



तेजपुर विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

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TEZPUR UNIVERSITY

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Napam, Tezpur - 784 028, Assam, India

Department of Chemical Sciences

A REPORT ON

Collaboration with Prof. Dr. Holger Braunschweig, Institute of Inorganic Chemistry Lehrstuhl II and Professor A. K. Phulan, Department of Chemical Sciences

1. Name of the Collaborative Activity: Collaboration with Prof. Dr. Holger Braunschweig, Institute of Inorganic Chemistry Lehrstuhl II and Professor A. K. Phulan, Department of Chemical Sciences
2. Nature of Activity: R&D
3. Name of the Collaborating Agency/ Individual with affiliation, and contact details: Prof. Dr. Holger Braunschweig, Institute of Inorganic Chemistry, Lehrstuhl II, Am Hubland, Julius-Maximilians-Universität Würzburg,, 97074 Würzburg, Germany
4. Summary of collaboration:
Although the metathesis of metal-boron double bonds with elemental chalcogenides is an established process, no similar reactivity has been observed with element-nitrogen bonds. Such a reaction would provide a new route to iminoborane compounds ($RB\equiv NR'$), which have recently experienced renewed synthetic interest. Herein, we present the first observation of $M=B/C=N$ metathesis reactions, which led to the isolation of a stable iminoborane in addition to further iminoborane cycloaddition products.
5. List of year-wise activities under the collaboration:
Activity 2016-17:
In our first work, we have computationally {M062X/Def2-SVP, Def2-TZVP (Cr)} investigated the formation of iminoborane
Activity 2017-18
Synthesis and Trapping of Iminoboranes by $M=B/C=N$ Bond Metathesis

Signature and Seal of Head of Department/ Centre/ Cell

R. Borah
9.02.2022

Prof. & Head
Department of Chemical Sciences
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Name: Professor Ruli Borah
Designation: Professor & Head