

## Electronic Supplementary Information

### Novel Platinum(II) Complexes of 3-(Aminomethyl)naphthoquinone Mannich Bases: Synthesis, Crystal Structure and Cytotoxic activities

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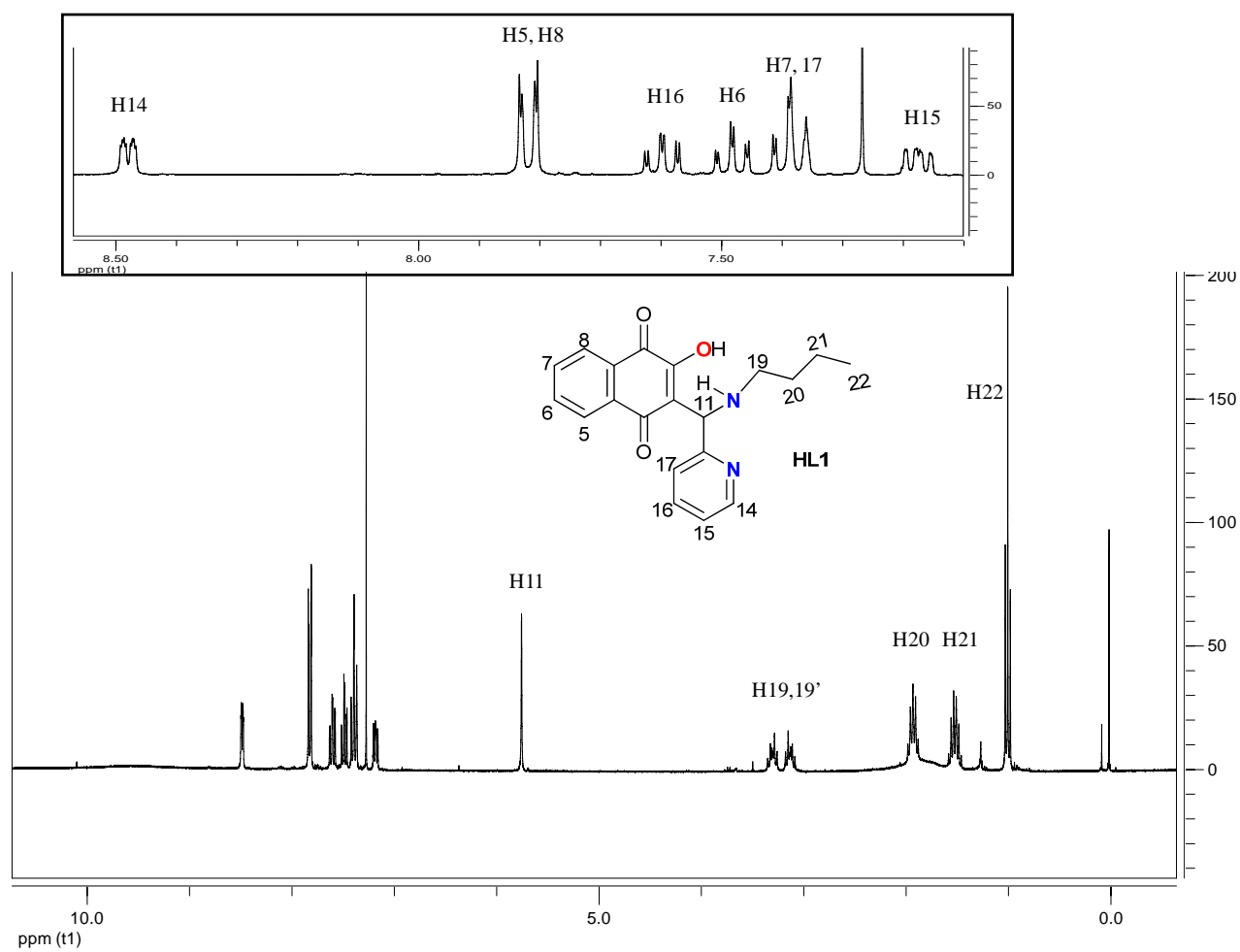
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**Figure S1.**  $^1\text{H}$  NMR spectrum of **HL1** in  $\text{CDCl}_3$ .

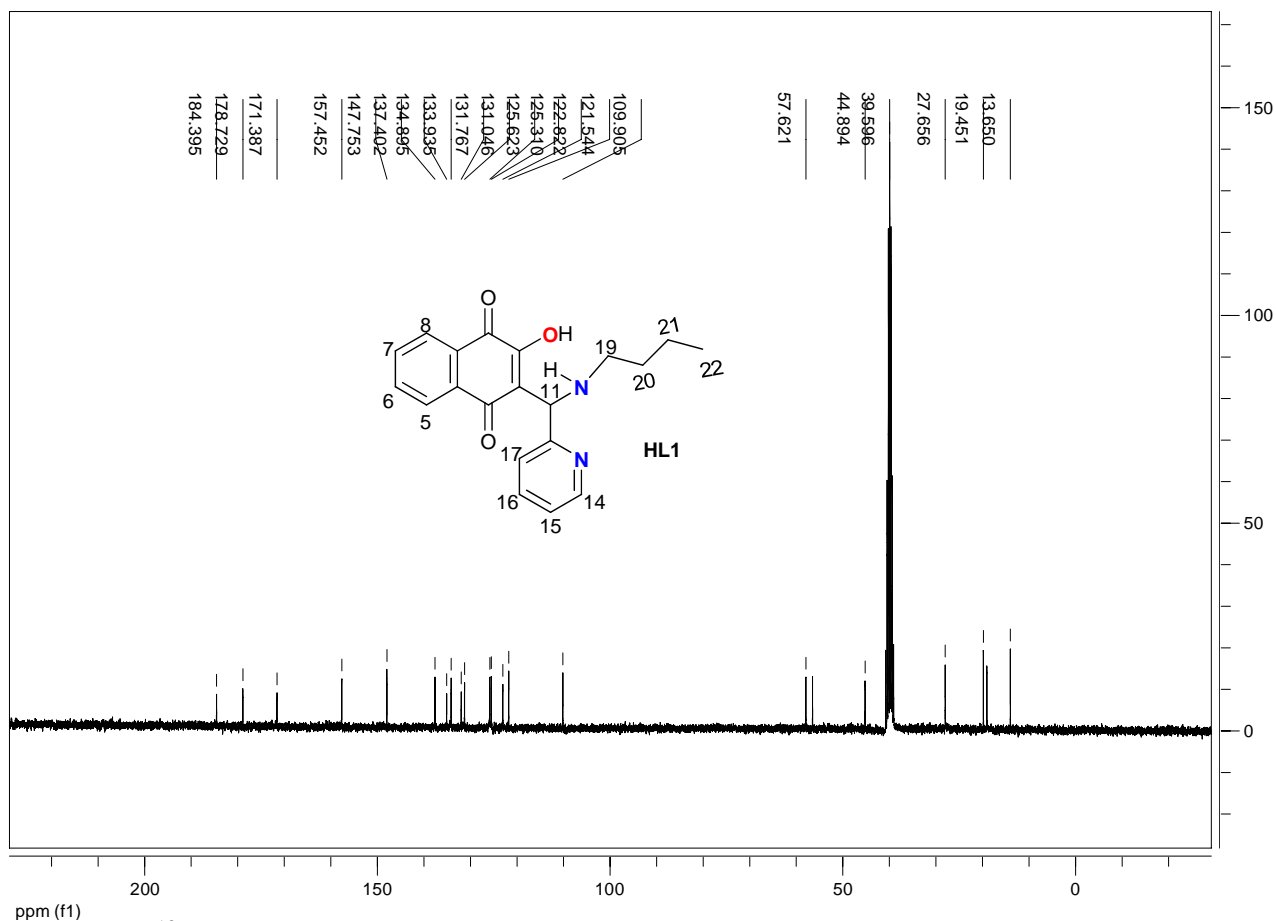


Figure S2. <sup>13</sup>C NMR spectrum of HL1 in DMSO-d<sub>6</sub>.

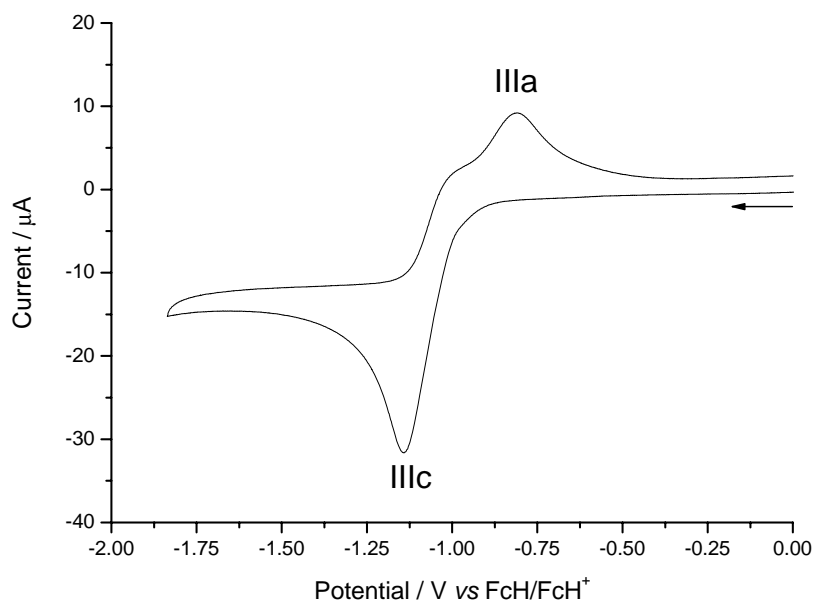
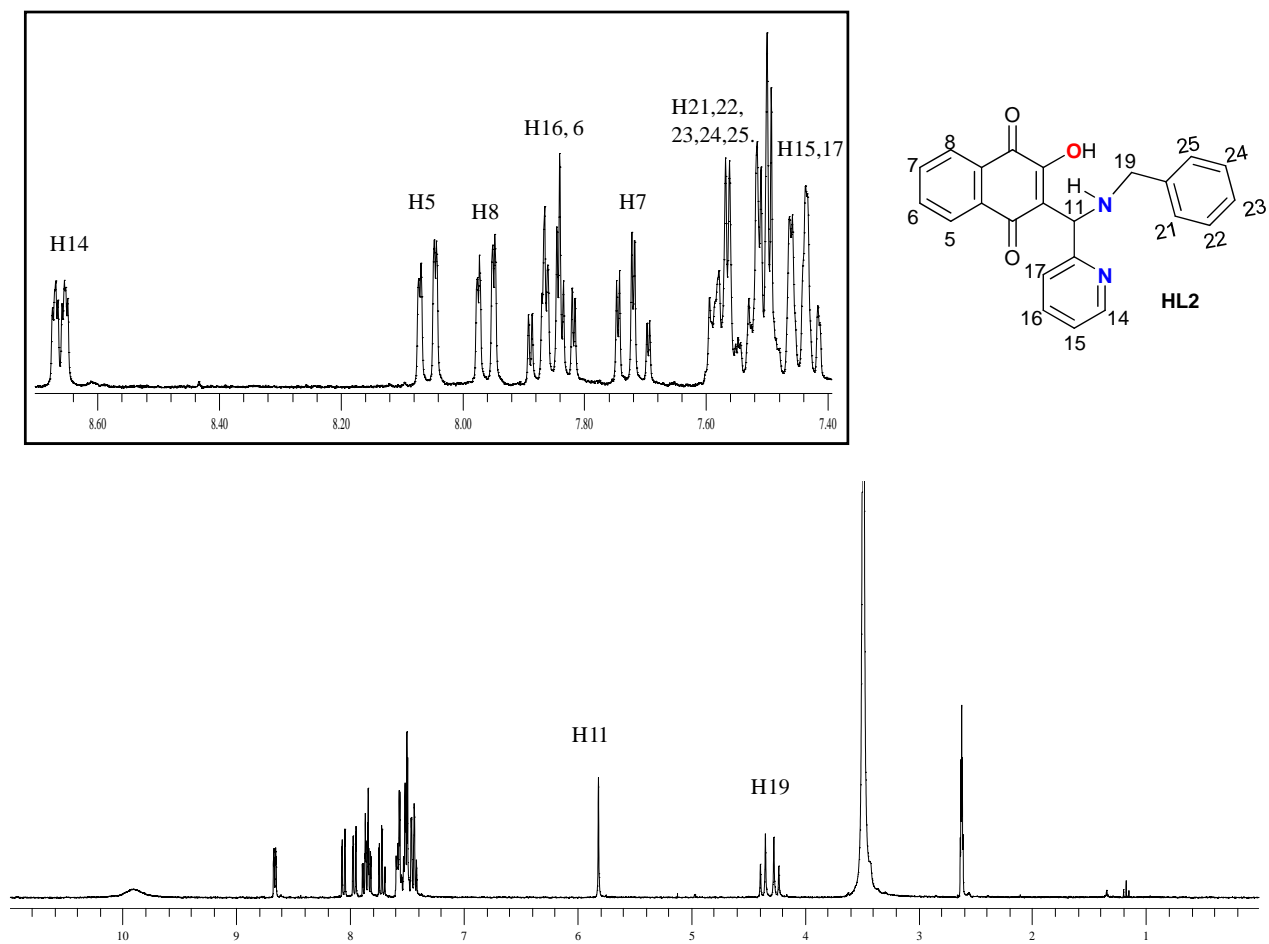
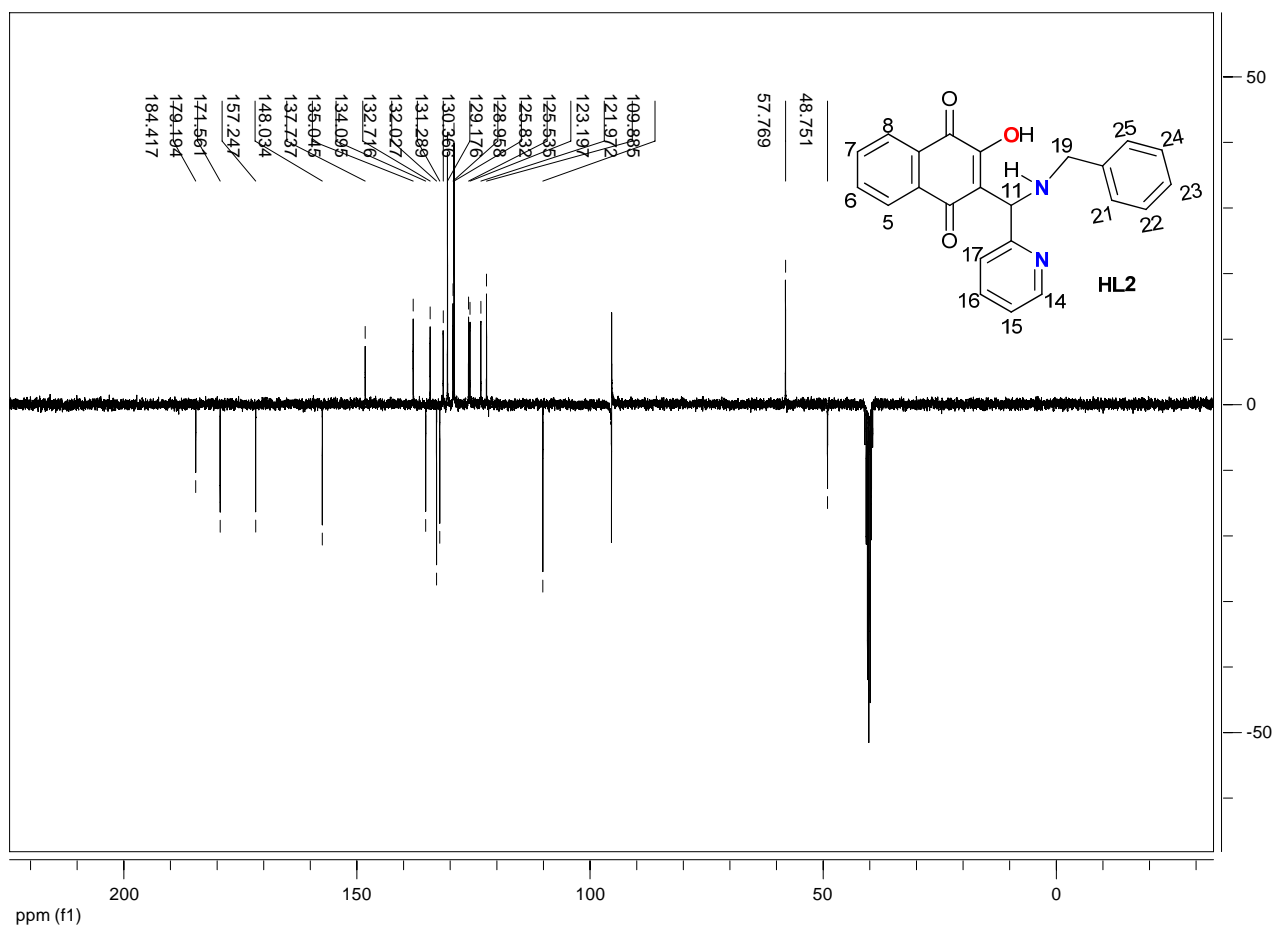


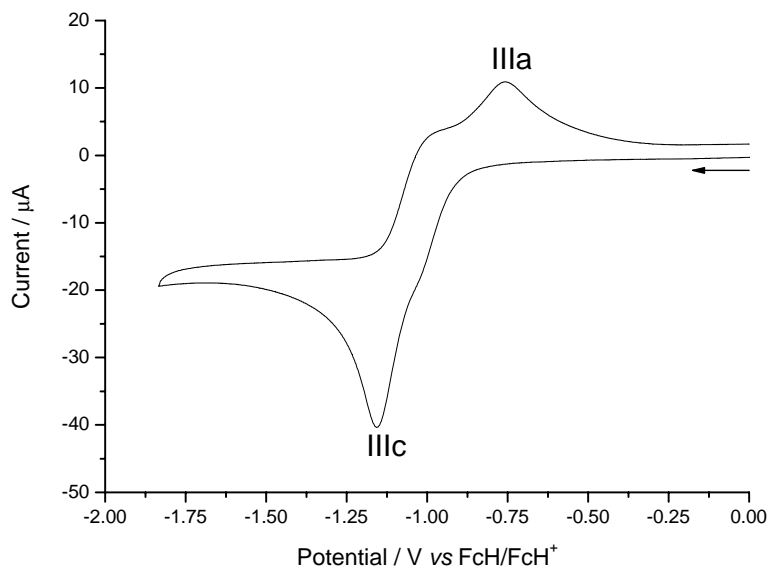
Figure S3. Cyclic voltammogram of HL1 in 0.1 molL<sup>-1</sup> Bu<sub>4</sub>ClO<sub>4</sub>/CH<sub>3</sub>OH obtained at 0.1Vs<sup>-1</sup> with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium (FcH/FcH<sup>+</sup>) pair internal standard.



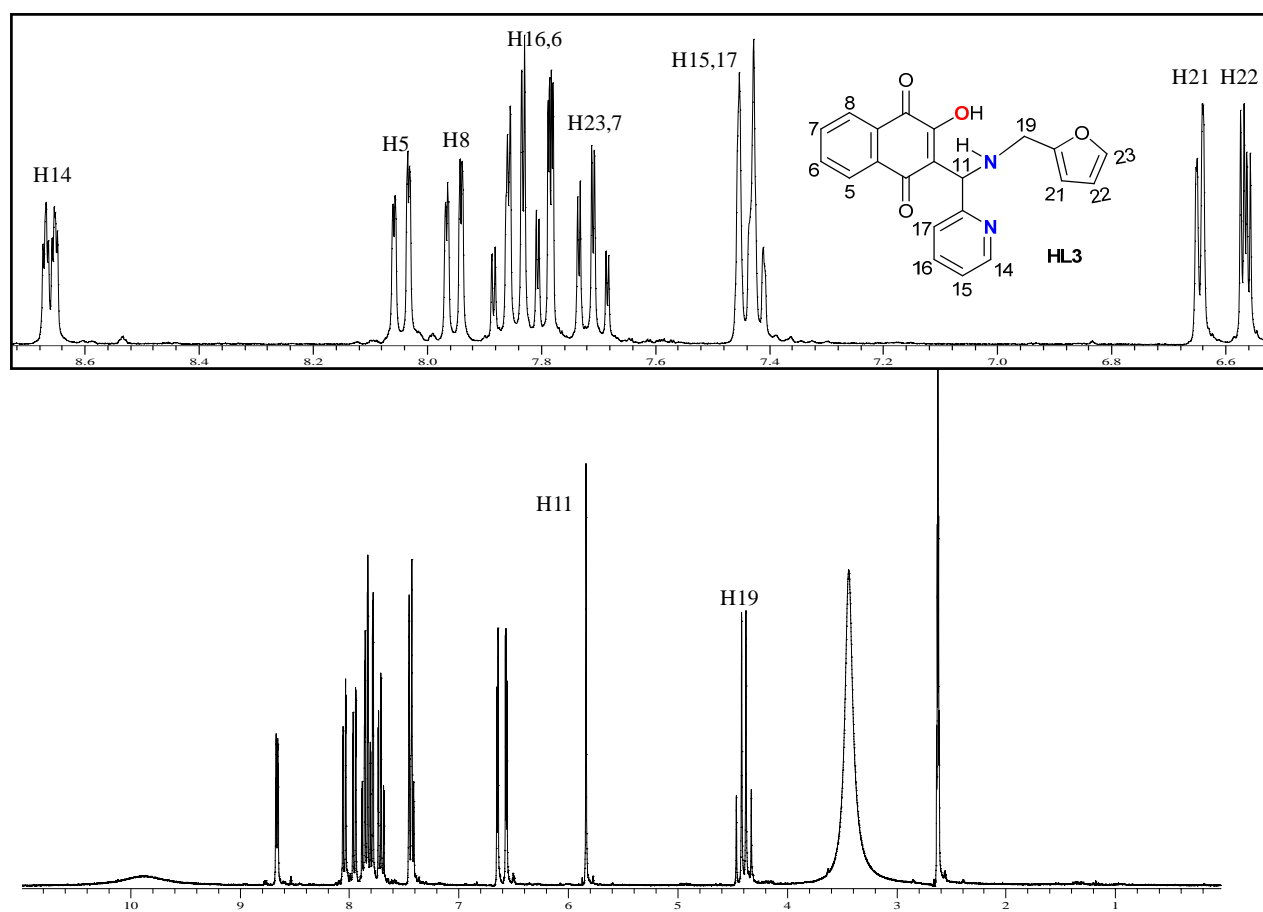
**Figure S4.**  $^1\text{H}$  NMR spectrum of **HL2** in  $\text{DMSO-d}_6$ .



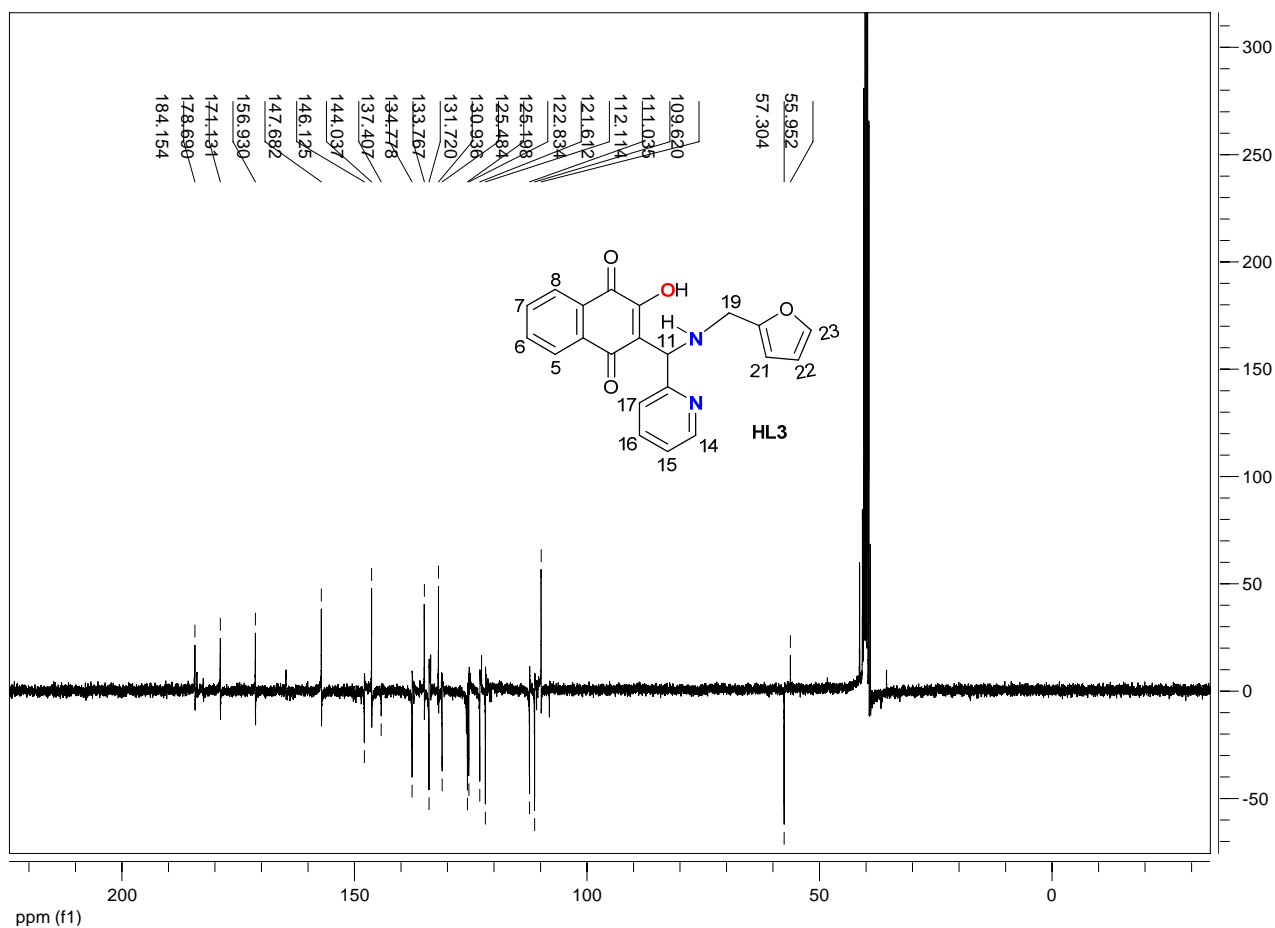
**Figure S5.** <sup>13</sup>C NMR spectrum (APT) of HL2 in DMSO-d<sup>6</sup>.



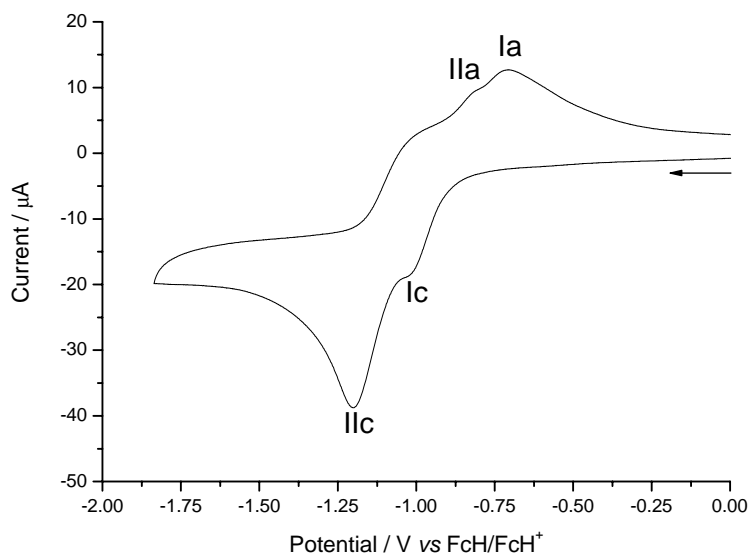
**Figure S6.** Cyclic voltammogram of HL2 in 0.1 molL<sup>-1</sup> Bu<sub>4</sub>ClO<sub>4</sub>/CH<sub>3</sub>OH obtained at 0.1 Vs<sup>-1</sup> with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium (FcH/FcH<sup>+</sup>) pair internal standard.



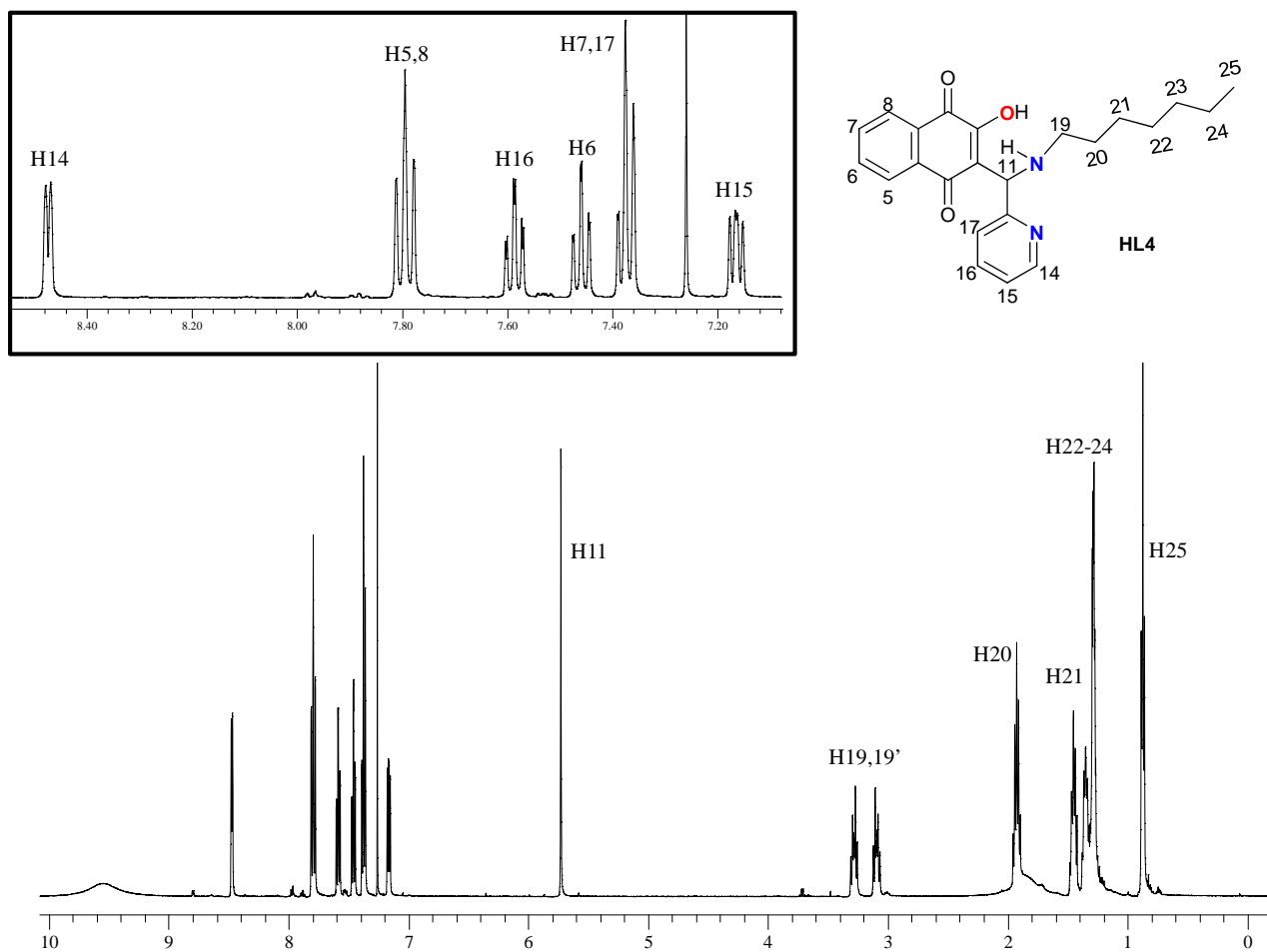
**Figure S7.**  $^1\text{H}$  NMR spectrum of **HL3** in  $\text{DMSO-d}_6$ .



**Figure S8.**  $^{13}\text{C}$  NMR spectrum (APT) of **HL3** in  $\text{DMSO-d}^6$ .



**Figure S9.** Cyclic voltammogram of **HL3** in  $0.1 \text{ molL}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



**Figure S10.**  $^1\text{H}$  NMR spectrum of **HL4** in  $\text{CDCl}_3$ .



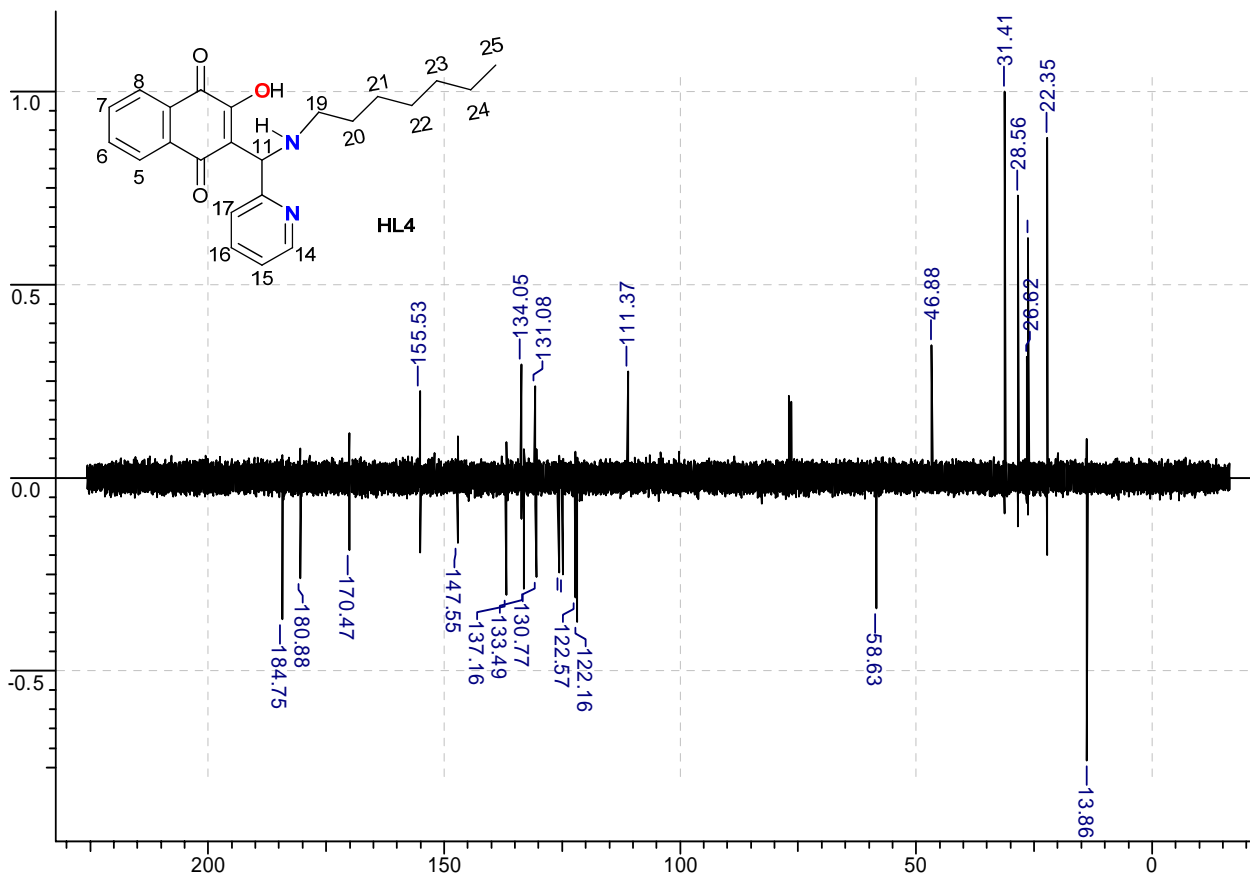


Figure S11.  $^{13}\text{C}$  NMR spectrum (APT) of HL4 in  $\text{CDCl}_3$ .

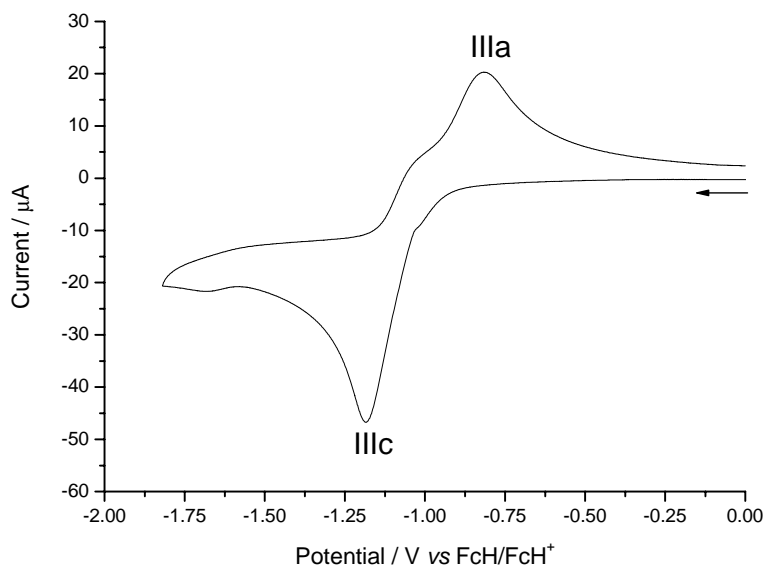
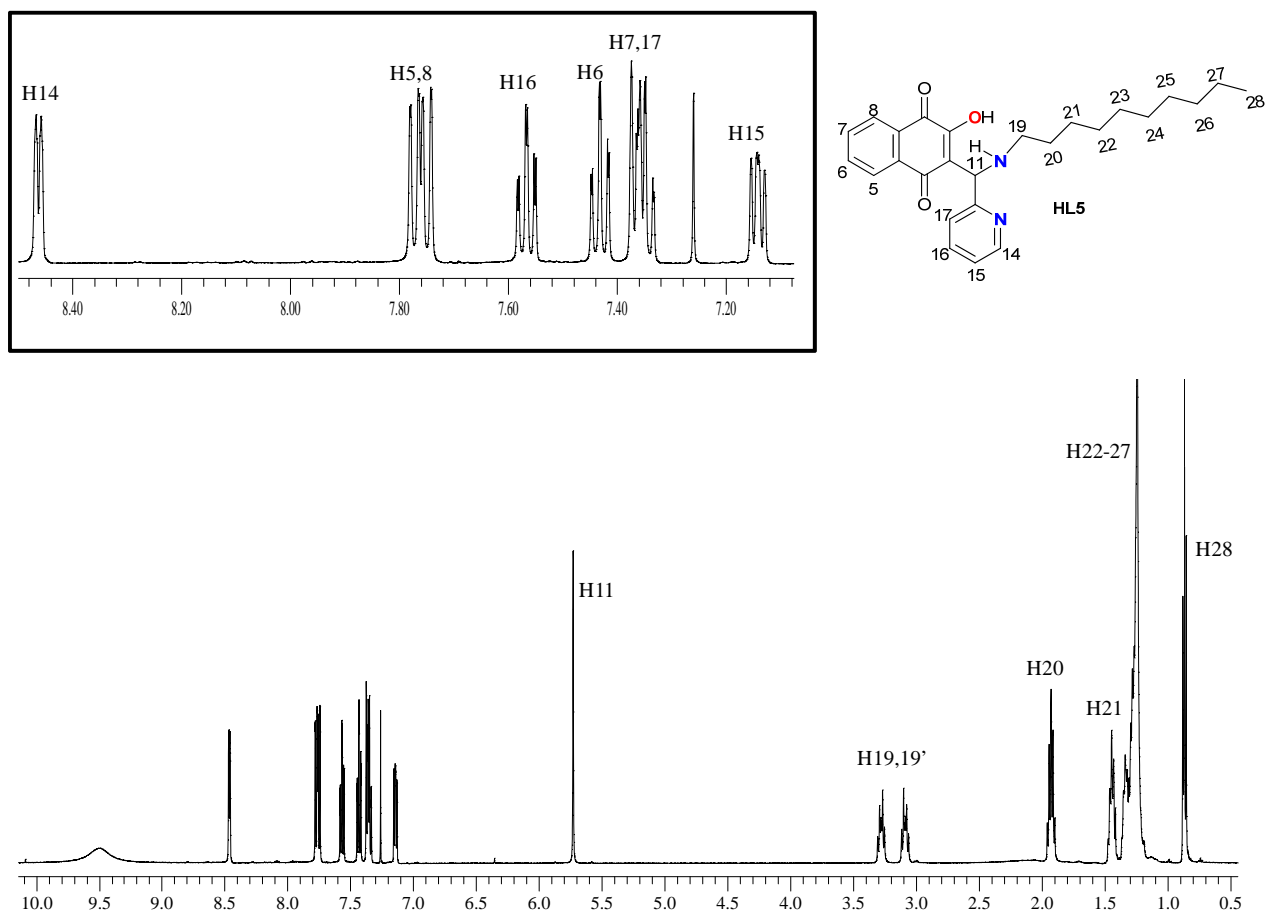
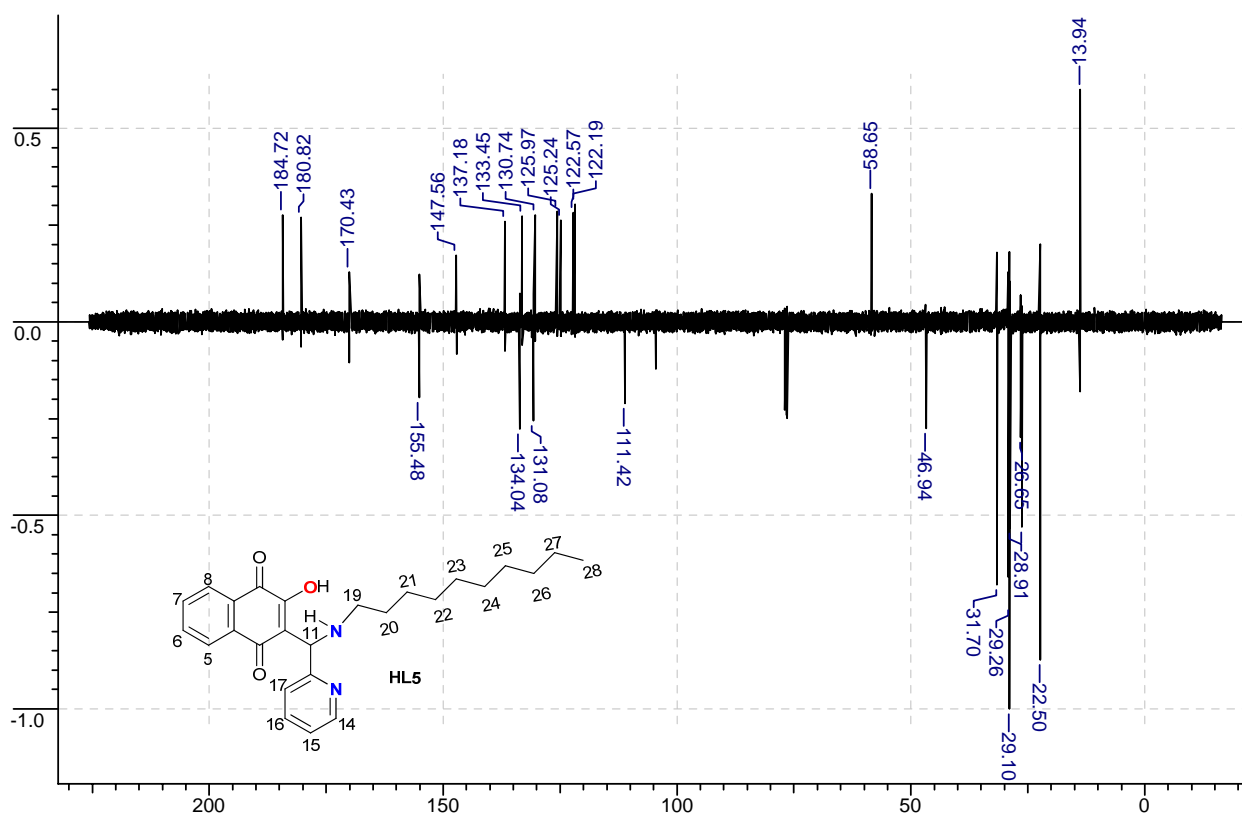


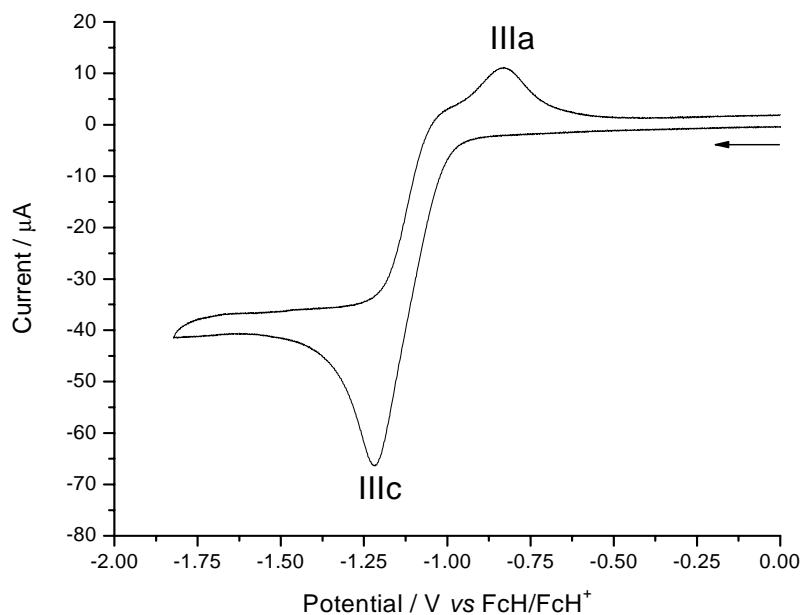
Figure S12. Cyclic voltammogram of HL4 in  $0.1 \text{ molL}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



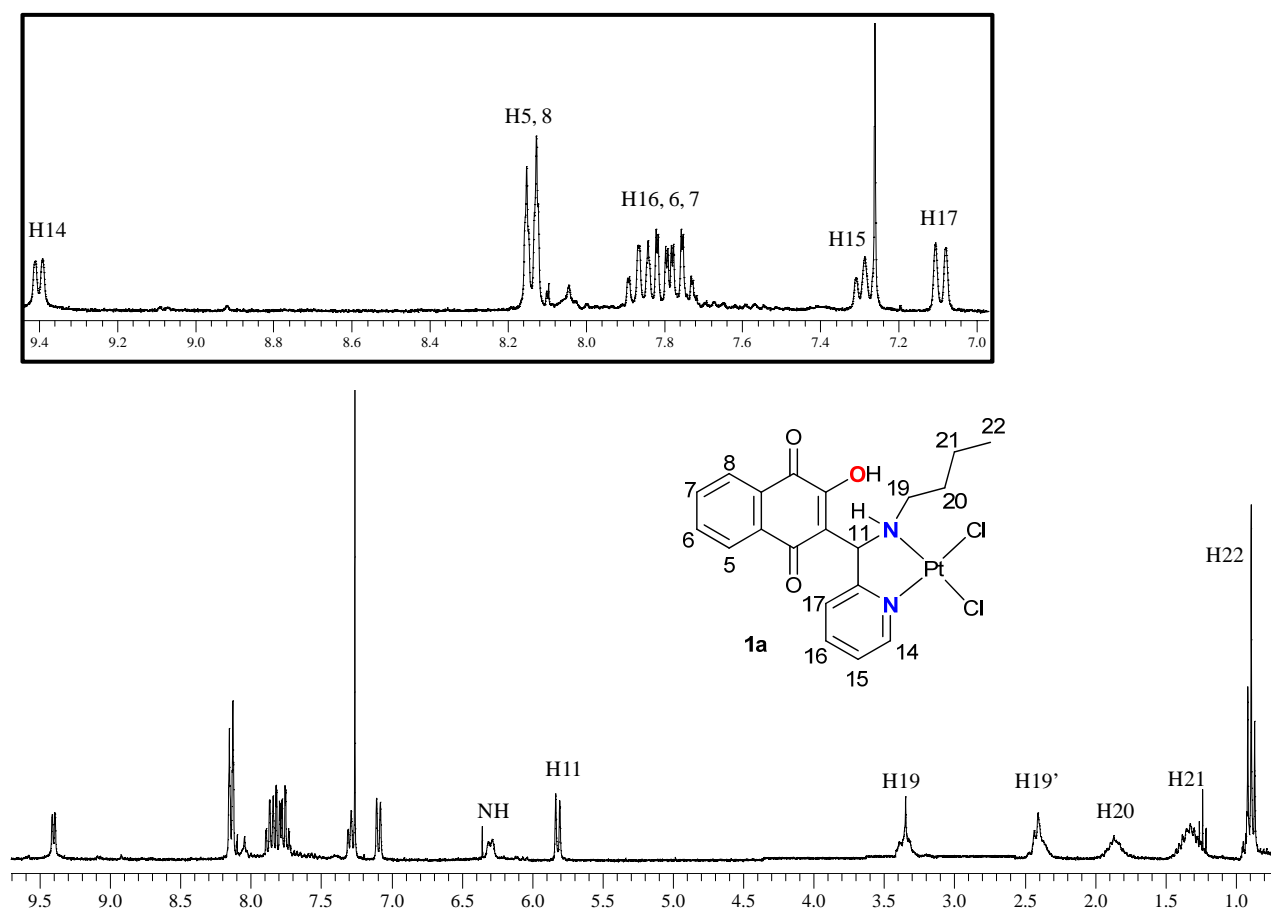
**Figure S13.**  $^1\text{H}$  NMR spectrum of **HL5** in  $\text{CDCl}_3$ .



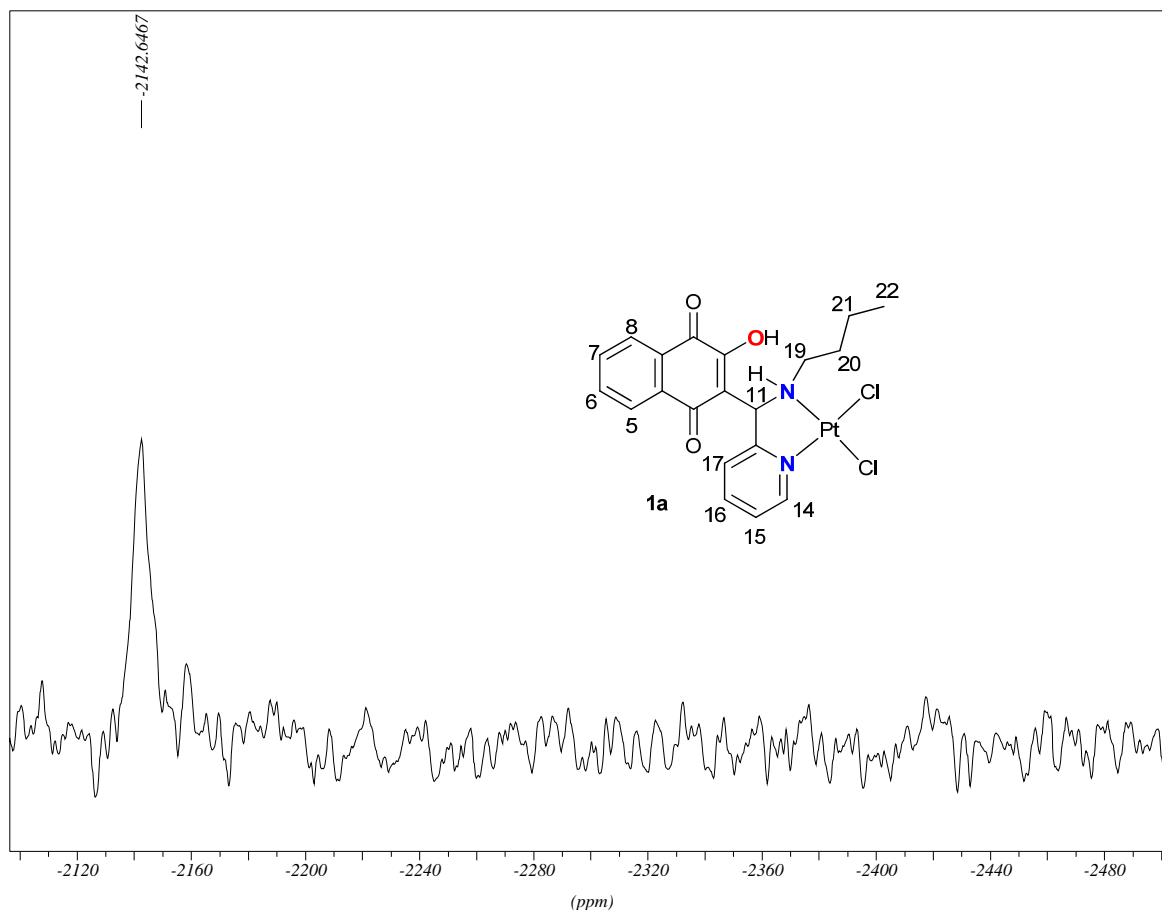
**Figure S14.**  $^{13}\text{C}$  NMR spectrum (APT) of **HL5** in  $\text{CDCl}_3$ .



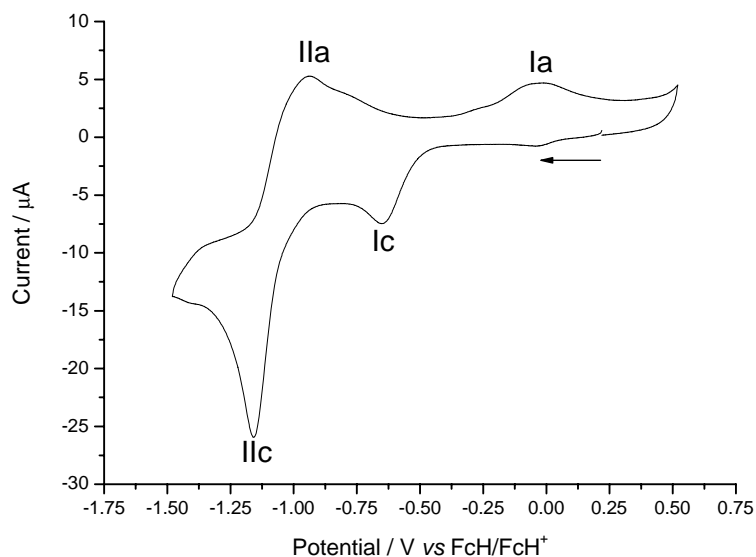
**Figure S15.** Cyclic voltammogram of **HL5** in  $0.1 \text{ molL}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



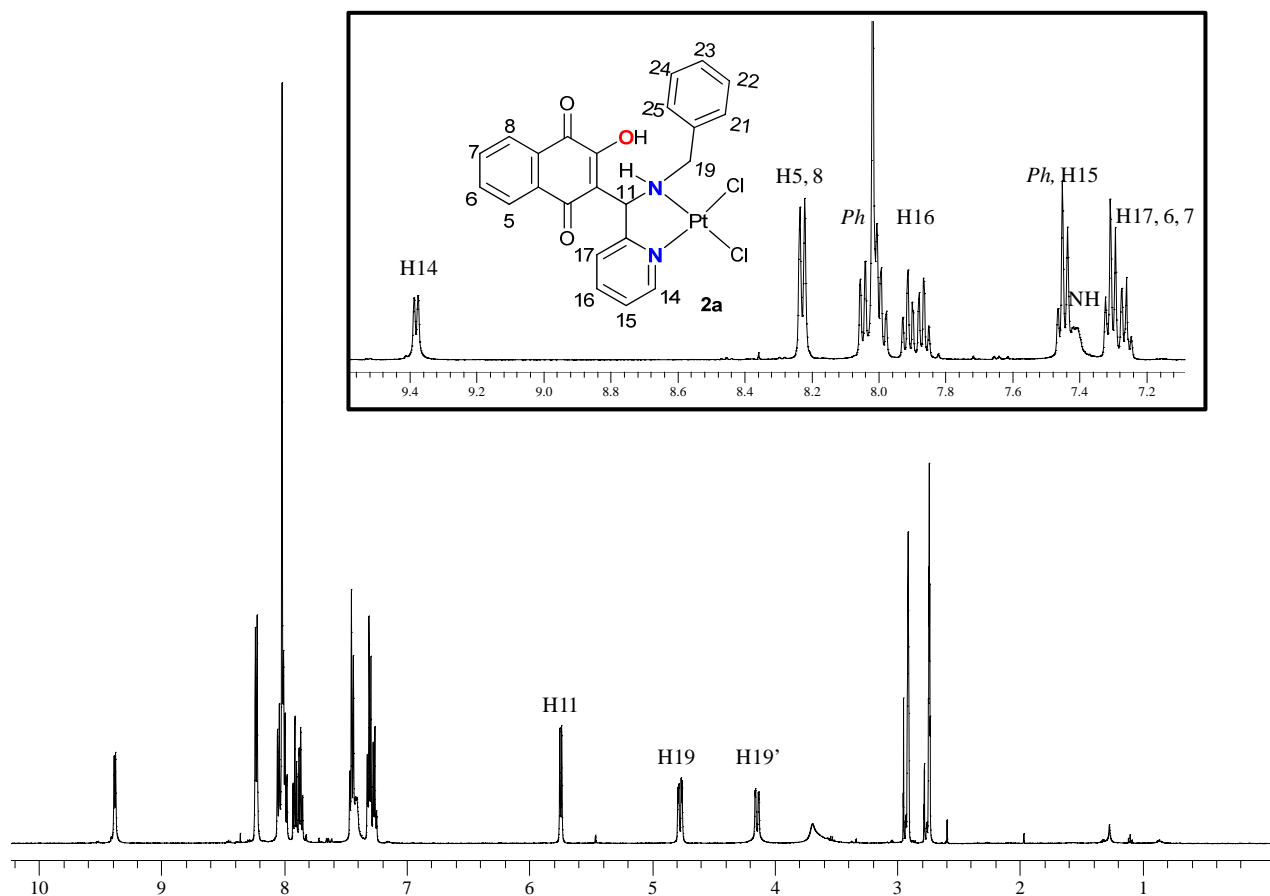
**Figure S16.**  $^1\text{H}$  NMR spectrum of **1a** in  $\text{CDCl}_3$ .



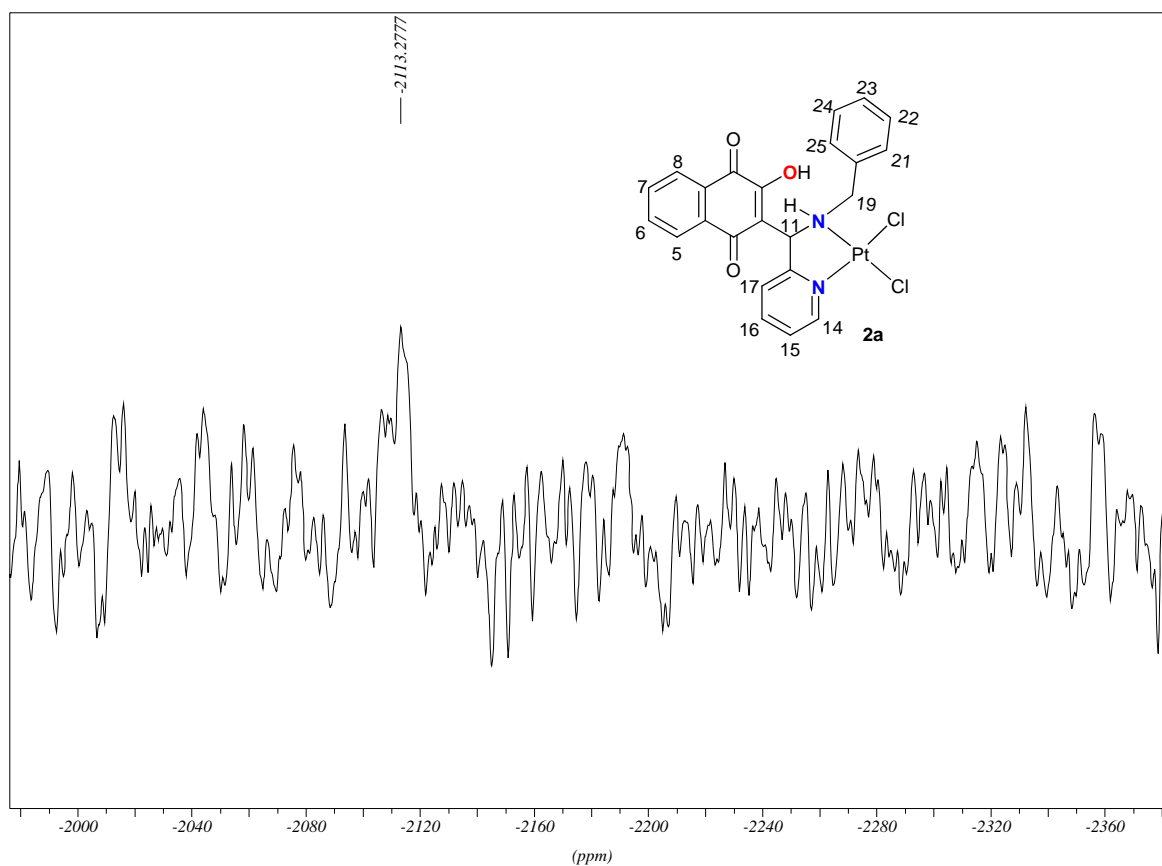
**Figure S17.**  $^{195}\text{Pt}$  NMR spectrum of **1a** in  $\text{CDCl}_3$ .



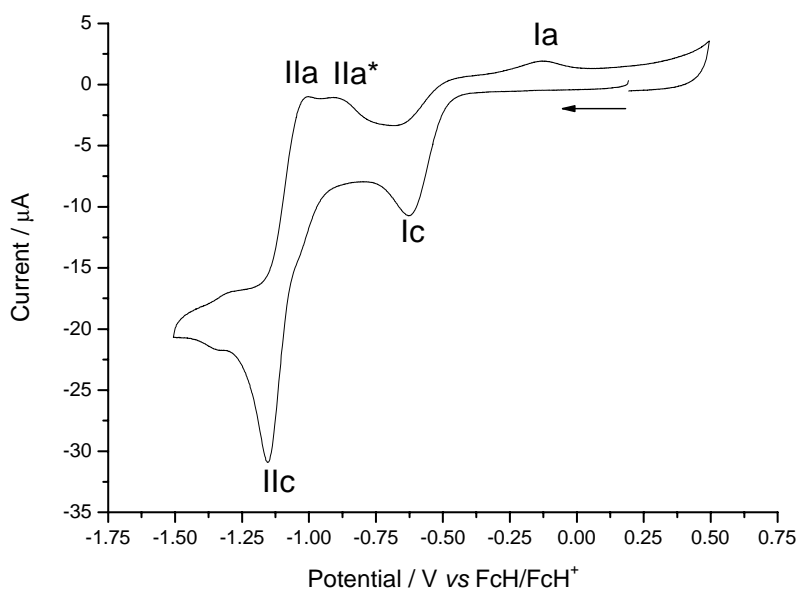
**Figure S18.** Cyclic voltammogram of **1a** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



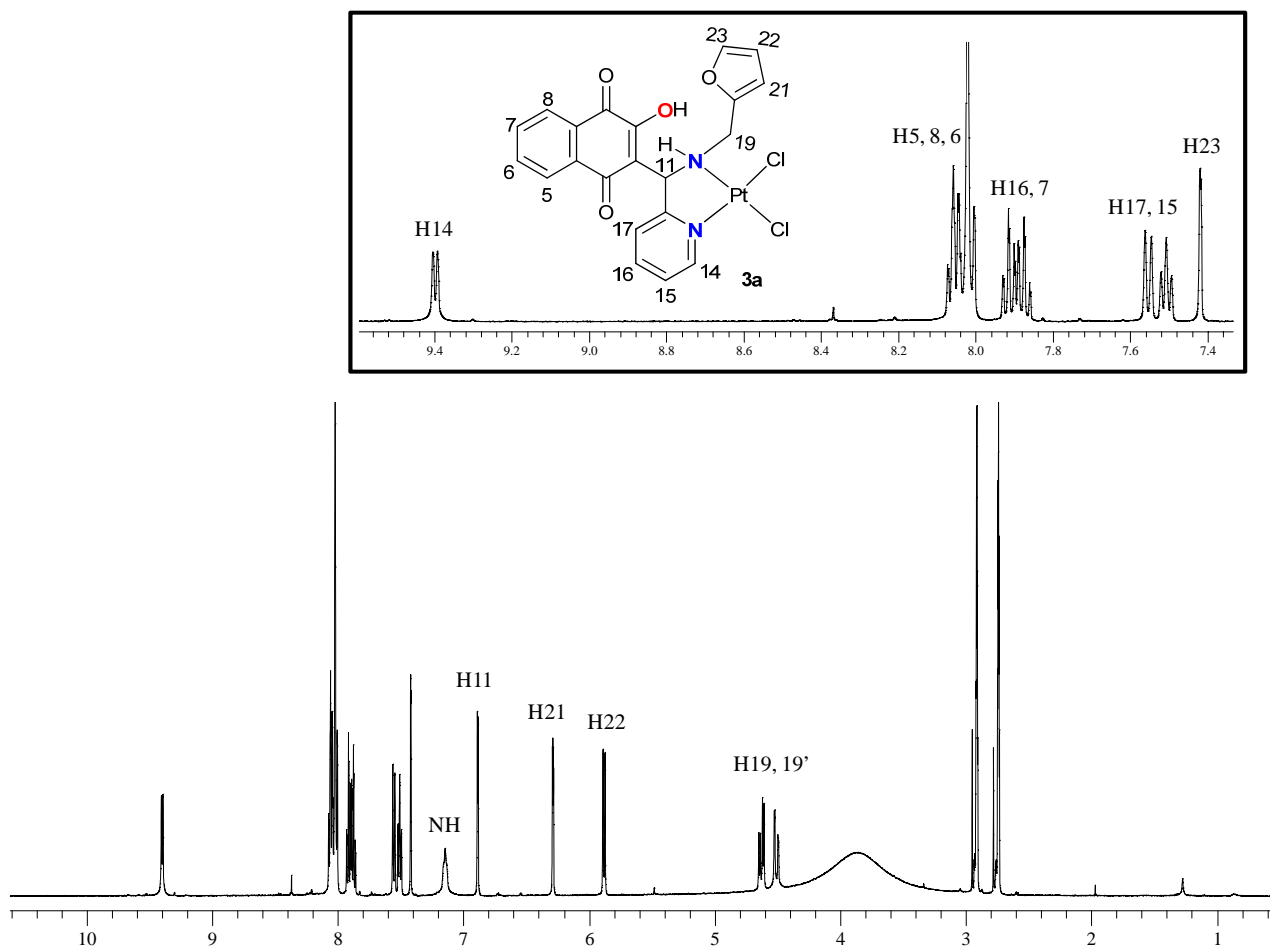
**Figure S19.**  $^1\text{H}$  NMR spectrum of **2a** in  $\text{DMF-d}_7$ .



**Figure S20.**  $^{195}\text{Pt}$  NMR spectrum of **2a** in  $\text{DMF-d}^7$ .

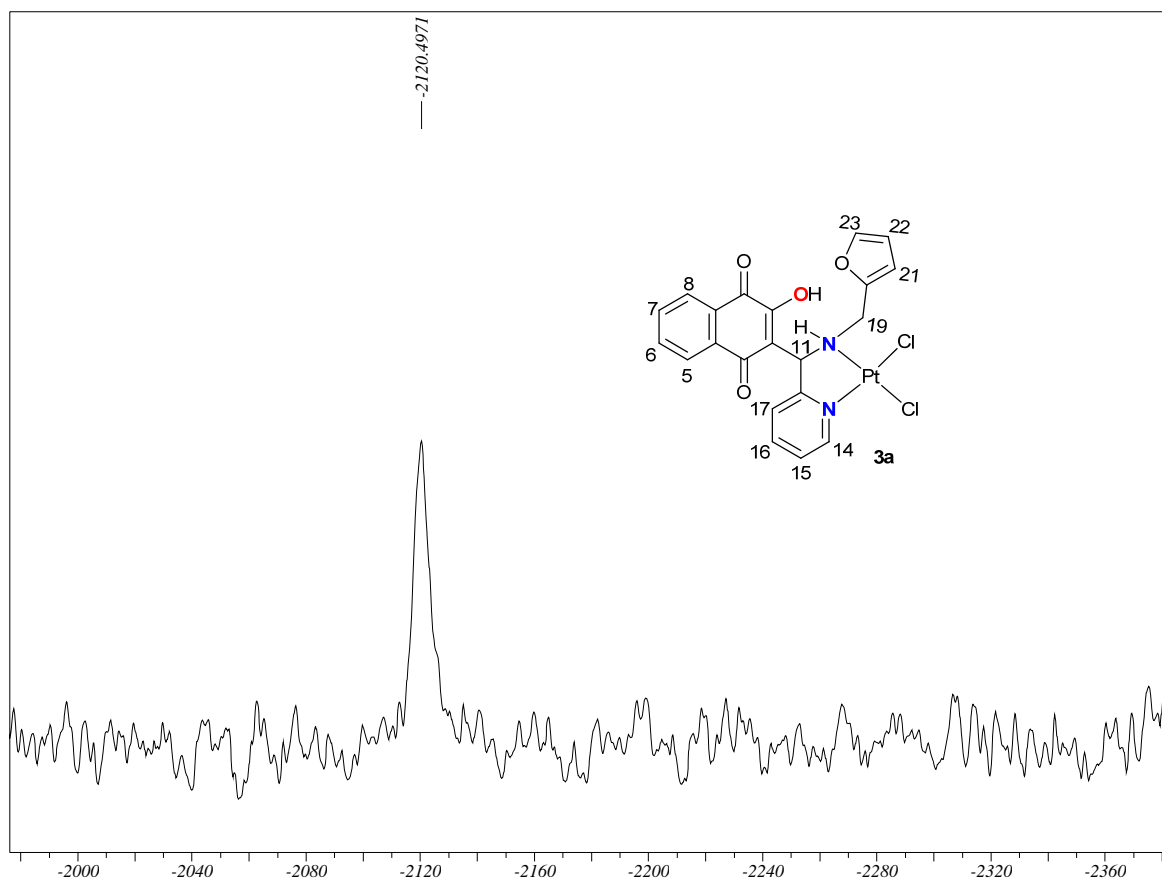


**Figure S21.** Cyclic voltammogram of **2a** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.

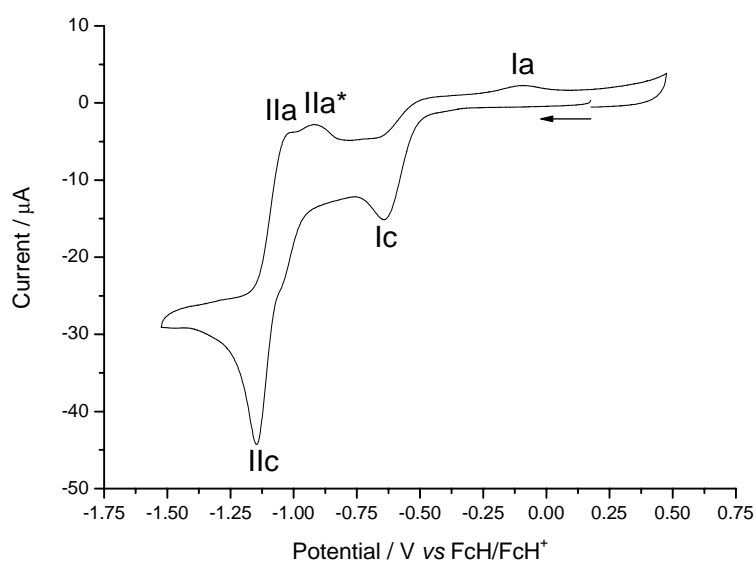


**Figure S22.**  $^1\text{H}$  NMR spectrum of **3a** in  $\text{DMF-d}_7$ .

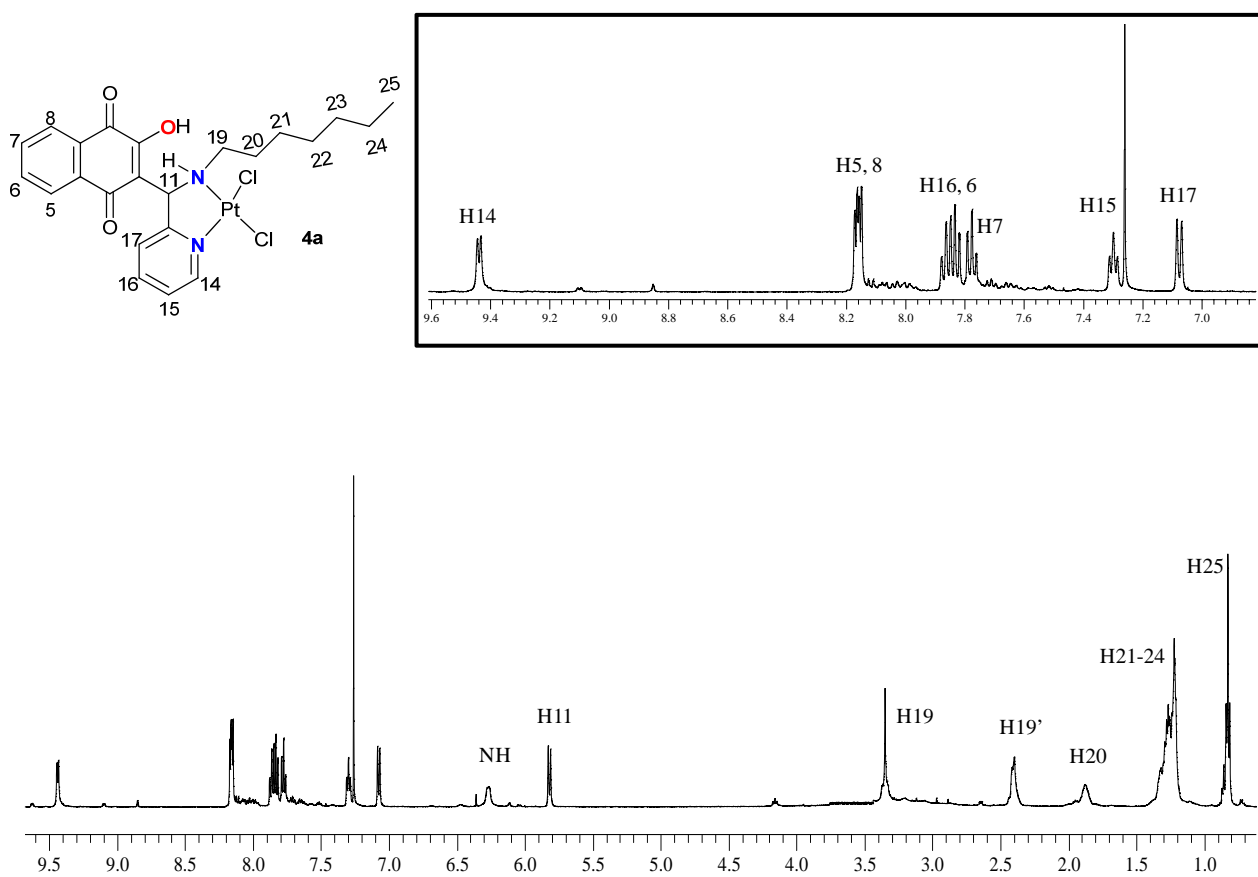




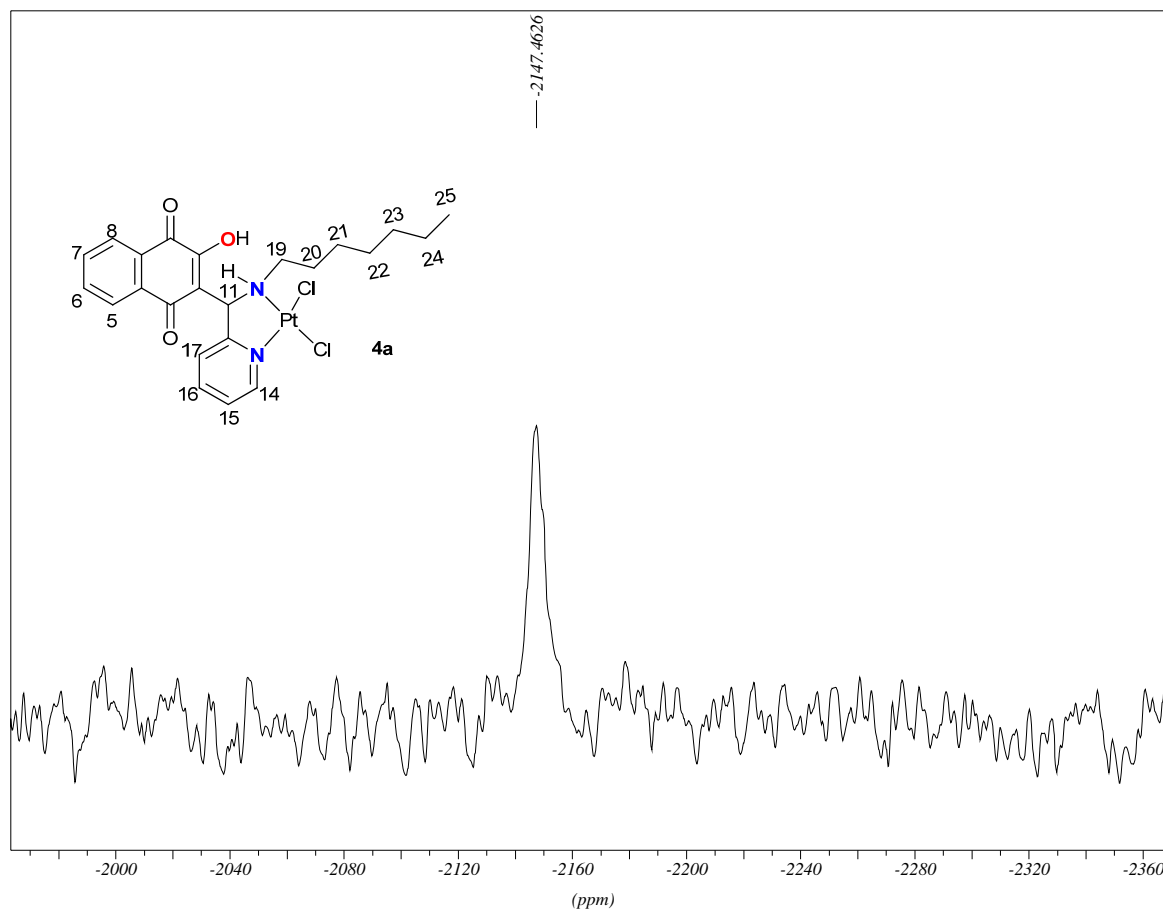
**Figure S23.**  $^{195}\text{Pt}$  NMR spectrum of **3a** in  $\text{DMF-d}^7$ .



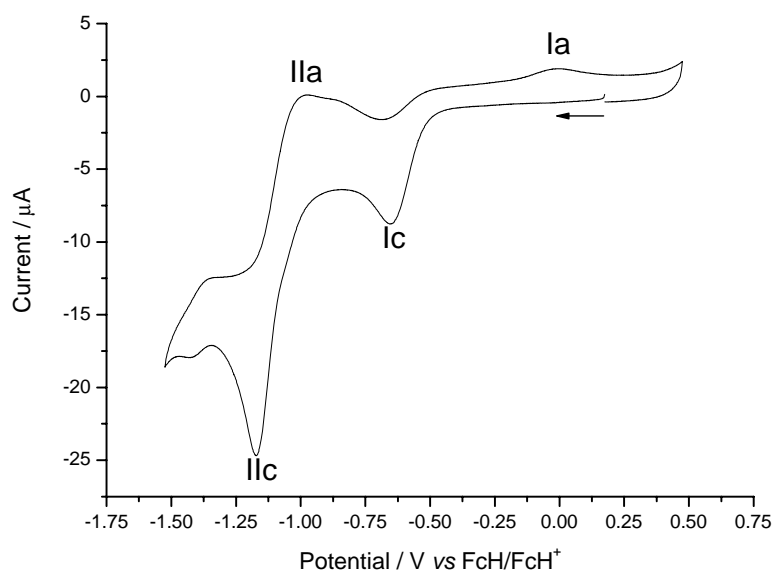
**Figure S24.** Cyclic voltammogram of **3a** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



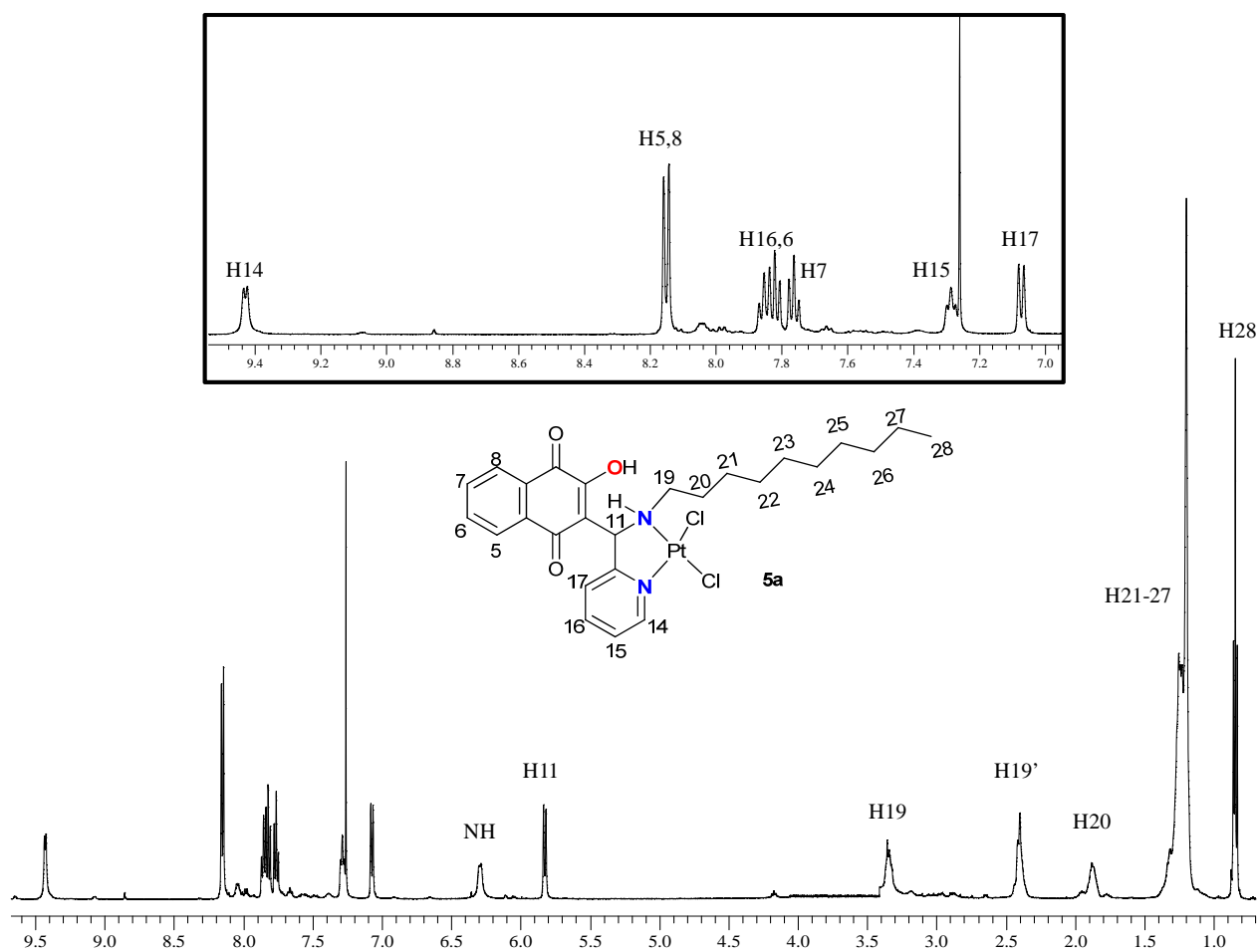
**Figure S25.**  $^1\text{H}$  NMR spectrum of **4a** in  $\text{CDCl}_3$ .



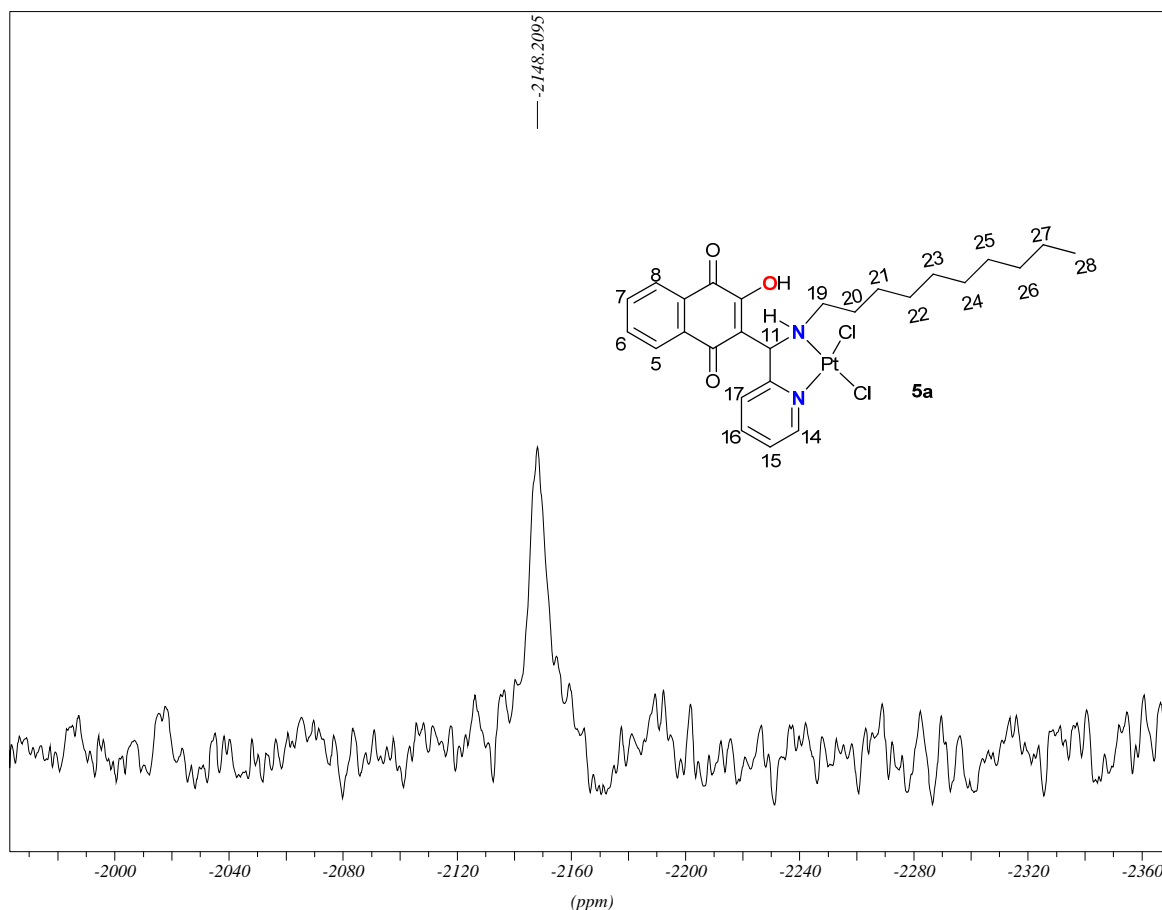
**Figure S26.**  $^{195}\text{Pt}$  NMR spectrum of **4a** in  $\text{CDCl}_3$ .



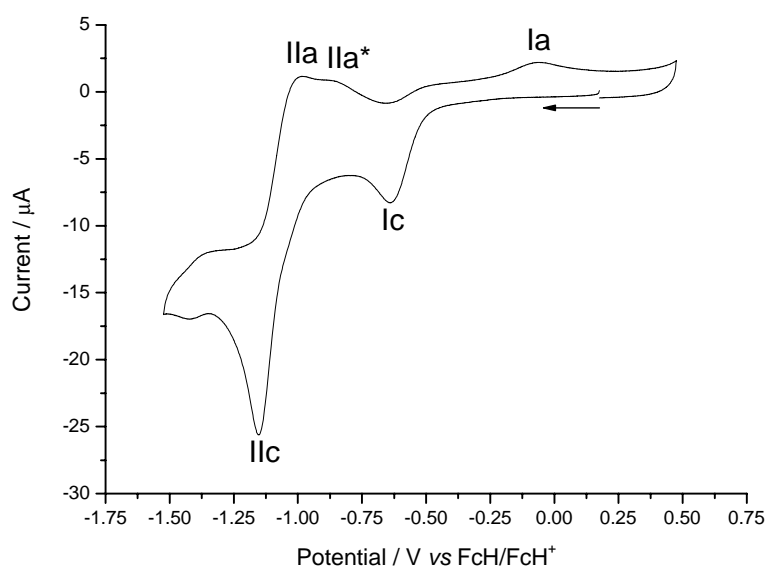
**Figure S27.** Cyclic voltammogram of **4a** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



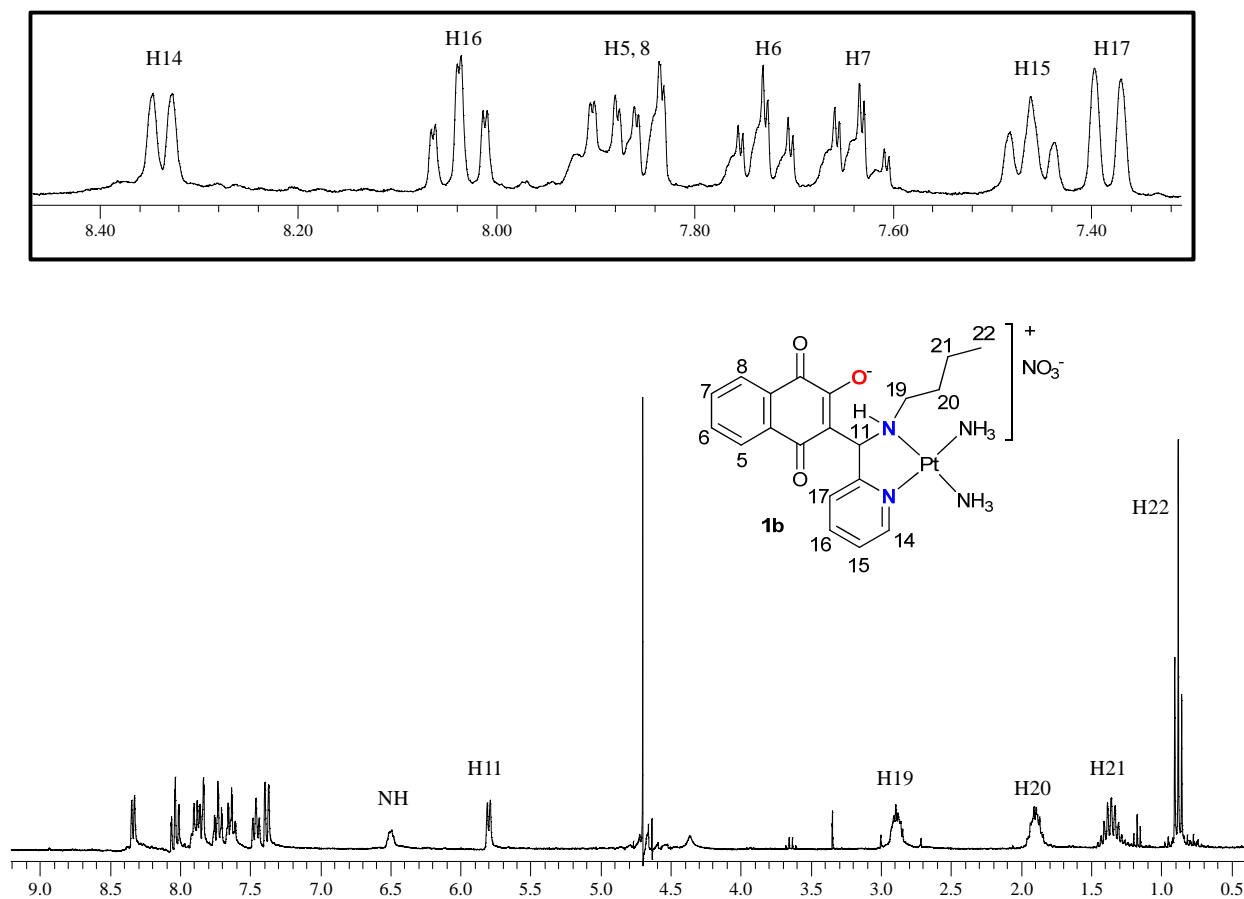
**Figure S28.**  $^1\text{H}$  NMR spectrum of **5a** in  $\text{CDCl}_3$ .



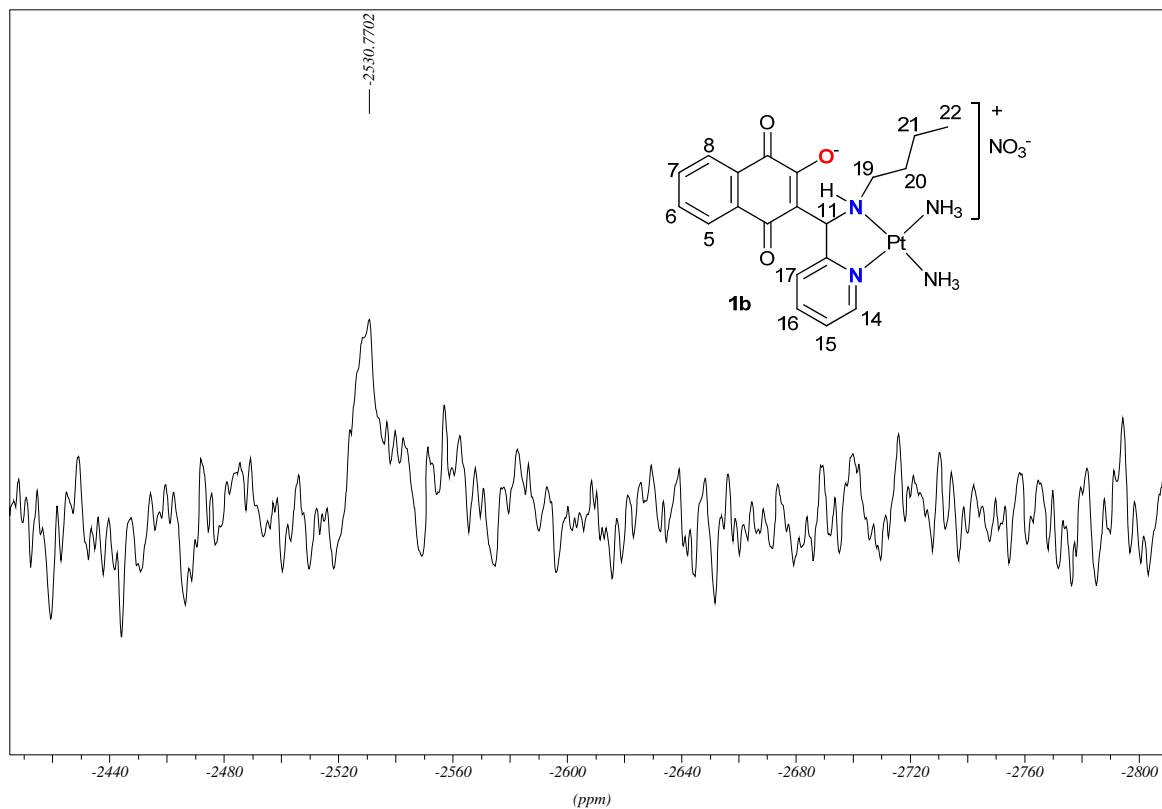
**Figure S29.**  $^{195}\text{Pt}$  NMR spectrum of **5a** in  $\text{CDCl}_3$ .



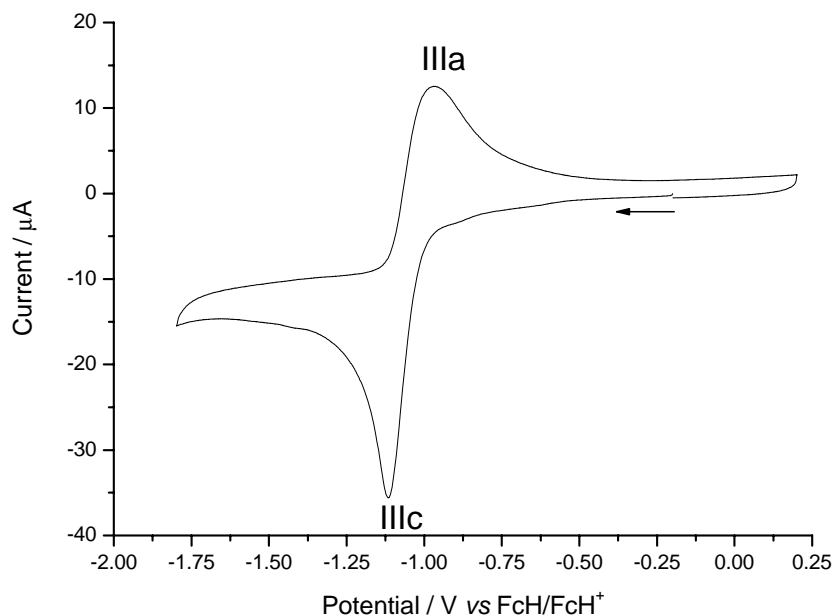
**Figure S30.** Cyclic voltammogram of **5a** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



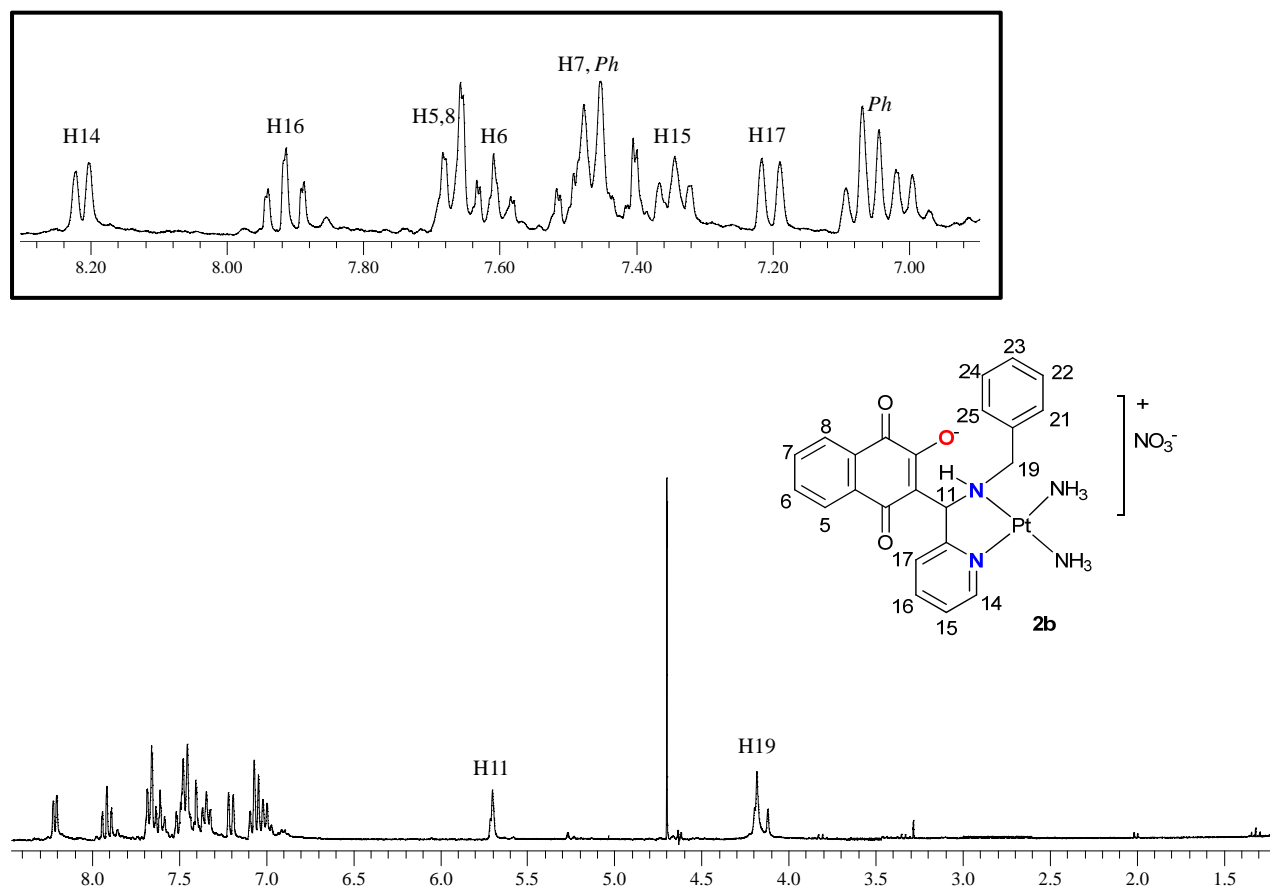
**Figure S31.**  $^1\text{H}$  NMR spectrum of **1b** in  $\text{D}_2\text{O}$ .



**Figure S32.**  $^{195}\text{Pt}$  NMR spectrum of **1b** in  $\text{D}_2\text{O}$ .

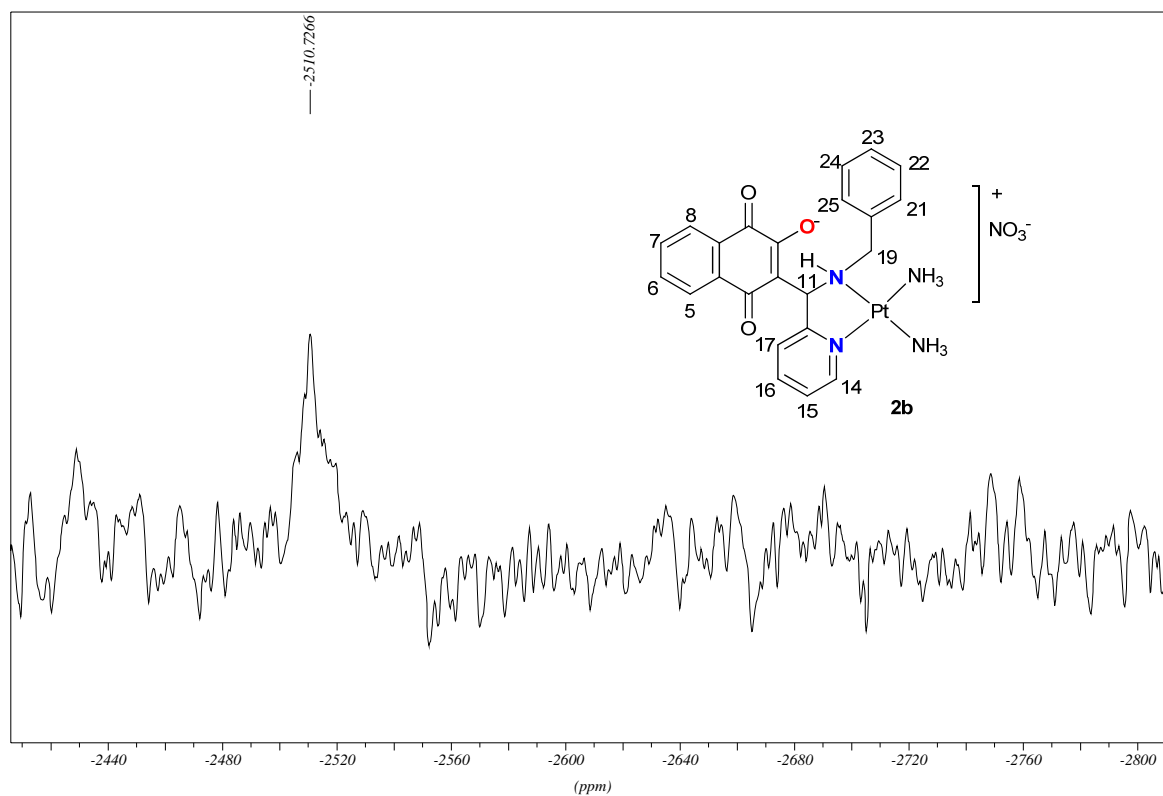


**Figure S33.** Cyclic voltammogram of **1b** in  $0.1 \text{ molL}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.

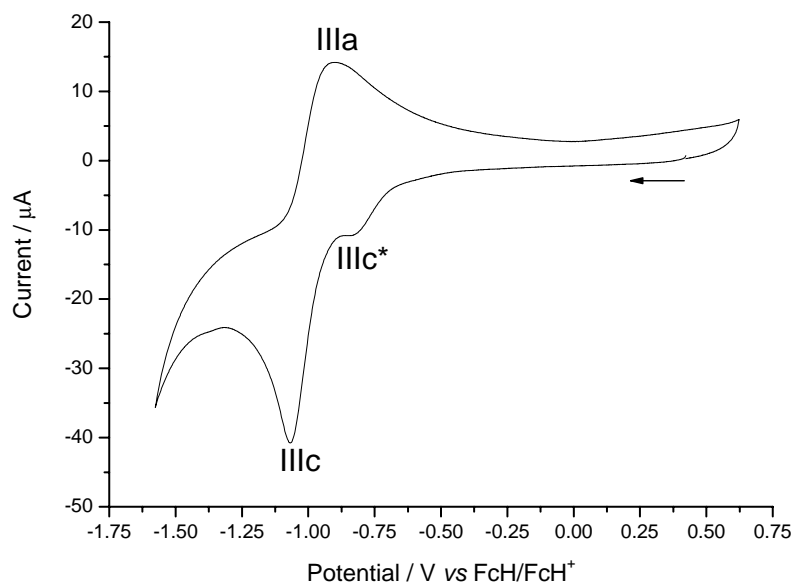


**Figure S34.**  $^1\text{H}$  NMR spectrum of **2b** in  $\text{D}_2\text{O}$ .





**Figure S35.**  $^{195}\text{Pt}$  NMR spectrum of **2b** in  $\text{D}_2\text{O}$ .



**Figure S36.** Cyclic voltammogram of **2b** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.

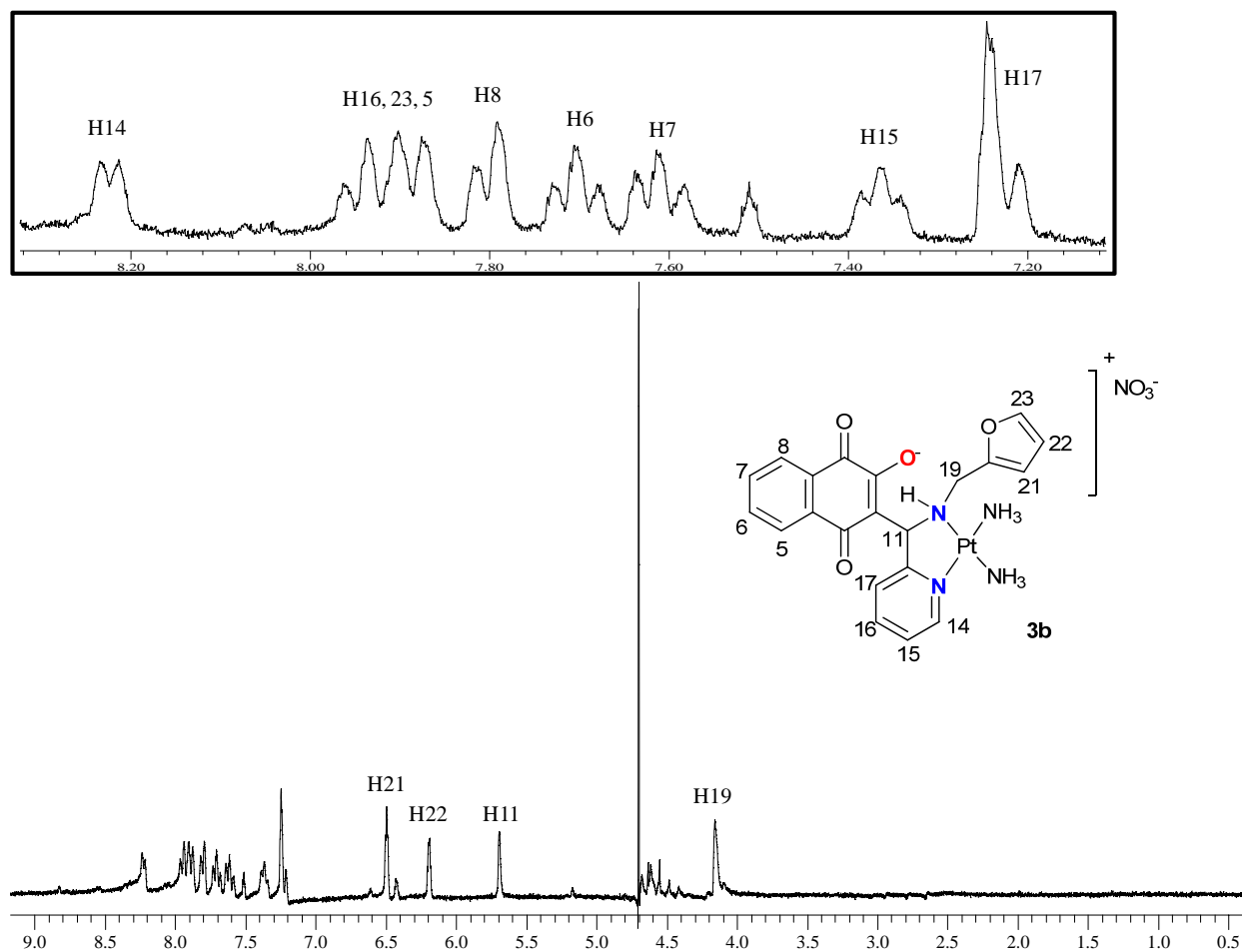
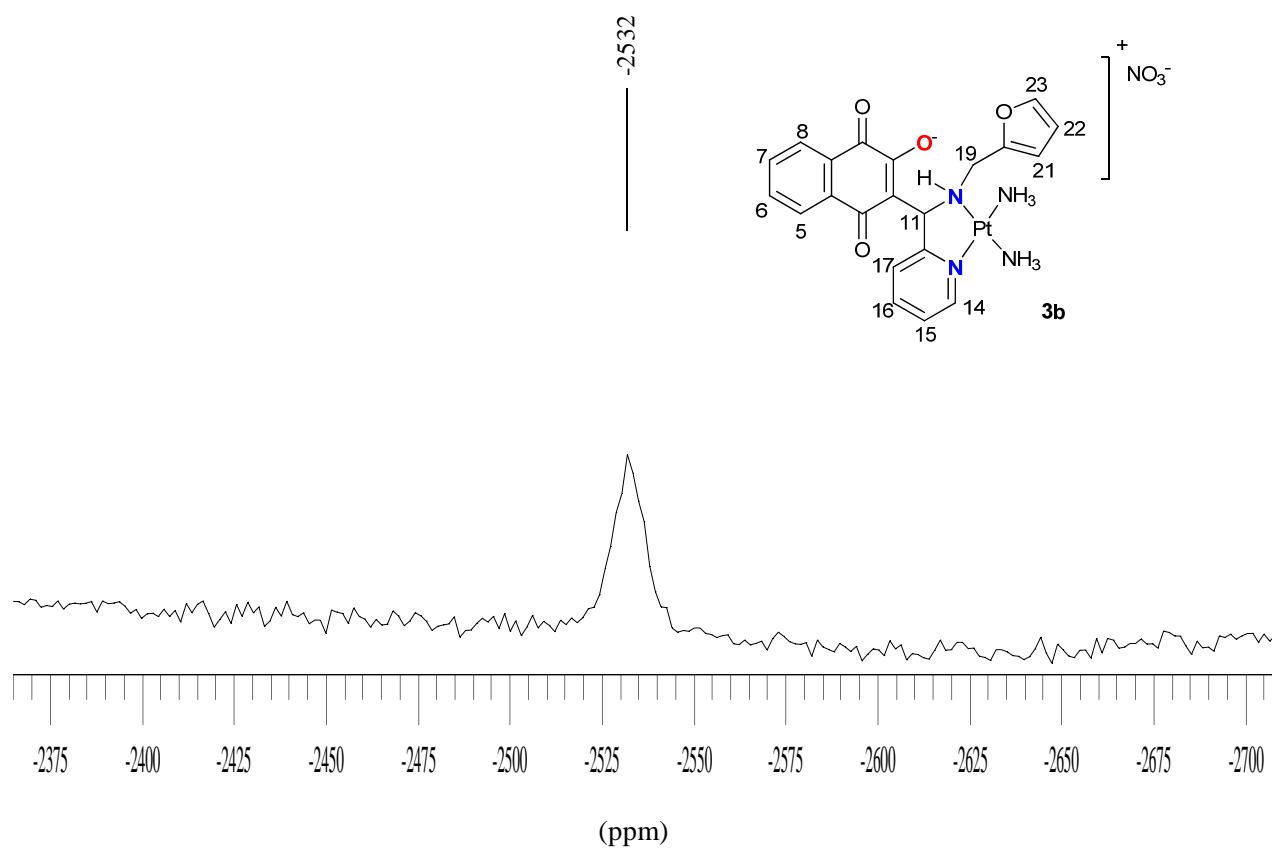
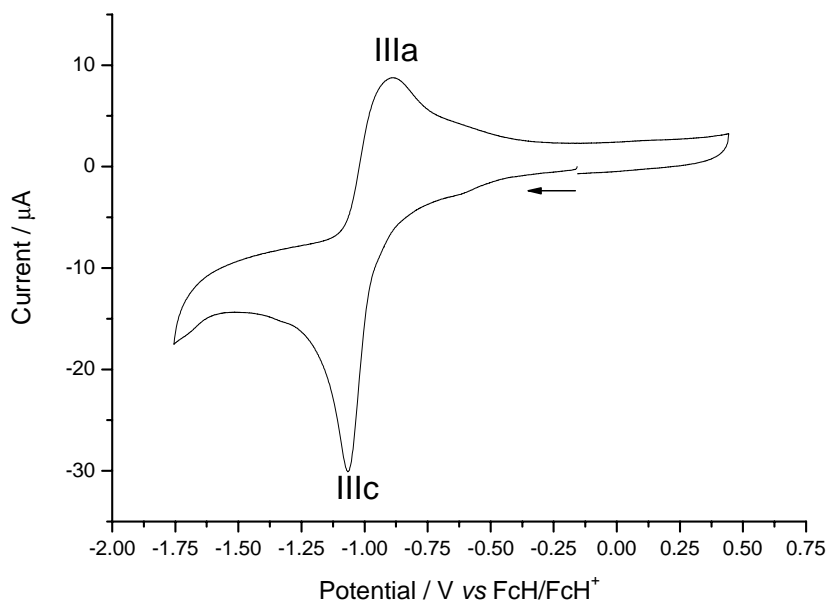


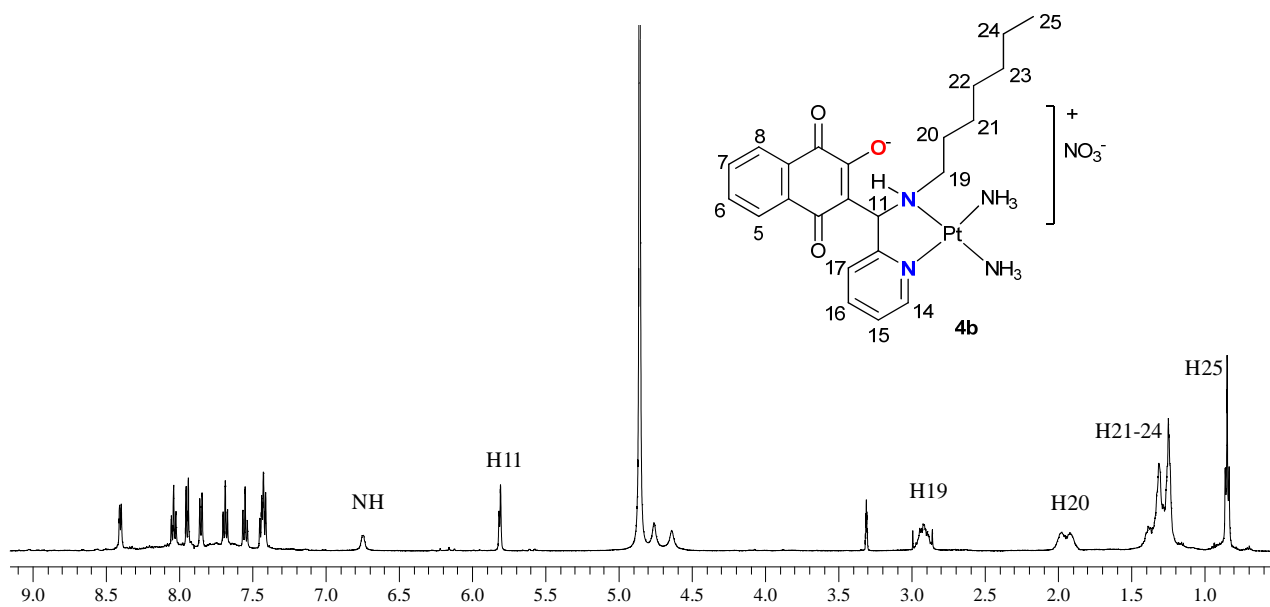
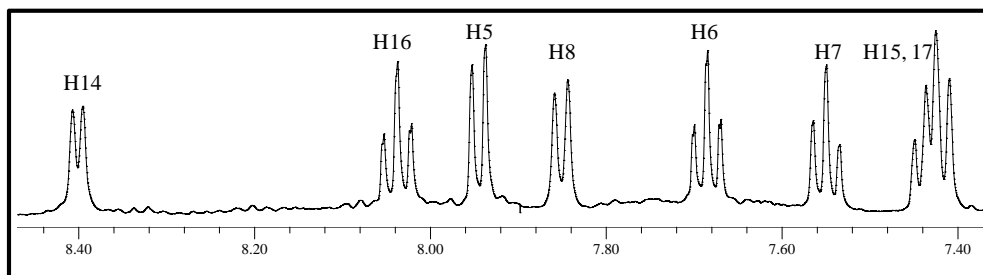
Figure S37.  $^1\text{H}$  NMR spectrum of **3b** in  $\text{D}_2\text{O}$ .



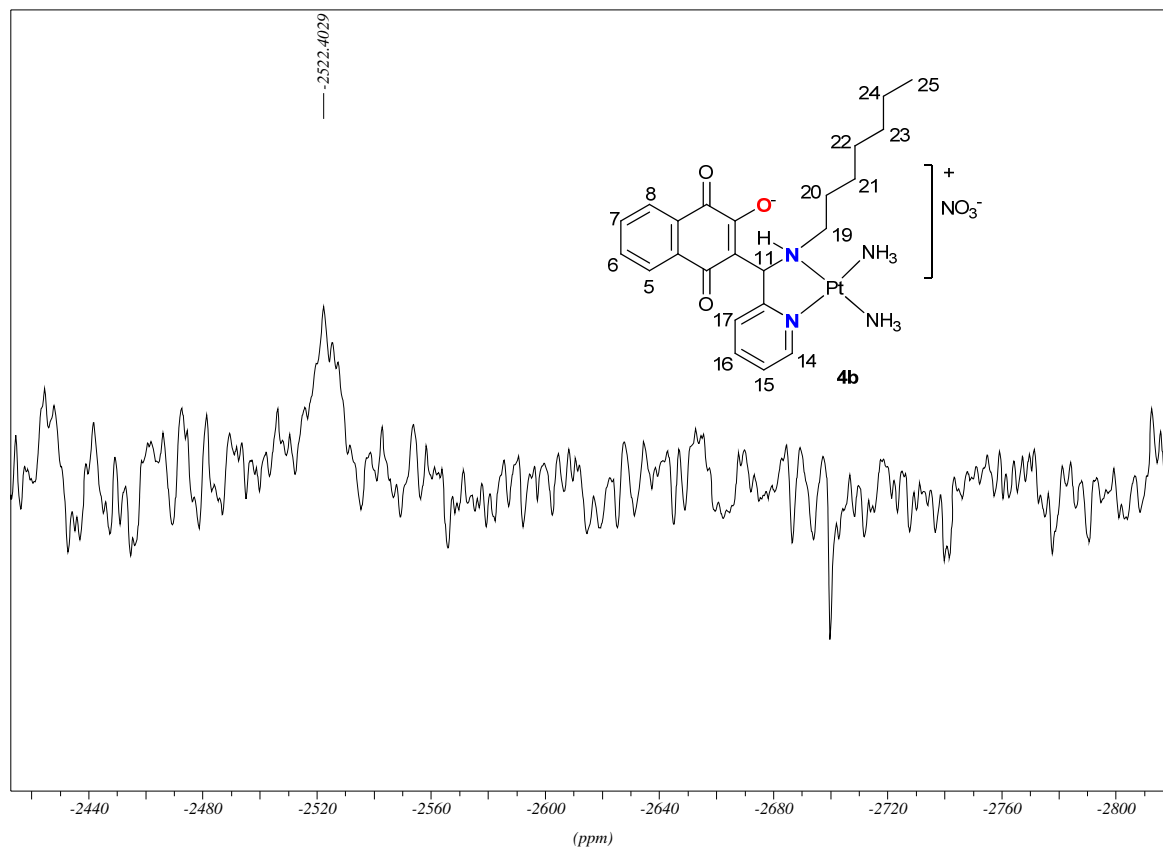
**Figure S38.**  $^{195}\text{Pt}$  NMR spectrum of **3b** in  $\text{DMF-d}^7$ .



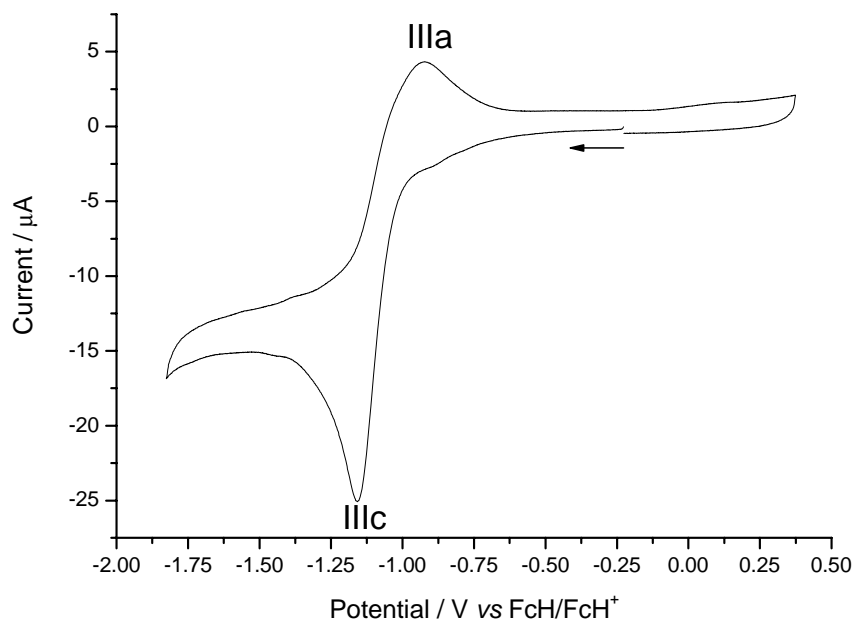
**Figure S39.** Cyclic voltammogram of **3b** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



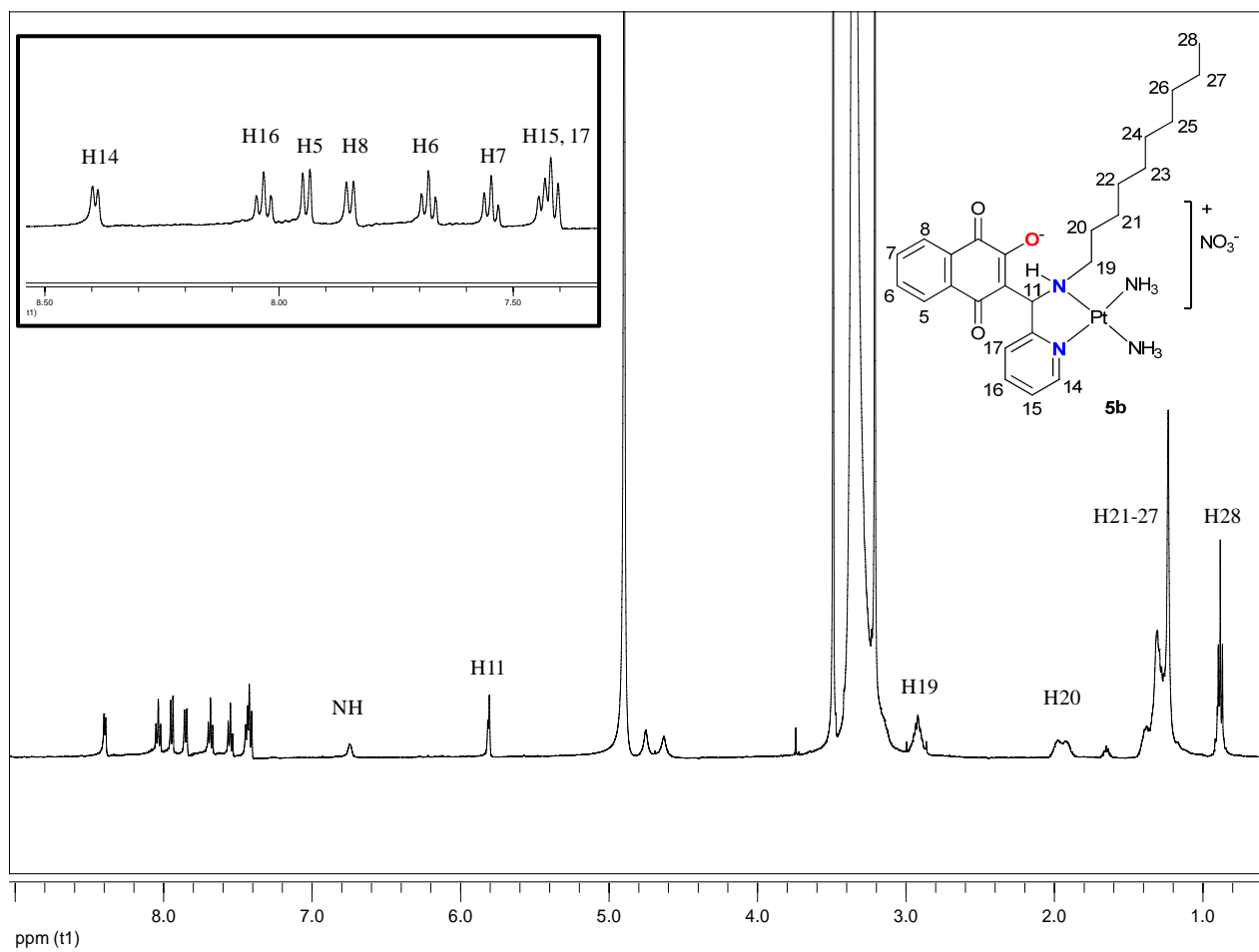
**Figure S40.**  $^1\text{H}$  NMR spectrum of **4b** in  $\text{CD}_3\text{OD}$ .



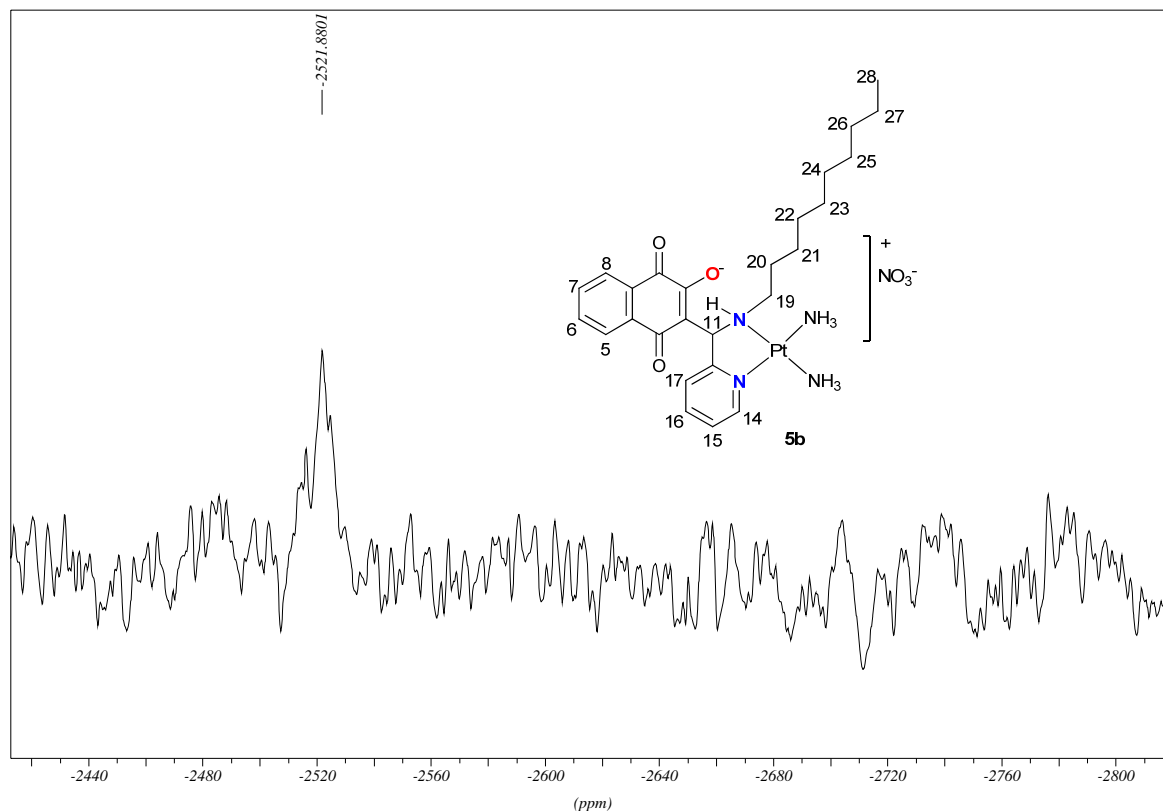
**Figure S41.**  $^{195}\text{Pt}$  NMR spectrum of **4b** in  $\text{DMF-d}^7$ .



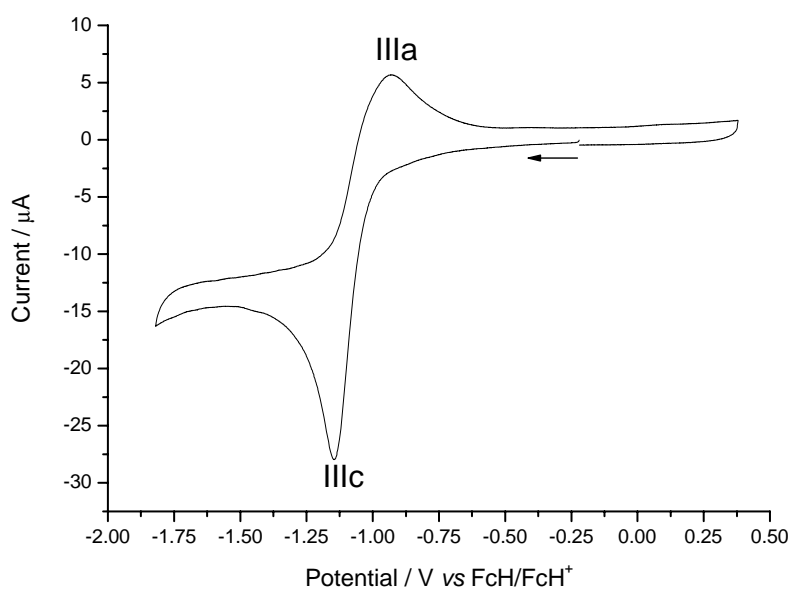
**Figure S42.** Cyclic voltammogram of **4b** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ Vs}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.



**Figure S43.**  $^1\text{H}$  NMR spectrum of **5b** in  $\text{CD}_3\text{OD}$ .



**Figure S44.**  $^{195}\text{Pt}$  NMR spectrum of **5b** in  $\text{DMF-d}^7$ .



**Figure S45.** Cyclic voltammogram of **5b** in  $0.1 \text{ mol L}^{-1} \text{ Bu}_4\text{ClO}_4/\text{CH}_3\text{OH}$  obtained at  $0.1 \text{ V s}^{-1}$  with a glassy carbon electrode, the potentials being referred to the ferrocene/ferrocenium ( $\text{FcH}/\text{FcH}^+$ ) pair internal standard.