Ferrocene-based Silylenes

– Main-Group Elements as Transition Metals –

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1. Introduction: Ferrocene-based NHCs of type 1 exhibit a highly unexpected reactivity, esp. towards small molecules^[1]

Milestone: First stable NHC by ARDUENGO *et al.* in 1991^[2]

Nowadays: Diaminocarbenes are “ordinary” compounds^[2]

Unexpected reactivity: NHC 1 activates small molecules^[1]

Concept: ‘main-group elements as transition metals’^[3]

The aim of this research: Synthesize and study ferrocene-based N-heterocyclic silylenes (NHSi) and heavier homologues of type 2

Motivation: Do heavier homologues of NHC 1 – esp. silylenes – show unusual properties, too?

2. Synthesis of ferrocene-based N-heterocyclic silylenes

3. Synthesis of ferrocene-based N-heterocyclic germylenes, stannylenes and plumbylenes

References

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