

## Supplementary Information for

### Synthesis of Facial Cyclometalated Iridium(III) Complexes Triggered by Tripodal Ligands

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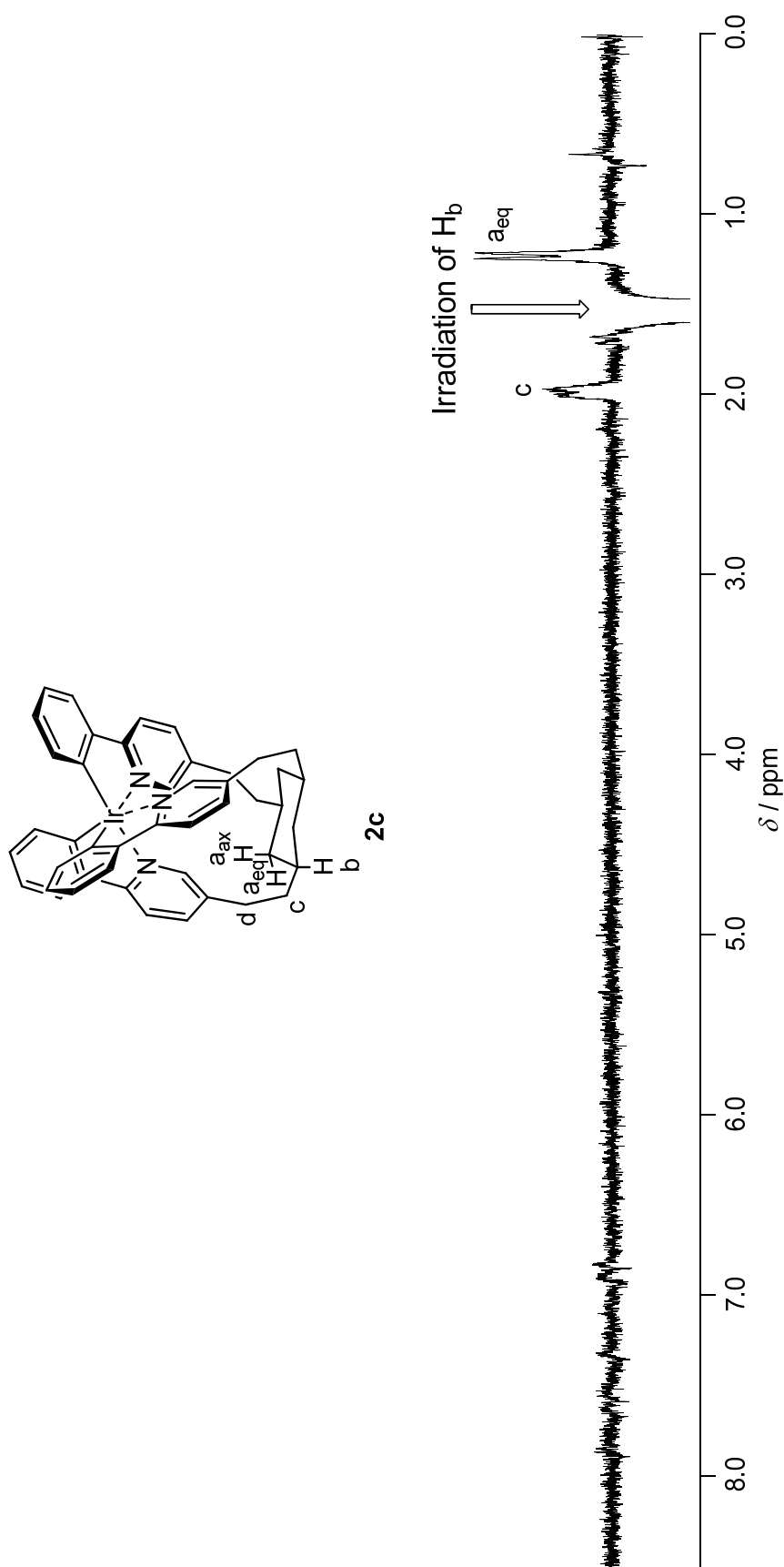
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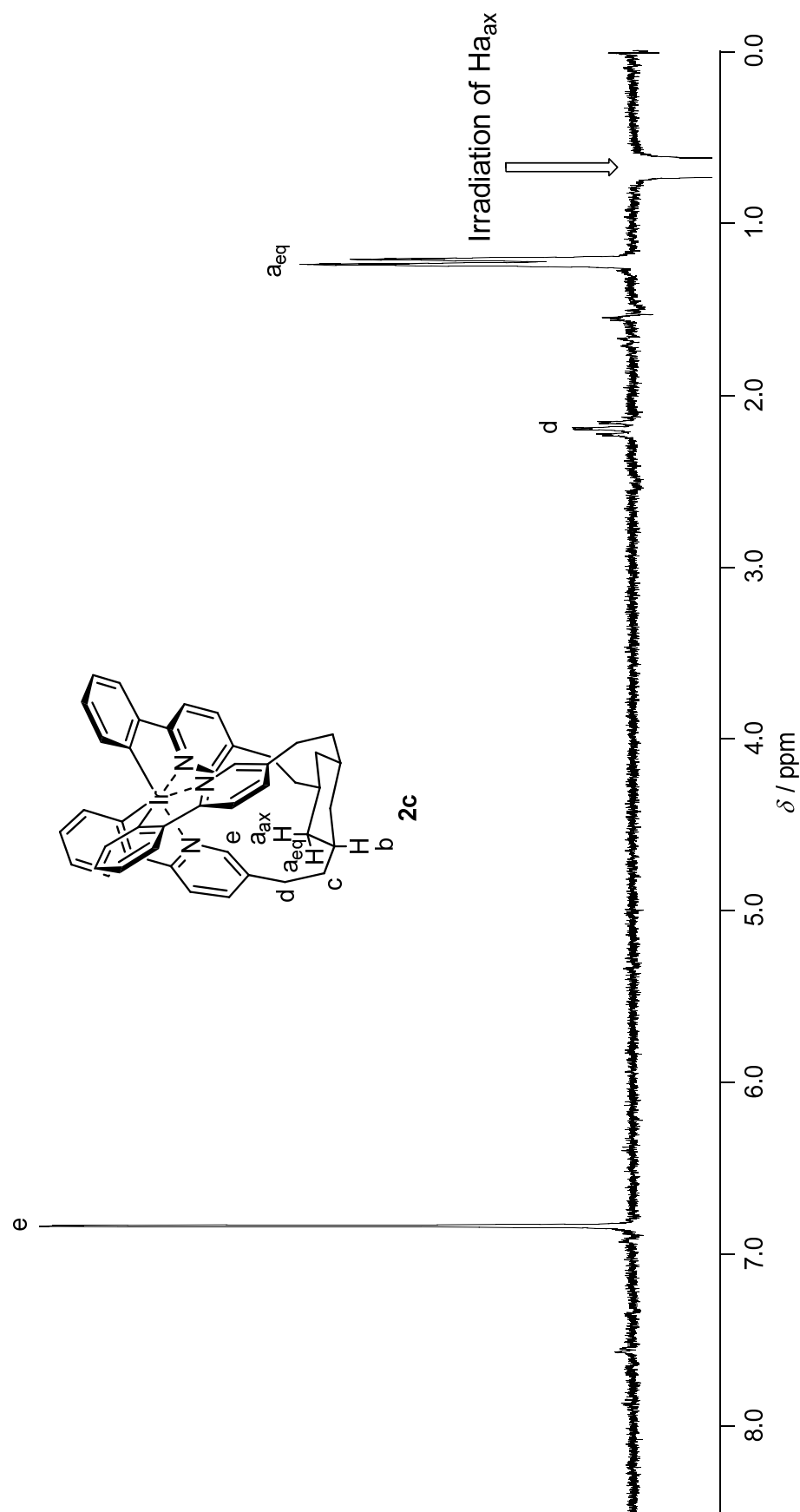
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### Proton Magnetic Resonance Nuclear Overhauser Effect Measurements.

A sample was prepared under argon. Nuclear Overhauser effect experiments were performed with 2 second irradiation of a freeze-pump-thaw degassed CD<sub>2</sub>Cl<sub>2</sub> solution of **2c**. The 400 MHz <sup>1</sup>H NMR spectra were recorded at 25 °C. Nuclear Overhauser enhancements were obtained by saturation of the desired resonance. Irradiation of the cyclohexyl proton at the 1-position showed no enhancement of the cyclohexyl equatorial proton at the 2-position (Figure S1). Irradiation of the cyclohexyl axial proton at the 2-position enhanced the pyridyl proton at the 6-position (Figure S2).



**Figure S1.** 400 MHz <sup>1</sup>H NMR difference NOE experiment performed at 25 °C with 2 second irradiation of a freeze-pump-thaw degassed solution of **2c** in CD<sub>2</sub>Cl<sub>2</sub>.



**Figure S2.** 400 MHz <sup>1</sup>H NMR difference NOE experiment performed at 25 °C with 2 second irradiation of a freeze-pump-thaw degassed solution of **2c** in CD<sub>2</sub>Cl<sub>2</sub>.