

Publications

Books:

1. *On the Catalytic Efficacy of Low-Oxidation State Group 14 Complexes*, T. J. Hadlington, Springer International, Basel, 2017. Published as part of the Springer Thesis Award series.

Journal Articles/Reviews:

26. *Cycloaddition Chemistry of a Silylene-Nickel Complex toward Organic π -Systems: From Reversibility to C–H Activation*; T. J. Hadlington*, A. Kostenko, and M. Driess*, *Chem. Eur. J.*, **2020**, *26*, 1958 – 1962. *Denotes corresponding authorship.
25. *Versatile Tautomerization of EH_2 -Substituted Silylenes ($E = \text{N}, \text{P}, \text{As}$) in the Coordination Sphere of Nickel*; T. J. Hadlington*, T. Szilvási, and M. Driess*, *J. Am. Chem. Soc.*, **2019**, *141*, 3304 – 3314. *Denotes corresponding authorship.
24. *From As-Zincoarsasilene ($\text{LZn-As}=\text{SiL}'$) to Arsaethynolate ($\text{As}=\text{C-O}$) and Arsaketenylyde ($\text{O}=\text{C}=\text{As}$) Complexes*; E. Ballester-Martínez, T. Szilvási, T. J. Hadlington, and M. Driess, *Angew. Chem. Int. Ed.*, **2019**, *58*, 3382 – 3386.
23. *Silicon-mediated selective homo- and hetero-coupling of carbon monoxide*; Y. Wang,[†] A. Kostenko,[†] T. J. Hadlington,[†] M. Lücke, S. Yao, and M. Driess, *J. Am. Chem. Soc.*, **2019**, *141*, 626 – 634. [†]Denotes equal contribution to this manuscript.
22. *Synthesis and Reactivity Studies of Amido-Substituted Germanium(I)/Tin(I) Dimers and Cluster*; J. A. Kelly, M. Jücker, T. J. Hadlington, I. Fernández, G. Frenking, and C. Jones, *Chem. Eur. J.*, **2019**, *25*, 2773 – 2785.
21. *Metal nitrene-like reactivity of a Si=N bond towards CO_2* ; T. J. Hadlington, T. Szilvasi, and M. Driess, *Chem. Commun.*, **2018**, *54*, 9352 – 9355.
20. *From zinco(II) arsaetenes to silylene-stabilised zinco arsinidene complexes*; E. Ballester-Martinez, T. J. Hadlington, T. Szilvasi, S. Yao, and M. Driess, *Chem. Commun.*, **2018**, *54*, 6124 – 6127. Highlighted on the inside cover of its Chemical Communications issue.
19. *Low-valent group 14 element hydride chemistry: towards catalysis*; T. J. Hadlington*, M. Driess, and C. Jones*, *Chem. Soc. Rev.*, **2018**, *47*, 4176 – 4197. *Denotes corresponding authorship.
18. *Striking transformations of the hydroborylene ligand in a $\text{HB}:\rightarrow\text{Ni}^{\text{II}}$ complex with isocyanides and CO*; T. J. Hadlington, T. Szilvasi, and M. Driess, *Chem. Sci.*, **2018**, *9*, 2595–2600.
17. *Synthesis of a Metallo-Iminosilane via a Silanone–Metal π -Complex*; T. J. Hadlington, T. Szilvasi, and M. Driess, *Angew. Chem. Int. Ed.*, **2017**, *56*, 14282 –14286.
16. *Silylene–Nickel Promoted Cleavage of B–O Bonds: From Catechol Borane to the Hydroborylene Ligand*; T. J. Hadlington, T. Szilvasi, and M. Driess, *Angew. Chem. Int. Ed.*, **2017**, *56*, 7470 –7474. Highlighted on the back cover of its Angewandte Chemie issue.
15. *Efficient Reduction of Carbon Dioxide to Methanol Equivalents Catalyzed by Two-Coordinate Amido–Germanium(II) and –Tin(II) Hydride Complexes*; T. J. Hadlington, C. E. Kefalidis, L. Maron, and C. Jones, *ACS Catal.*, **2017**, *7*, 1853–1859.

14. *Stabilization of a Two-Coordinate, Acyclic Diaminosilylene (ADASi): Completion of the Series of Isolable Diaminotetrylenes, :E(NR₂)₂ (E = Group 14 Element);* T. J. Hadlington, J. A. B. Abdalla, R. Tirfoin, S. Aldridge, and C. Jones, *Chem. Comm.* **2016**, 52, 1717-1720.
13. *Beyond Dehydrocoupling: Group 2 Mediated Boron–Nitrogen Desilacoupling;* D. J. Liptrot, M. Arrowsmith, A. L. Colebatch, T. J. Hadlington, M. S. Hill, G. Kociok-Köhn, and M. F. Mahon, *Angew. Chem.* **2015**, 54, 15280-15283.
12. *Two-Coordinate Group 14 Element(II) Hydrides as Reagents for the Facile, and Sometimes Reversible, Hydrogermylation/Hydrostannylation of Unactivated Alkenes and Alkynes;* T. J. Hadlington, M. Hermann, G. Frenking, and C. Jones, *Chem. Sci.* **2015**, 6, 7249-7257.
11. *Reactivity of Amido-Digermynes, LGeGeL (L = Bulky Amide), toward Olefins and Related Molecules: Facile Reduction, C–H Activation, and Reversible Cycloaddition of Unsaturated Substrates;* T. J. Hadlington, J. Li, M. Hermann, A. Davey, G. Frenking, and C. Jones, *Organometallics*, **2015**, 34, 3175–3185.
10. *Two-Coordinate Hydrido-Germynes;* T. J. Hadlington, B. Schwarze, E. I. Izgorodina, and C. Jones, *Chem. Commun.* **2015**, 51, 6854–6857.
9. *Low Coordinate Germanium(II) and Tin(II) Hydride Complexes: Efficient Catalysts for the Hydroboration of Carbonyl Compounds;* T. J. Hadlington, M. Hermann, G. Frenking, and C. Jones, *J. Am. Chem. Soc.* **2014**, 136, 3028–3031.
8. *A Singly Bonded Amido-Distannyne: H₂ Activation and Isocyanide Coordination;* T. J. Hadlington, and C. Jones, *Chem. Commun.* **2014**, 50, 2321–2323.
7. *Synthesis and Characterization of Extremely Bulky Amido-Germanium(II) Halide Complexes;* T. J. Hadlington, J. Li, and C. Jones, *Can. J. Chem.*, **2014**, 92, 427–433.
6. *Activation of H₂ by a Multiply Bonded Amido–Digermine: Evidence for the Formation of a Hydrido–Germylene;* T. J. Hadlington, M. Hermann, J. Li, G. Frenking, and C. Jones, *Angew. Chem.* **2013**, 125, 10389–10393. *Highlighted as a Hot Paper.*
5. *Utilizing Steric Bulk to Stabilize Molybdenum Aminogermylene and Aminogermylene Complexes;* J. Hicks, T. J. Hadlington, C. Schenk, J. Li, and C. Jones, *Organometallics* **2013**, 32, 323–329.
4. *Extremely Bulky Amido and Amidinato Complexes of Boron and Aluminium Halides: Synthesis and Reduction Studies;* E. W.Y. Wong, D. Dange, L. Fohlmeister, T. J. Hadlington, and C. Jones, *Aust. J. Chem.* **2013**, 66, 1144–1154.
3. *Synthesis and Crystal Structures of Two Bulky Bis(Amido)Germynes;* E. W. Y. Wong, T. J. Hadlington, and C. Jones, *Main Group Met. Chem.* **2013**, 36, 133–136.
2. *Magnesium-Catalysed Hydroboration of Aldehydes and Ketones;* M. Arrowsmith, T. J. Hadlington, M. S. Hill, and G. Kociok-Köhn, *Chem. Commun.* **2012**, 48, 4567–4569.
1. *Magnesium-Catalyzed Hydroboration of Pyridines;* M. Arrowsmith, M. S. Hill, T. Hadlington, G. Kociok-Köhn, and C. Weetman, *Organometallics* **2011**, 30, 5556–5559.