Synthesis of Novel Chelating Benzimidazole-based Carbenes and their Nickel(II) Complexes; Activity in the Kumada Coupling Reaction

Joris Berding,† Martin Lutz,‡ Anthony L. Spek,‡ and Elisabeth Bouwman,†,*

† Coordination and Bio-Inorganic Chemistry, Leiden Institute of Chemistry, Leiden University, P.O. Box 9502, 2300 RA, Leiden, The Netherlands
‡ Bijvoet Center for Biomolecular Research, Crystal and Structural Chemistry, Utrecht University, Utrecht, The Netherlands
Figure S1. $^1$H NMR spectrum of 2a

Figure S2. $^1$H NMR spectrum of 2b

Figure S3. $^1$H NMR spectrum of 2c

Figure S4. $^1$H NMR spectrum of 2d

Figure S5. $^1$H NMR spectrum of 2e

Figure S6. $^1$H NMR spectrum of 2f

Figure S7. $^1$H NMR spectrum of 2g

Figure S8. $^1$H NMR spectrum of 2h

Figure S9. $^1$H NMR spectrum of 2i

Figure S10. $^1$H NMR spectrum of 2j

Figure S11. $^1$H NMR spectrum of 3a

Figure S12. $^1$H NMR spectrum of 3b

Figure S13. $^1$H NMR spectrum of 3c

Figure S14. $^1$H NMR spectrum of 3d

Figure S15. $^1$H NMR spectrum of 3e

Figure S16. $^1$H NMR spectrum of 3f

Figure S17. $^1$H NMR spectrum of 3g

Figure S18. $^1$H NMR spectrum of 3h

Figure S18. $^1$H NMR spectrum of 3i

Figure S20. $^1$H NMR spectrum of 3j
Figure S1. $^1$H NMR spectrum of 2a.
Figure S2. $^1$H NMR spectrum of 2b.
Figure S3. $^1$H NMR spectrum of 2c.
Figure S4. $^{1}$H NMR spectrum of 2d.
Figure S5. $^1$H NMR spectrum of 2e.
Figure S6. 1H NMR spectrum of 2f.
Figure S7. $^1$H NMR spectrum of 2g.
Figure S8. $^1$H NMR spectrum of 2h.
Figure S9. $^1$H NMR spectrum of 2i.
Figure S10. $^1$H NMR spectrum of 2j.
Figure S10. $^1$H NMR spectrum of 3a.
Figure S12. $^1$H NMR spectrum of 3b.
Figure S13. $^1$H NMR spectrum of 3c.
Figure S14. $^1$H NMR spectrum of 3d.
Figure S15. $^1$H NMR spectrum of 3e.
Figure S16. $^1$H NMR spectrum of 3f.
Figure S17. $^1$H NMR spectrum of 3g.
Figure S18. $^1$H NMR spectrum of 3h.
Figure S19. $^1$H NMR spectrum of 3i.
Figure S20. 1H NMR spectrum of 3j.