

Internal Webinar

Towards the Synthesis of Bis-Carbodicarbenes

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Carbodicarbenes (CDCs), also known as carbones, are doubly donor-stabilised carbon (0) compounds that possess unique electronic structures and donor properties.^[1] Recently, our group has reported the synthesis and subsequent investigation of an NHC/CAAC-based heteroleptic carbodicarbene.^[2] Here, we were interested in the development of bis-carbodicarbene frameworks^[3], and I will showcase our development of it.

References:

- [1] a) G. Frenking, R. Tonner, *Angew. Chem. Int. Ed.* **2007**, 46, 8695–8698; b) C. A. Dyker, V. Lavallo, B. Donnadieu, G. Bertrand, *Angew. Chem. Int. Ed.* **2008**, 47, 3206–3209.
- [2] a) R. Dolai, R. Kumar, B. J. Elvers, P. K. Pal, B. Joseph, R. Sikari, M. K. Nayak, A. Maiti, T. Singh, N. Chrysochos, A. Jayaraman, I. Krummenacher, J. Mondal, U. D. Priyakumar, H. Braunschweig, Cem B. Yildiz, C. Schulzke, and A. Jana, *Chem. Eur. J.* **2023**, 29, e20220288; b) V. Malhotra, B. J. Elvers, R. Dolai, N. Chrysochos, S. S. M. Bandaru, T. Gangber, N. J. Britto, I. Krummenacher, G. Rajaraman, H. Braunschweig, C. Schulzke, and A. Jana, *J. Am. Chem. Soc.* **2024**, 146, 29481–29490.
- [3] B. S. Aweke, C. H. Yu, M. Zhi, W. Z. Chen, G. P. A. Yap, L. Zhao, T.-G. Ong, *Angew. Chem. Int. Ed.* **2022**, 61, e202201884.

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