

Deutsche Forschungsgemeinschaft
German Research Foundation



Leibniz Lecture

Holger Braunschweig Gottfried Wilhelm Leibniz Prize 2009

Turning Boron Chemistry on its Head: The unusual chemistry of boron in low oxidation states

Thursday, May 4, 2017, 12:00 p.m.
University of Calgary
Senate Room, 7th Floor Hotel Alma



In cooperation with the University of Calgary International, Department of Chemistry, the Baumgartner Group, and the Piers Group.

Lunch will be served.

RSVP www.ucalgary.ca/uci/leibniz

Opening remarks:

Janaka Ruwanpura, Vice-Provost (International)

Ed McCauley, Vice-President (Research)

Lesley Rigg, Dean, Faculty of Science

Annette Doll-Sellen, Director, New York Office, German Research Foundation (DFG)

Due to its inherent electron deficiency, boron prefers non-classical bonding regimes when combined to molecules with itself - in other words, boron forms polyhedral boranes, made up of multicenter bonds, rather than chains or rings with electron-precise boron-boron bonds. In the case of the latter, only very few well-defined examples have been published over the past decades, which all suffer from low-yielding, non-selective syntheses that solely rely on reductive coupling of amino(halo)boranes. Consequently, the area of classical boron-boron multiple bonds is relatively undeveloped. Over the past four years we have put significant effort into the development of new synthetic strategies to overcome this seemingly element-specific deficiency.

You are invited to join us on May 2, 2017, to learn about the new synthetic strategies to overcome this seemingly element-specific deficiency developed by the award winning Prof. Holger Braunschweig. He will present the results on the formation of B-B-double and -triple bonds together with some unusual results from reactivity studies of the latter.



Leibniz Lecture

Prof. Dr. Holger Braunschweig is the 2009 recipient of the prestigious Gottfried Wilhelm Leibniz Prize awarded by the German Research Foundation. The focus of his research covers a wide range of organometallic and main group element chemistry. Motivation for his work arises from the fundamental interest in novel molecular species, and much emphasis lies with the elucidation of their detailed potential applications in organic synthesis, catalysis, or material science. Commonly, sophisticated synthetic protocols, as well as state-of-the-art analytical and computational methods are applied to meet these goals.

Born in 1961, **Holger Braunschweig**'s scientific career is closely linked to the RWTH Aachen University where he not only studied Chemistry but also received his PhD in 1990. After a short period as a postdoc in Brighton, England he returned to RWTH Aachen University where he habilitated in 1997 and also worked as a Privatdozent. Following this first professional post in Aachen, he has been a Senior Lecturer and Reader at the Imperial College London, from where he was appointed to a Chair for Inorganic Chemistry in 2002 in Wuerzburg, Germany.

He is recognized far beyond his native country, as is demonstrated by many invitations to visit and lecture. His work was published in over 400 publications, the majority of which appeared in first ranking journals. He has received several awards for his work, including two subsequent ERC Advanced Grants.

The **Gottfried Wilhelm Leibniz Prize** is the highest honor awarded in German research. Established in 1985, the prize provides an unparalleled degree of freedom to outstanding scientists and academics to pursue their research interests. Up to ten prizes are awarded annually with a maximum of €2.5 million per award. Prize recipients are awarded the prize solely on the basis of the scientific quality of their work. The Leibniz Prize honors the well-known scientist and humanist Gottfried Wilhelm Leibniz (1646-1716), who was a leading figure in the fields of philosophy, mathematics, physics and theology.

The **German Research Foundation (DFG)** is the central, self-governing organization funding science and basic research in Germany. Serving all branches of science and the humanities, its members comprise German research universities, non-university research institutions, scientific associations and the Academies of Science and the Humanities.

The chief task of the DFG is to fund the best research projects by scientists and academics at universities and research institutions, which are selected on the basis of a multi-layered peer review process. The DFG is a cornerstone of Germany's strength as a research nation and it plays a key role in structuring academic research in Europe.

The DFG organizes Leibniz Lectures in different regions across the world in order to promote the prize, the research conducted by the prize holders, and the high quality of German science in general.