

Seminar

Diboron-Centred Diradicaloids and 1, 1-Dehydration/N-m-Terphenyl Substituents in CAAC-Chemistry

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Open shell singlet molecules in general are known for its various photo-physical properties and its subsequent applications in modern-chemical physics. In particular, the open-shell compounds such as diradicaloids involving electron-deficient boron are strikingly different, however their development is in early stage. On the other hand, cyclic (alkyl) (amino) carbenes (CAACs) play an important role for the isolation of extremely reactive compounds in recent time as well as it is known to exhibit transition metal like reactivity. However, to our surprise there was no report of CAAC involving N-m-terphenyl substituent. We have developed a modular methodology for the synthesis of dianionic as well as neutral diboron-centered diradicaloids. At the same time, we have disclosed the 1,1-dehydration of secondary alcohols to the synthesis of CAACs and introduced N-m-terphenyl substituents for the synthesis of CAACs, which exhibit intramolecular aromatic C-H and C-C bond activation.

Wednesday, Jul 10th 2024

11:30 Hrs (Tea / Coffee 11:15 Hrs)

Auditorium, TIFR-H