

Internal Webinar

Synthesis, structure and chemistry of metallaheteroboranes of group 8 and 9 metals

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The chemistry of metallaheteroboranes traditionally achieved by the reaction of polyhedral heteroborane anions with metal fragments or the incorporation of heteroatom into metallaborane clusters. Although, metallaheteroboranes comprised of thia and aza-ligands have been explored, compounds that contain heavier hetero atoms such as selenolato and tellurolato ligands are relatively scarce. A recent advancement in this field of chemistry appeared with the use of chalcogenated borohydride reagents $\text{Li}[\text{BH}_2\text{E}_2]$ and $\text{Li}[\text{BH}_3\text{EPh}]$ ($\text{E} = \text{S}, \text{Se}, \text{Te}$). By employing these reagents we have synthesised a series of metallaheteroboranes, which include bis-Hydridoborates, homo-cubanes and triple-decker complexes.

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