

**Synthesis and Crystal Structures of Nickel(II) and Palladium(II) Complexes
with *o*-Carboranyl Amidine Ligands**

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Spectral data for 10-EtC(NHCH₂CH₂OMe)=HN-7,8-C₂B₉H₁₁ (**1a**, **1b**).

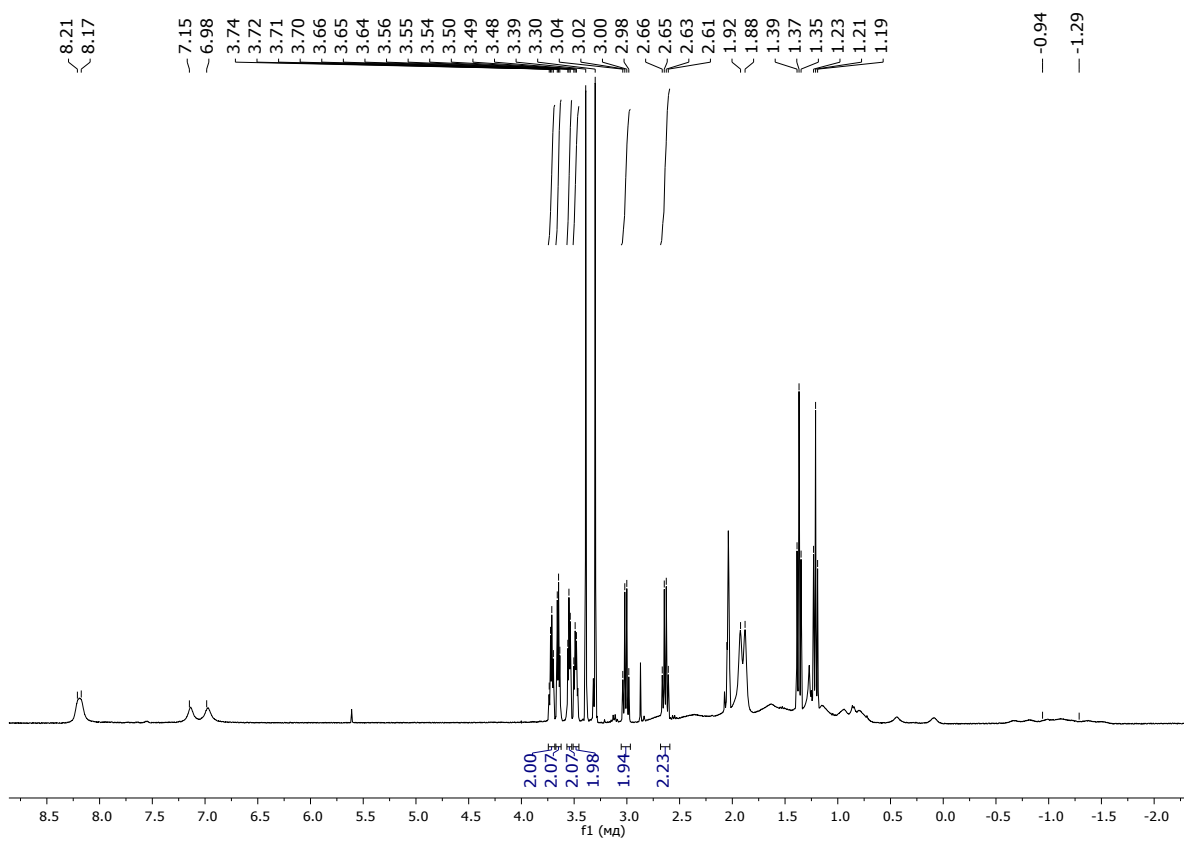


Fig. S1. ¹H NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

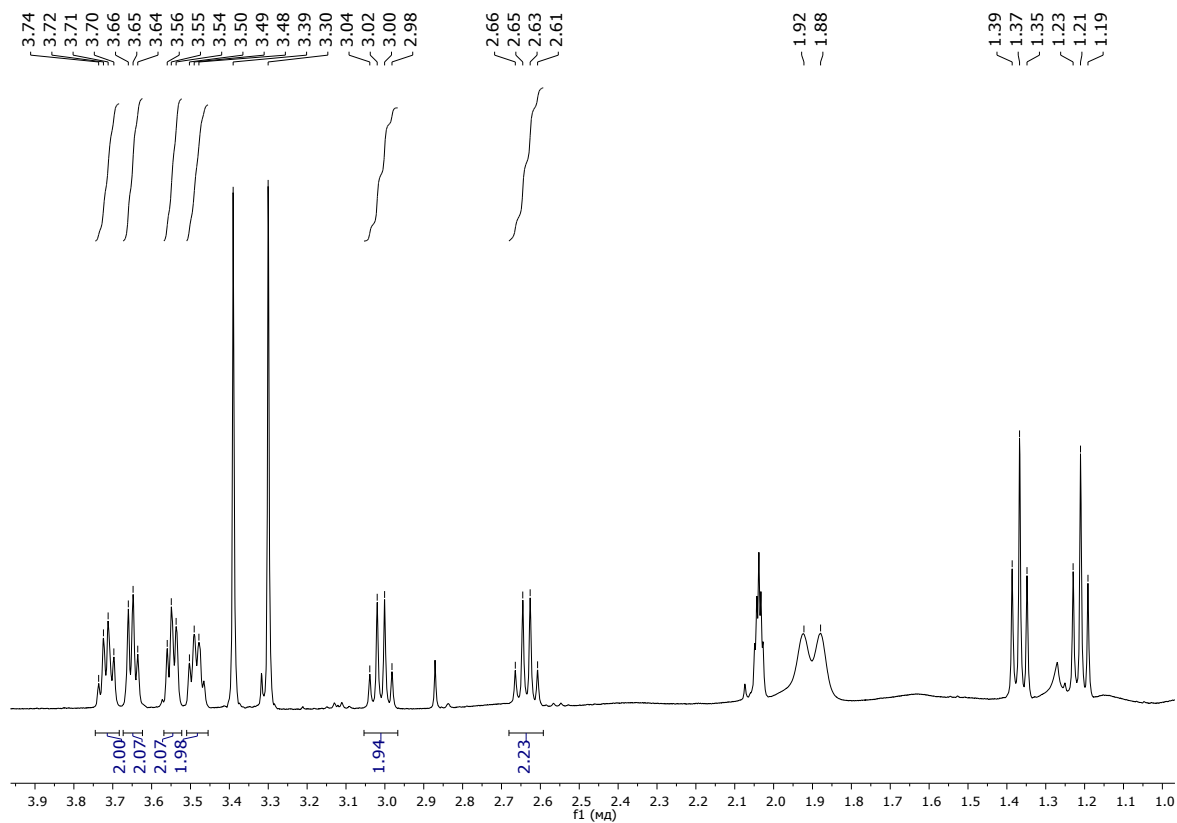


Fig. S2. The fragment of ¹H NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

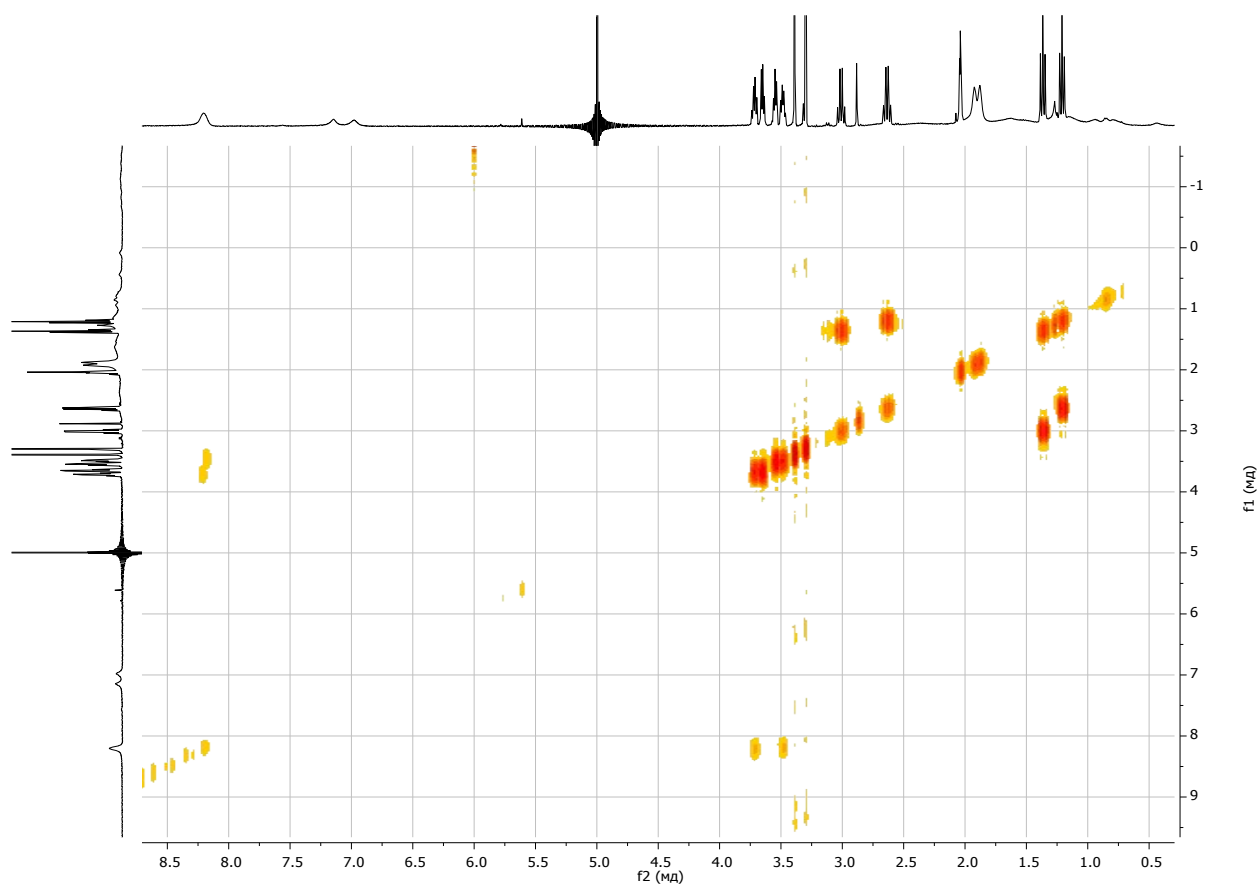


Fig. S3. (HH)gCOSY NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

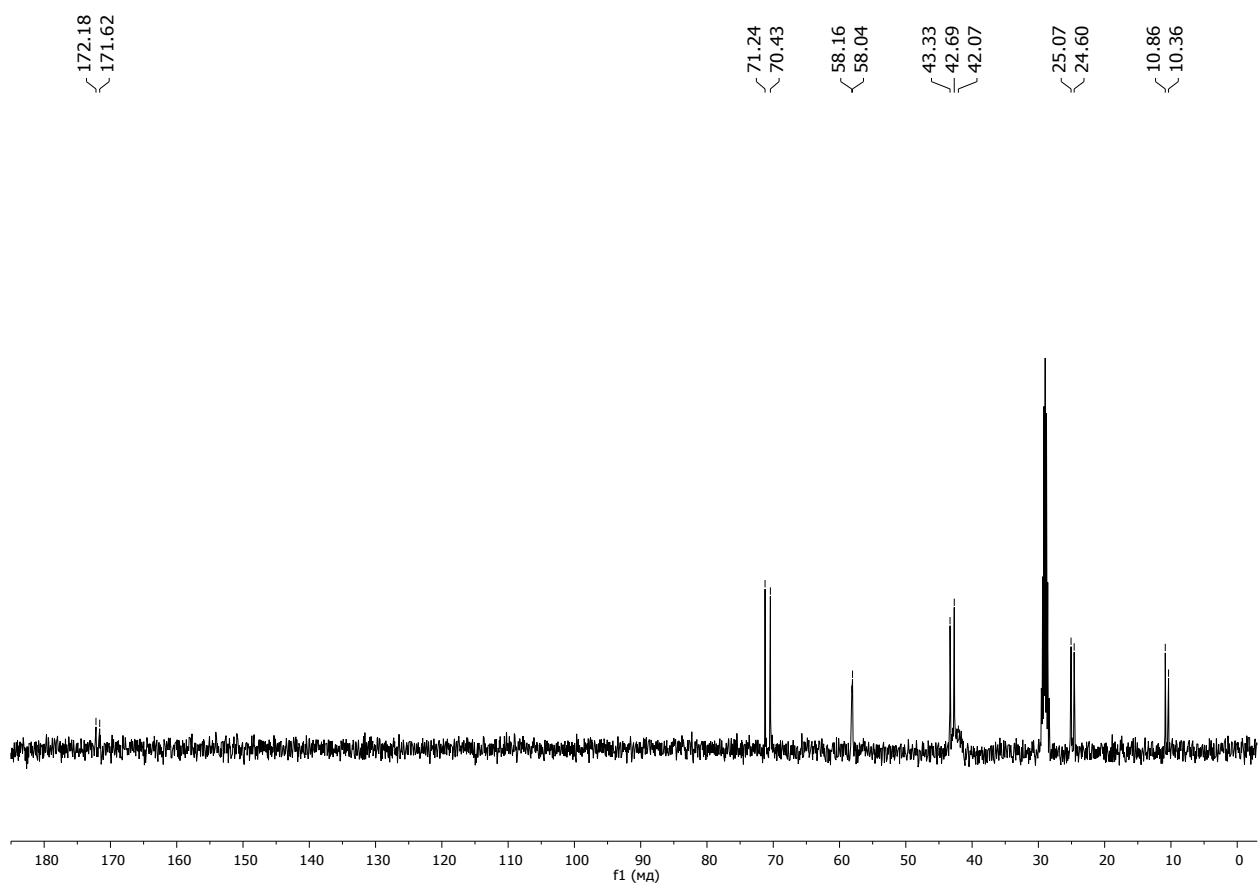


Fig. S4. ¹³C NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

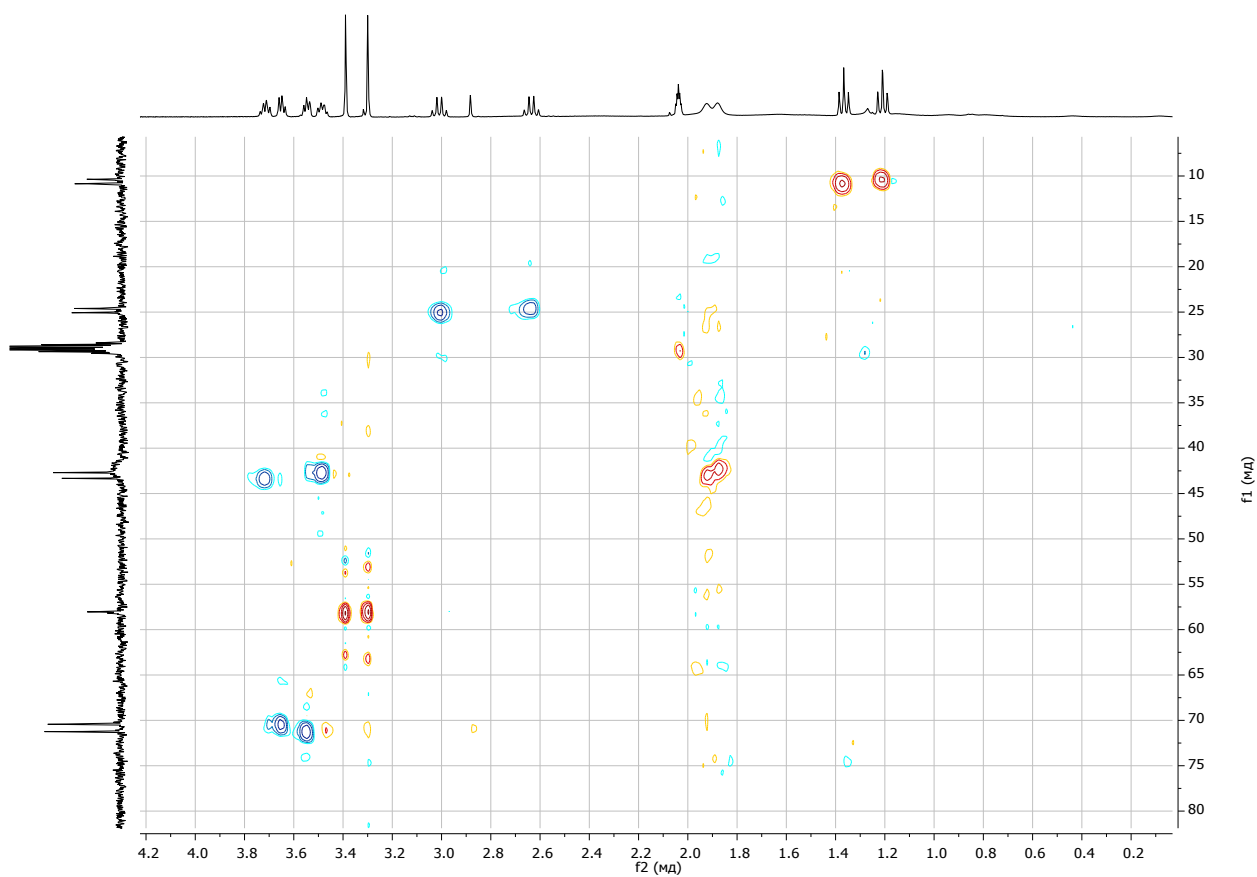


Fig. S5. (HC)HSQC NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

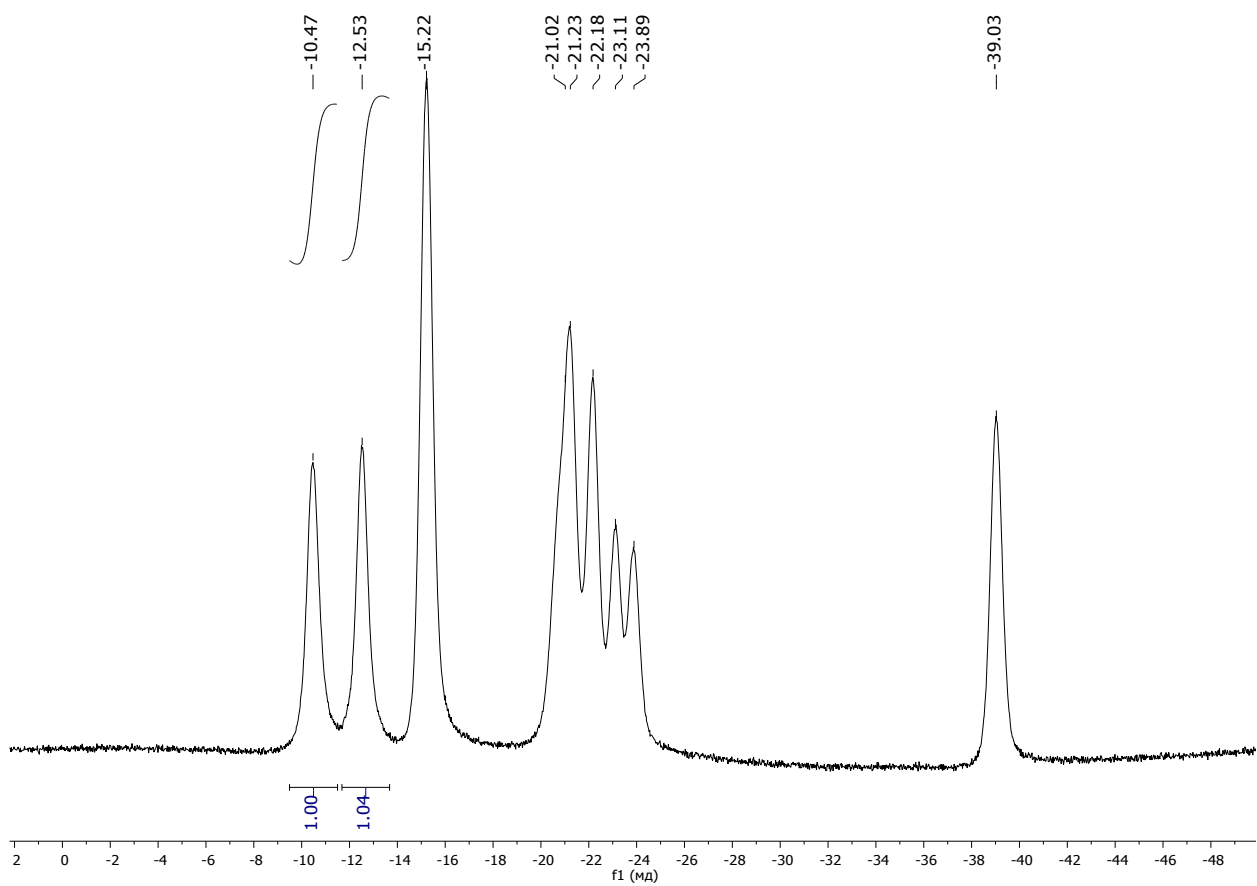


Fig. S6. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compounds **1a** and **1b** (acetone-d₆)

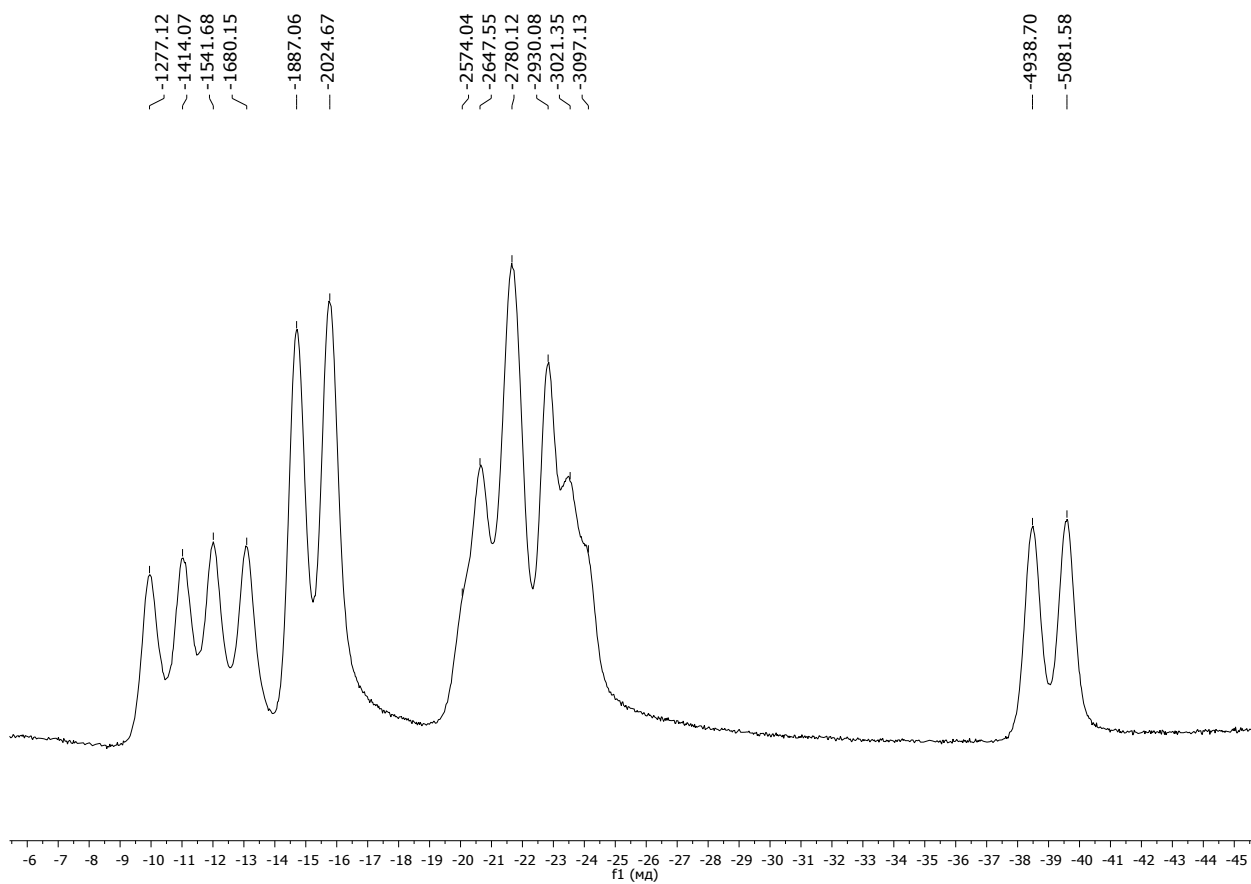


Fig. S7. ^{11}B NMR spectrum of compounds **1a** and **1b** (acetone- d_6)

Spectral data for 10-EtC(NHCH₂CH₂OH)=HN-7,8-C₂B₉H₁₁ (**2a**, **2b**).

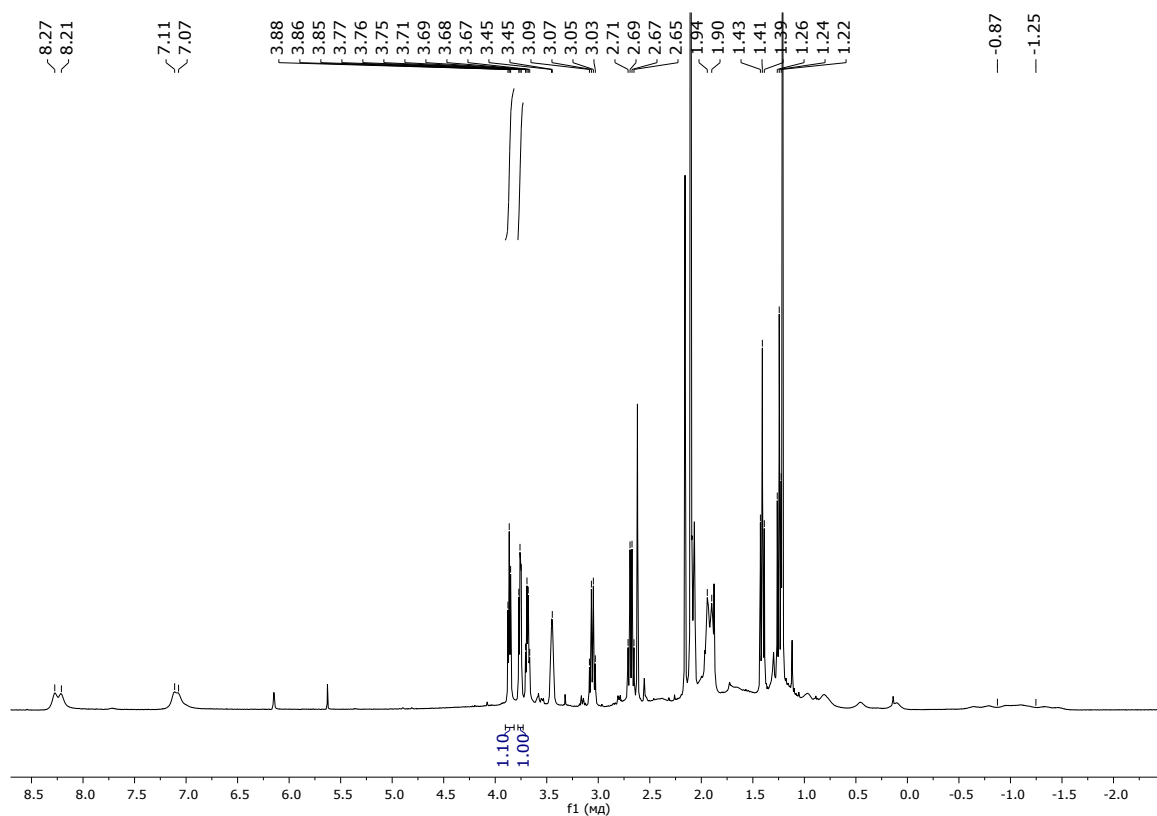


Fig. S8. ¹H NMR spectrum of compounds **2a** and **2b** (acetone-d₆)

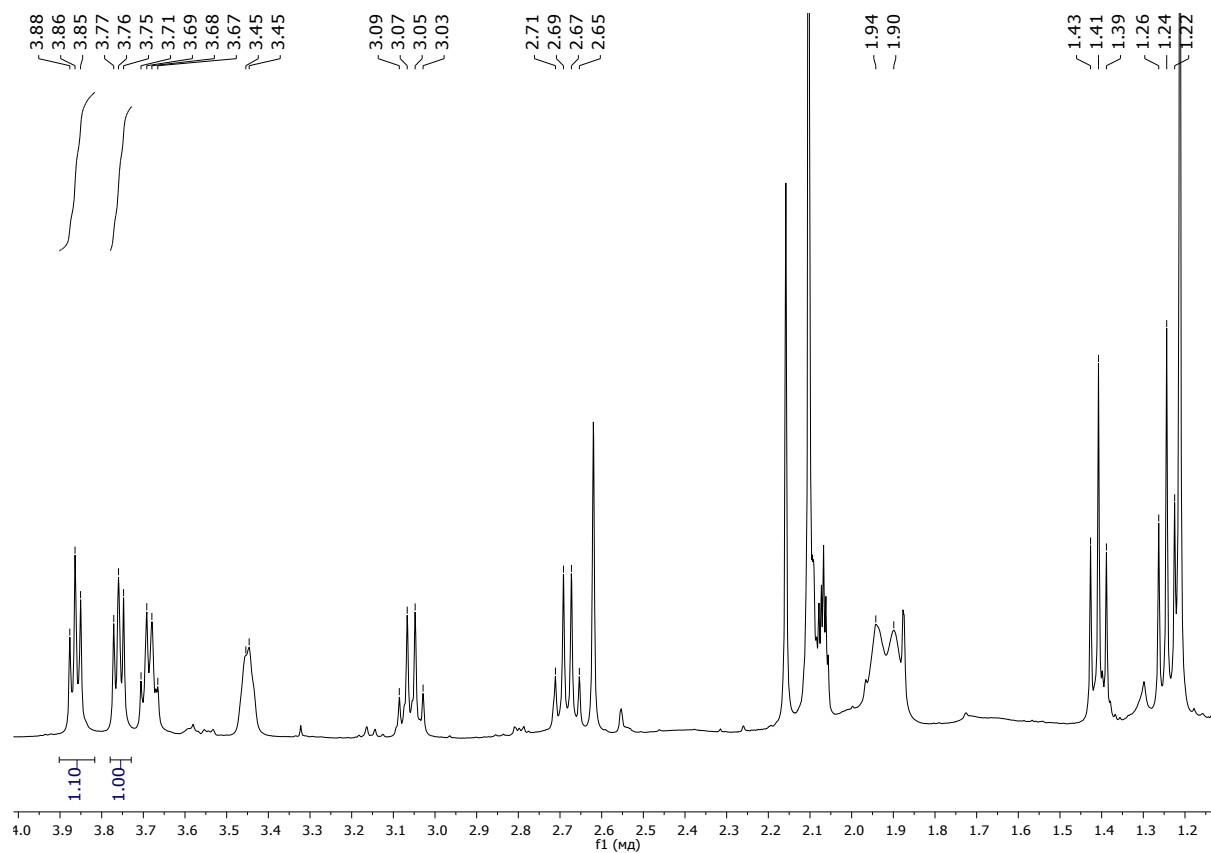


Fig. S9. The fragment of ¹H NMR spectrum of compounds **2a** and **2b** (acetone-d₆)

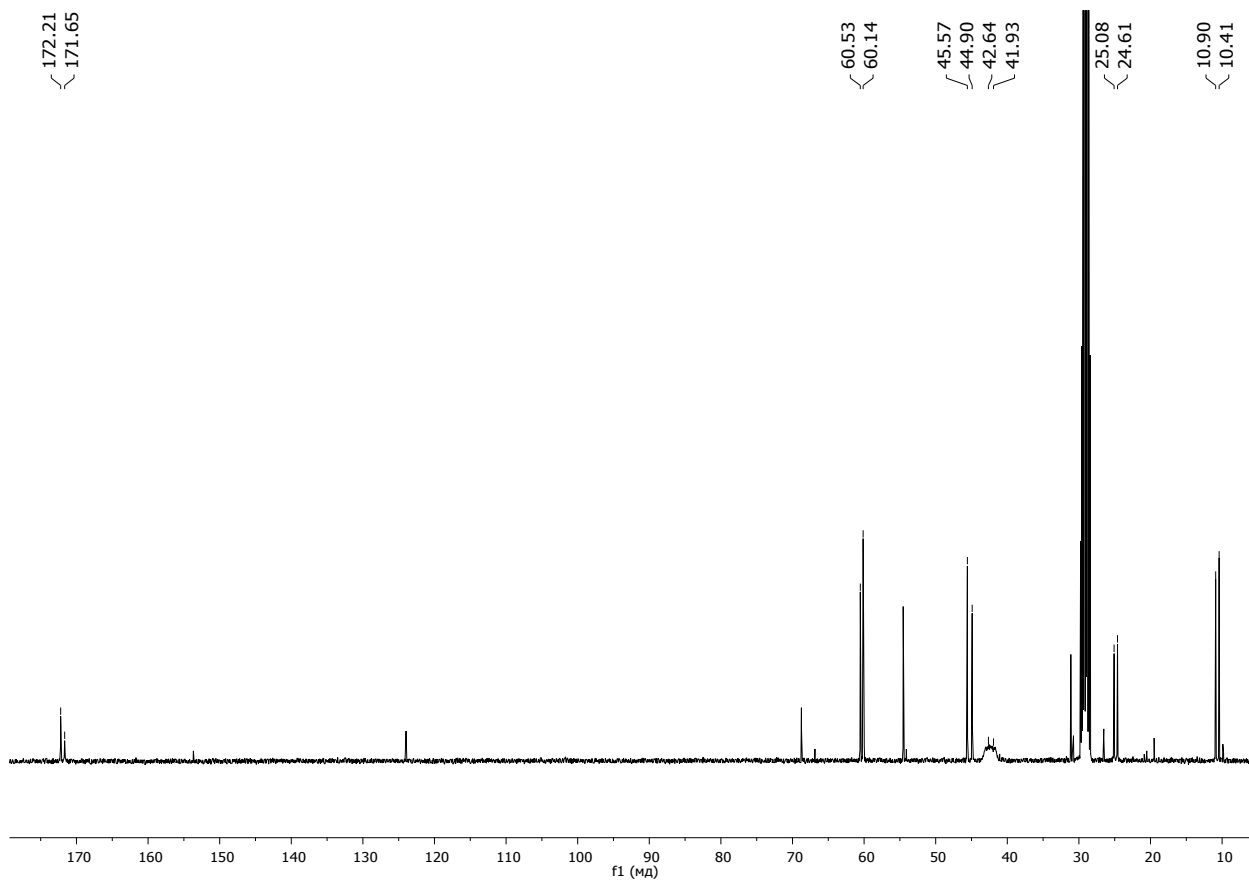


Fig. S10. ^{13}C NMR spectrum of compounds **2a** and **2b** (acetone- d_6)

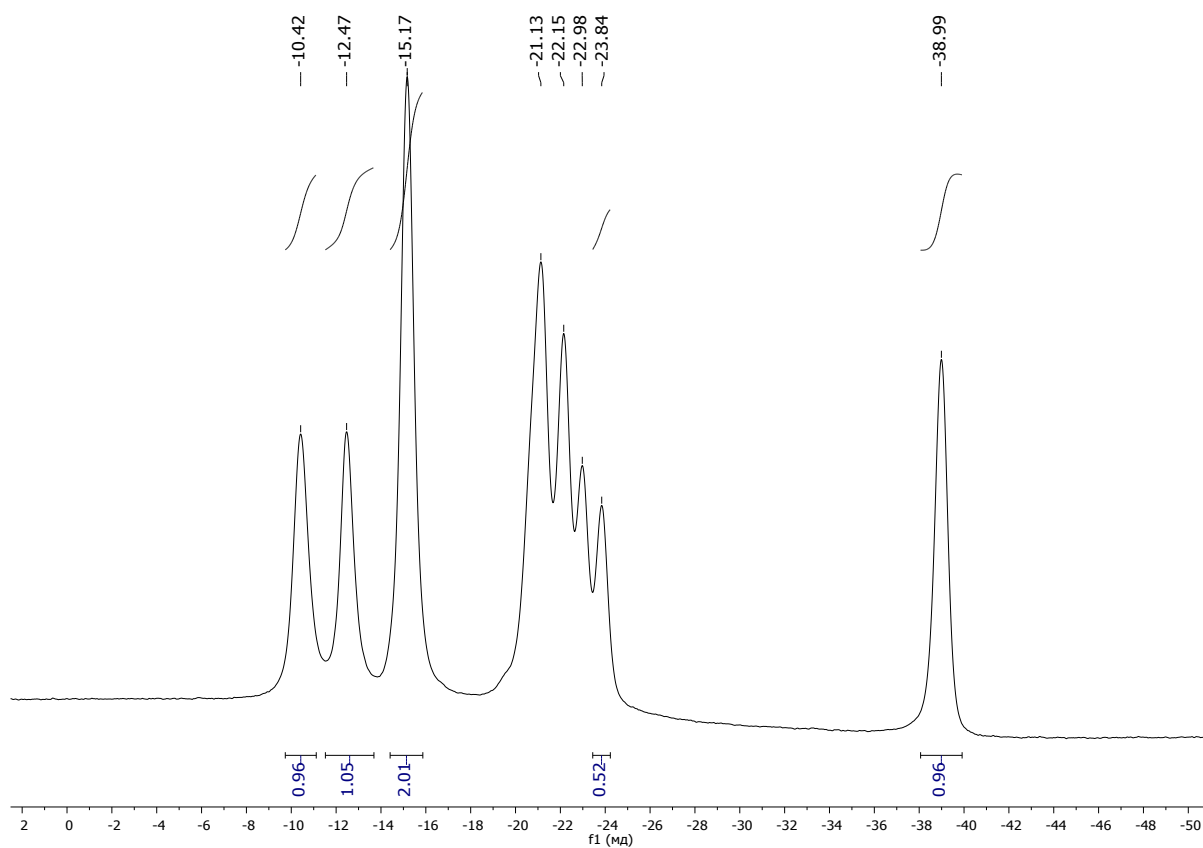


Fig. S11. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compounds **2a** and **2b** (acetone- d_6)

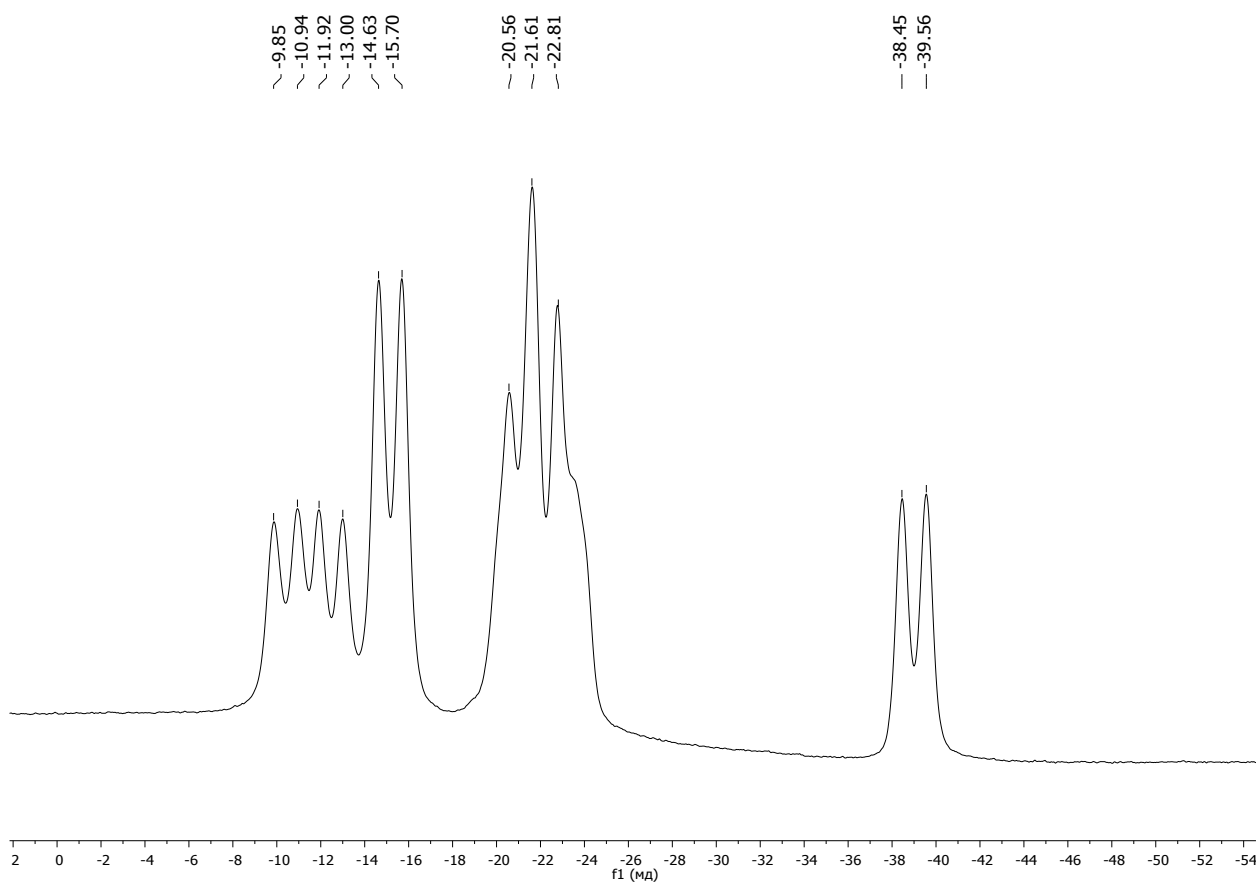


Fig. S12. ^{11}B NMR spectrum of compounds **2a** and **2b** (acetone- d_6)

Spectral data for 10-EtC(NHCH₂CH₂CH₂OH)=HN-7,8-C₂B₉H₁₁ (**3a**, **3b**).

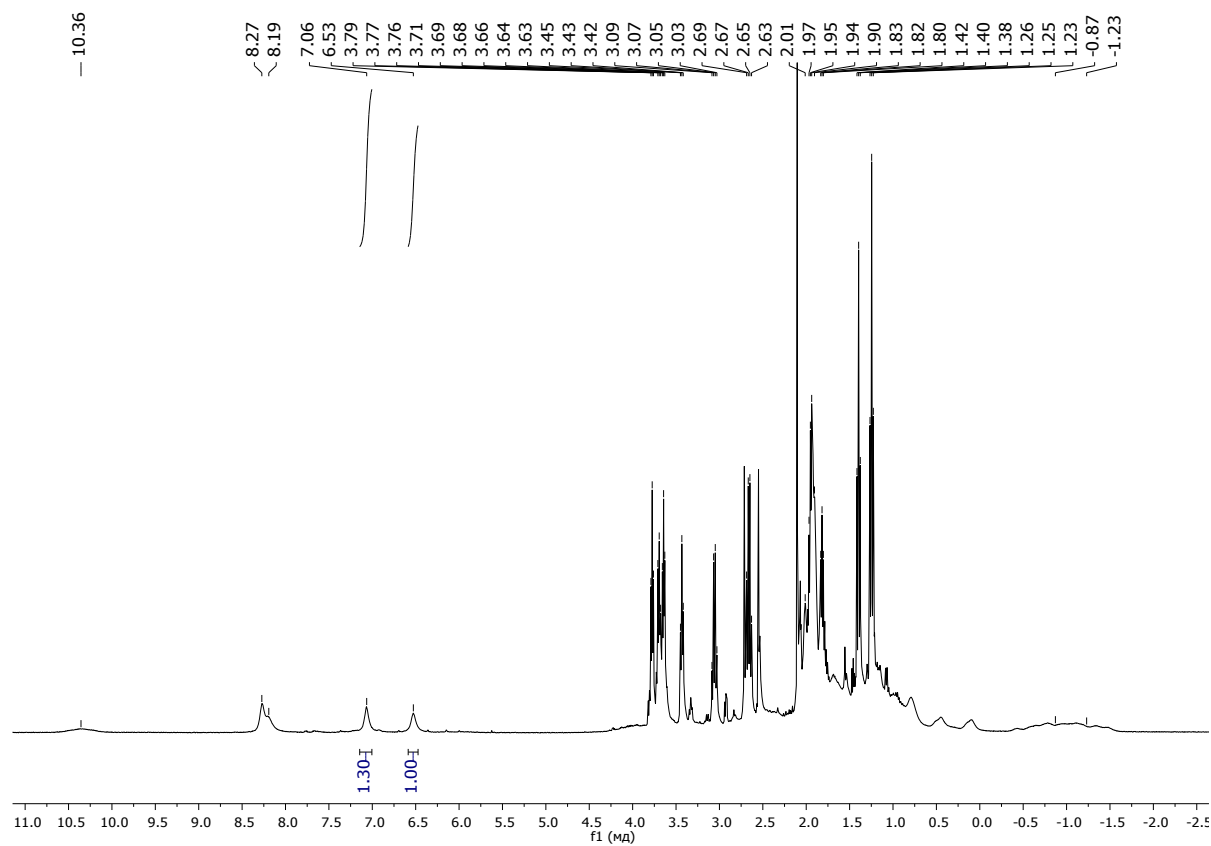


Fig. S13. ¹H NMR spectrum of compounds **3a** and **3b** (acetone-d₆)

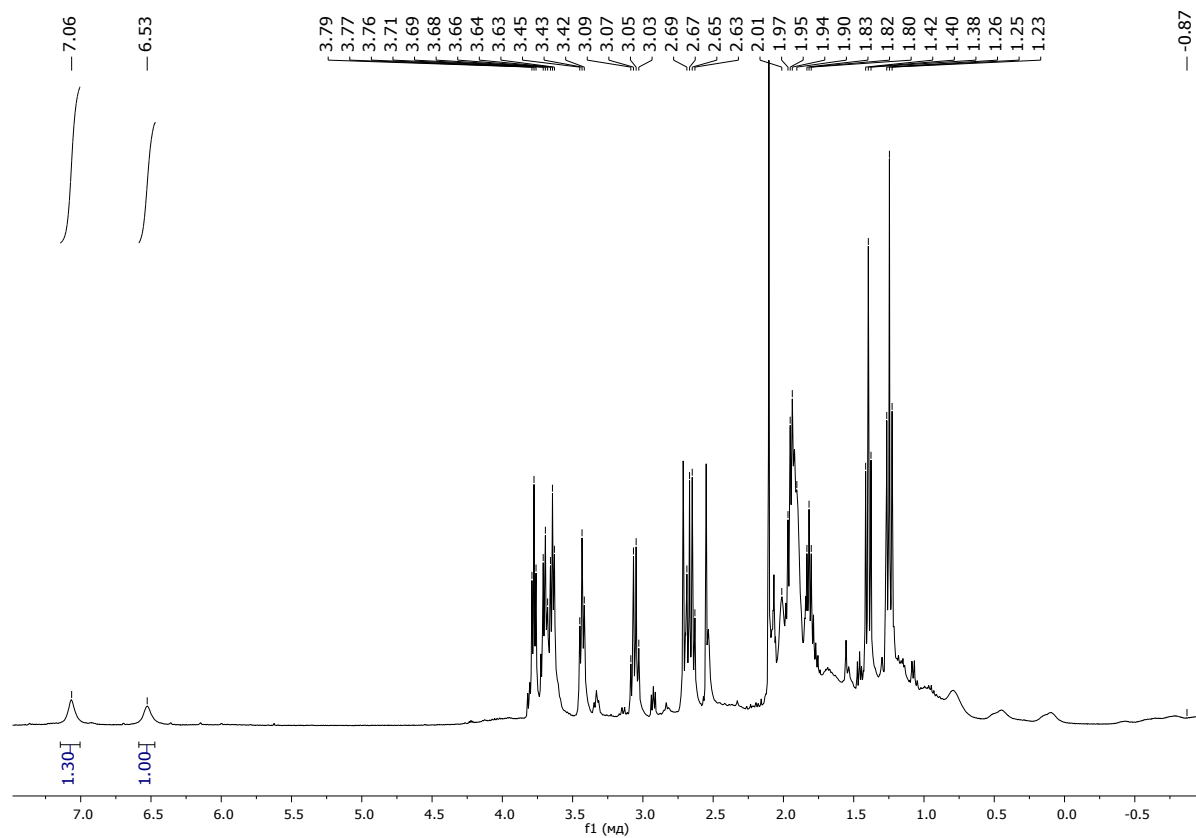


Fig. S14. The fragment of ¹H NMR spectrum of compounds **3a** and **3b** (acetone-d₆)

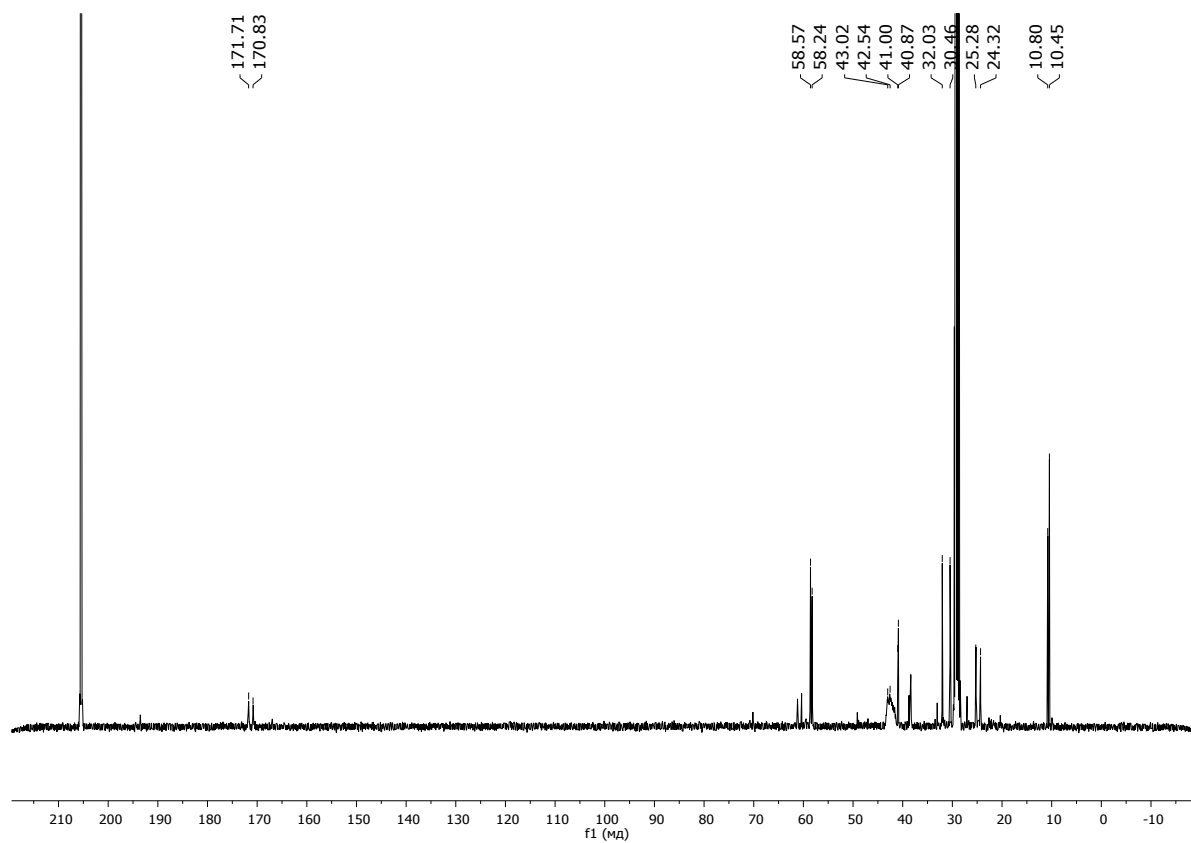


Fig. S15. ^{13}C NMR spectrum of compounds **3a** and **3b** (acetone- d_6)

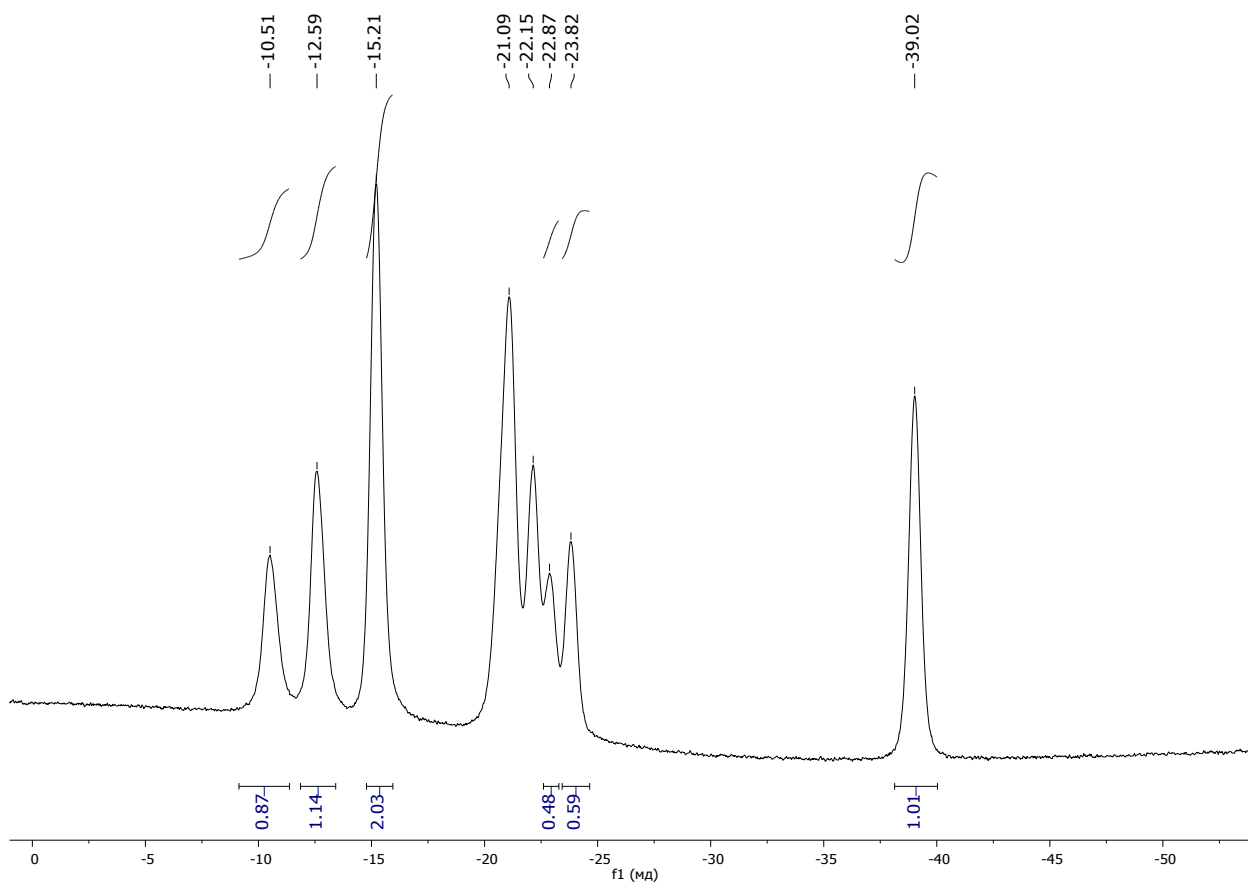


Fig. S16. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compounds **3a** and **3b** (acetone- d_6)

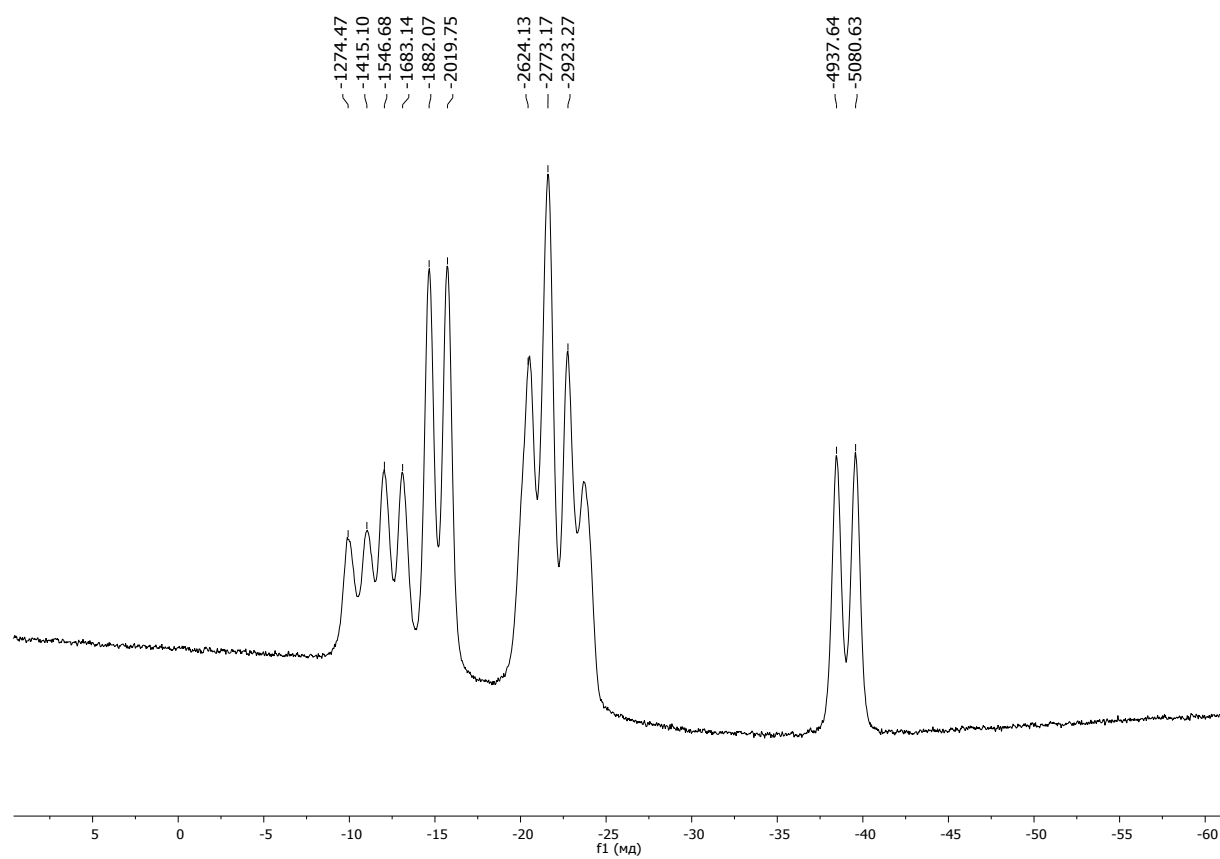


Fig. S17. ^{11}B NMR spectrum of compounds **3a** and **3b** (acetone- d_6)

Spectral data for 10-EtC(NHCH₂CH₂CH₂NMe₂)=HN-7,8-C₂B₉H₁₁ (**4a**, **4b**).

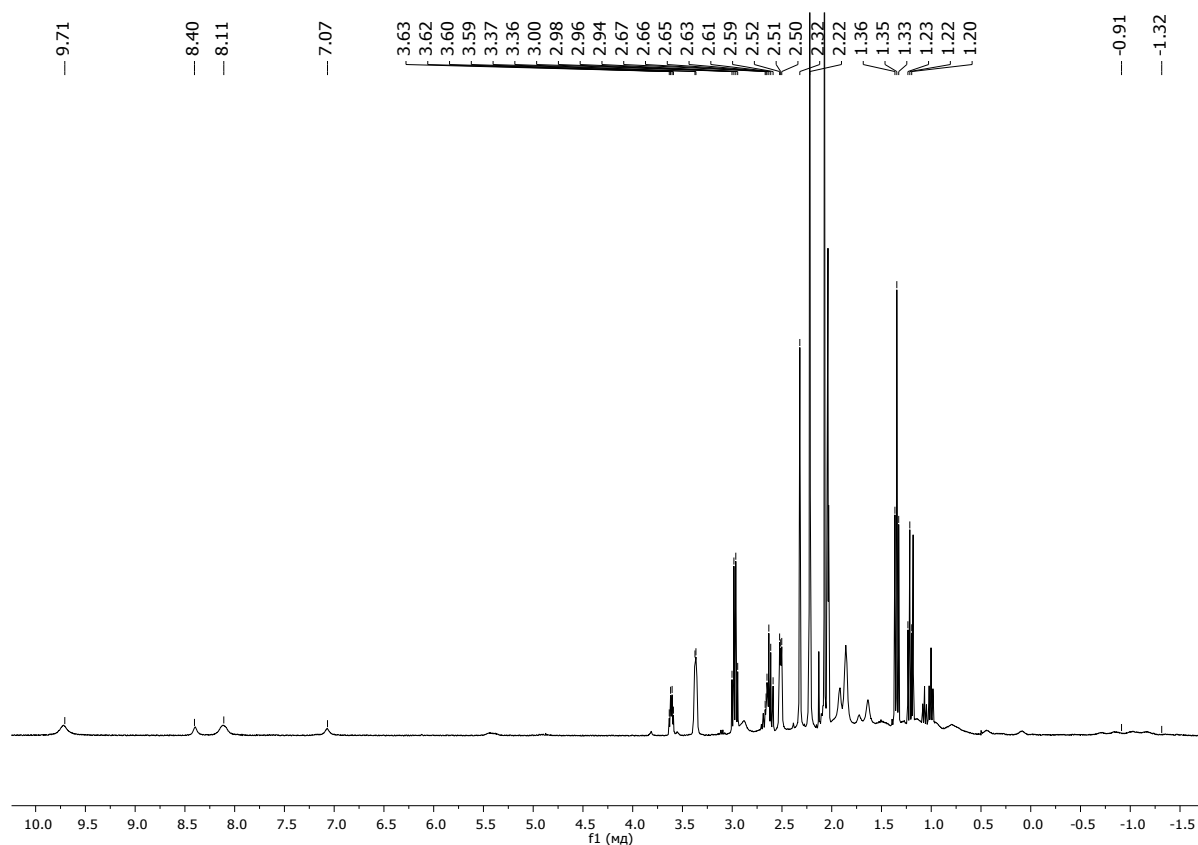


Fig. S18. ¹H NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

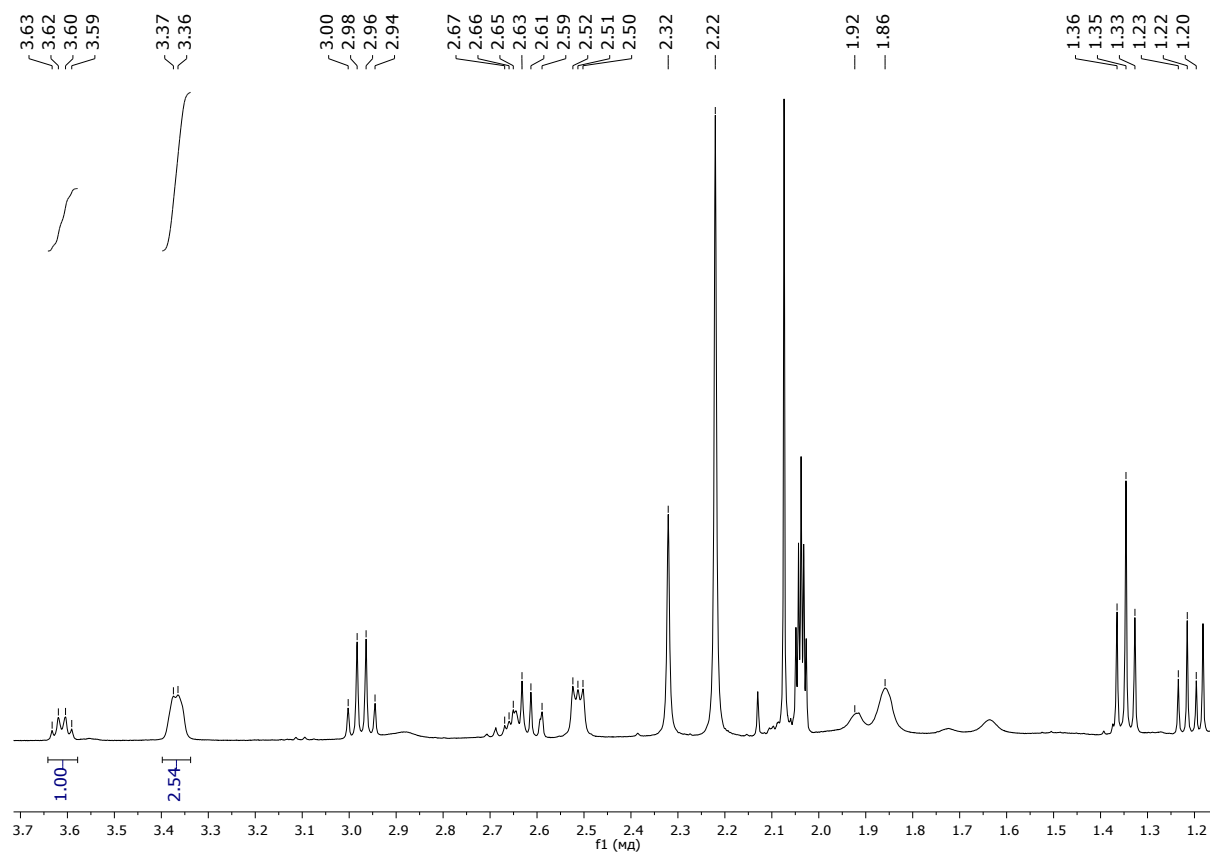


Fig. S19. The fragment of ¹H NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

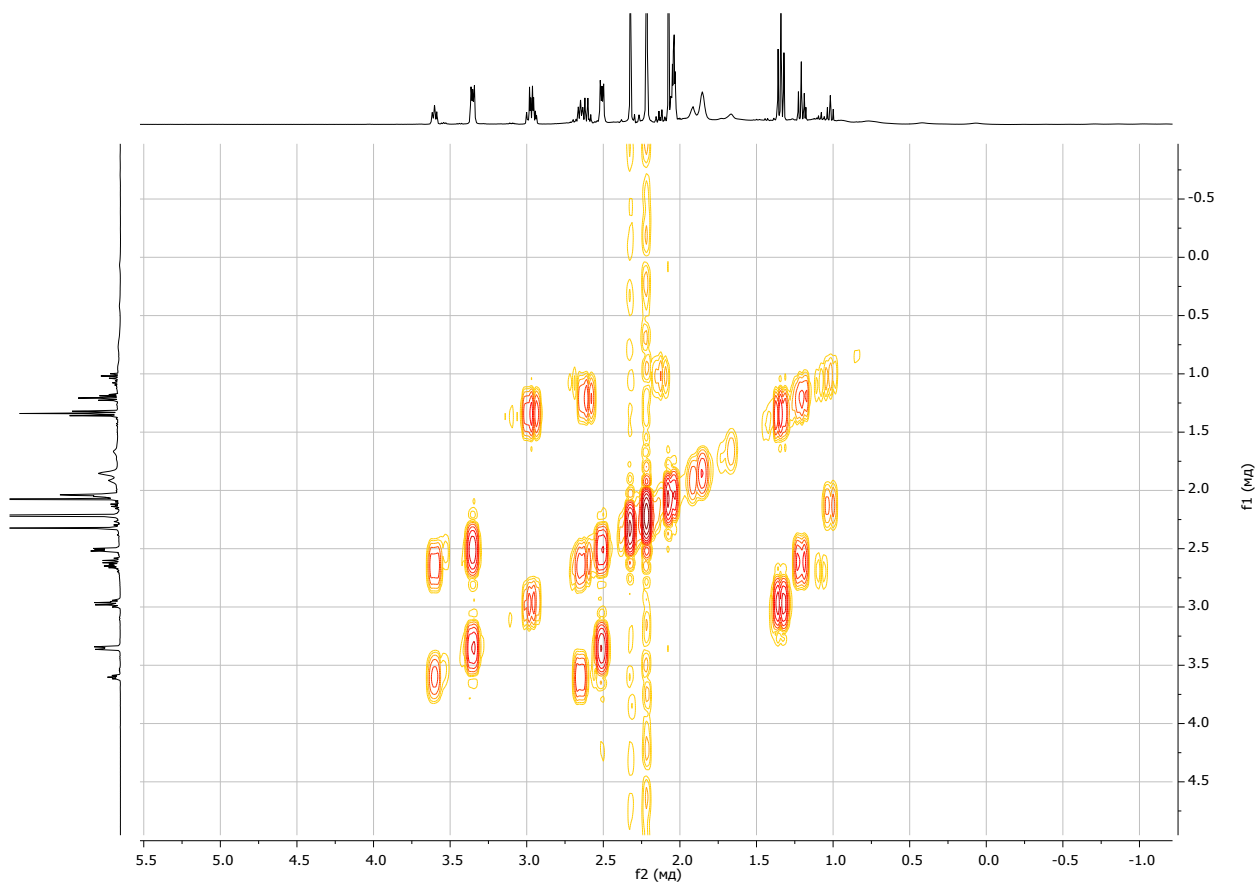


Fig. S20. (HH)gCOSY NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

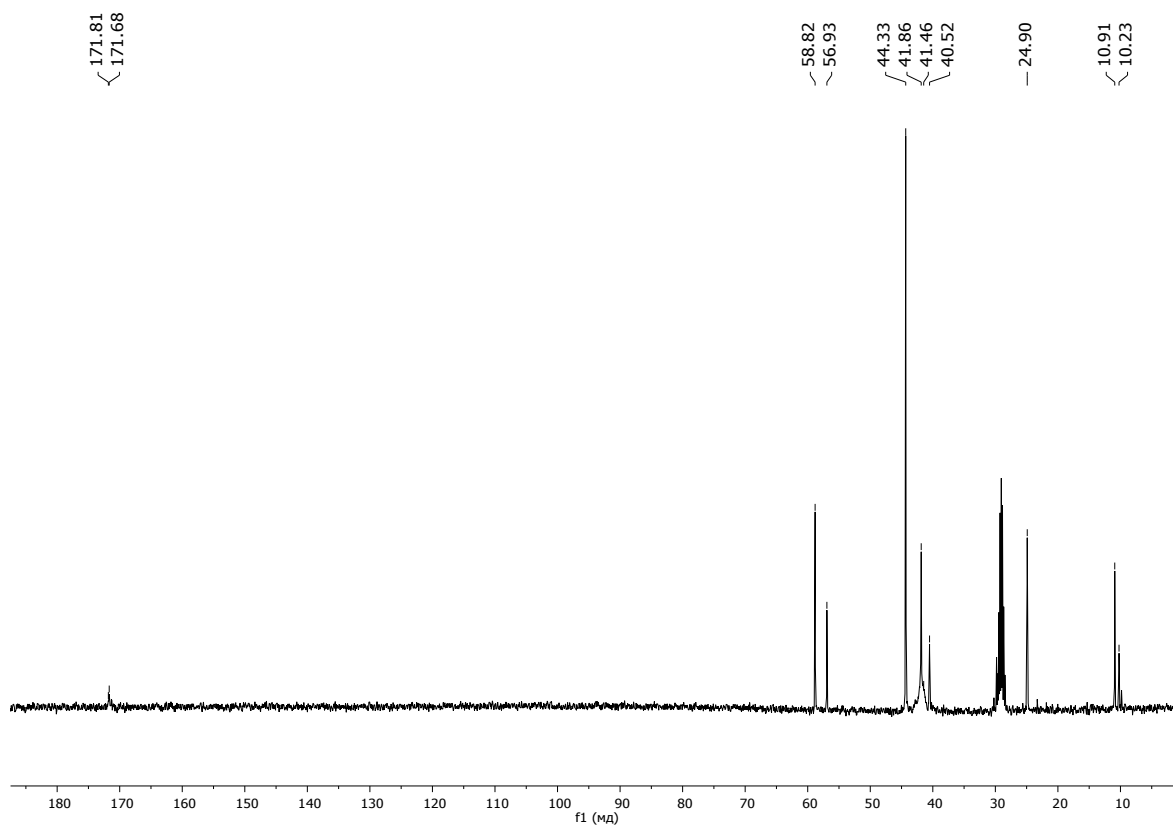


Fig. S21. ¹³C NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

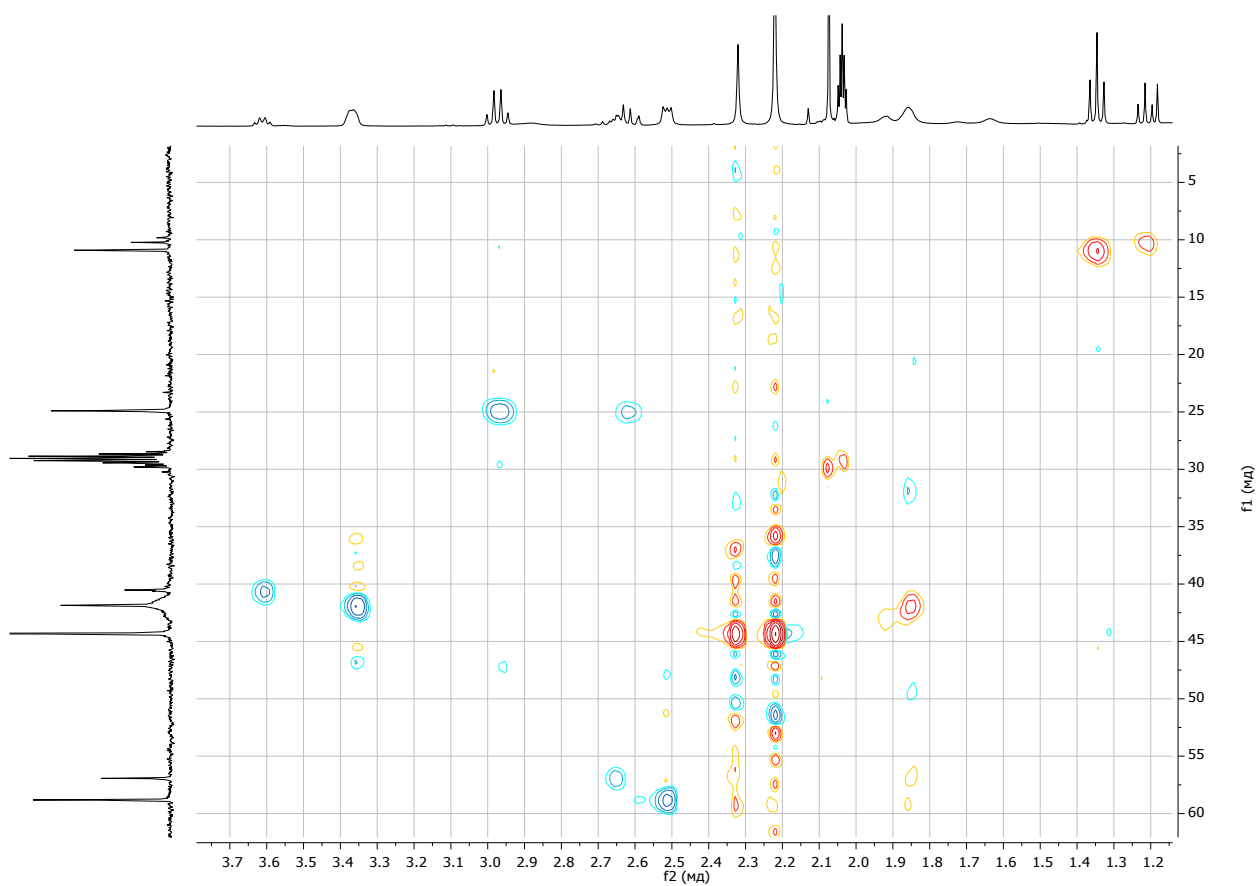


Fig. S22. (HC)HSQC NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

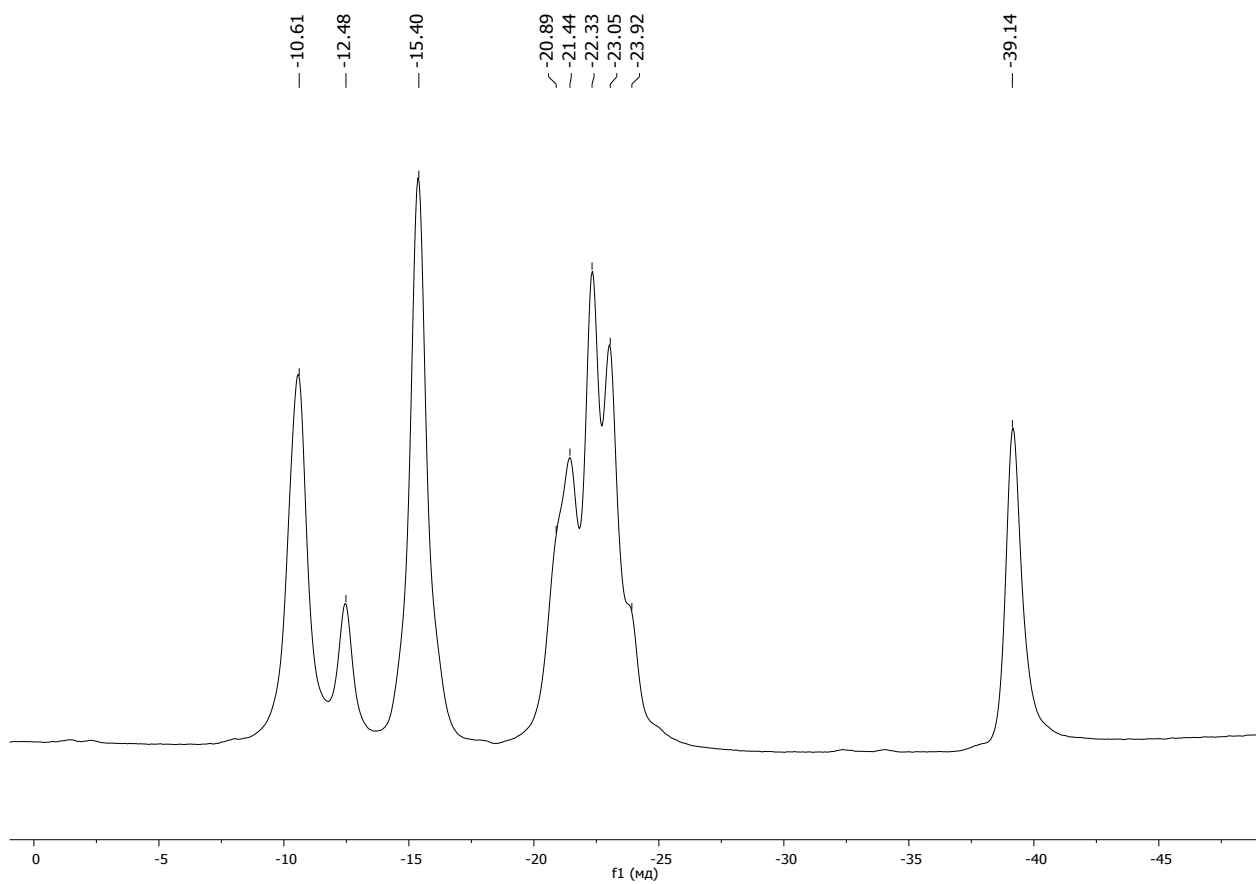


Fig. S23. ¹¹B{¹H} NMR spectrum of compounds **4a** and **4b** (acetone-d₆)

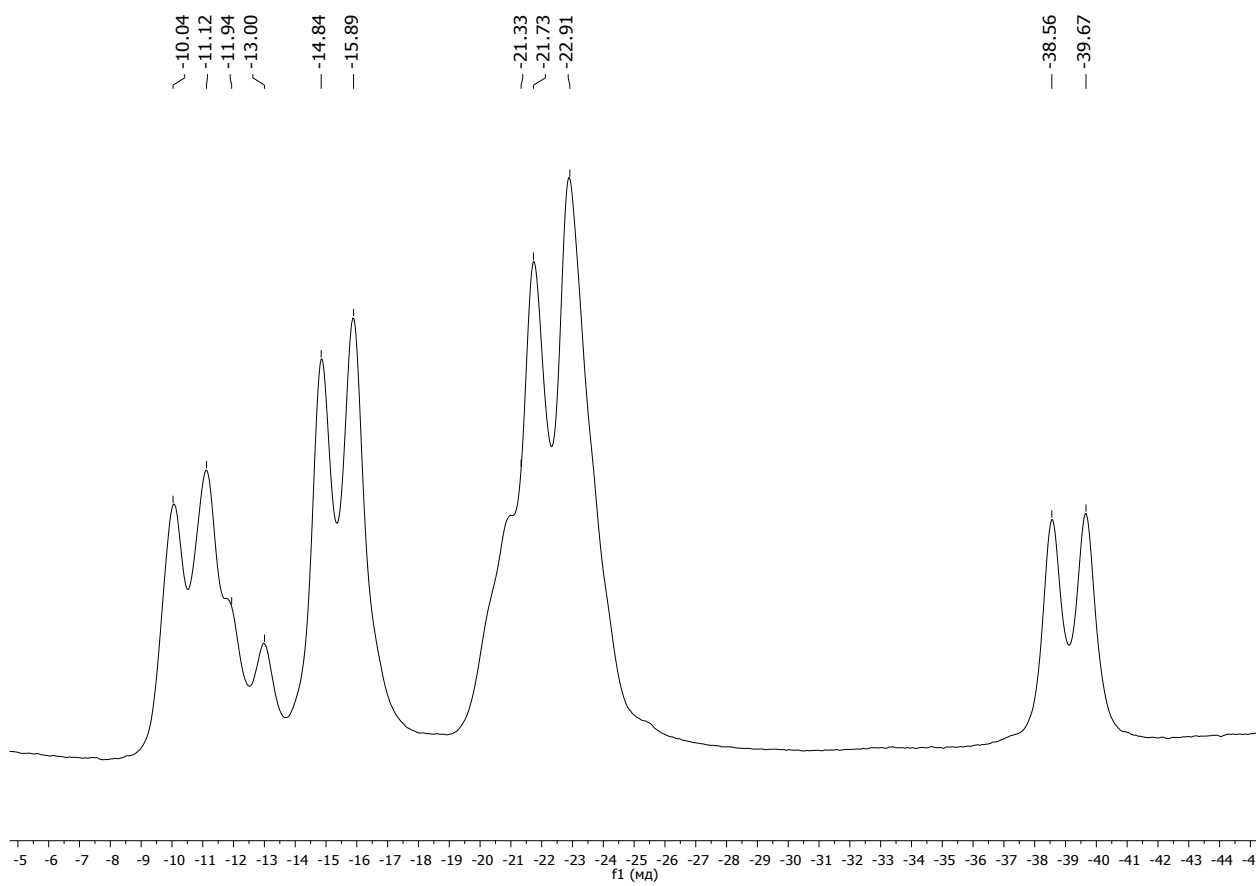


Fig. S24. ^{11}B NMR spectrum of compounds **4a** and **4b** (acetone- d_6)

Spectral data for [3-Ph₃P-(8-MeOCH₂CH₂N=C(Et)NH)-3,1,2-NiC₂B₉H₁₀] (6)

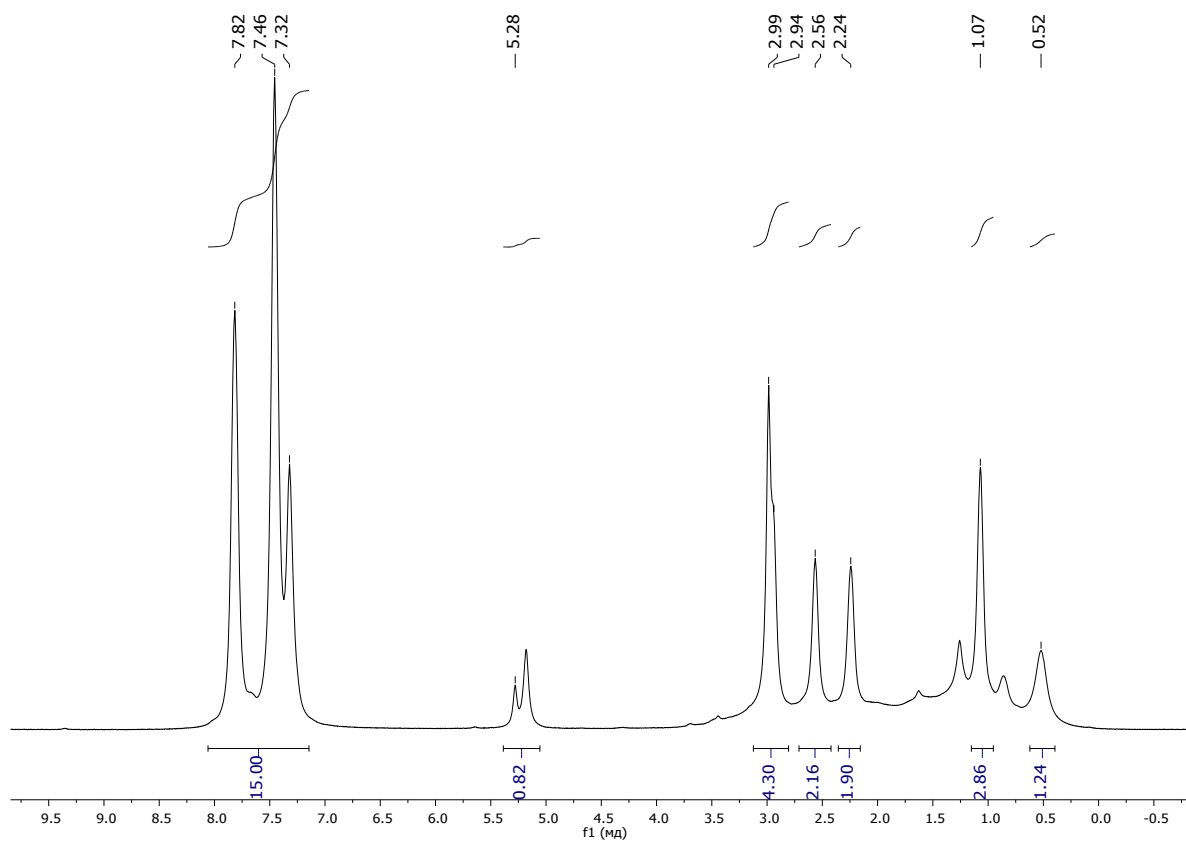


Fig. S25. ¹H NMR spectrum of compound 6 (CDCl₃)

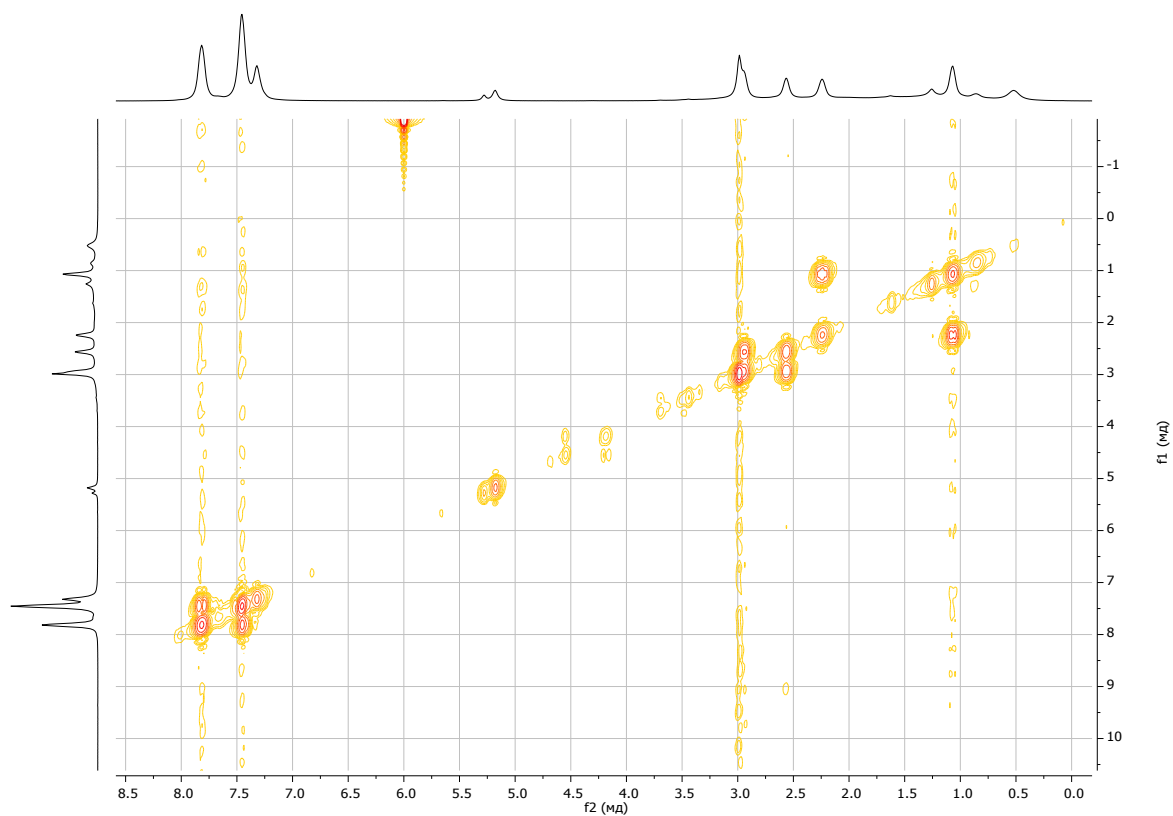


Fig. S26. (H,H)gCOSY NMR spectrum of compound 6 (CDCl₃)

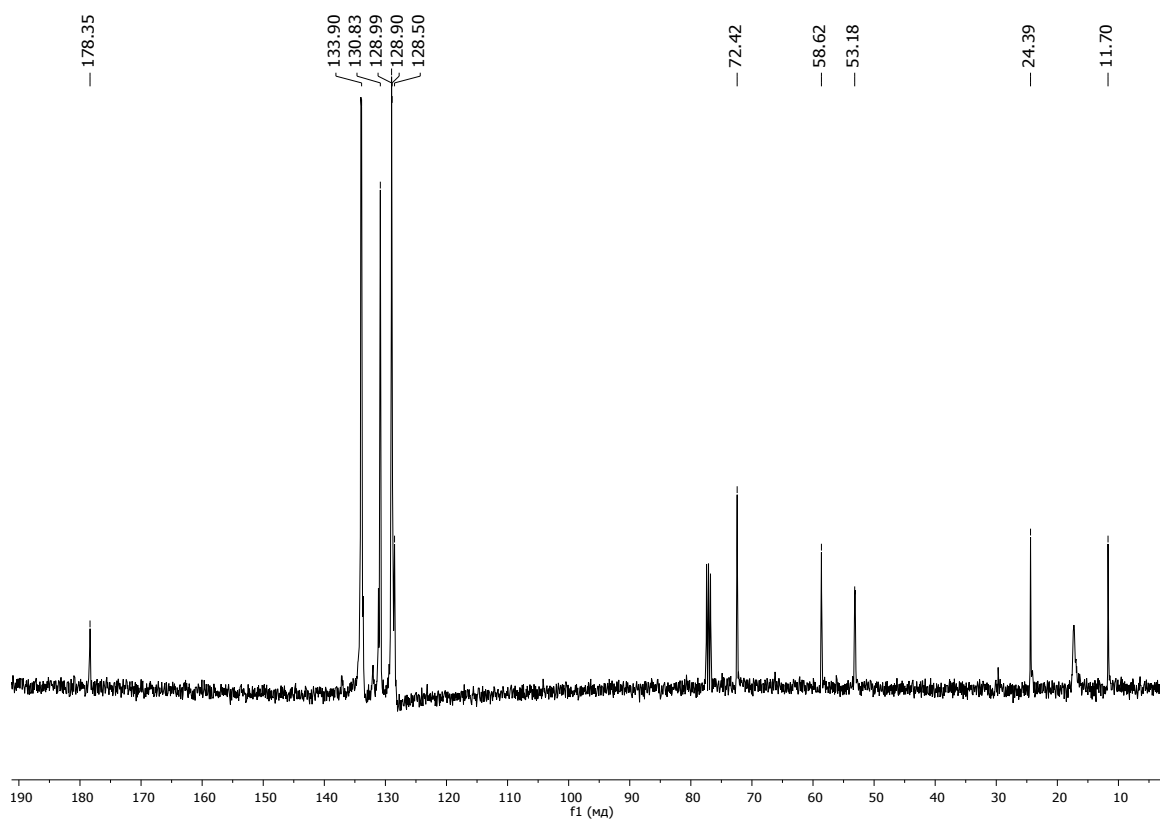


Fig. S27. ^{13}C NMR spectrum of compound **6** (CDCl_3)

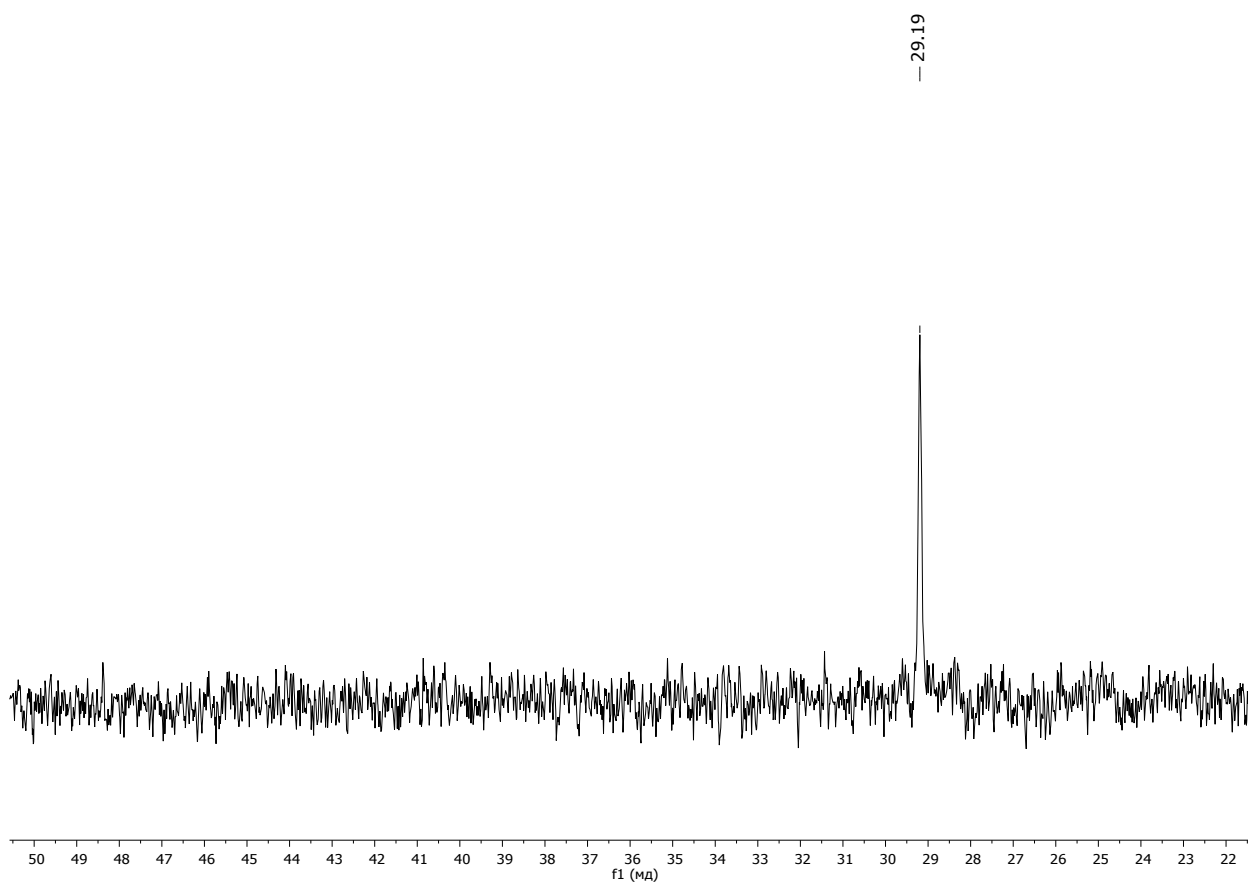


Fig. S28. ^{31}P NMR spectrum of compound **6** (CDCl_3)

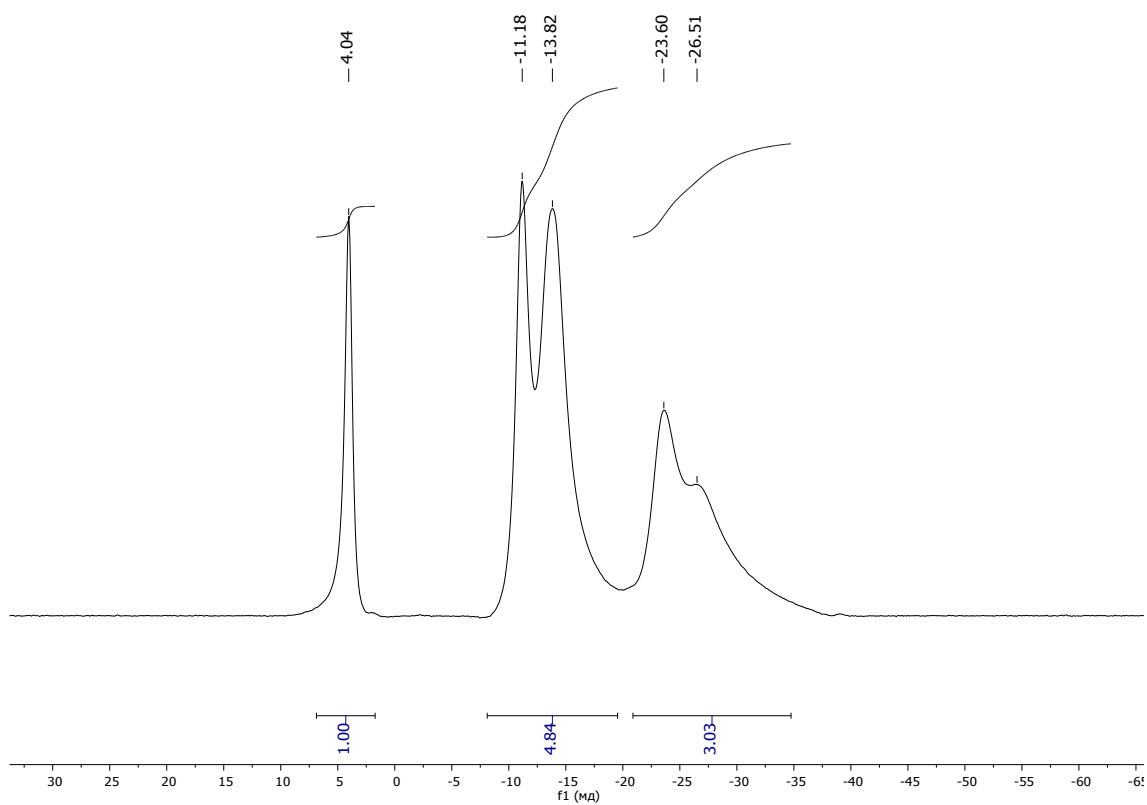


Fig. S29. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compound **6** (CDCl_3)

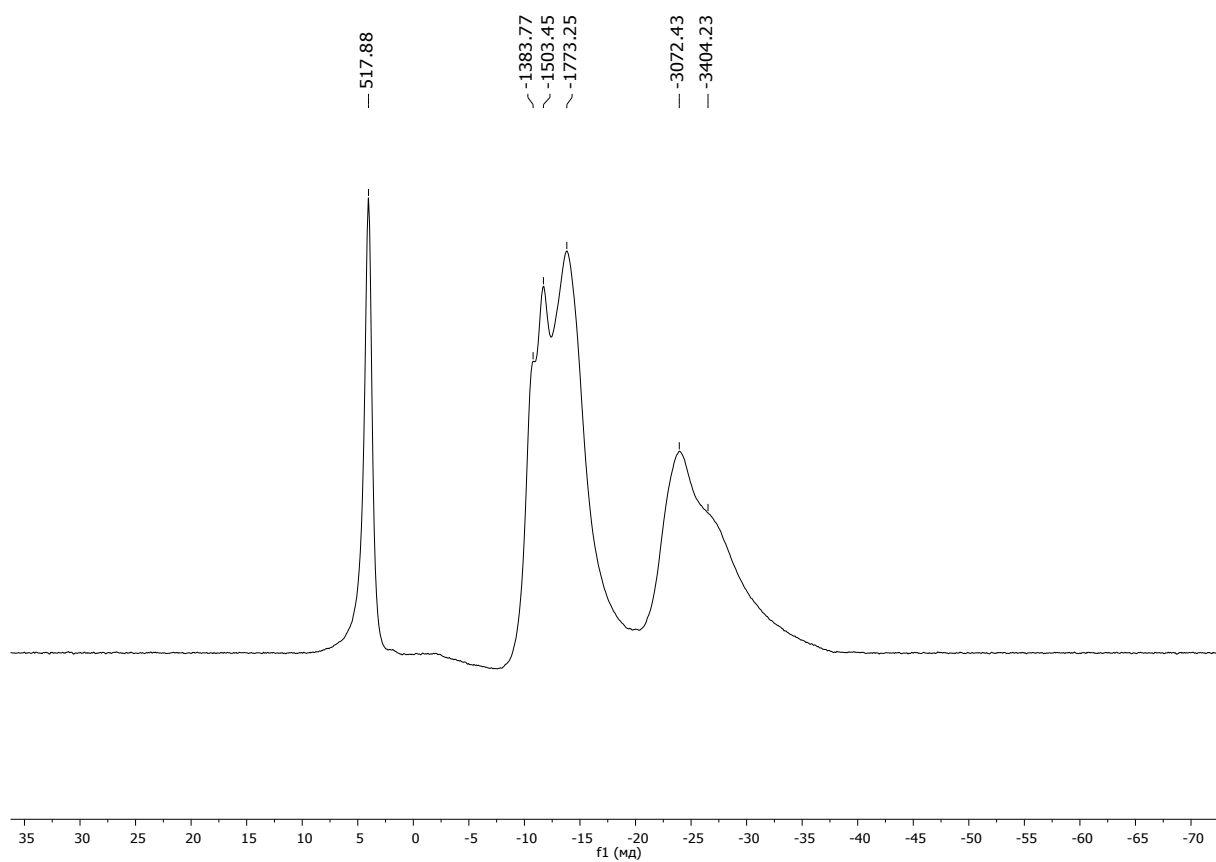


Fig. S30. ^{11}B NMR spectrum of compound **6** (CDCl_3)

Spectral data for [3-Ph₃P-(8-MeOCH₂CH₂N=C(Et)NH)-3,1,2-PdC₂B₉H₁₀] (7)

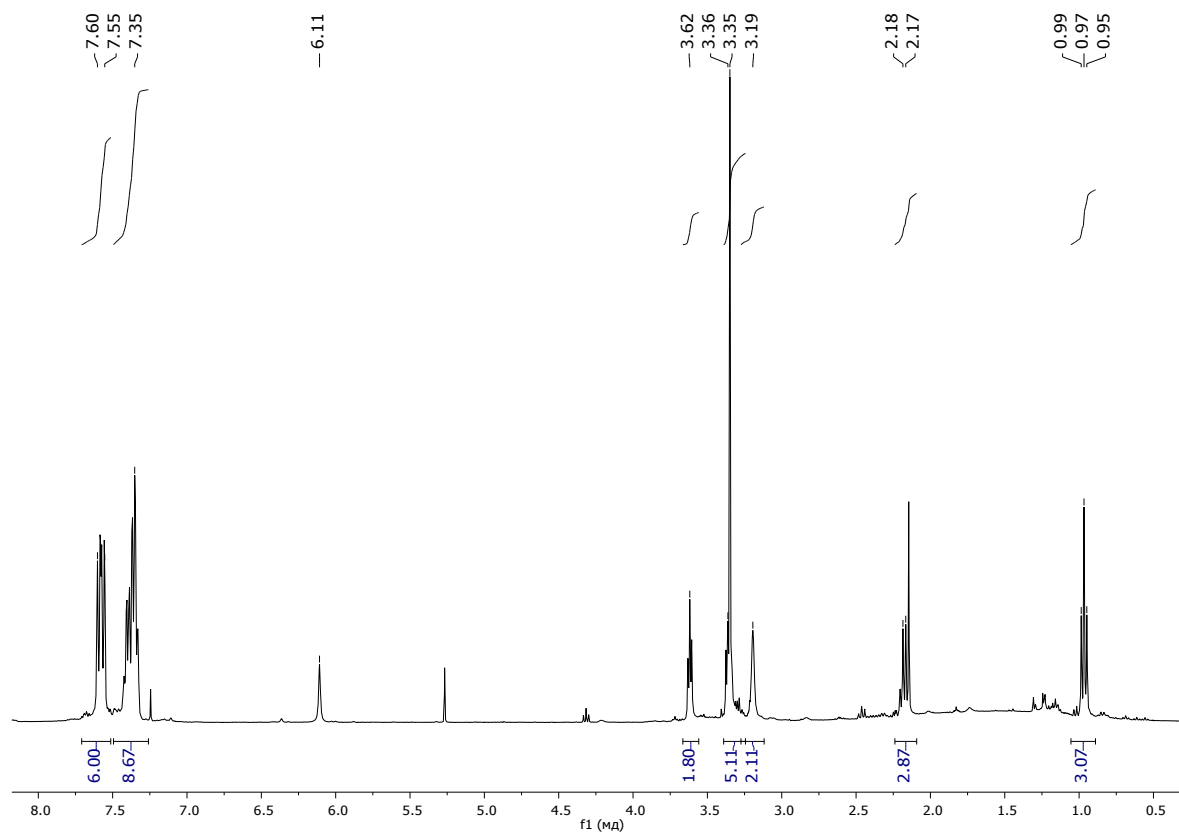


Fig. S31. ¹H NMR spectrum of compound 7 (CDCl₃)

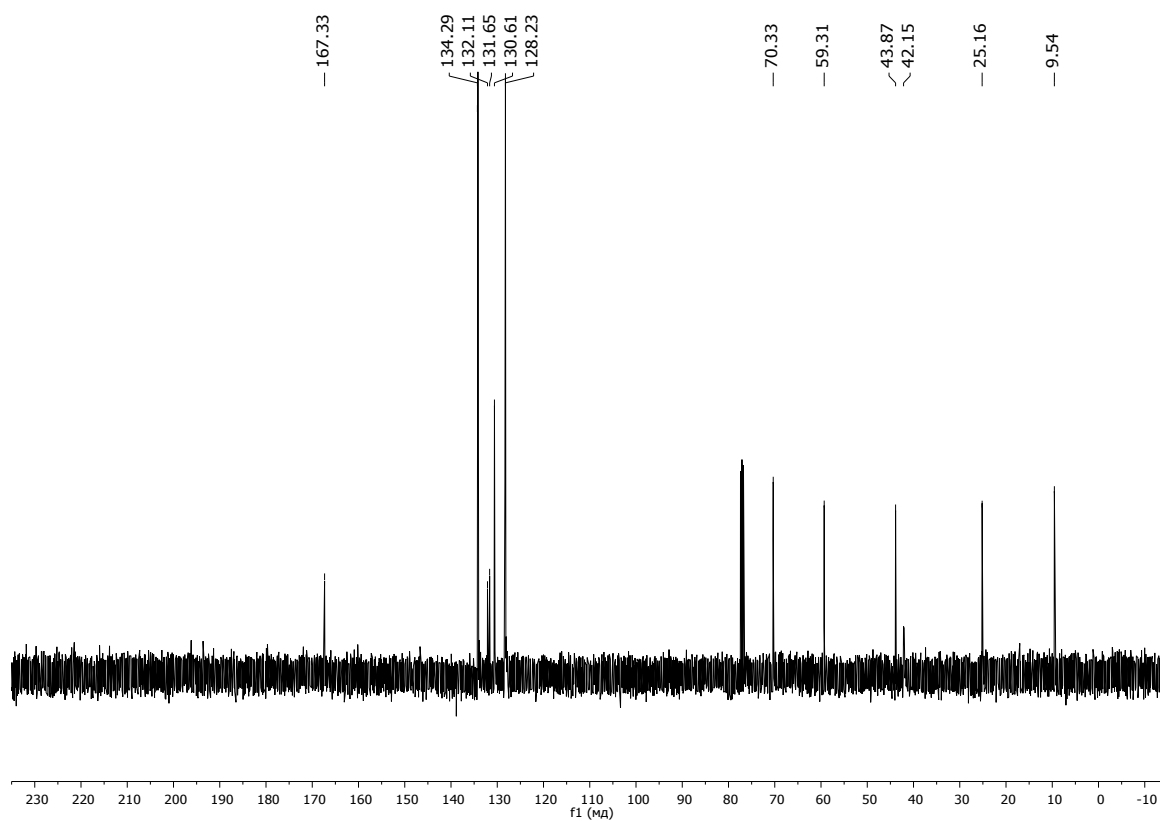


Fig. S32. ¹³C NMR spectrum of compound 7 (CDCl₃)

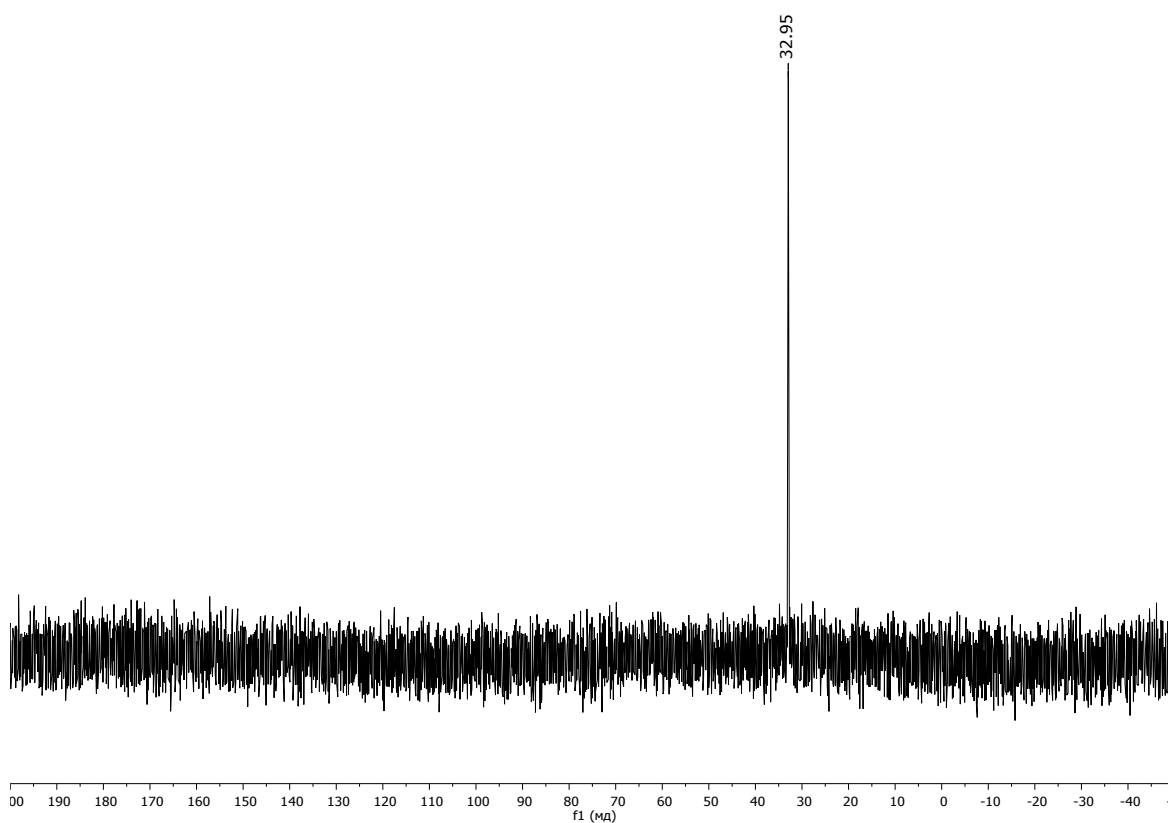


Fig.

Fig. S33. ^{31}P NMR spectrum of compound **7** (CDCl_3)

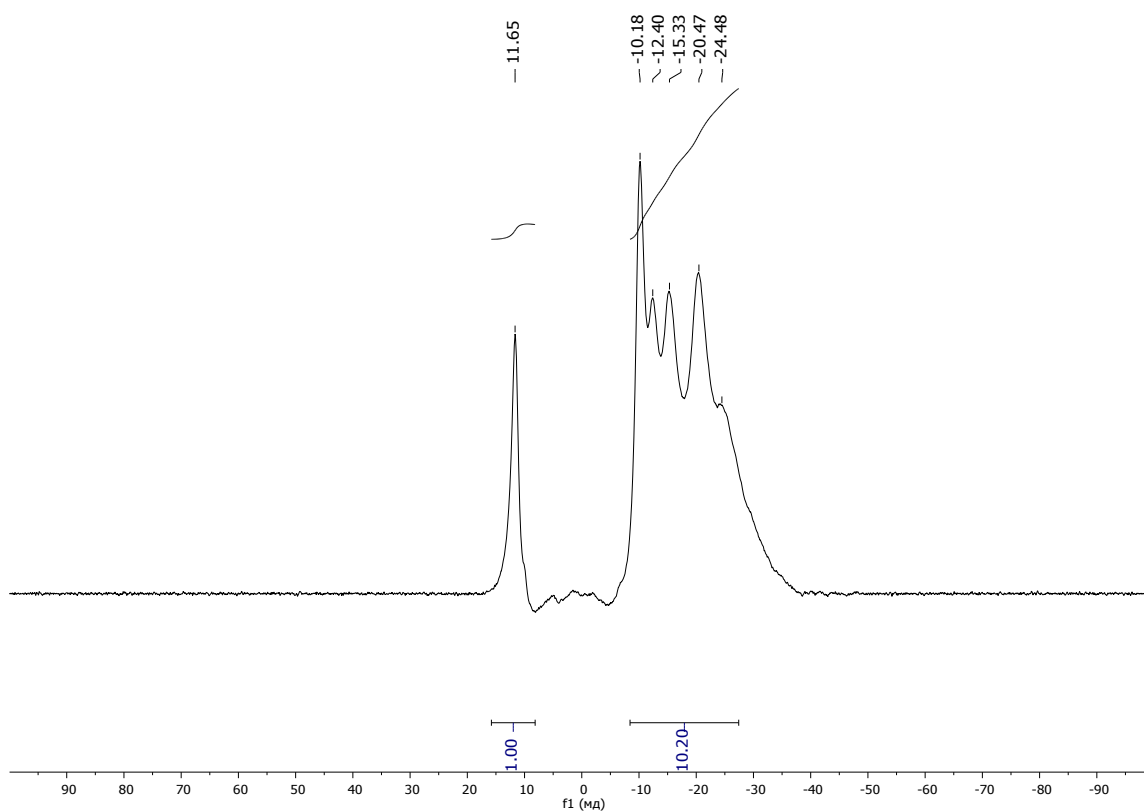


Fig. S34. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compound **7** (CDCl_3)

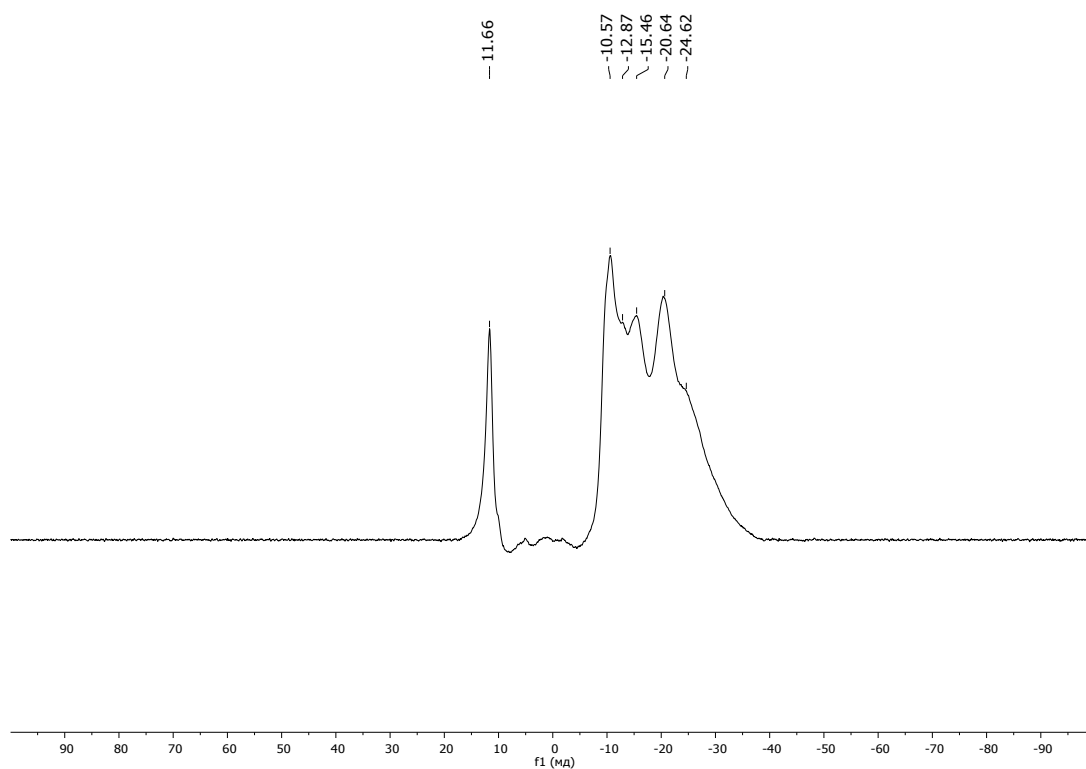


Fig. S35. ^{11}B NMR spectrum of compound 7 (CDCl_3)

Spectral data for [3,3-(8-Me₂NCH₂CH₂N=C(Et)NH)-3,1,2-NiC₂B₉H₁₀] (**8**)

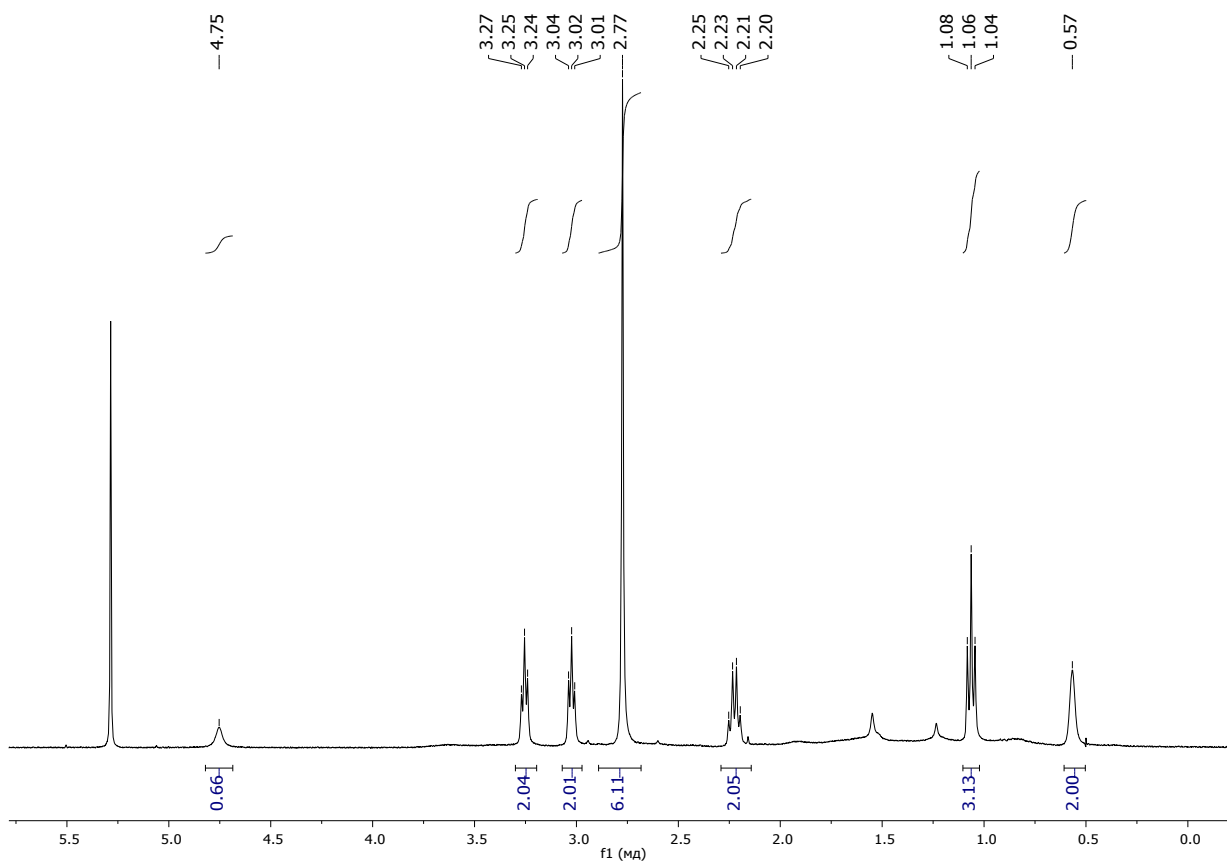


Fig. S36. ¹H NMR spectrum of compound **8** (CDCl₃)

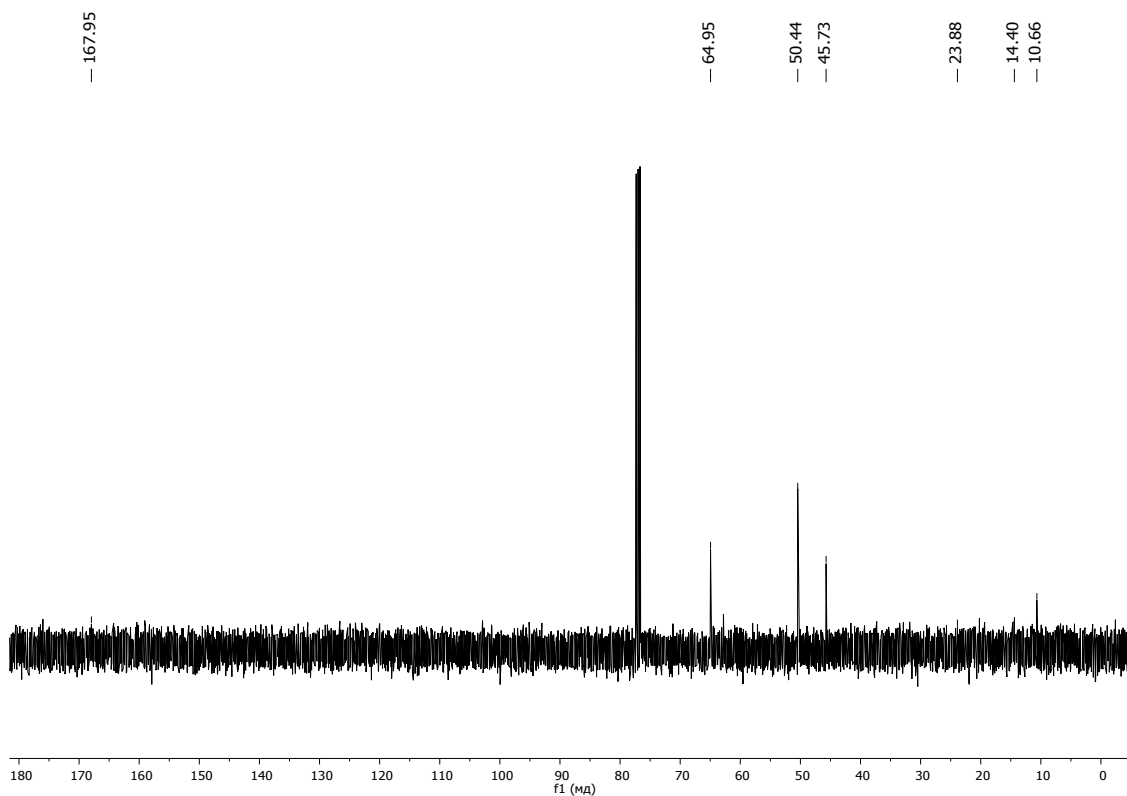


Fig. S37. ¹³C NMR spectrum of compound **8** (CDCl₃)

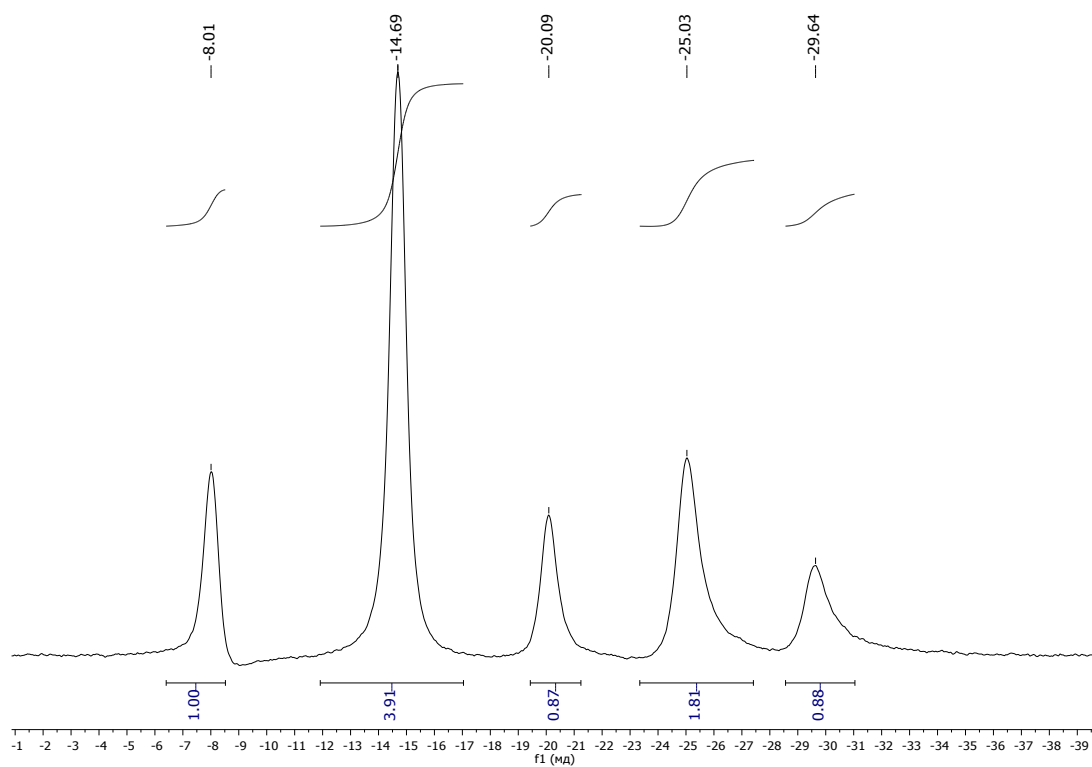


Fig. S38. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compound **8** (CDCl_3)

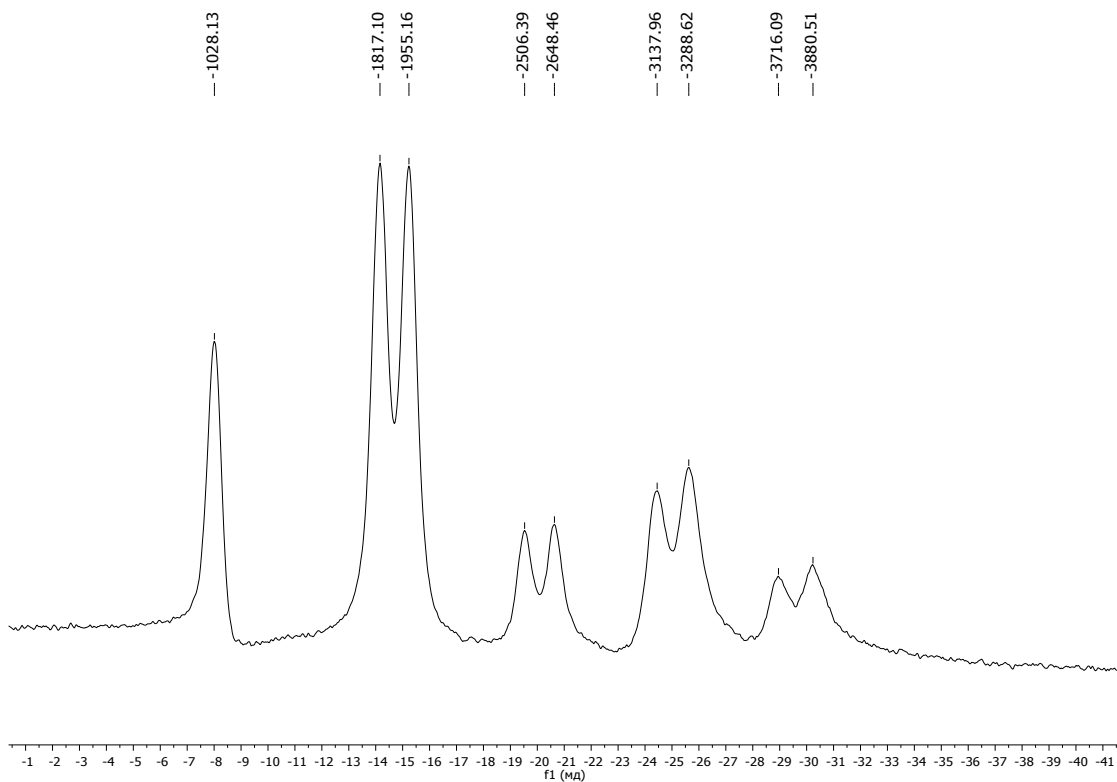


Fig. S39. ^{11}B NMR spectrum of compound **8** (CDCl_3)

Spectral data for [3,3-(8-Me₂NCH₂CH₂N=C(Et)NH)-3,1,2-PdC₂B₉H₁₀] (9)

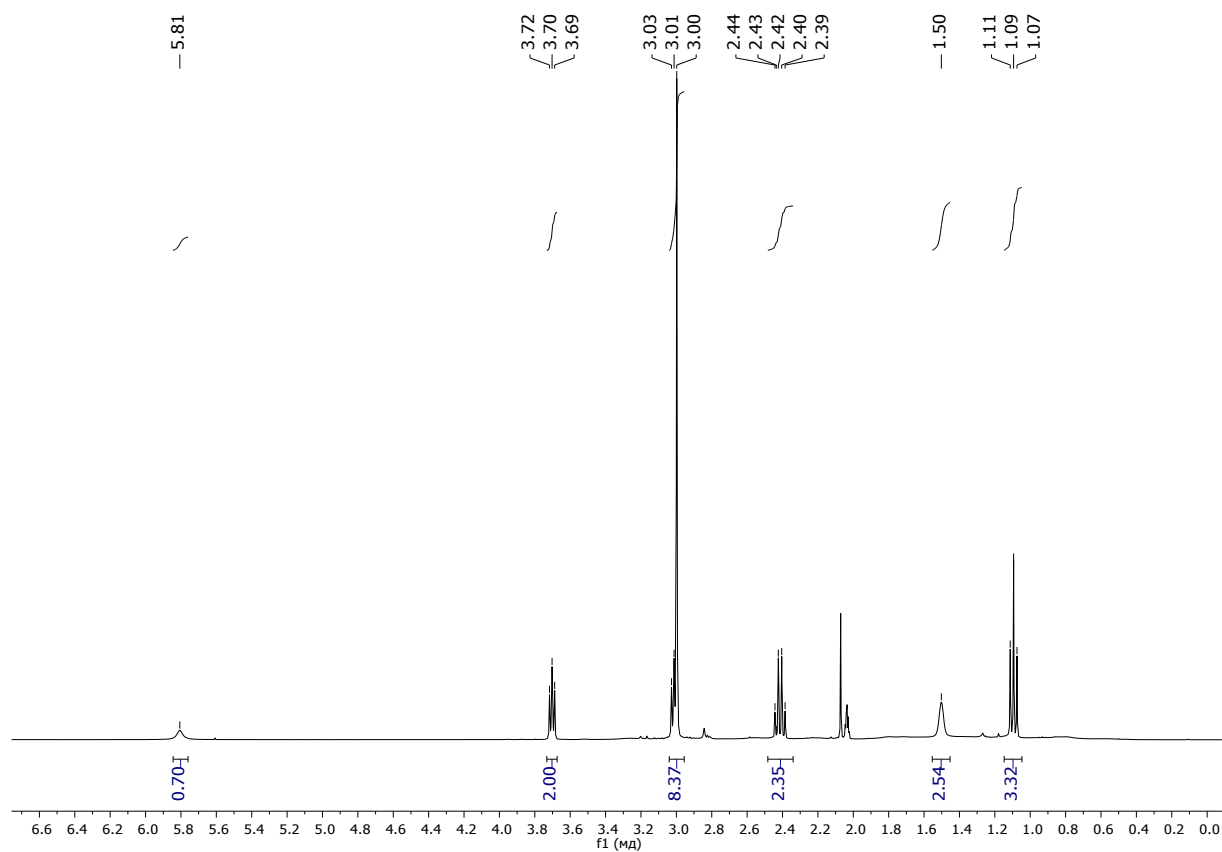


Fig. S40. ¹H NMR spectrum of compound **9** (acetone-d₆)

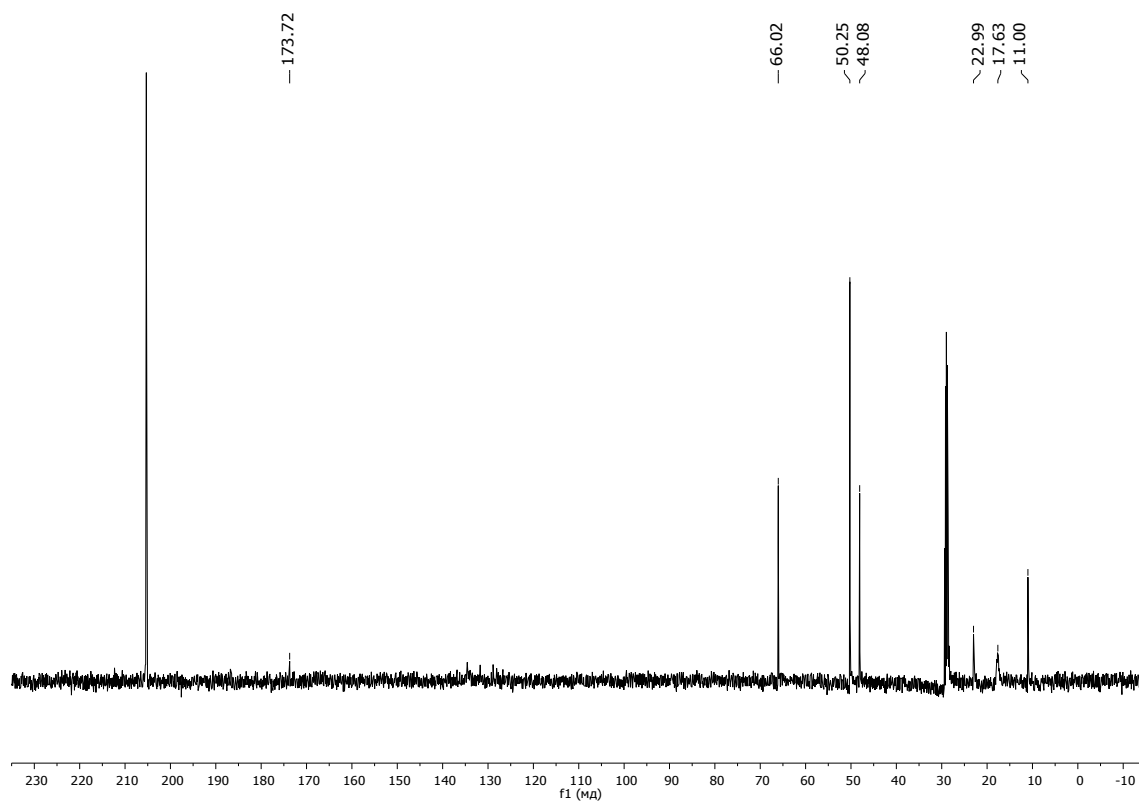


Fig. S41. ¹³C NMR spectrum of compound **9** (acetone-d₆)

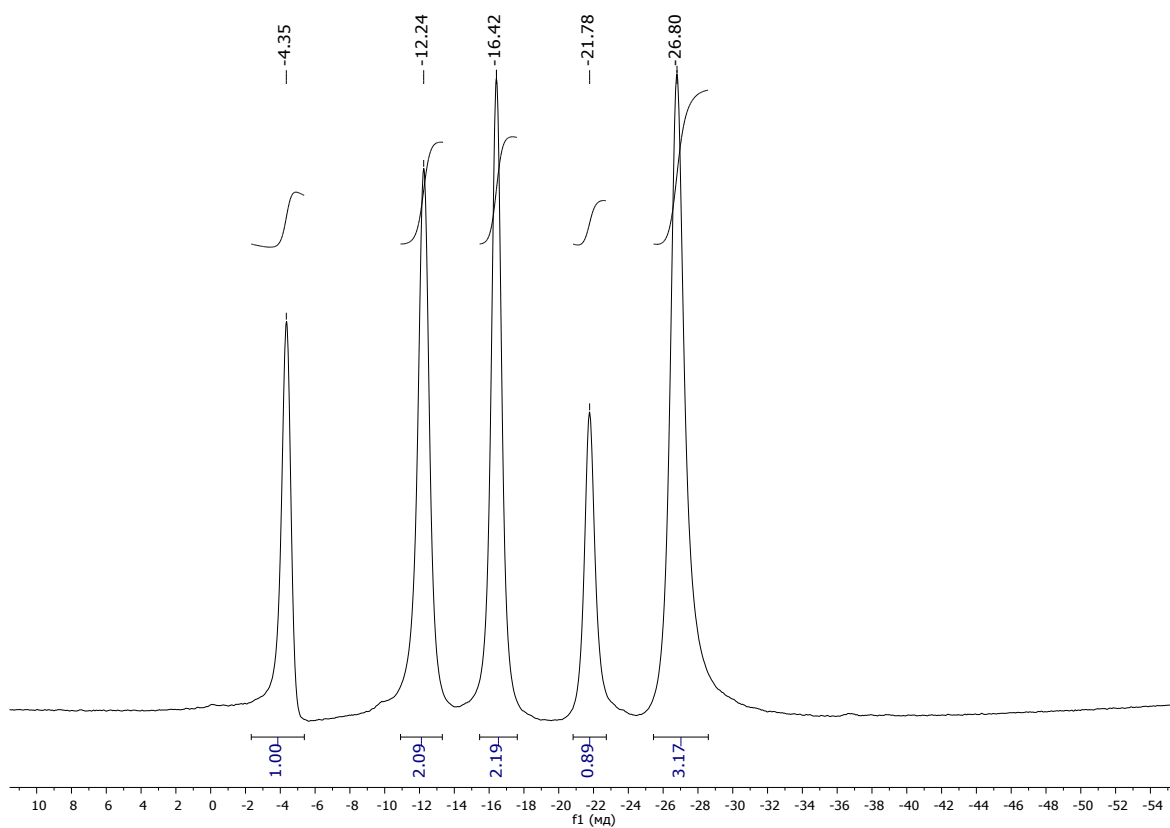


Fig. S42. $^{11}\text{B}\{^1\text{H}\}$ NMR spectrum of compound **9** (acetone- d_6)

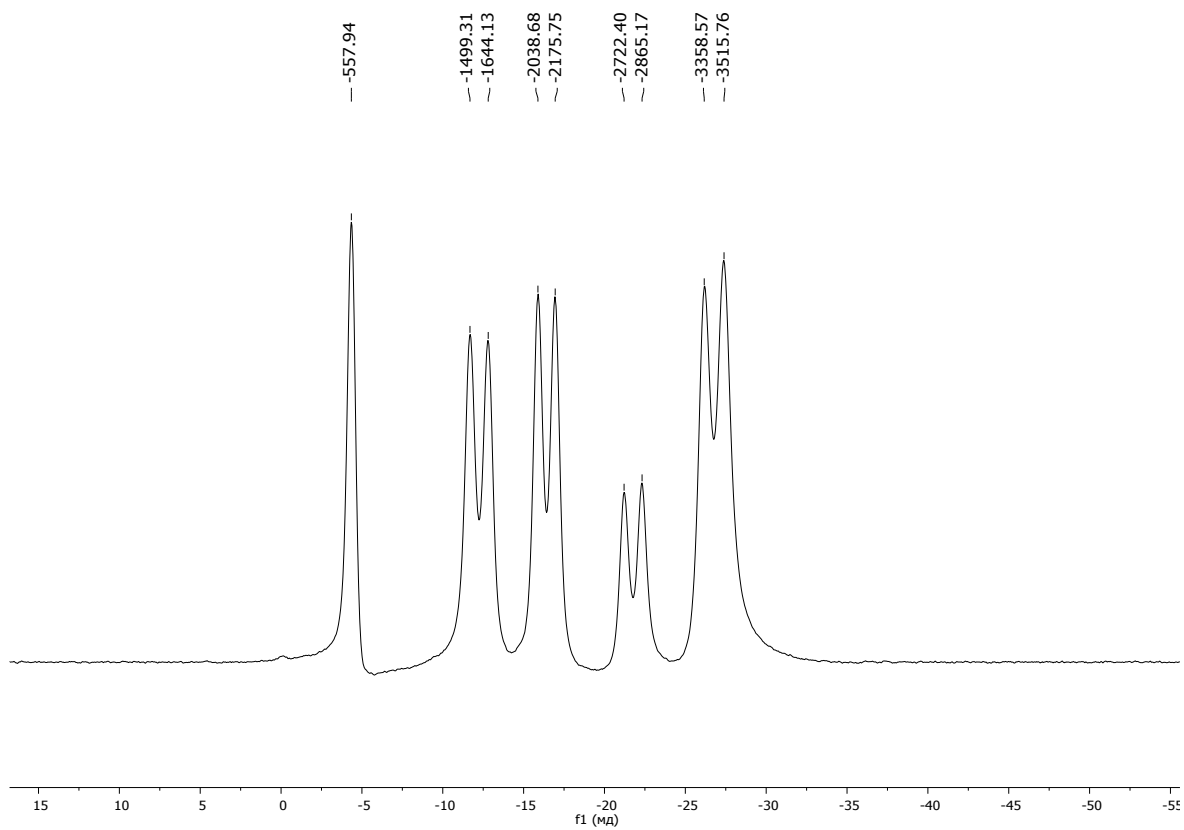


Fig. S43. ^{11}B NMR spectrum of compound **9** (acetone- d_6)

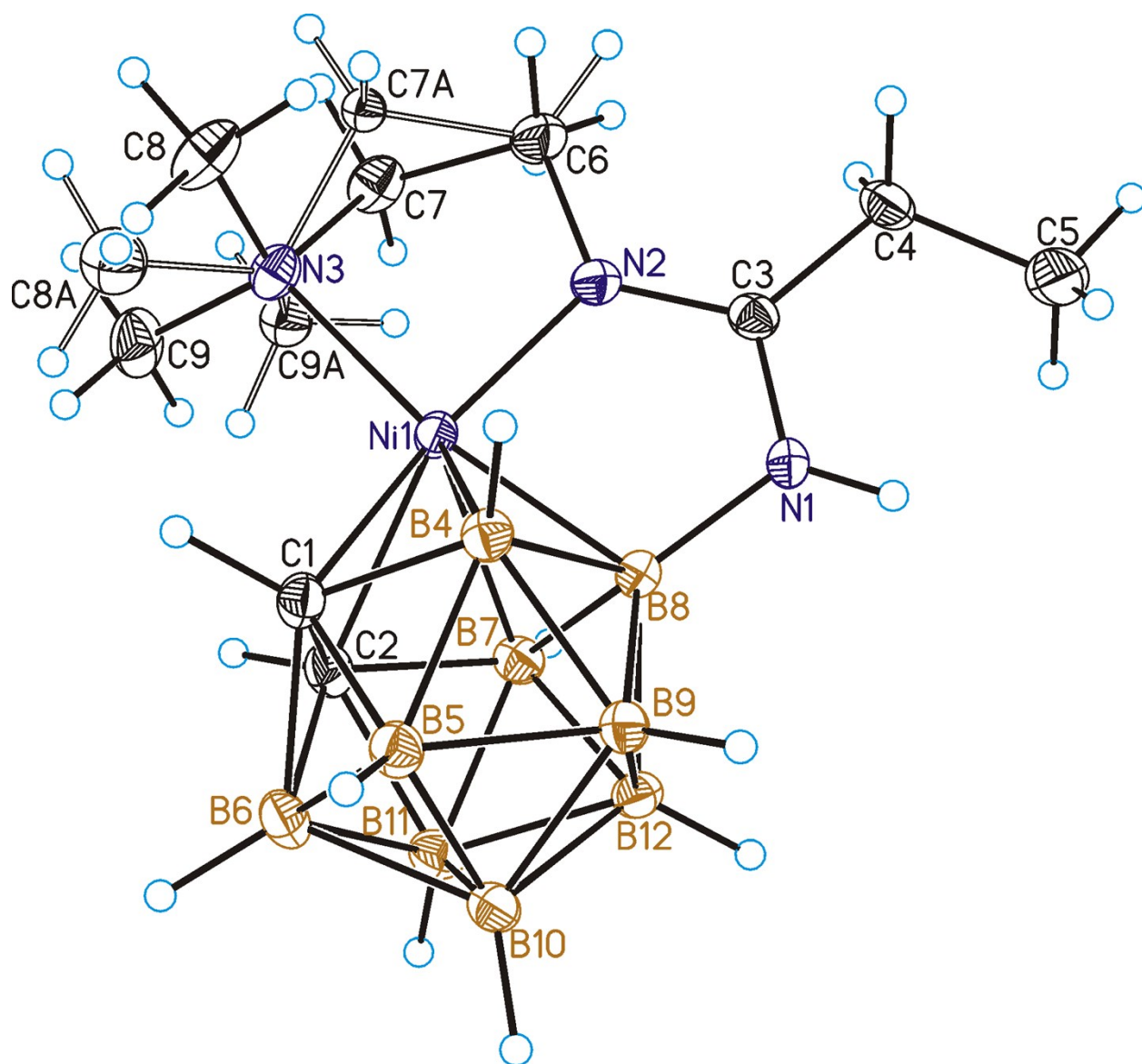


Figure S44. Disorder of complex **8**. Minor part is shown by open lines