

Supplementary Materials

Niobium Complexes Supported by Chalcogen-Bridged [OEO]-Type Bis(phenolate) Ligands (E = S, Se): Synthesis, Characterization, and Phenylacetylene Polymerization

Jin An, Akihiko Ishii, and Norio Nakata *

Department of Chemistry, Graduate School of Science and Engineering,
Saitama University, 255 Shimo-okubo, Sakura-ku, Saitama 338-8570, Japan

Table of Contents

Figure S1. ^1H NMR spectrum of compound 3 .	S2
Figure S2. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound 3 .	S2
Figure S3. ^1H NMR spectrum of compound 4 .	S3
Figure S4. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound 4 .	S3
Figure S5. $^{77}\text{Se}\{^1\text{H}\}$ NMR spectrum of compound 4 .	S4
Figure S6. ^1H NMR spectrum of compound 5 .	S4
Figure S7. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound 5 .	S5
Figure S8. ^1H NMR spectrum of compound 6 .	S5
Figure S9. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound 6 .	S6
Figure S10. $^{77}\text{Se}\{^1\text{H}\}$ NMR spectrum of compound 6 .	S6
Figure S11. ^1H NMR spectrum of PPA (Table 3, entry 4).	S7
Figure S12. ^1H NMR spectrum of the obtained crystals of <i>fac</i> - 4 .	S7

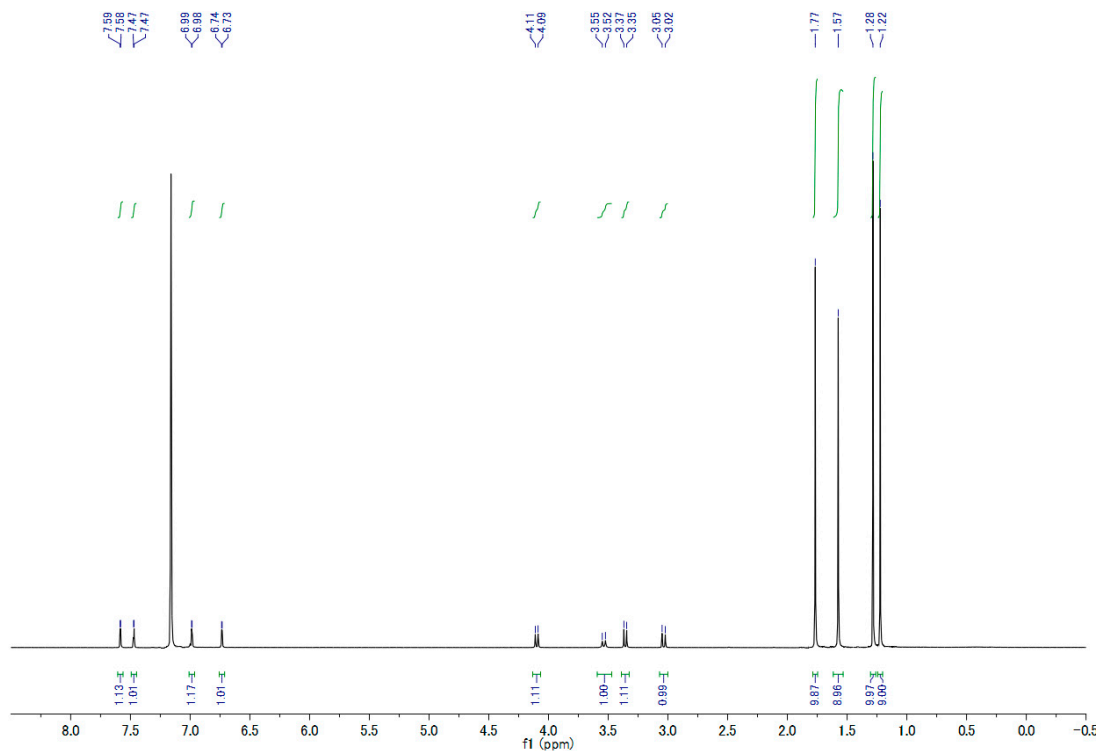


Figure S1. ¹H NMR spectrum of compound 3.

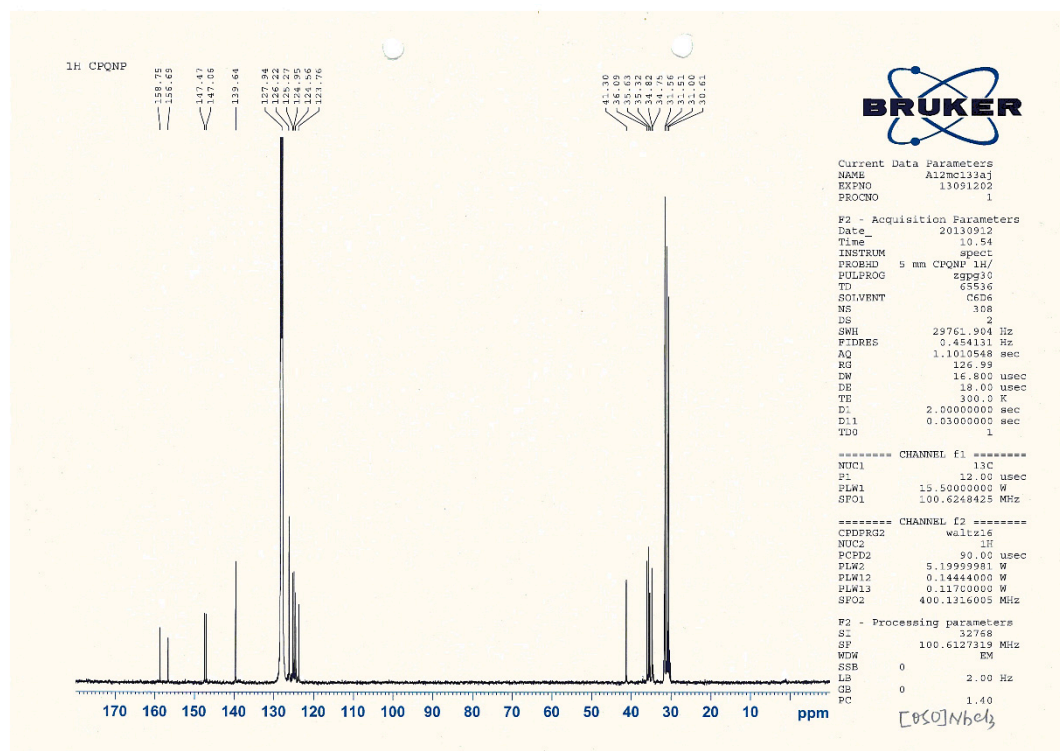


Figure S2. ¹³C{¹H} NMR spectrum of compound 3.

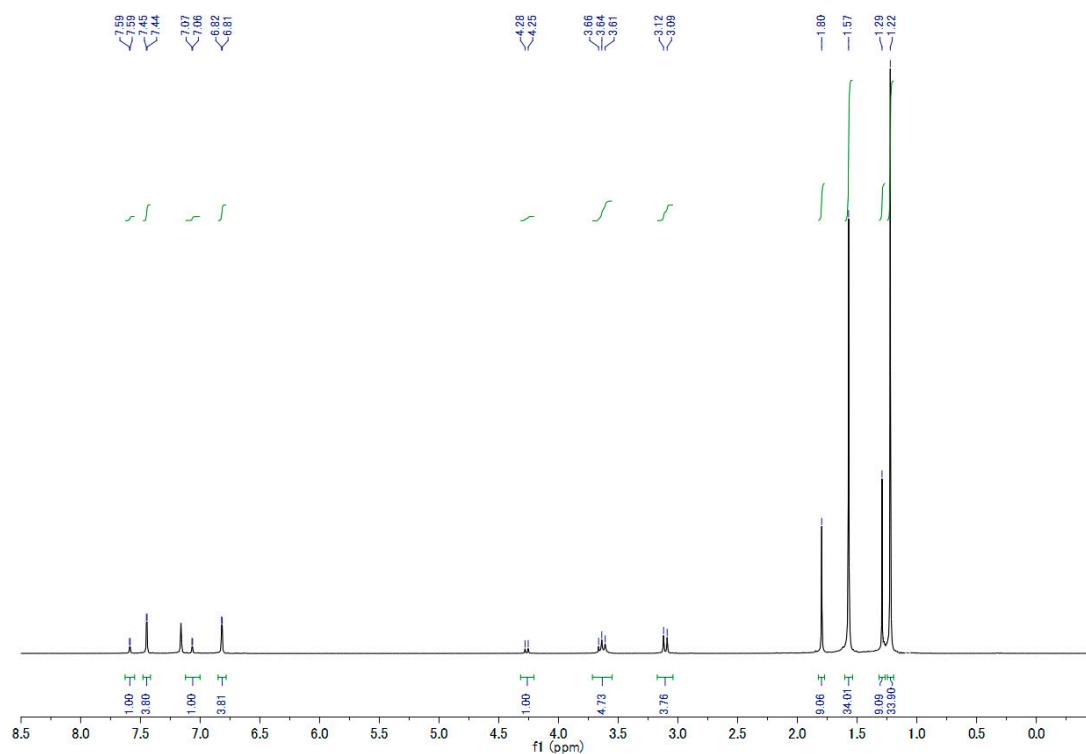


Figure S3. ¹H NMR spectrum of compound 4.

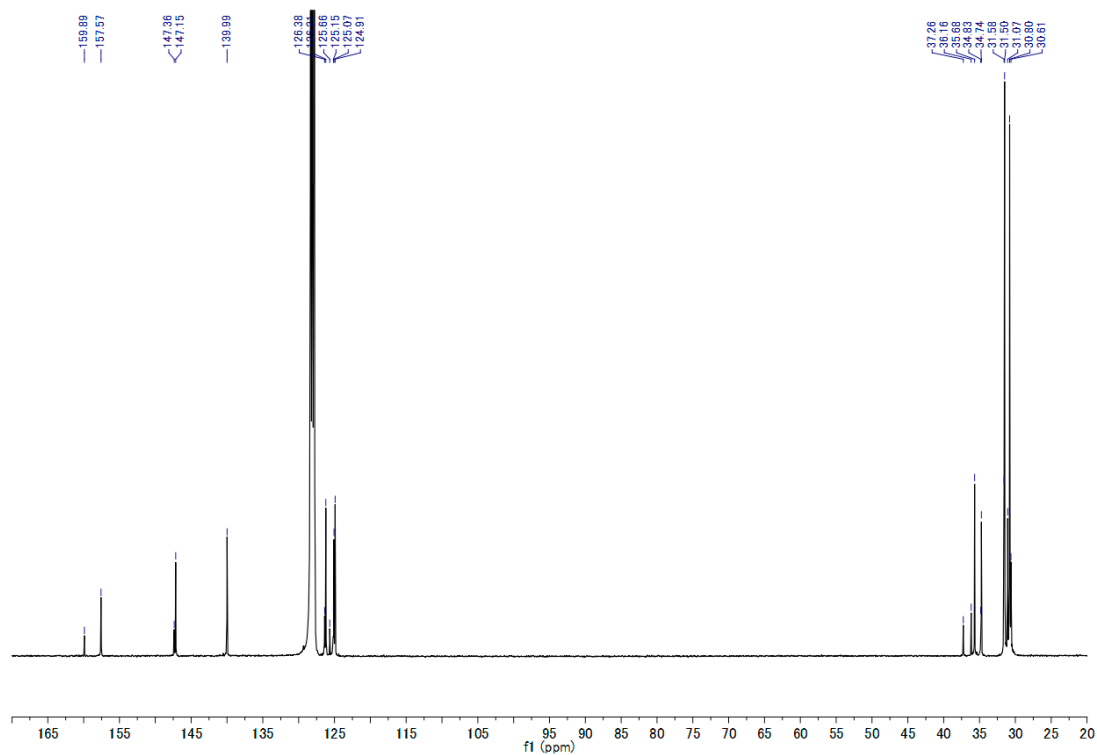


Figure S4. ¹³C{¹H} NMR spectrum of compound 4.

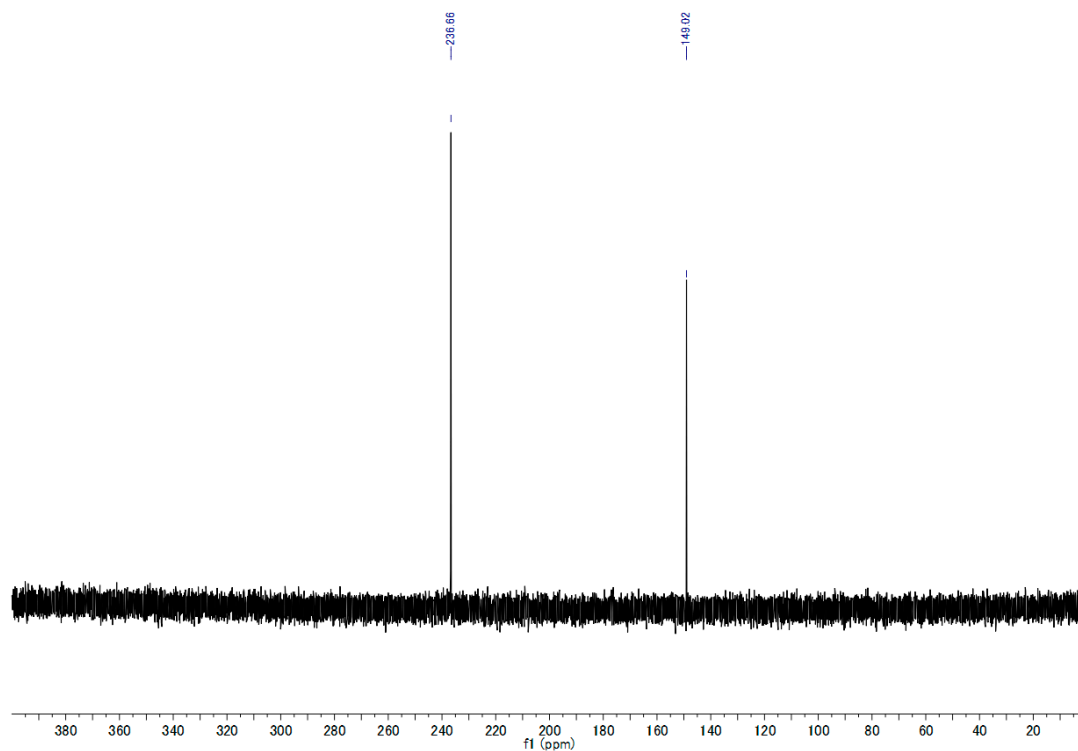


Figure S5. $^{77}\text{Se}\{^1\text{H}\}$ NMR spectrum of compound **4**.

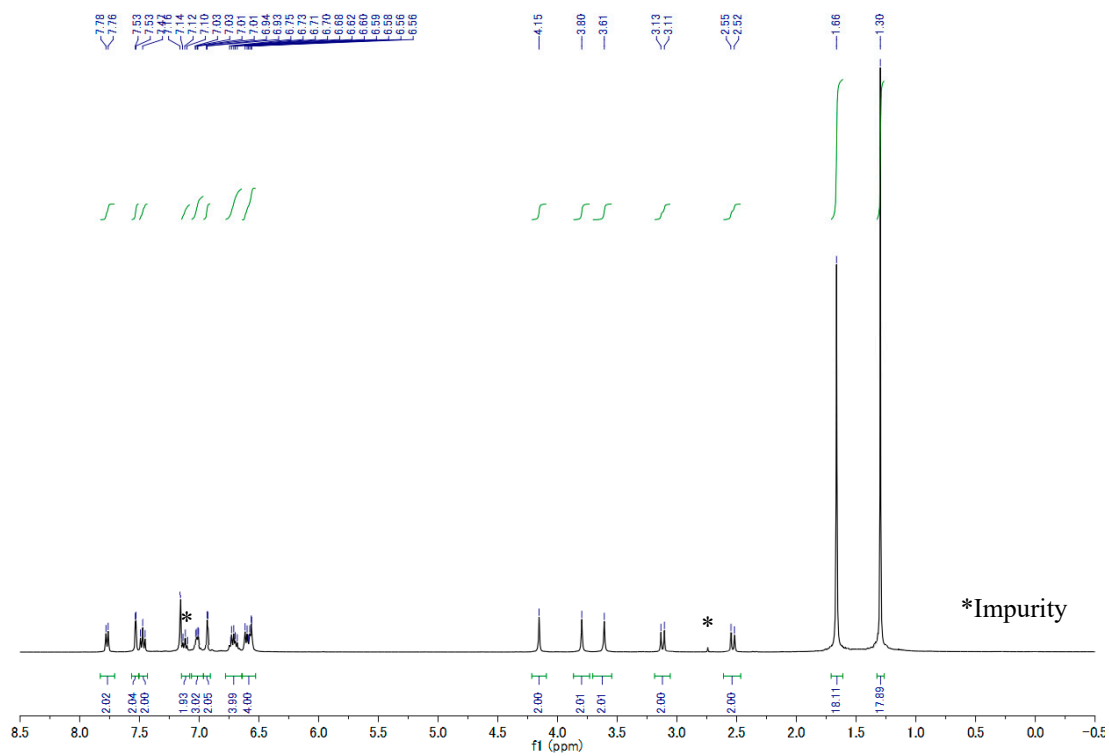


Figure S6. ^1H NMR spectrum of compound **5**.

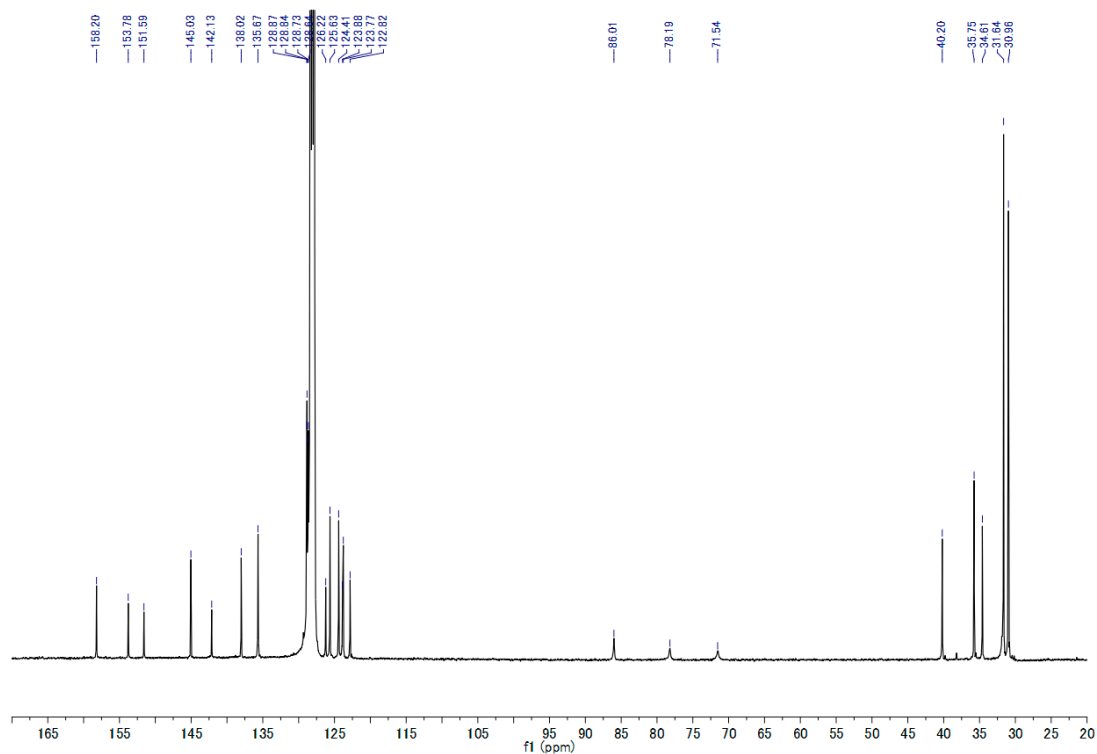


Figure S7. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound **5**.

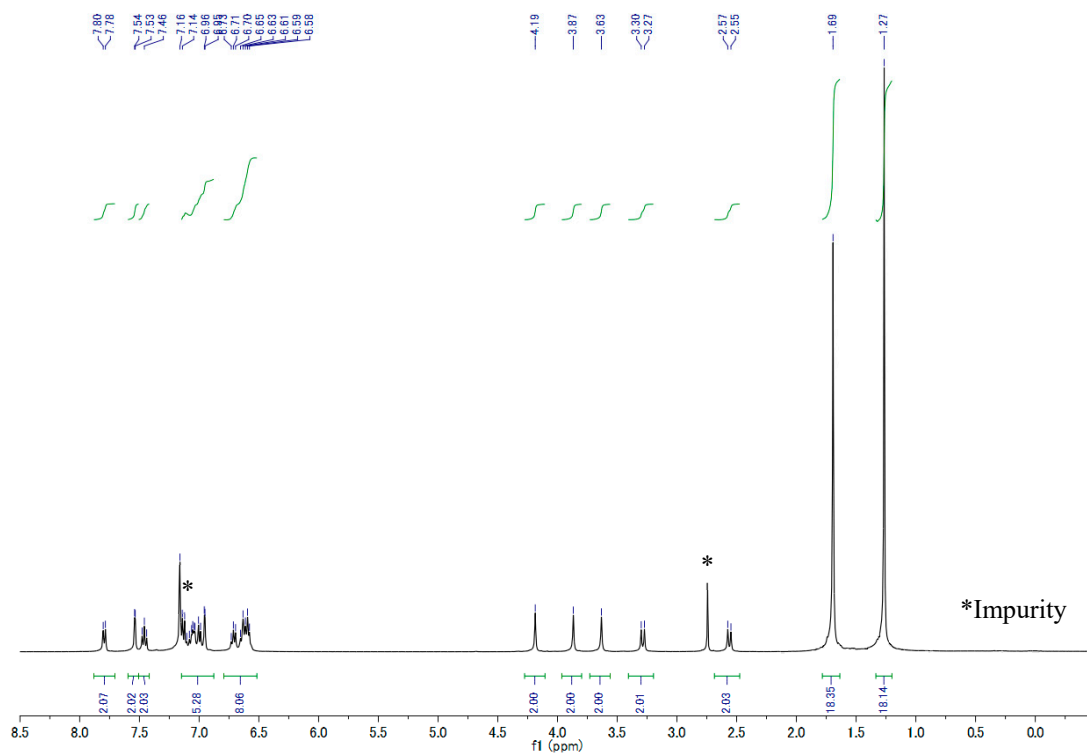


Figure S8. ^1H NMR spectrum of compound **6**.

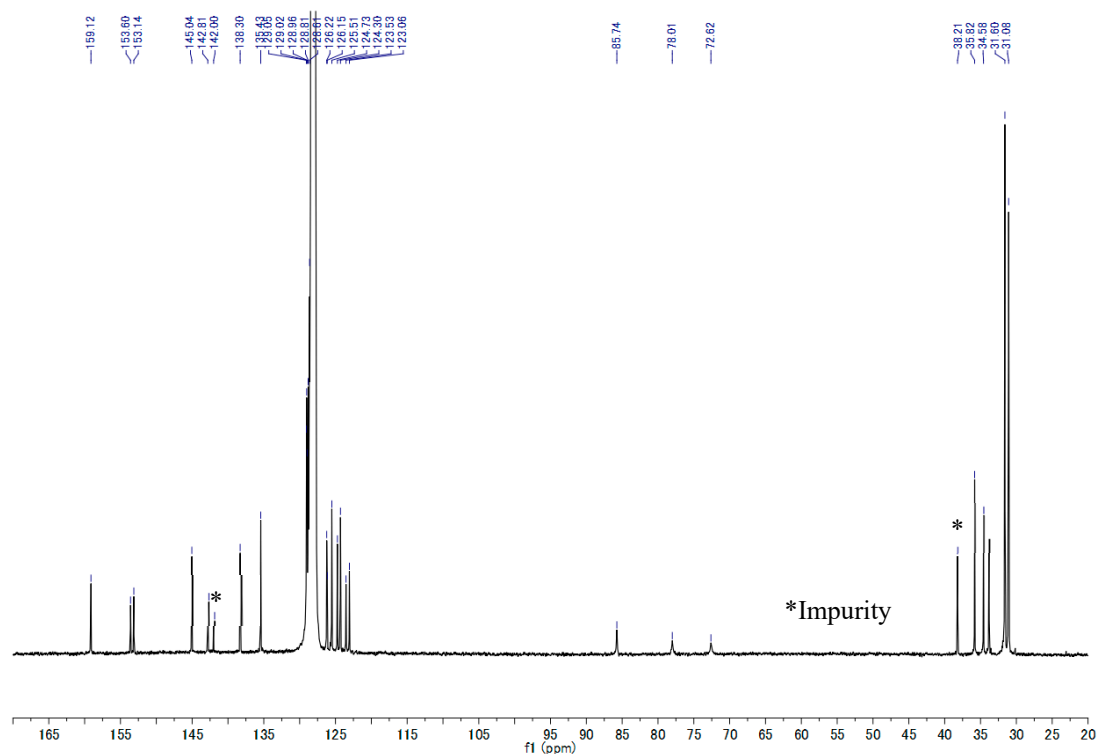


Figure S9. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of compound 6.

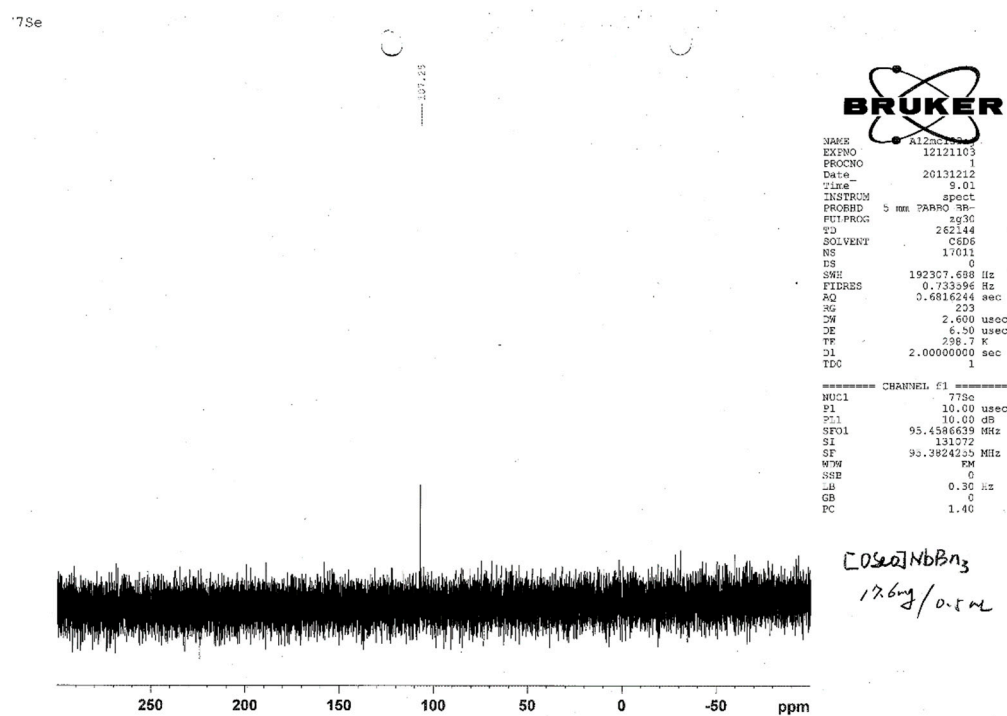


Figure S10. $^{77}\text{Se}\{^1\text{H}\}$ NMR spectrum of compound 6.

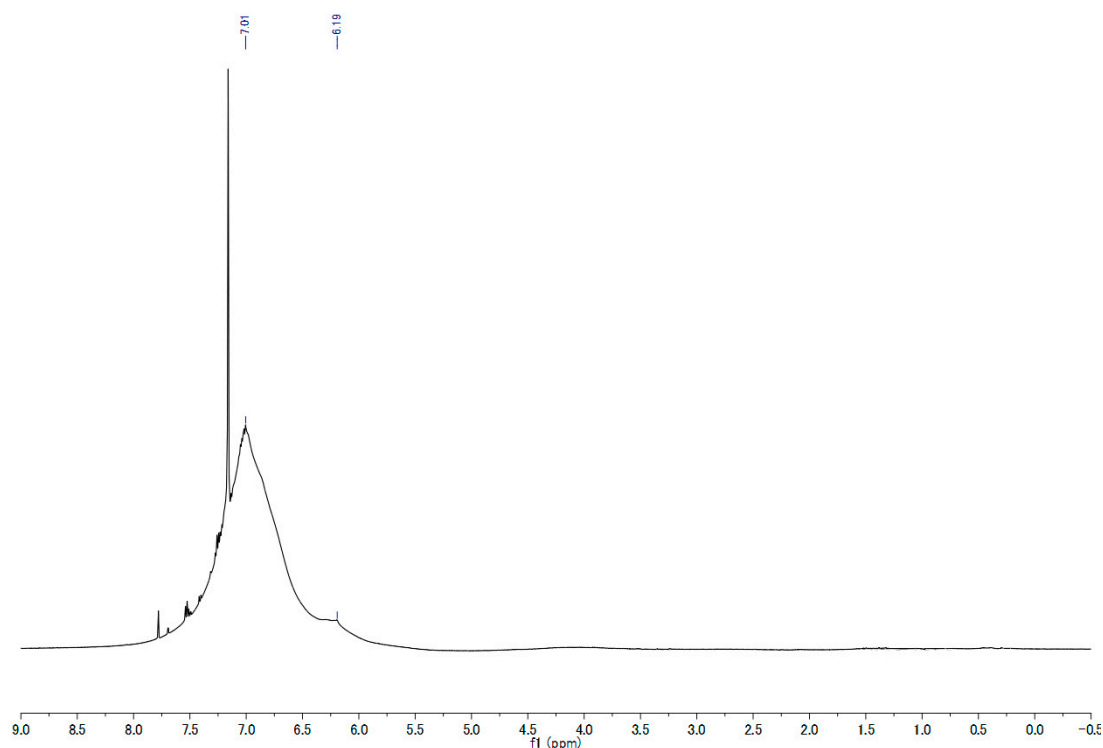


Figure S11. ^1H NMR spectrum of PPA (Table 3, entry 4).

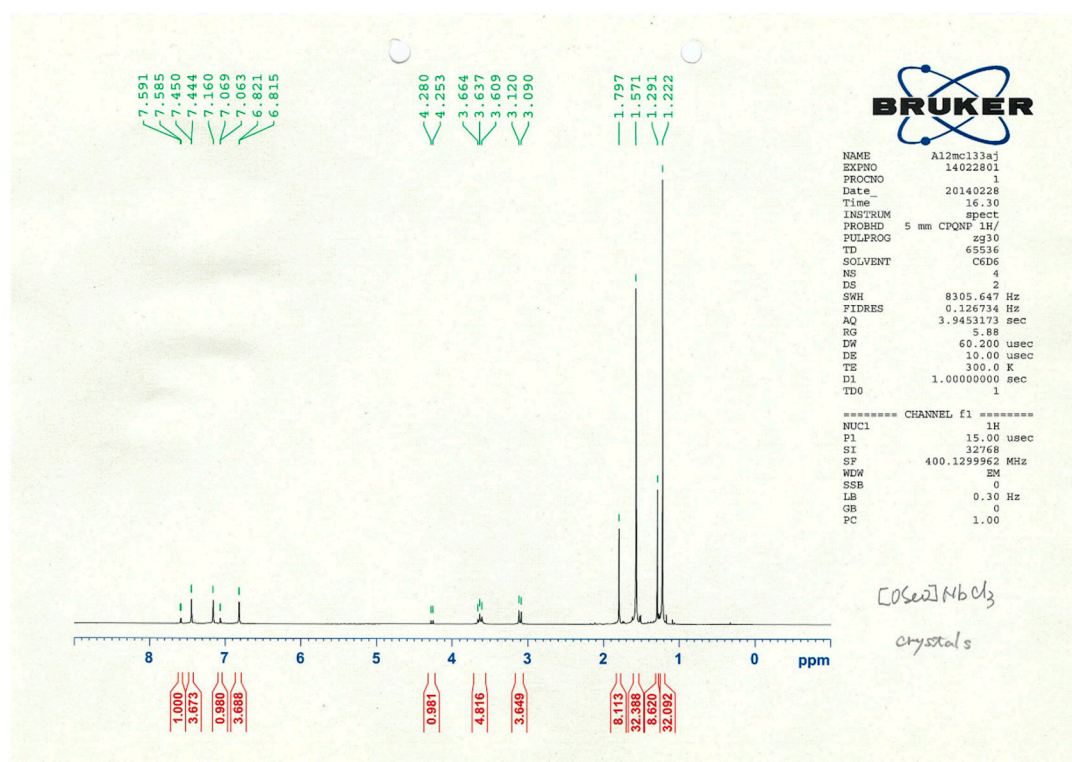


Figure S12. ^1H NMR spectrum of the obtained crystals of *fac*-4.