

## **Supporting Information**

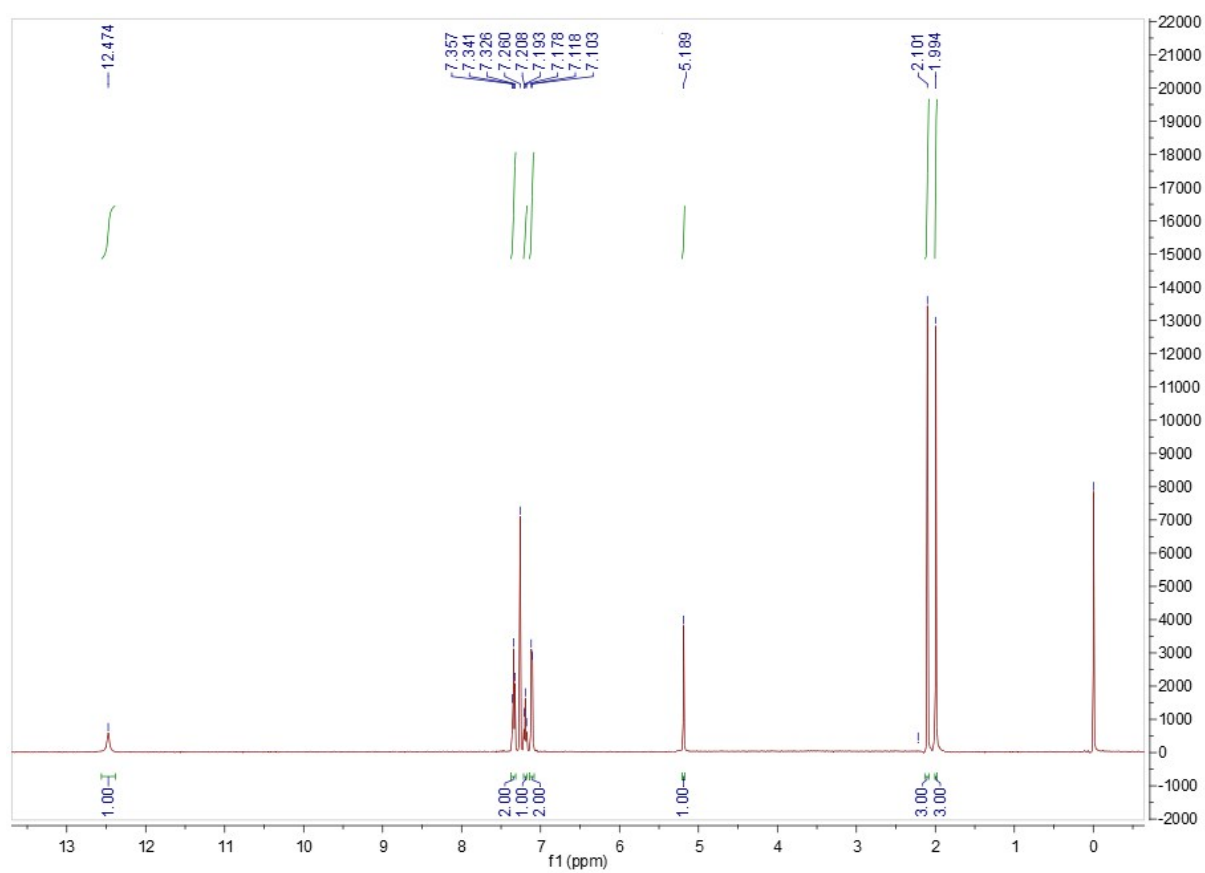
### **Catalytic Hydrogenation of Carbonyl and Nitro Compounds Using [NO]-chelate Half-Sandwich Ruthenium Catalyst**

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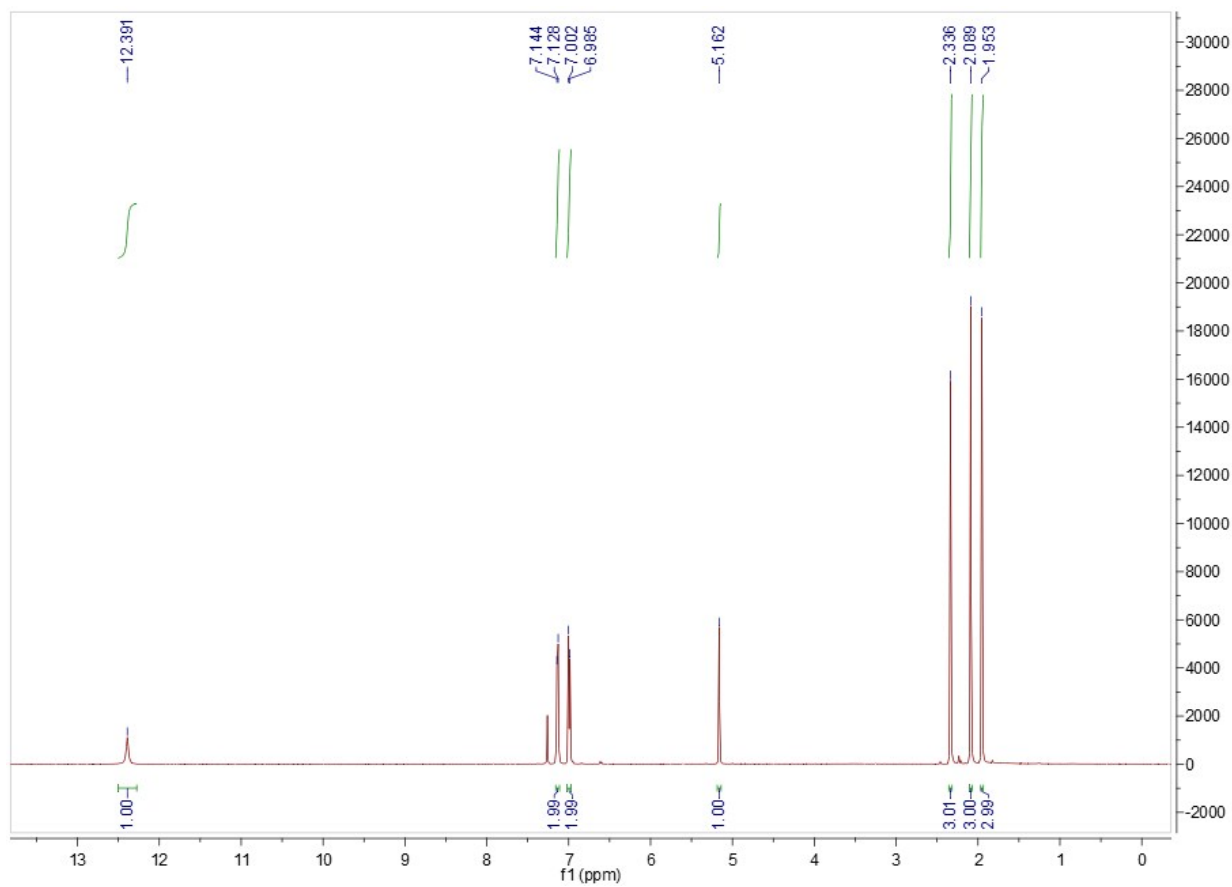
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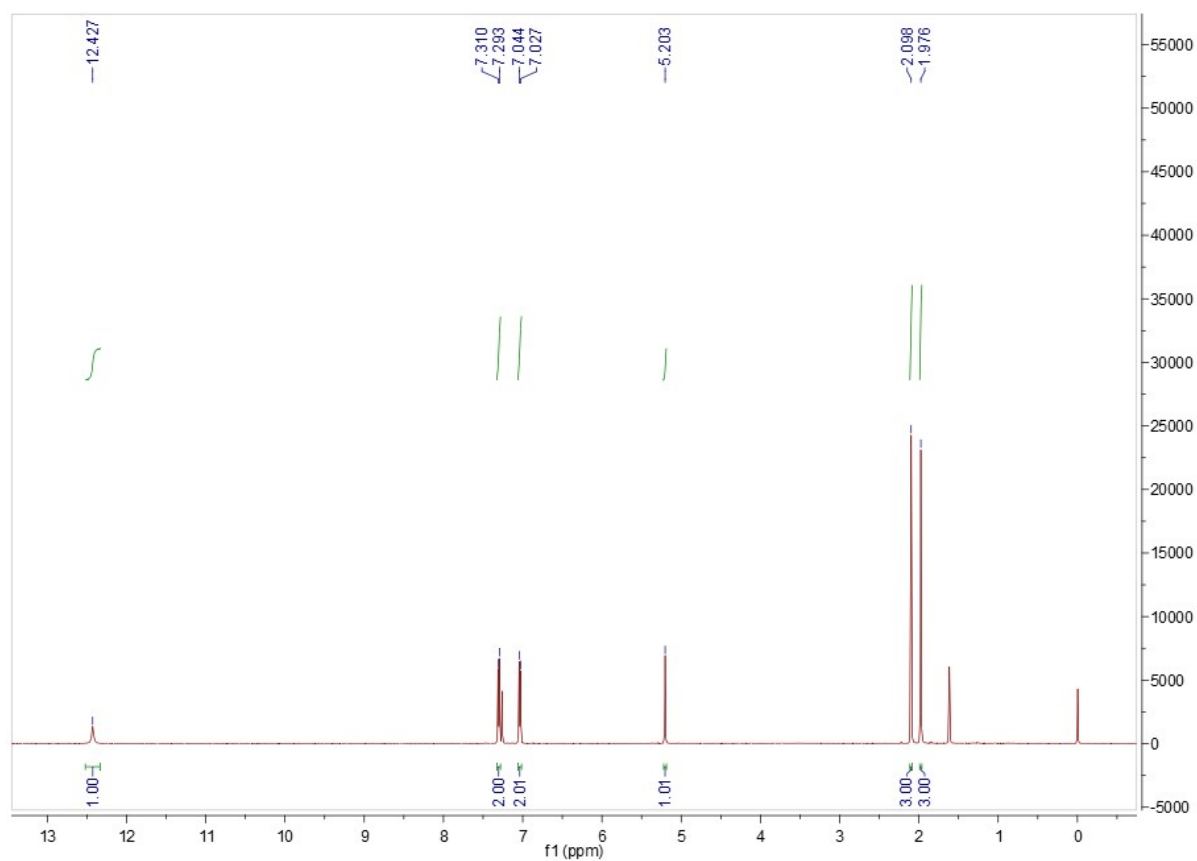
$^1\text{H}$  NMR of L1



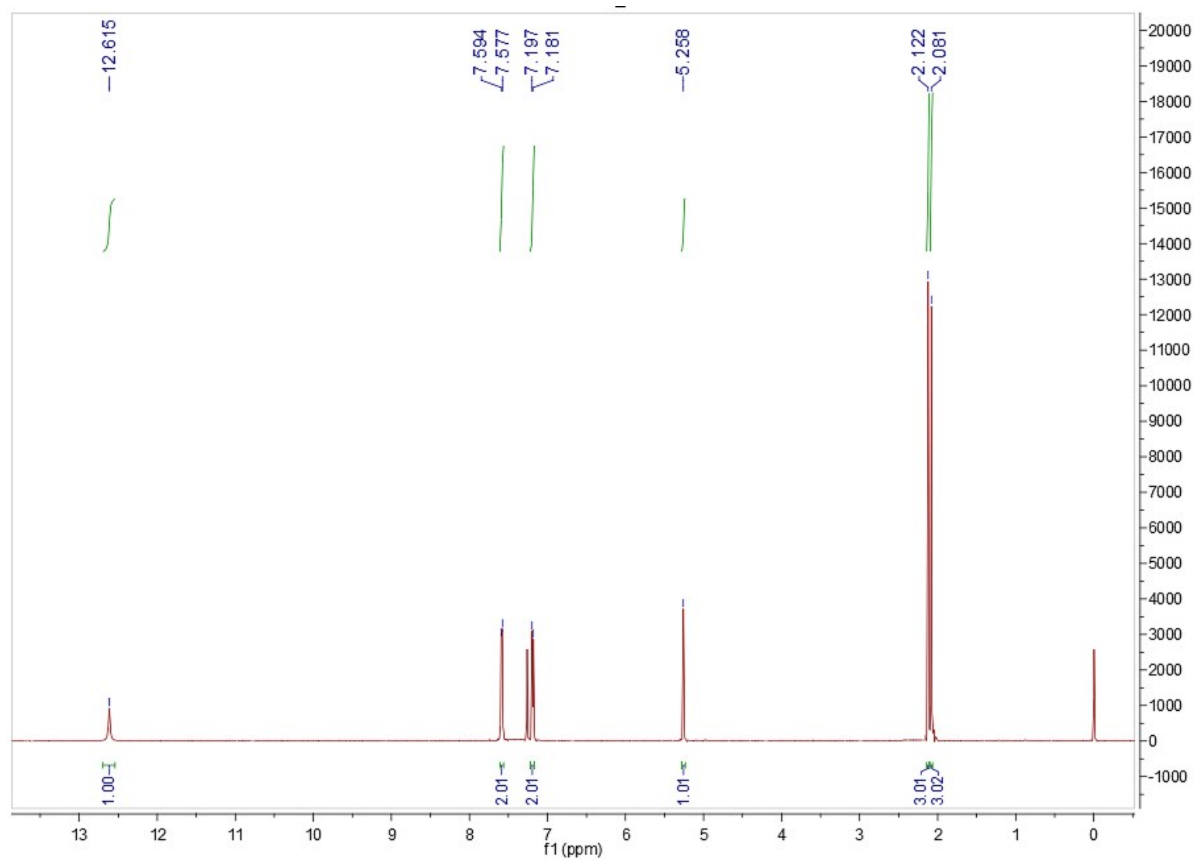
$^1\text{H}$  NMR of L2



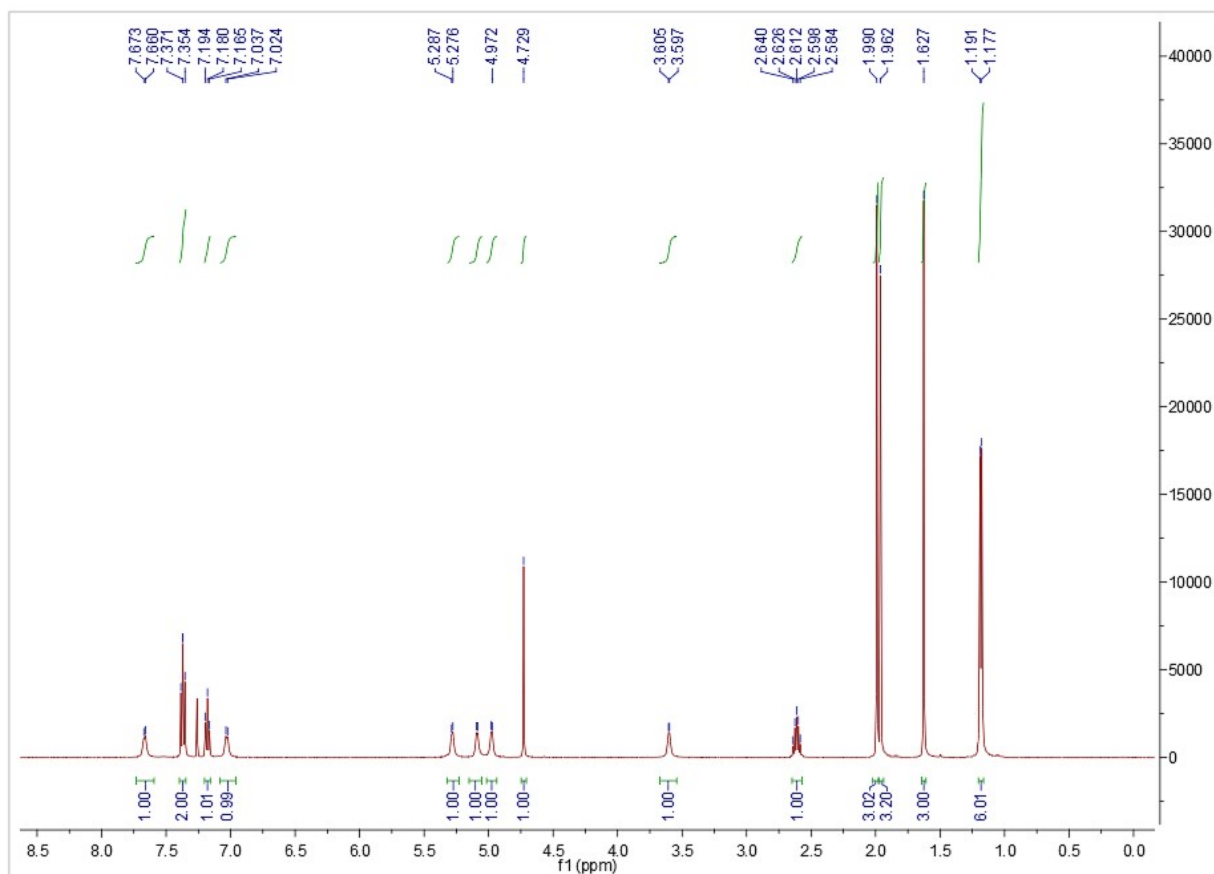
### $^1\text{H}$ NMR of L3



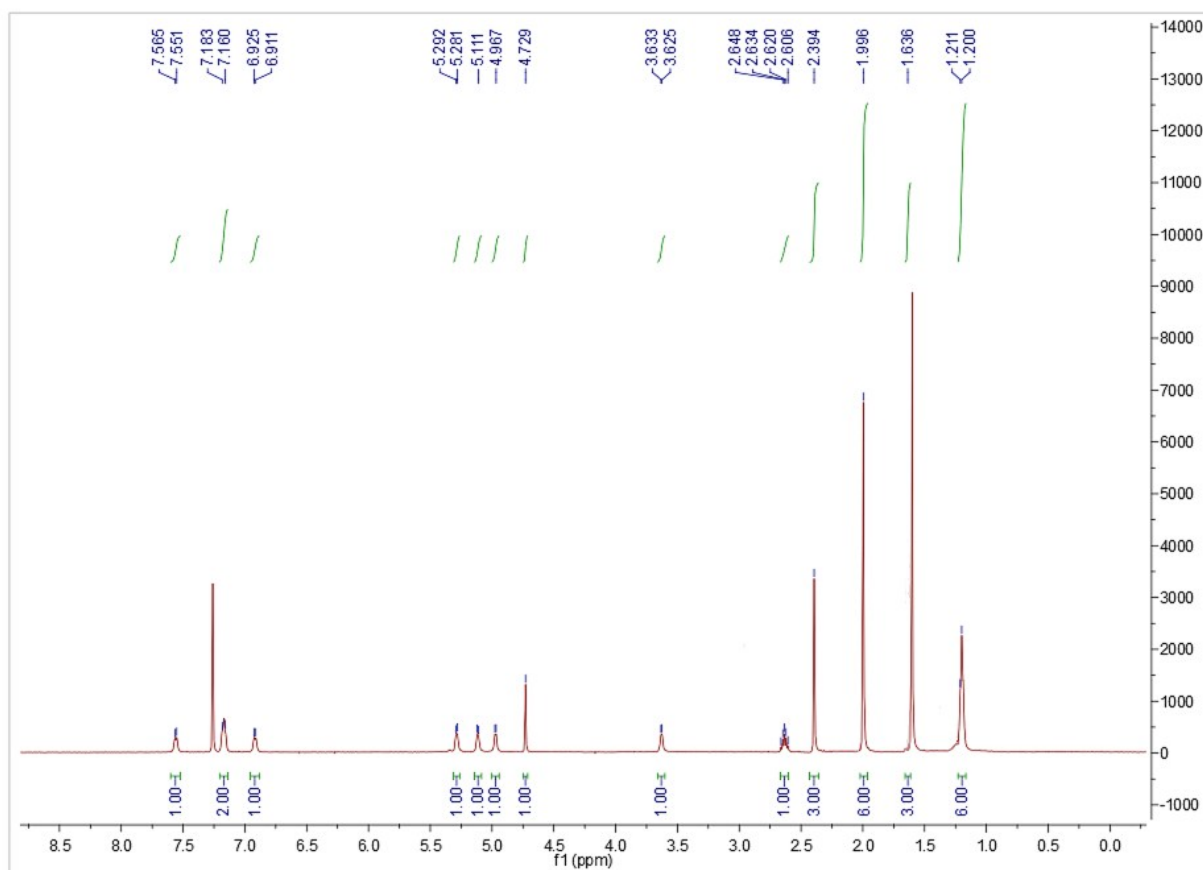
### $^1\text{H}$ NMR of L4



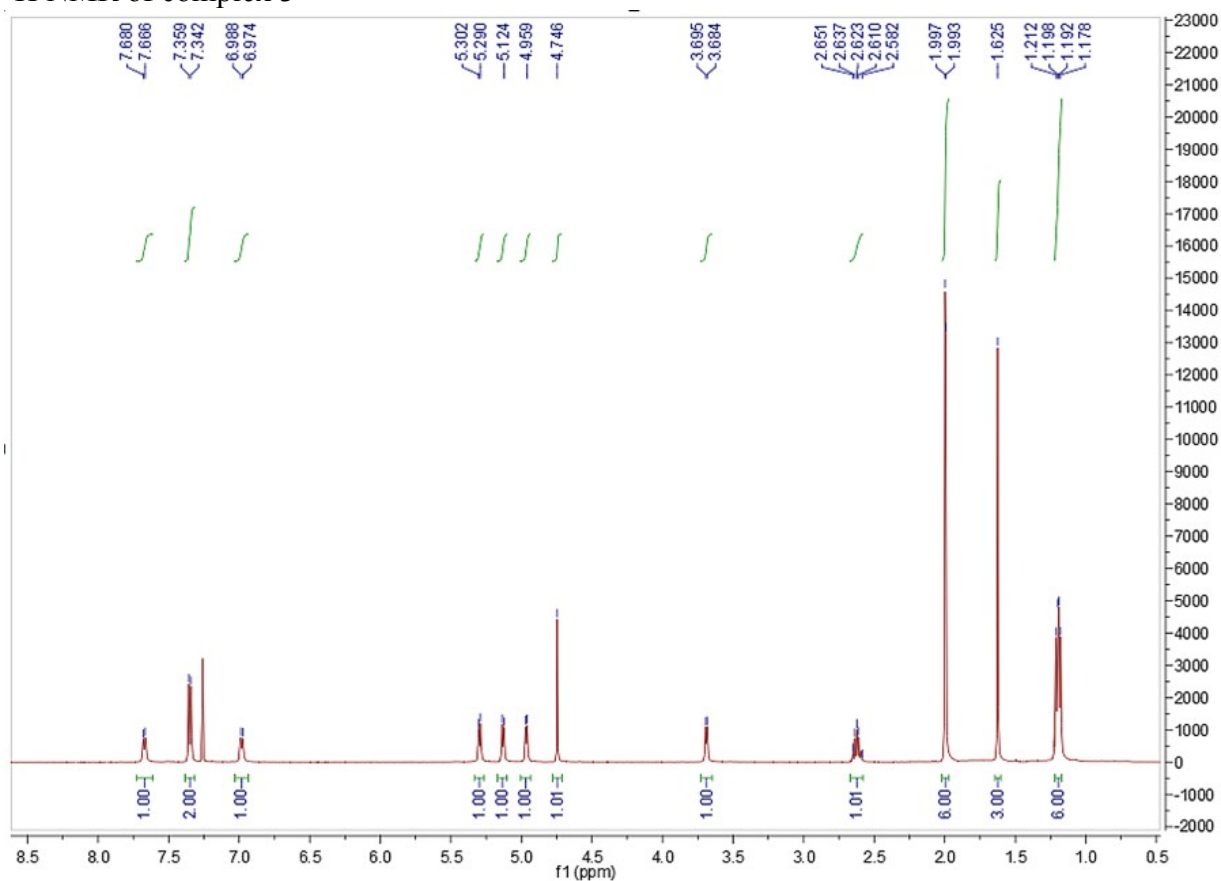
# <sup>1</sup>H NMR of complex 1



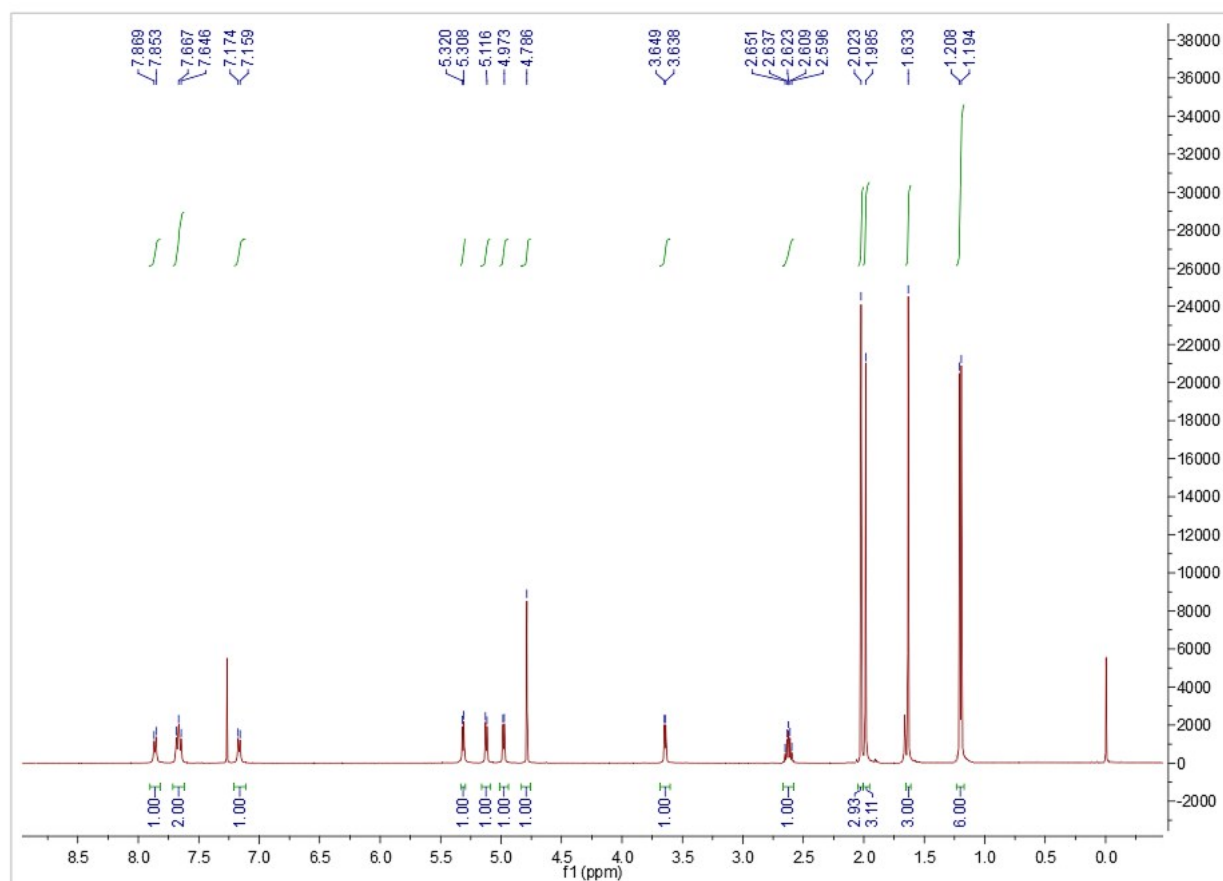
# <sup>1</sup>H NMR of complex 2



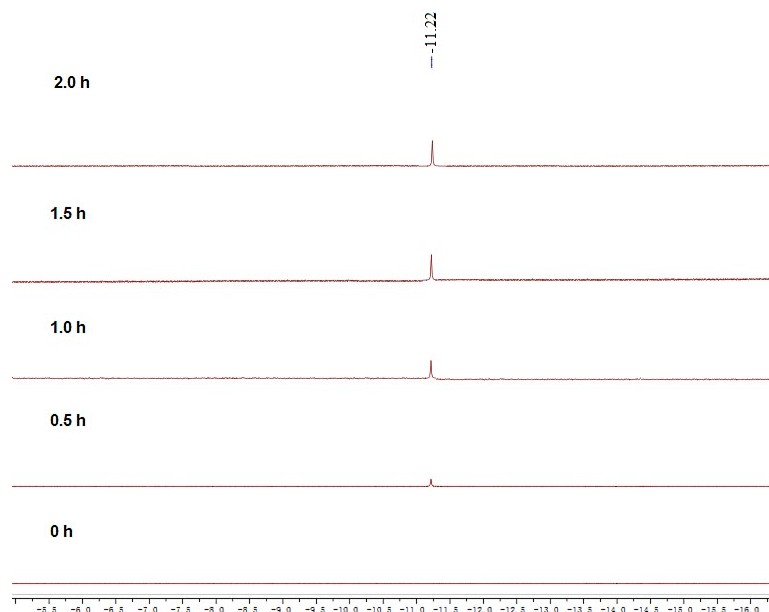
$^1\text{H}$  NMR of complex 3



$^1\text{H}$  NMR of complex 4



The NMR tube containing the solution of **1** (8.9 mg, 0.02 mmol) in dry C<sub>6</sub>D<sub>6</sub> (ca. 0.6 mL) was pressurized with H<sub>2</sub> (5 atm). NMR spectrum was recorded. A singlet at −11.22 ppm was exhibited in the <sup>1</sup>H NMR spectrum, which can be assigned to the Ru–H bond.



TGA curves of complexes 1–4

