(N-heterocyclic carbene) pincer ligand. Earlier studies revealed the exceptional performance of its rhodium and iridium complexes in epoxide^[1] and aziridine isomerization reactions^[2] and in the deoxygenation of epoxides.^[3] The aim of the project is the further development of these reactions towards new synthetic applications, finding new catalytic reactions as well as elucidating mechanistic aspects. This also leads to the synthesis of improved catalysts. [1] a) DOI: 10.1039/c4cc07154a. b) DOI: 10.1039/c8cc06503a. c) DOI: 10.1002/cctc.201900594. [2] DOI: 10.1002/cctc.202000597. [3] DOI: 10.1002/chem.202002651.</i>
Intended Degree:	<i>Dr. rer. nat.</i>
Type of the PhD Study:	<i>Full-time (complete doctoral studies at the University of Tübingen)</i>
Required Degrees and Qualifications:	<i>M.Sc. in Organic, Organometallic or Pharmaceutical Chemistry</i>
Language Requirements:	<i>TOEFL iBT 95, IELTS 6.5</i>
Notes:	<i>He/She should like to work in a team and has a strong background in organic synthesis and preferentially also in homogenous catalysis.</i>