

Review Seminar

Open-Shell Chemistry Based on NHC/CAAC-Carbodicarbene

Ramapada Dolai

TIFR, Hyderabad

Diradicaloids have important applications in various fields due to their unique electronic structures.^[1] In the first part of my talk, I will show the chemistry of triene scaffold based diradicaloid derived from an NHC/CAAC-carbodicarbene.^[2] The consequence of the reaction of the diradicaloid with Lewis acids on the singlet-triplet energy gap and redox properties will be discussed. In the second part of my talk, I will discuss the chemistry based on the dimerization of an in situ generated radical dication. As a result redox-rich molecules, a tricationic radical was isolated and a tetracationic diradicaloid was observed by in situ experiments.

References:

[1] M. Abe, Chem. Rev. 2013, 113, 7011–7088.

[2] Dolai et al., Chem. Eur. J. 2023, 29, e202202888.

Monday, Mar 20th 2023

10:30 AM

Seminar Hall - TIFRH