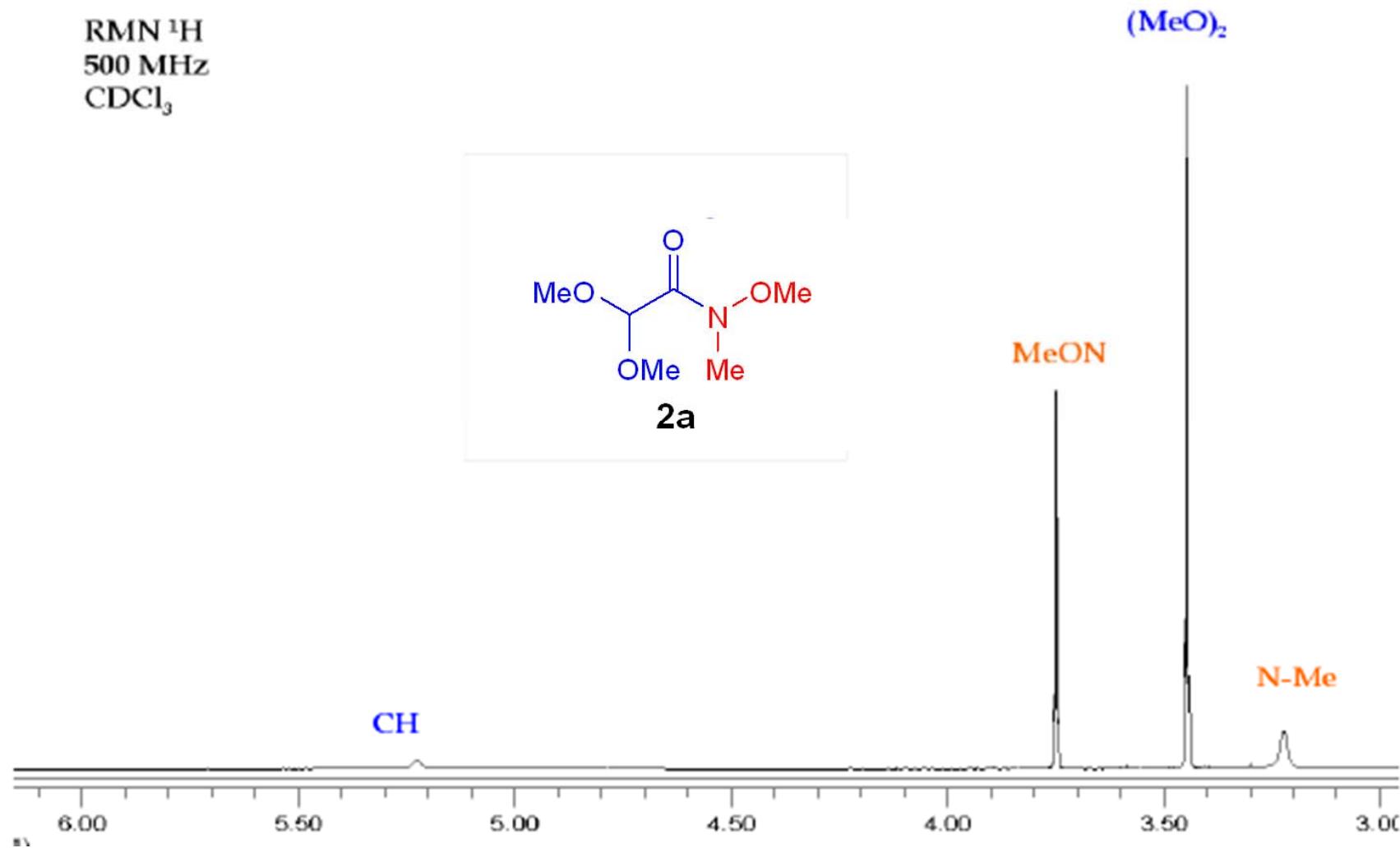


## Supplementary Information

Figure S1.  $^1\text{H}$ -NMR spectrum of Weinreb amide **2a**.



**Figure S2.**  $^{13}\text{C}$ -NMR spectrum of Weinreb amide **2a**.

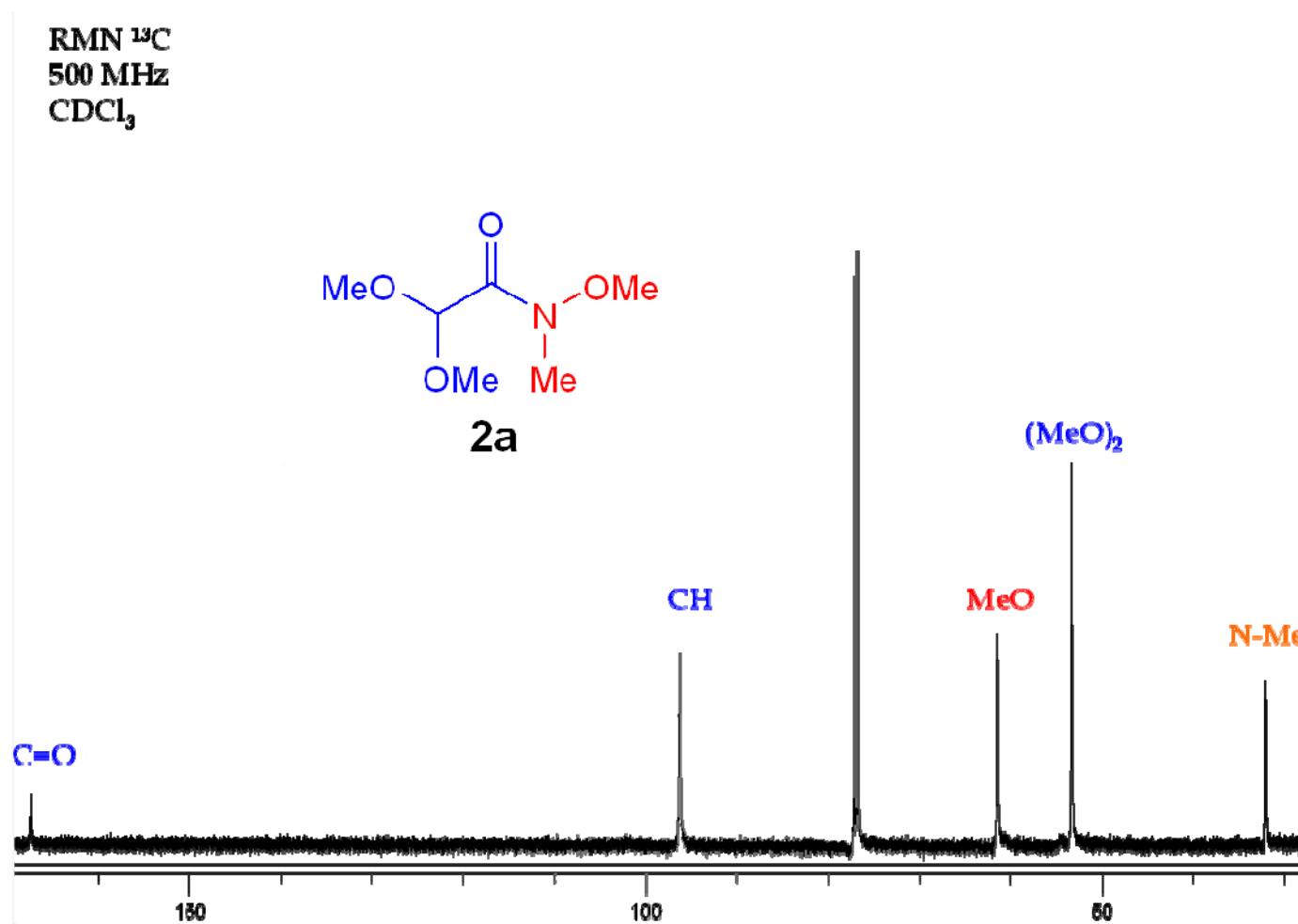


Figure S3. IR spectrum of Weinreb amide 2a.

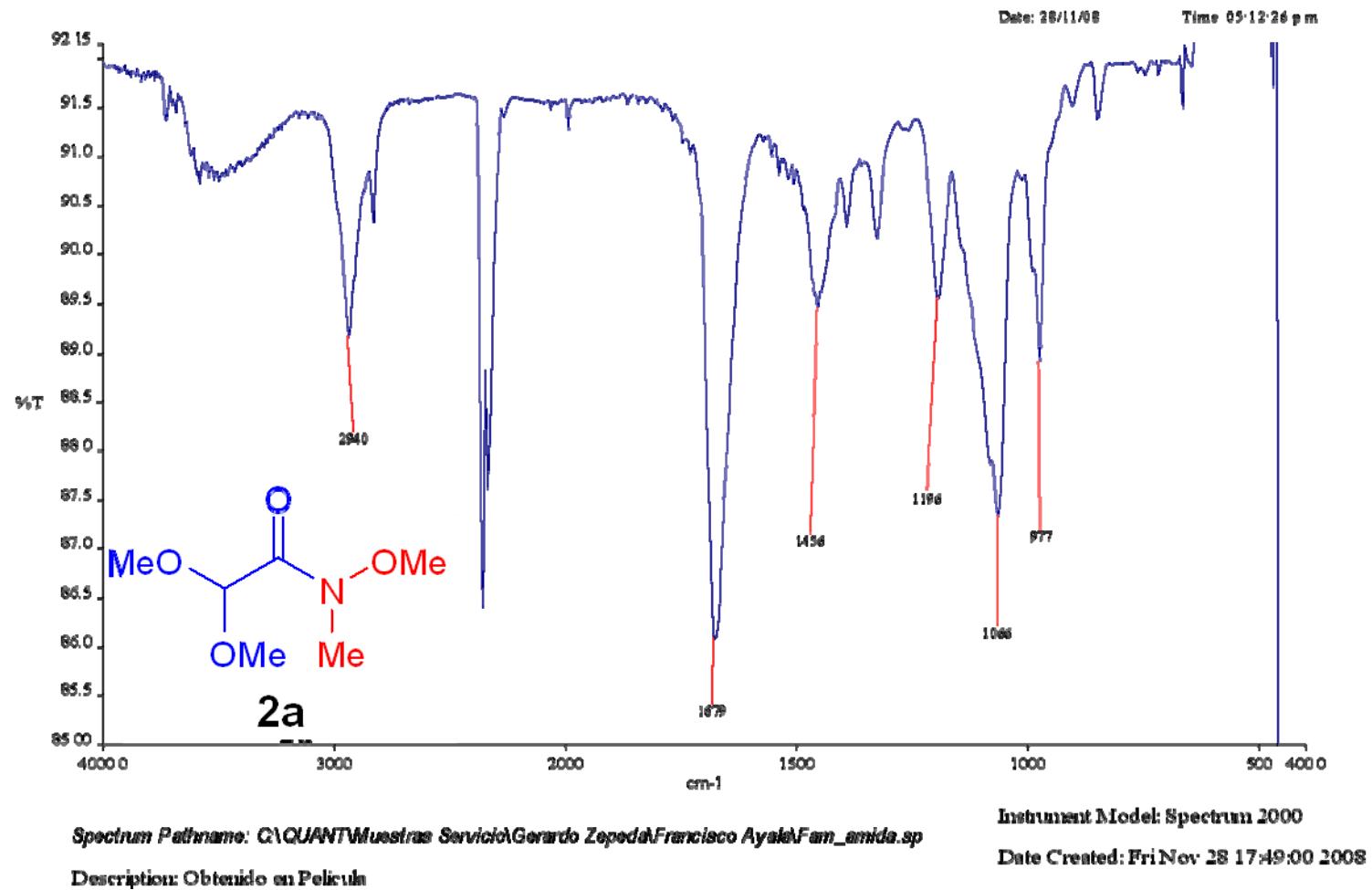
*Central de Instrumentación de Espectroscopía, ENOB - I PN.*

Figure S4. HR-EIMS spectrum of Weinreb amide **2a**.

*IPN*  
11/10/2010

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File: GZ-FAM-Amida Date Run: 09-22-2009 (Time Run: 13:18:51)

Sample: Description

Instrument: JEOL GCmate

Inlet: Direct Probe

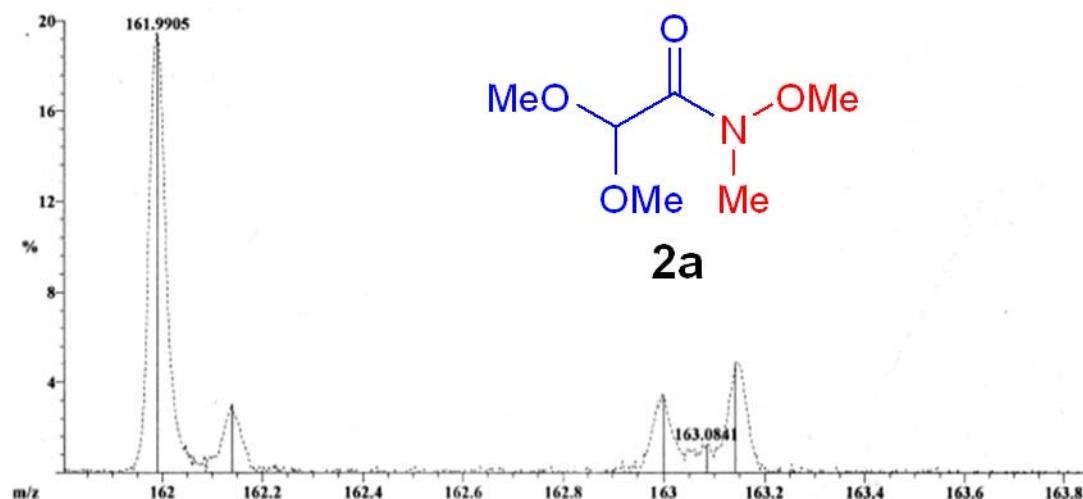
Ionization mode: EI+

Scan: 5-12

R.T.: .1

Base: m/z 169; 3%FS TIC: 715856

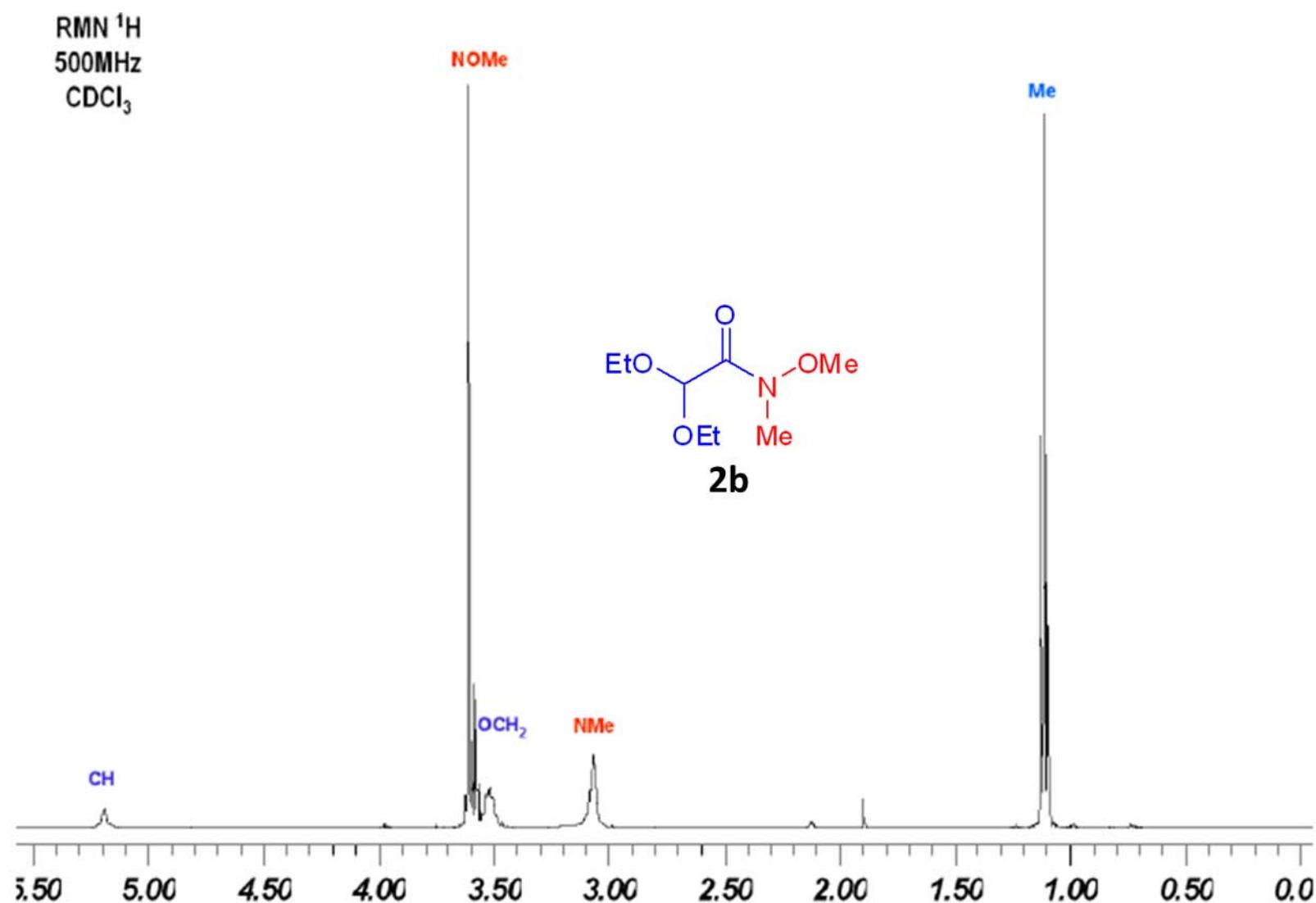
#Ions: 87

**2a**Selected Isotopes : C H N O<sub>4</sub>

Error Limit : 50 ppm

<u>Measured Mass</u>	<u>% Base</u>	<u>Formula</u>	<u>Calculated Mass</u>	<u>Error</u>
163.0841	1.3%	C <sub>6</sub> H <sub>13</sub> N O <sub>4</sub>	163.0845	-2.2

**Figure S5.**  $^1\text{H}$ -NMR spectrum of Weinreb amide **2b**.



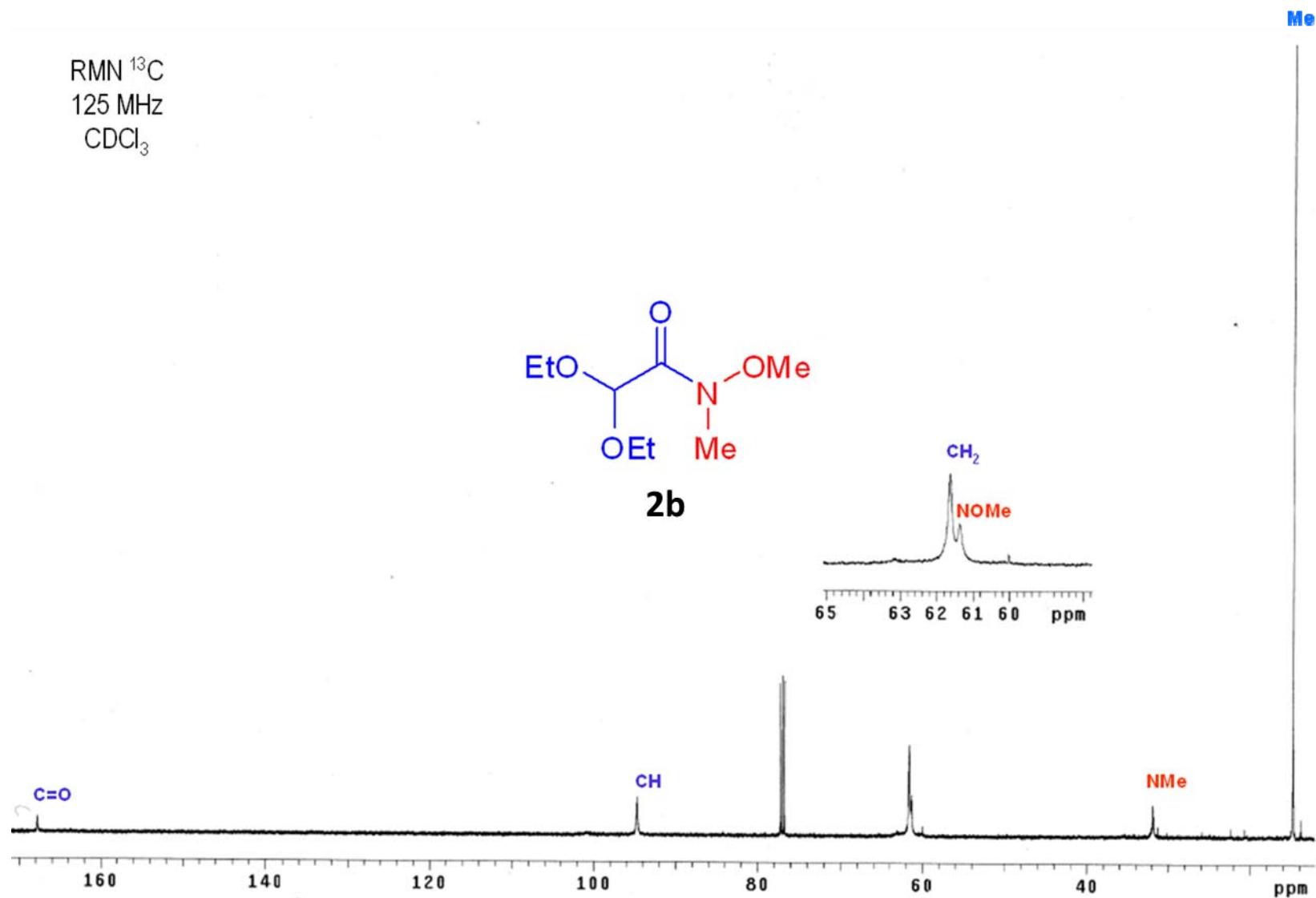
**Figure S6.**  $^{13}\text{C}$ -NMR spectrum of Weinreb amide **2b**.

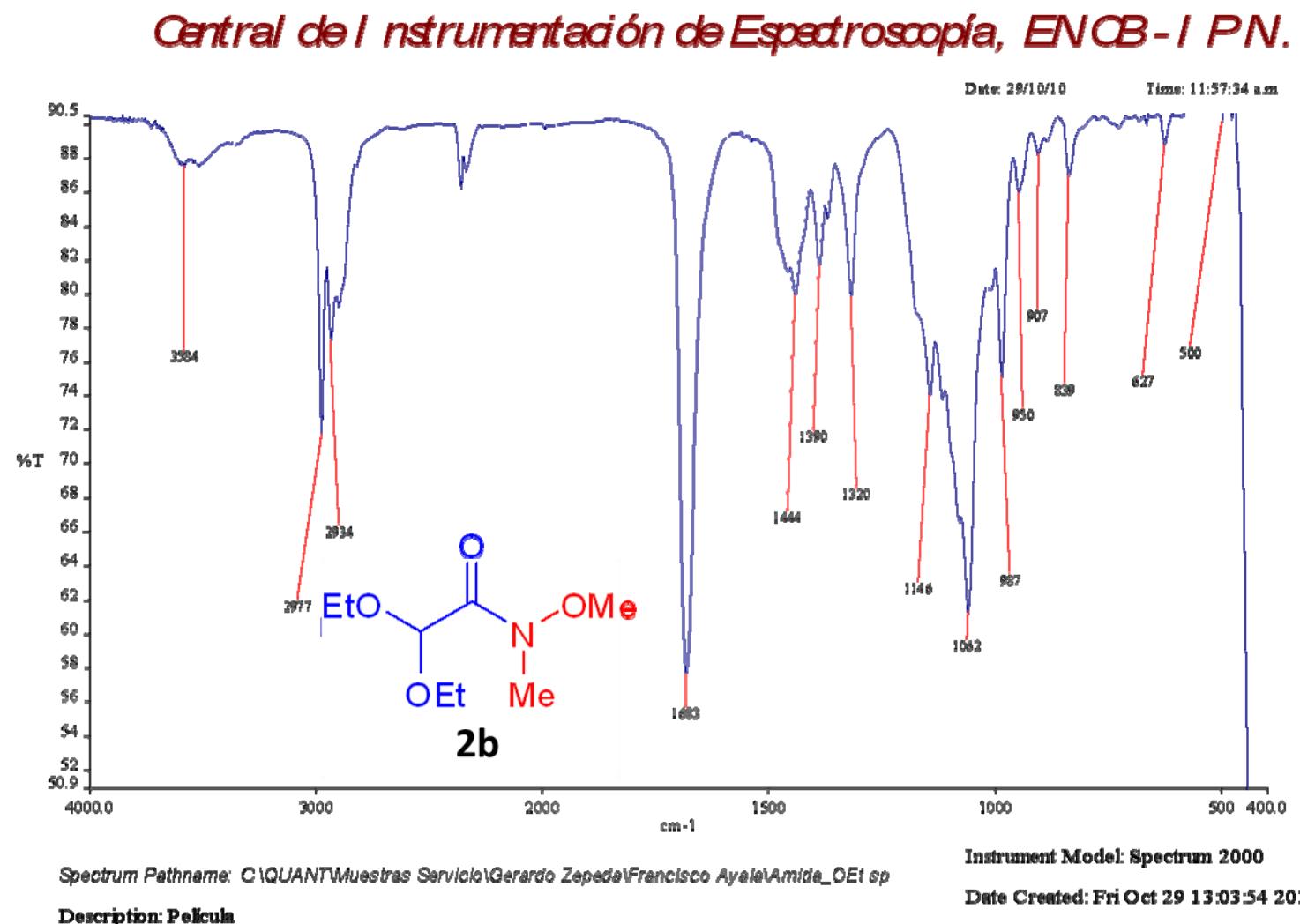
Figure S7. IR spectrum of Weinreb amide **2b**.

Figure S8. HR-EIMS spectrum of Weinreb amide **2b**.

*IPN*  
11/10/2010

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File: GZ\_FAM\_AMIDA\_ETODate Run: 10-06-2010 (Time Run: 11:25:14)

Sample: Amida weinreb etoxilo

Instrument: JEOL GCmate

Inlet: Direct Probe

Ionization mode: EI+

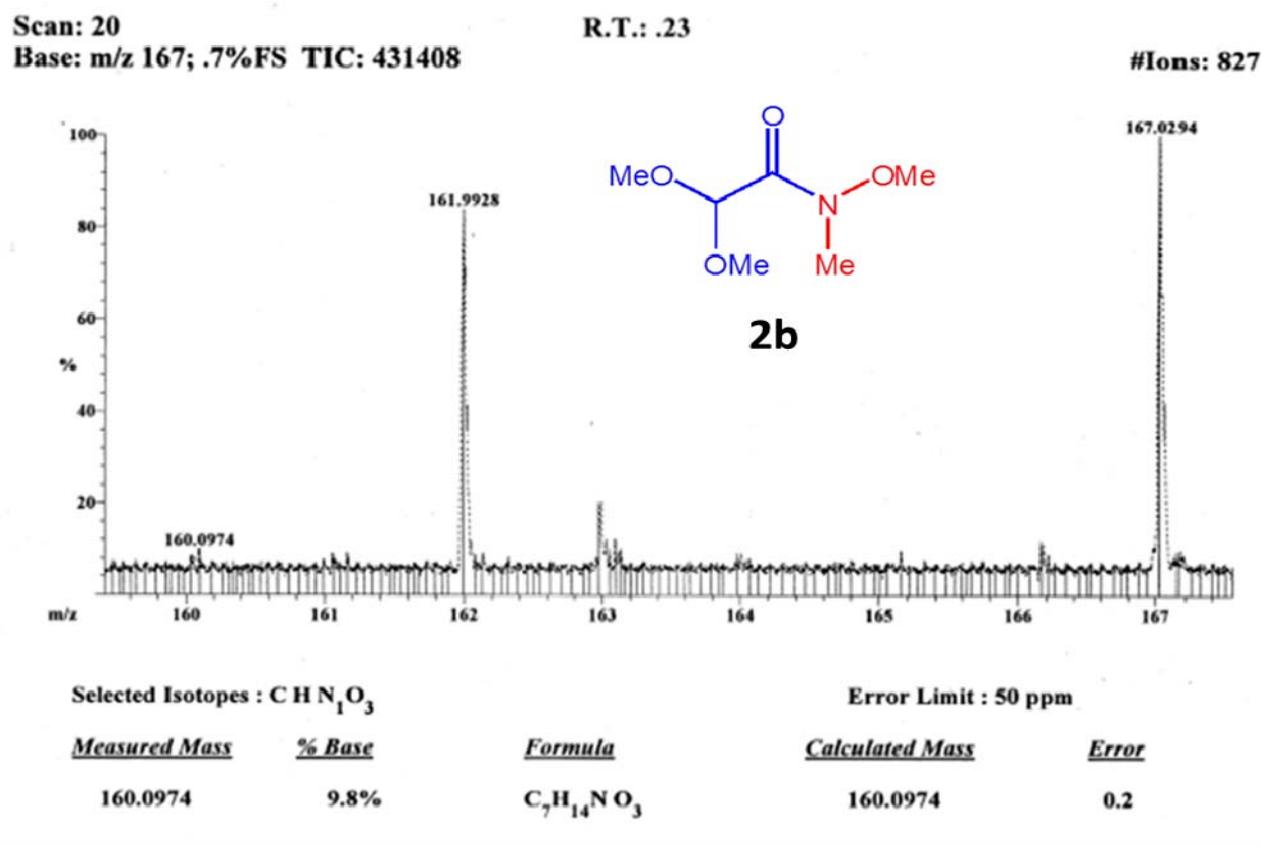
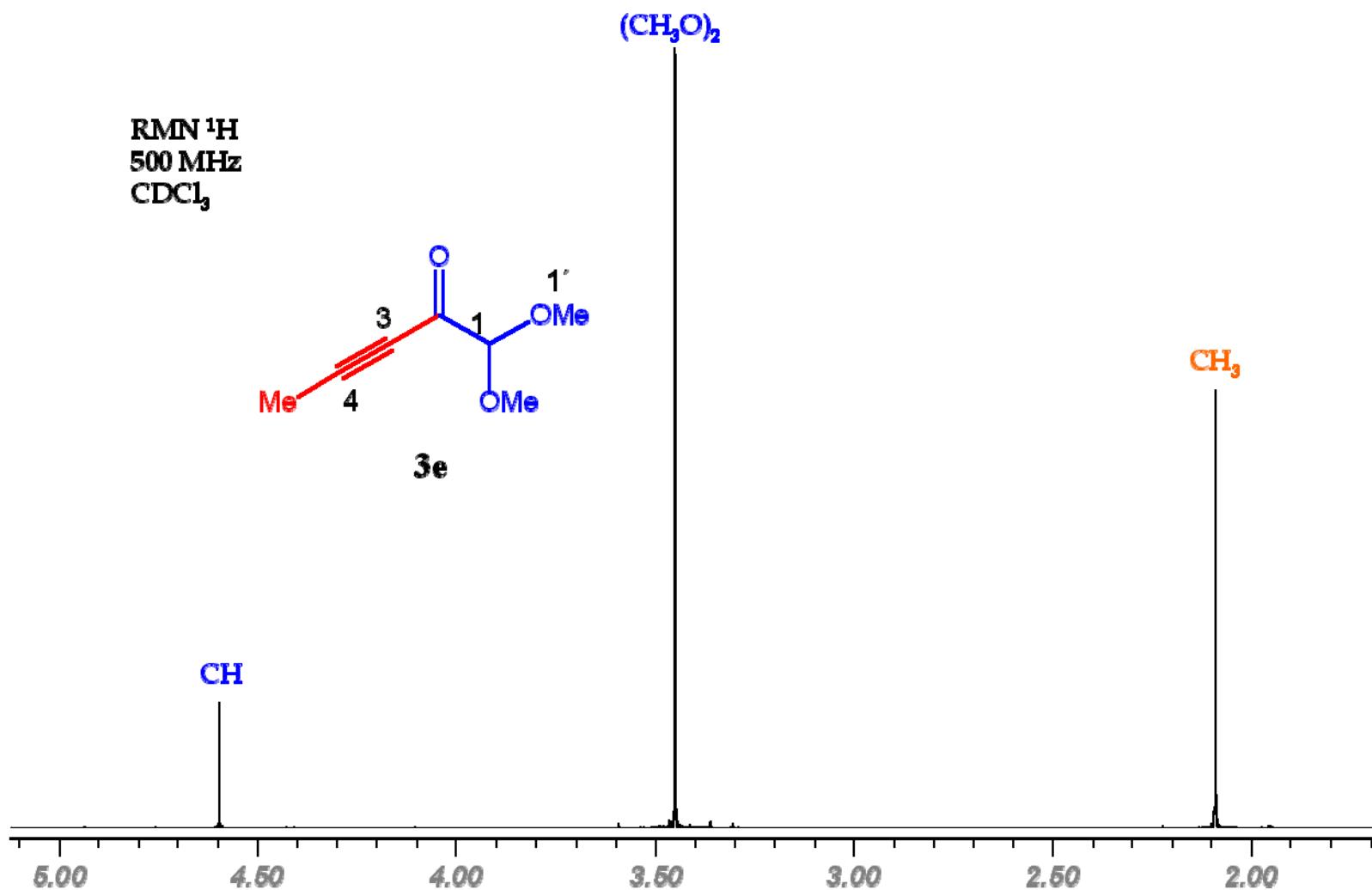


Figure S9.  $^1\text{H}$ -NMR spectrum of  $\alpha$ -ketoacetal **3e**.



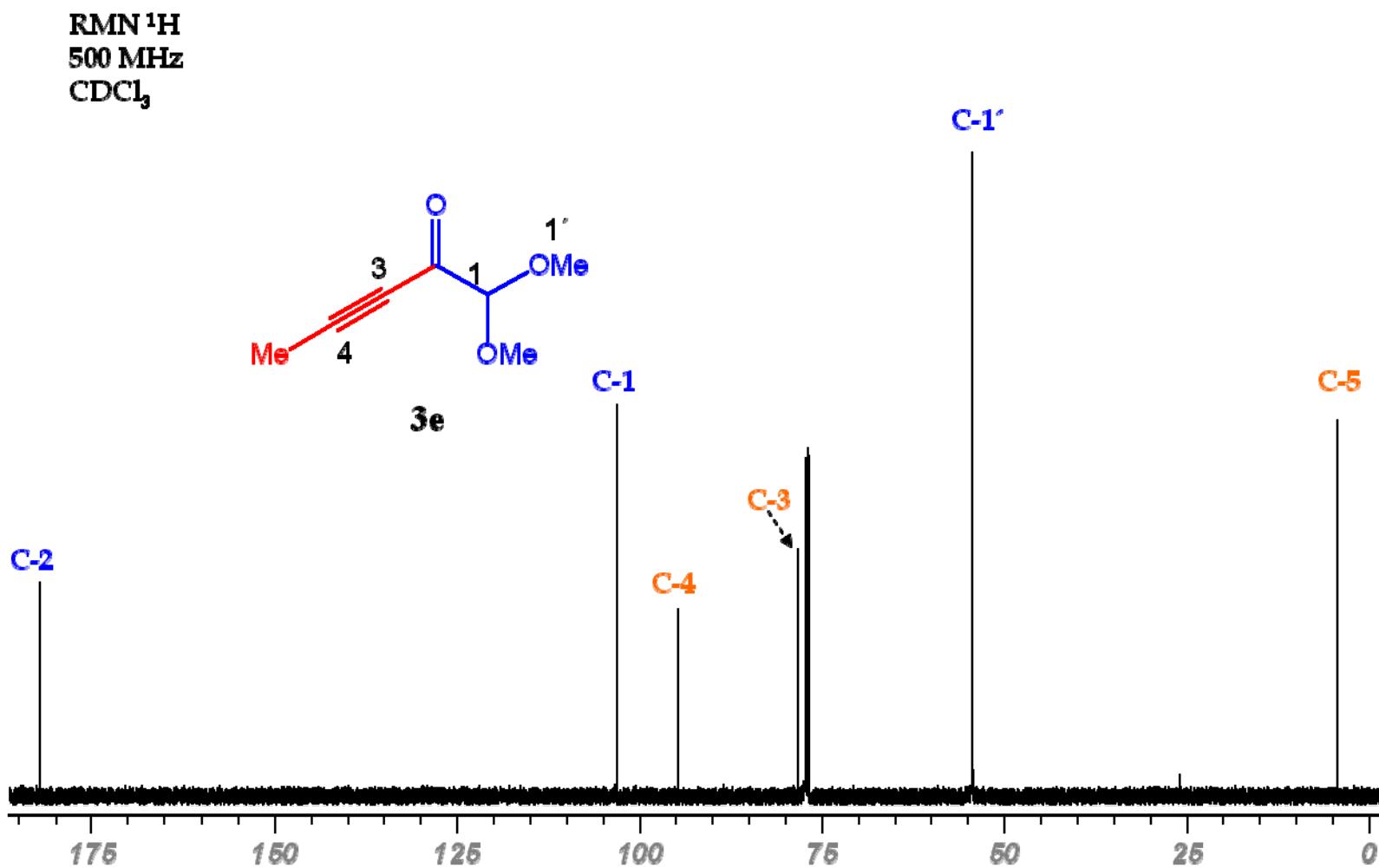
**Figure S10.**  $^{13}\text{C}$ -NMR spectrum of  $\alpha$ -ketoacetal **3e**.

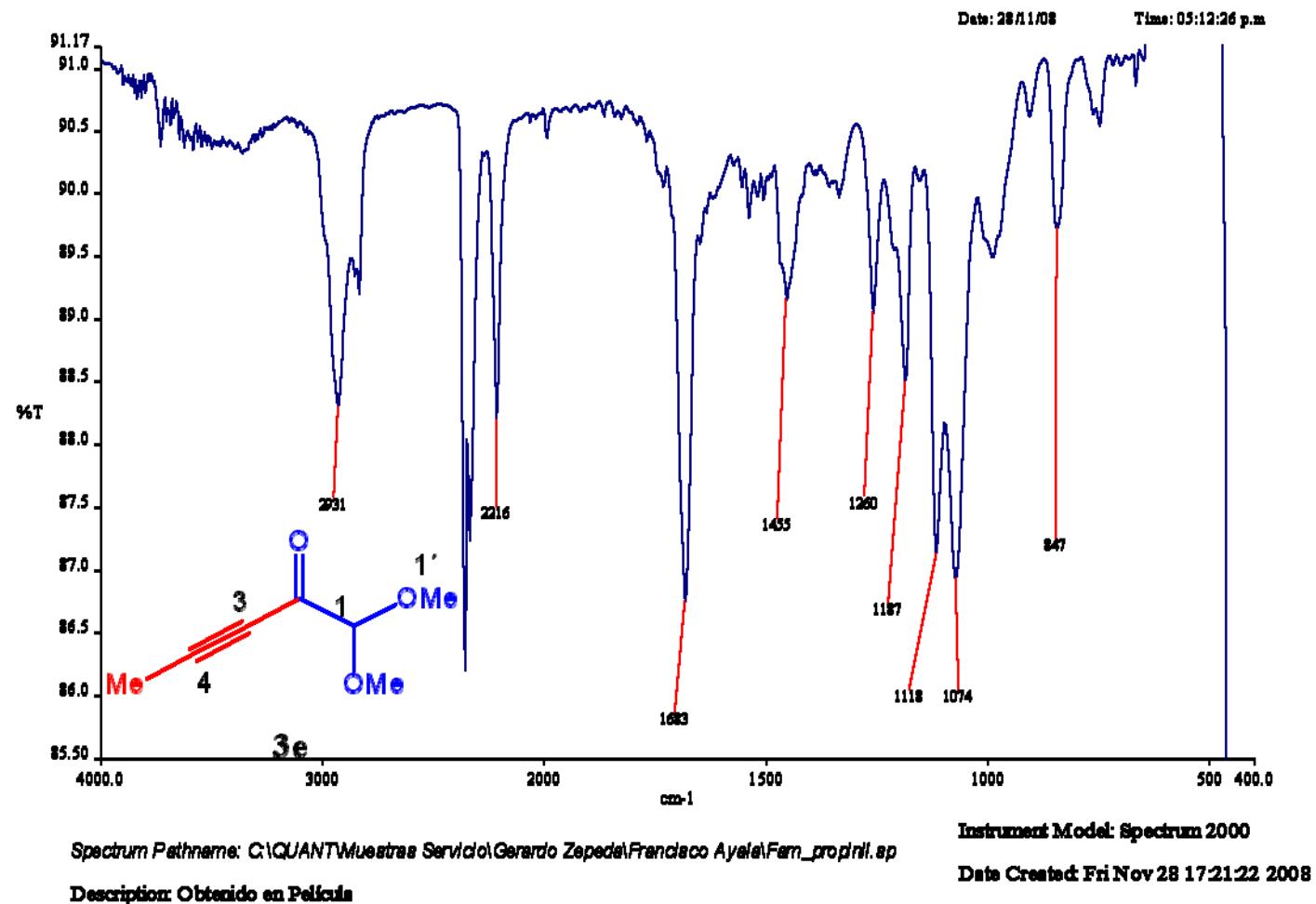
Figure S11. IR spectrum of  $\alpha$ -ketoacetal 3e.*Central de Instrumentación de Espectroscopía, ENOB - I PN.*

Figure S12. HR-EIMS spectrum of  $\alpha$ -ketoacetal 3e.IPN  
1/12/2009

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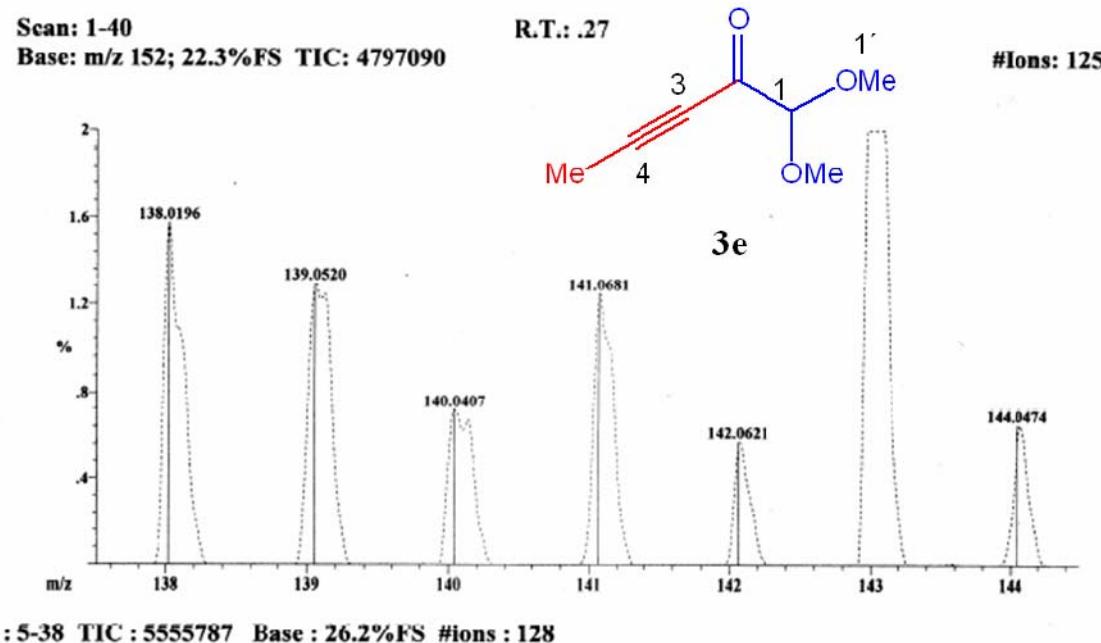
File: Coco\_propinil\_142 Date Run: 01-12-2009 (Time Run: 18:53:23)

Sample: pm 142, propinil

Instrument: JEOL GCmate

Inlet: Direct Probe

Ionization mode: EI+

Selected Isotopes : H<sub>0-12</sub> C<sub>0-9</sub> O<sub>0-4</sub>

Error Limit : 1 mmu

Measured Mass% BaseFormulaCalculated MassError

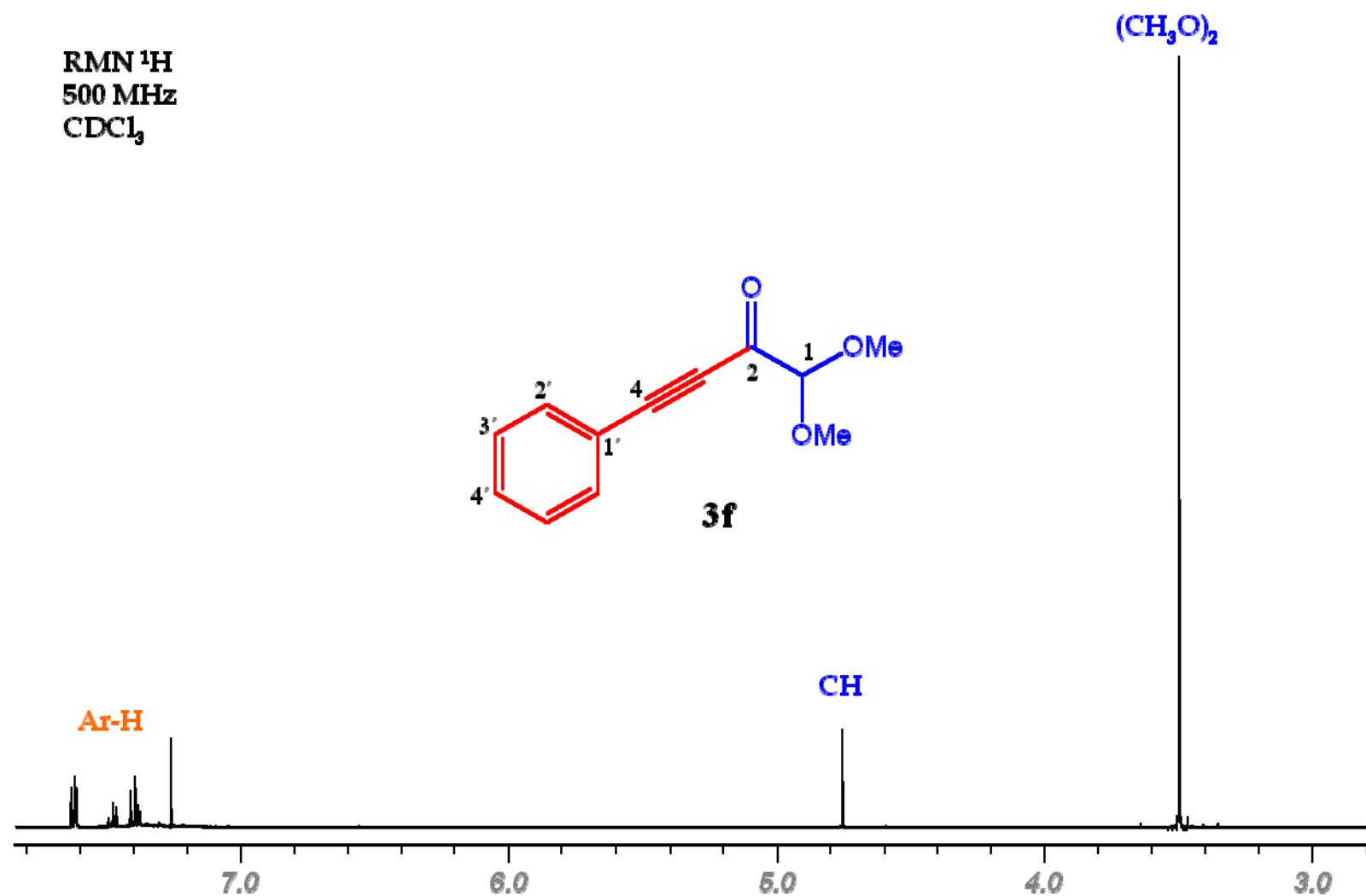
142.0621

0.6%

C<sub>7</sub>H<sub>10</sub>O<sub>3</sub>

142.0630

-0.9

**Figure S13.**  $^1\text{H}$  NMR spectrum of  $\alpha$ -ketoacetal **3f**.

**Figure S14.**  $^{13}\text{C}$ -NMR spectrum of  $\alpha$ -ketoacetal **3f**.

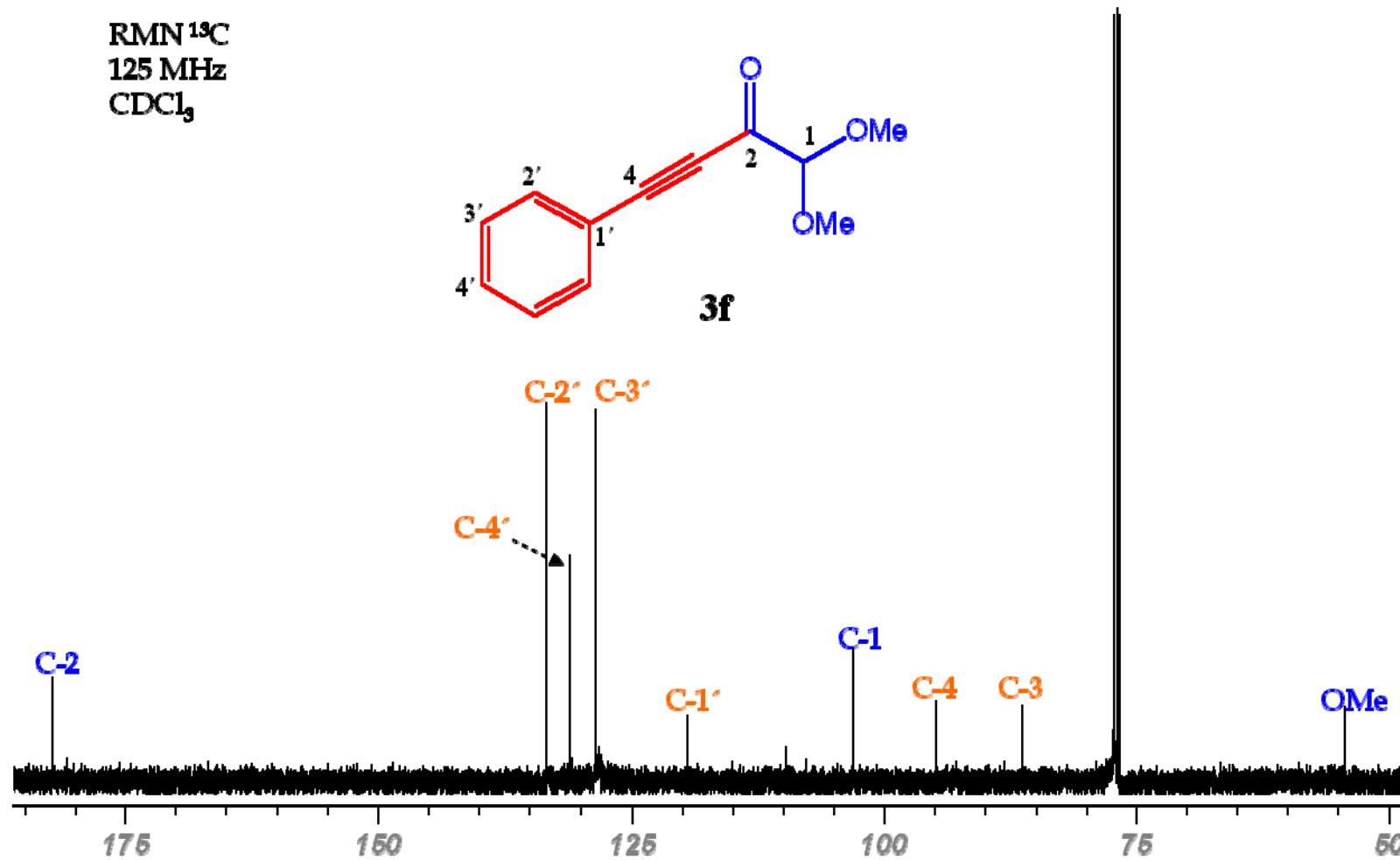
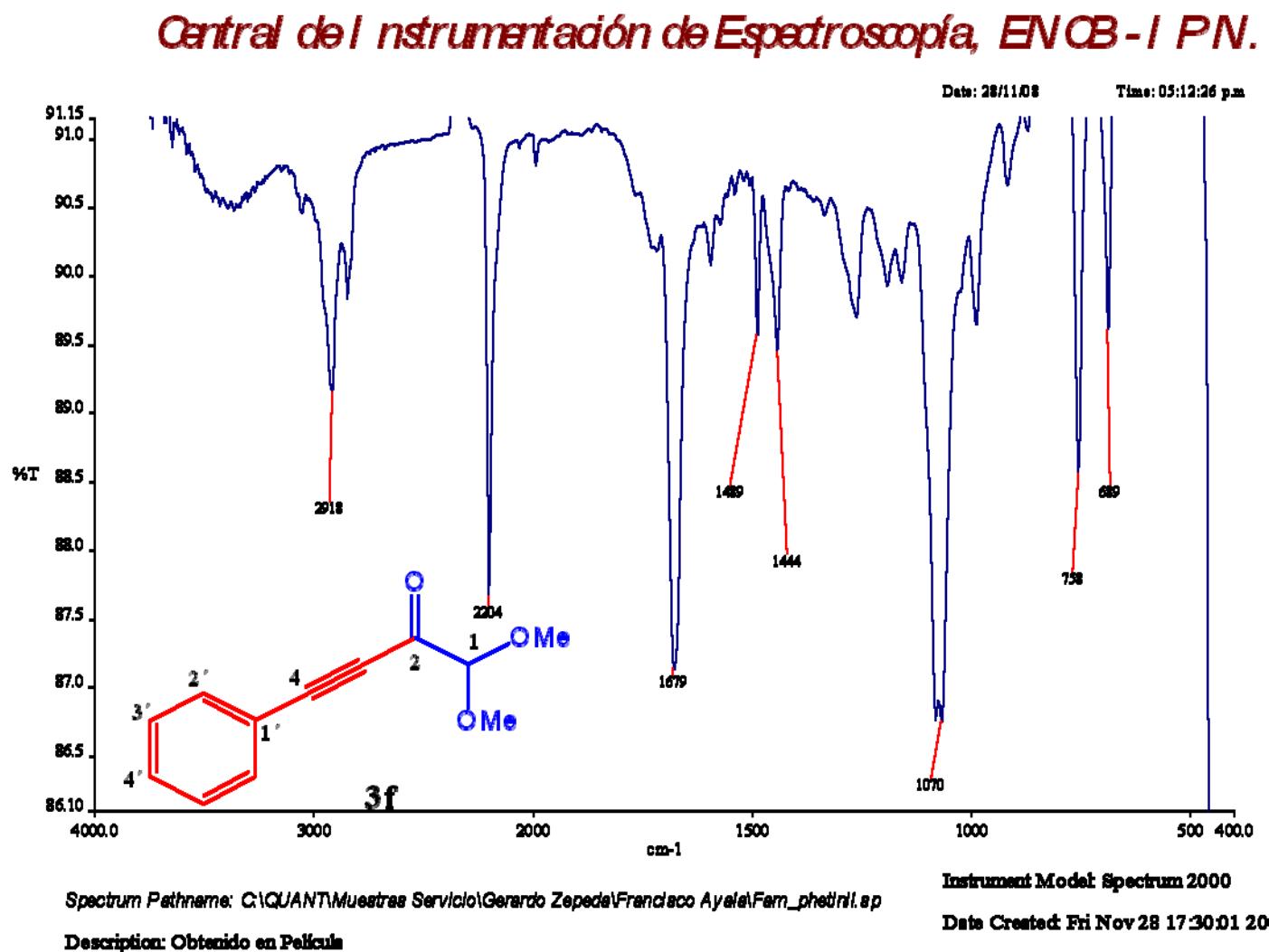
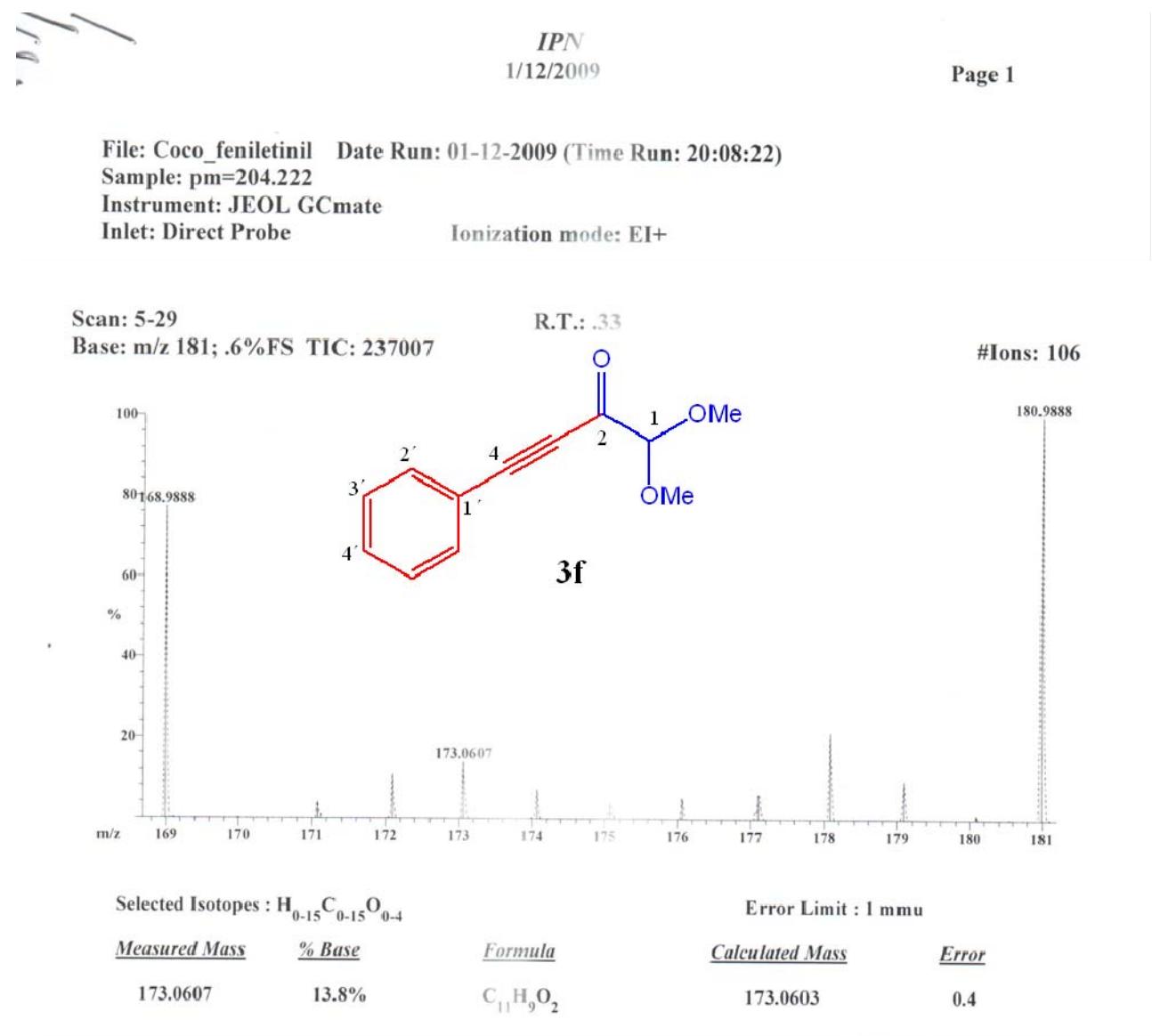
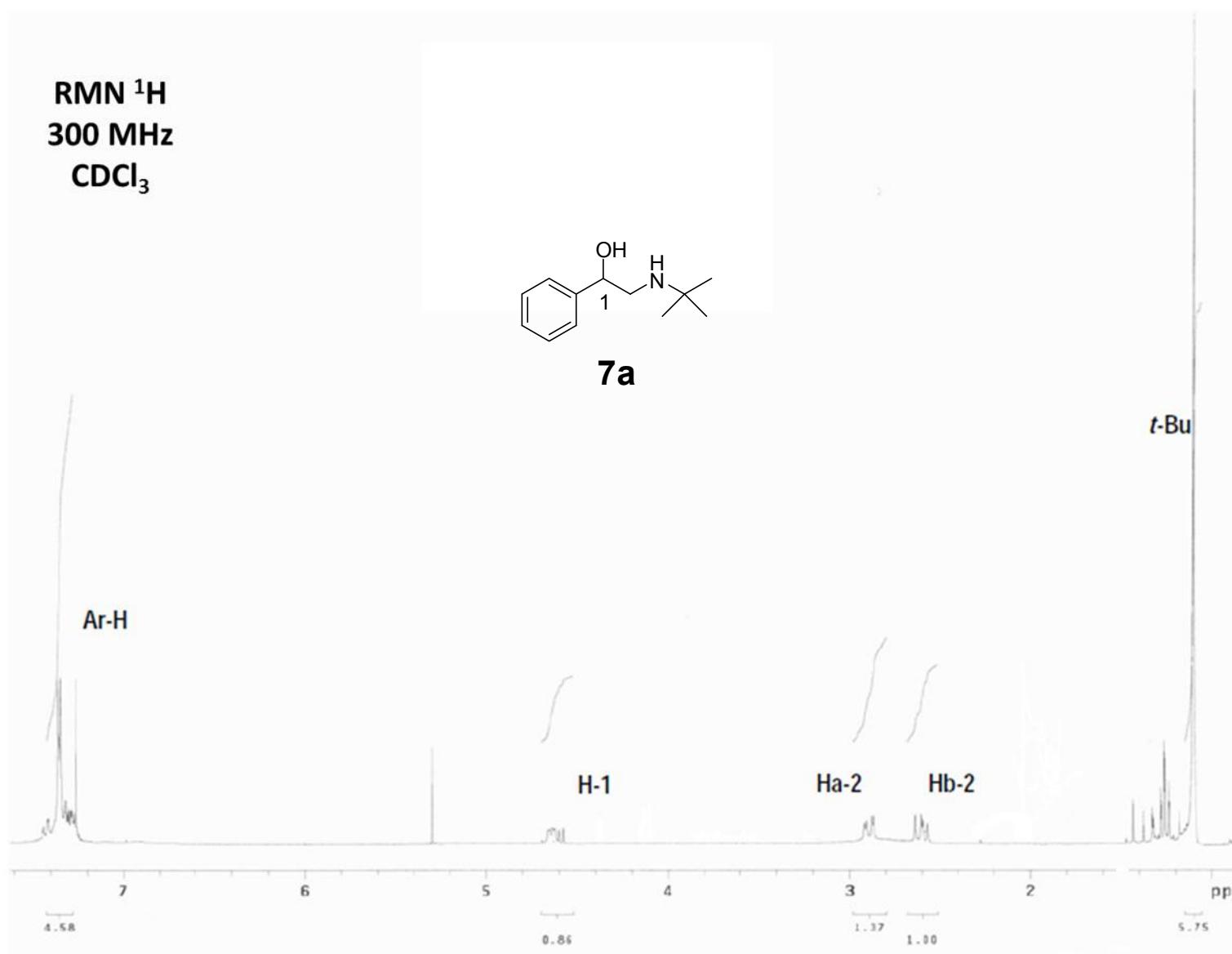
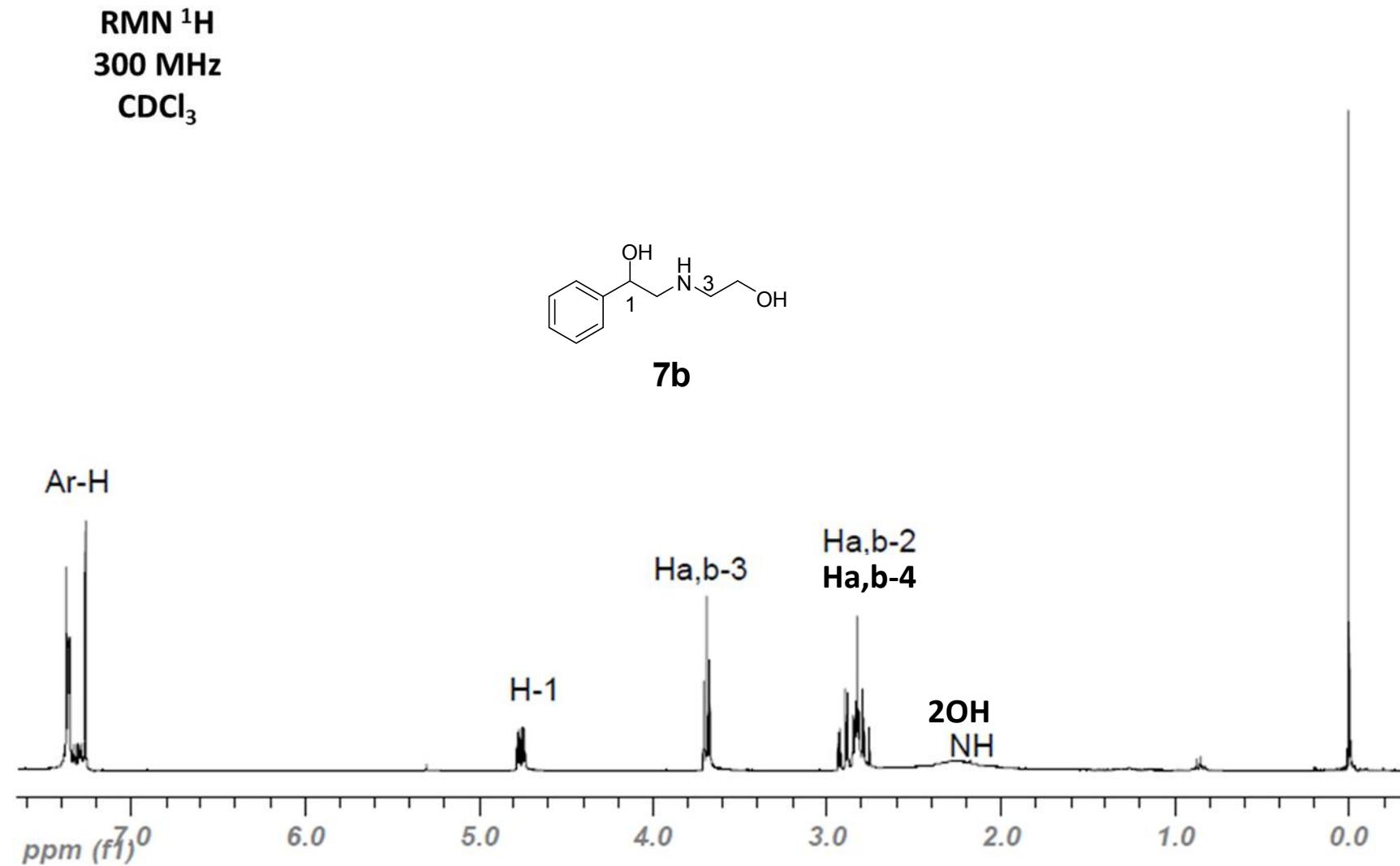


Figure S15. IR spectrum of  $\alpha$ -ketoacetal 3f.

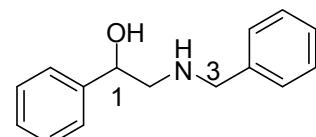
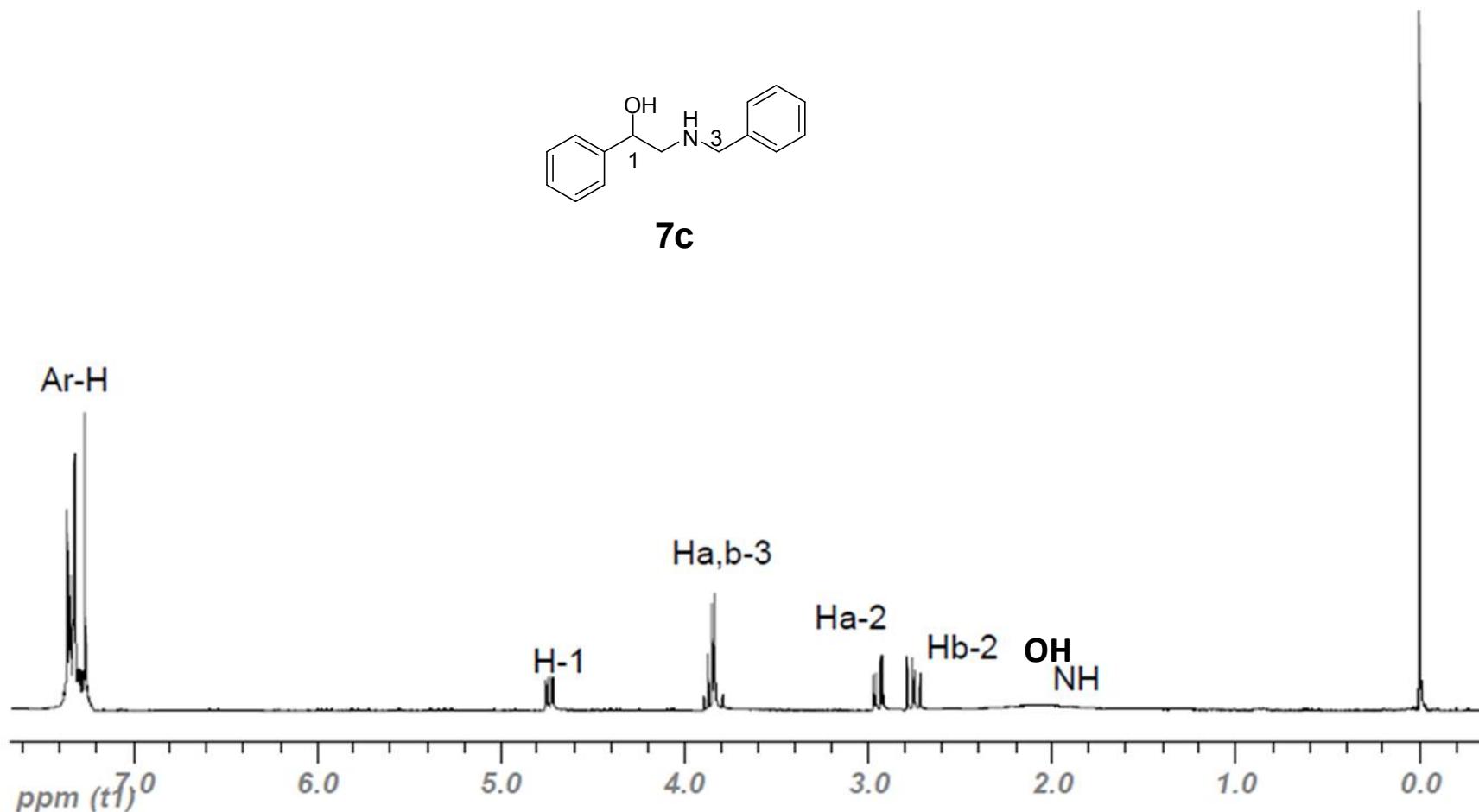
**Figure S16.** HR-EIMS spectrum of  $\alpha$ -ketoacetal **3f**.

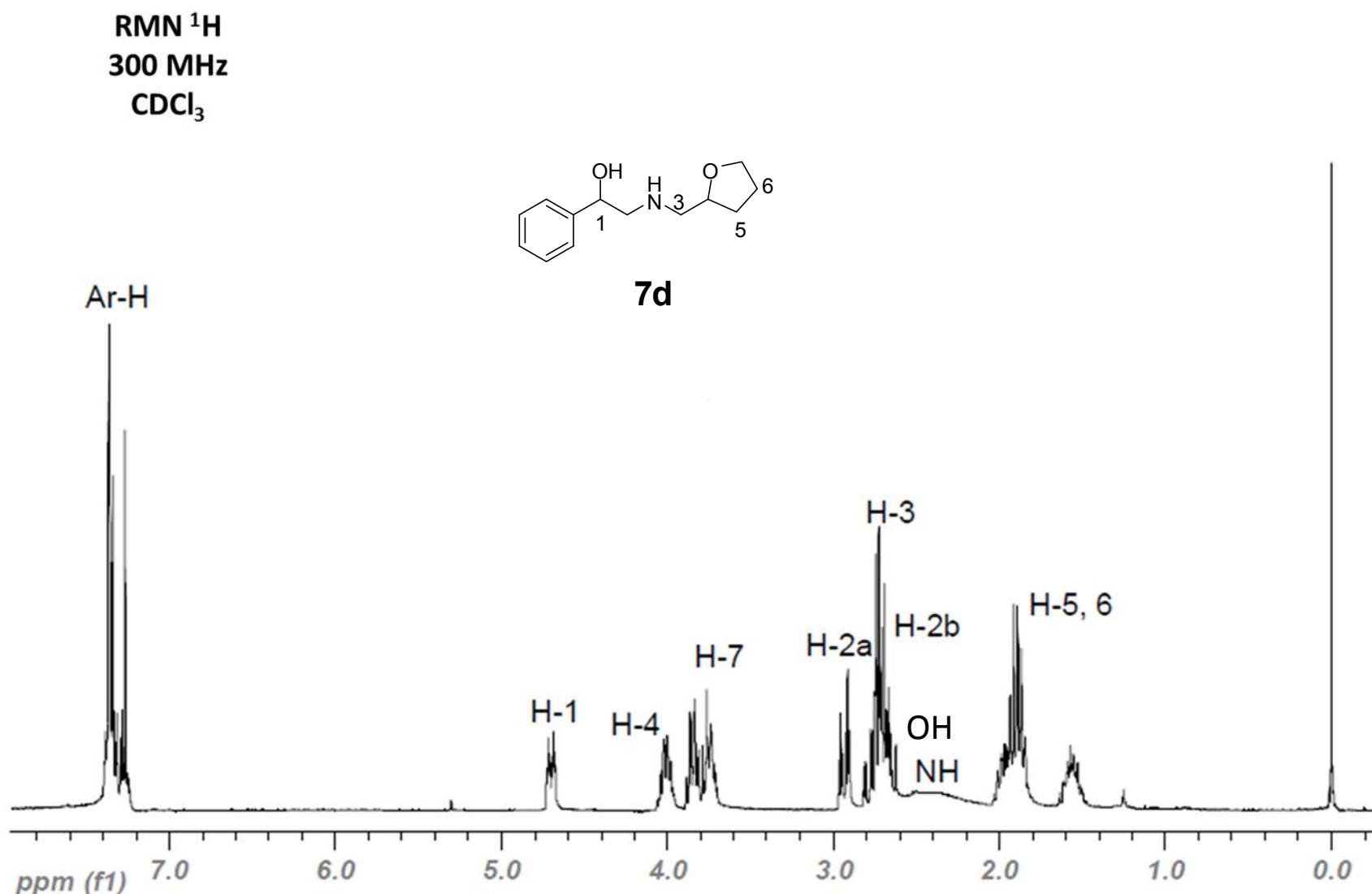
**Figure S17.**  $^1\text{H}$ -NMR spectrum of  $\alpha$ -aminoalcohol **7a**.

**Figure S18.**  $^1\text{H}$ -NMR spectrum of  $\alpha$ -aminoalcohol **7b**.

**Figure S19.**  $^1\text{H}$  NMR spectrum of  $\alpha$ -aminoalcohol **7c**.

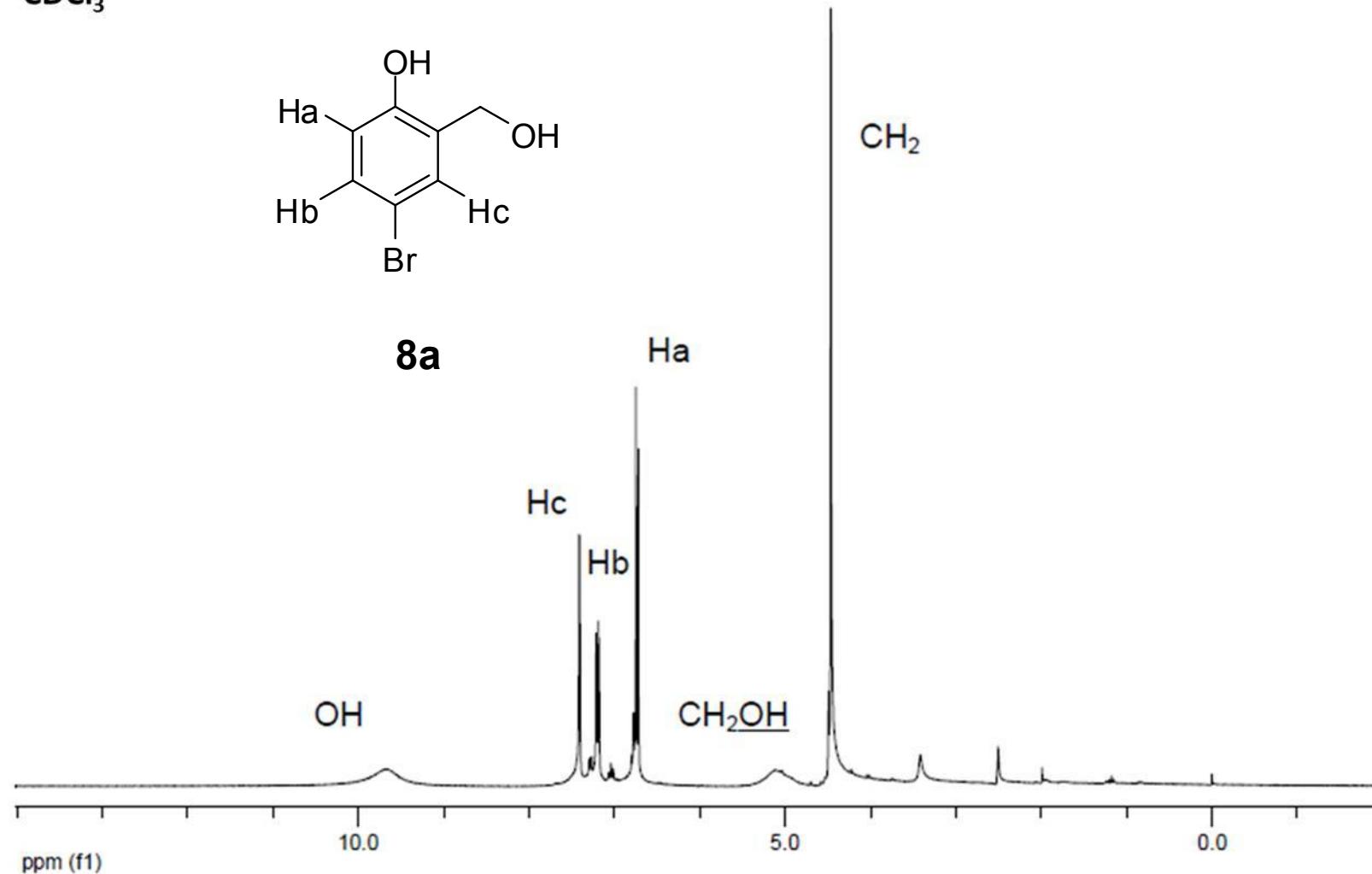
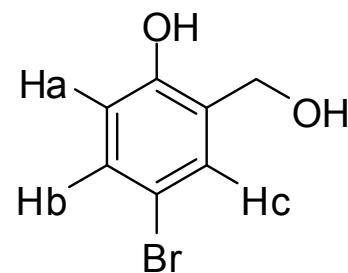
RMN  $^1\text{H}$   
300 MHz  
 $\text{CDCl}_3$

**7c**

**Figure S20.**  $^1\text{H}$ -NMR spectrum of  $\alpha$ -aminoalcohol **7d**.

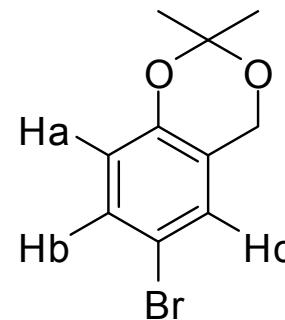
**Figure S21.**  $^1\text{H}$ -NMR spectrum of bromo-2-(hydroxymethyl)phenol **8a**.

**RMN  $^1\text{H}$**   
**300 MHz**  
 **$\text{CDCl}_3$**

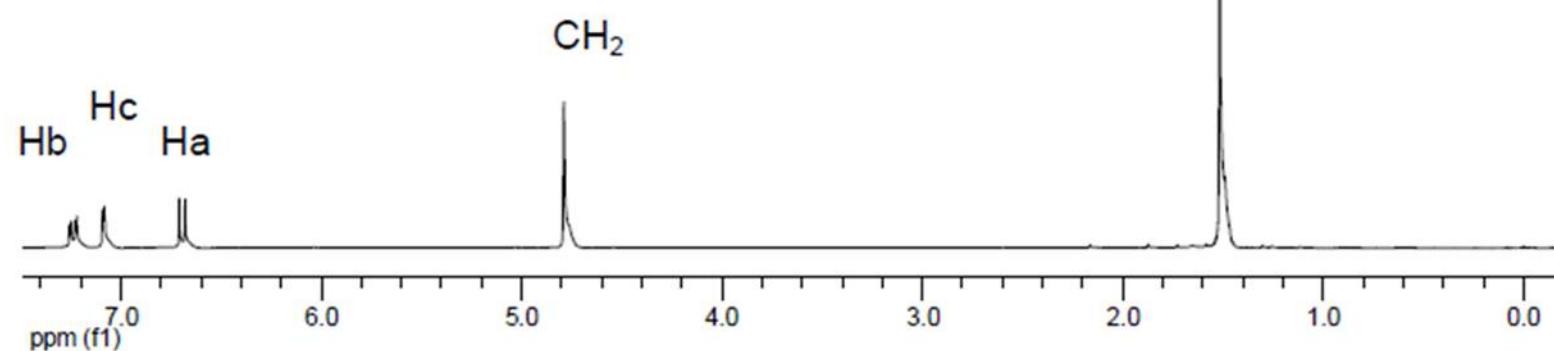


**Figure S22.**  $^1\text{H}$ -NMR spectrum of benzodioxane **9**.

RMN  $^1\text{H}$   
300 MHz  
 $\text{CDCl}_3$

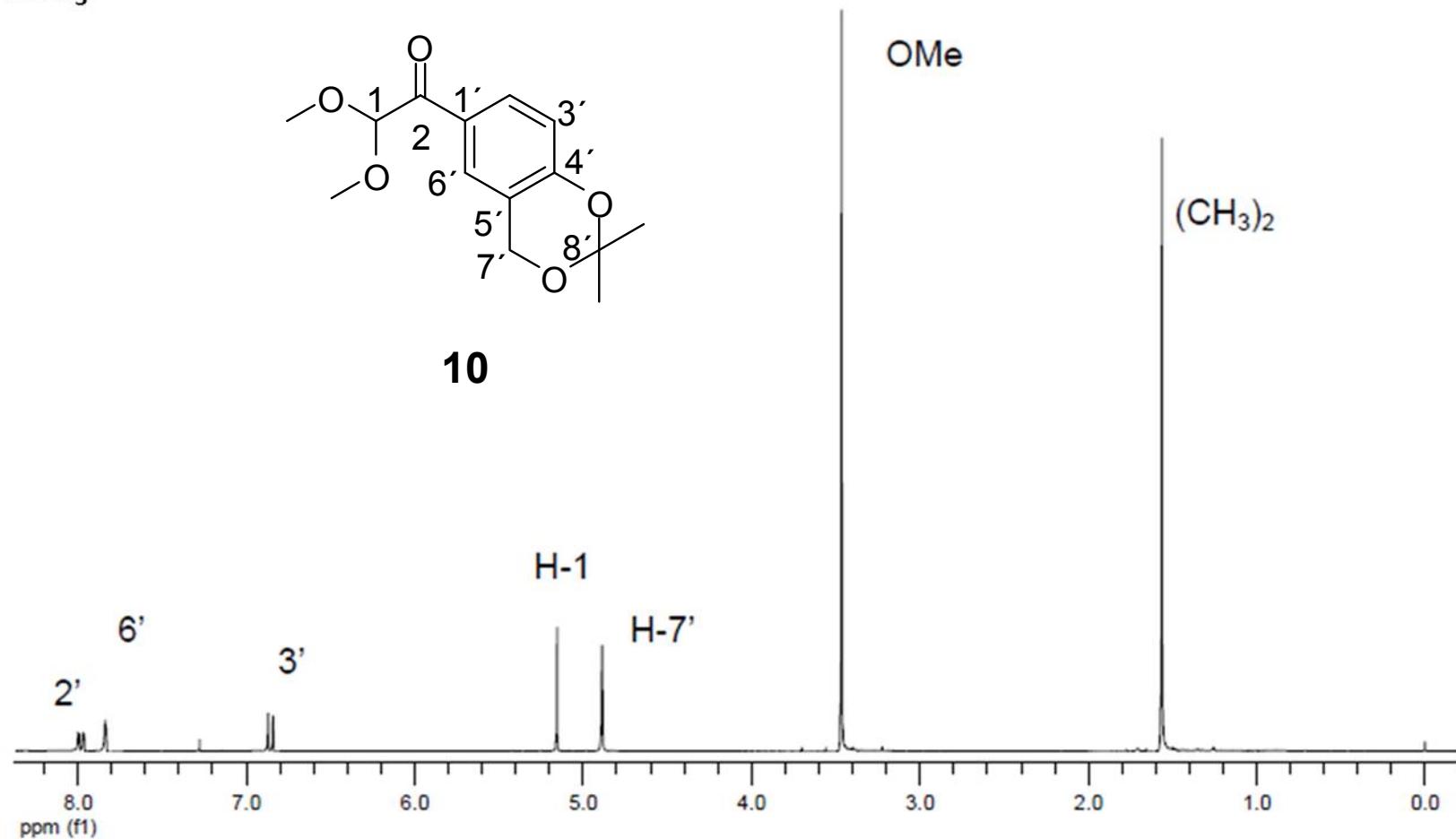


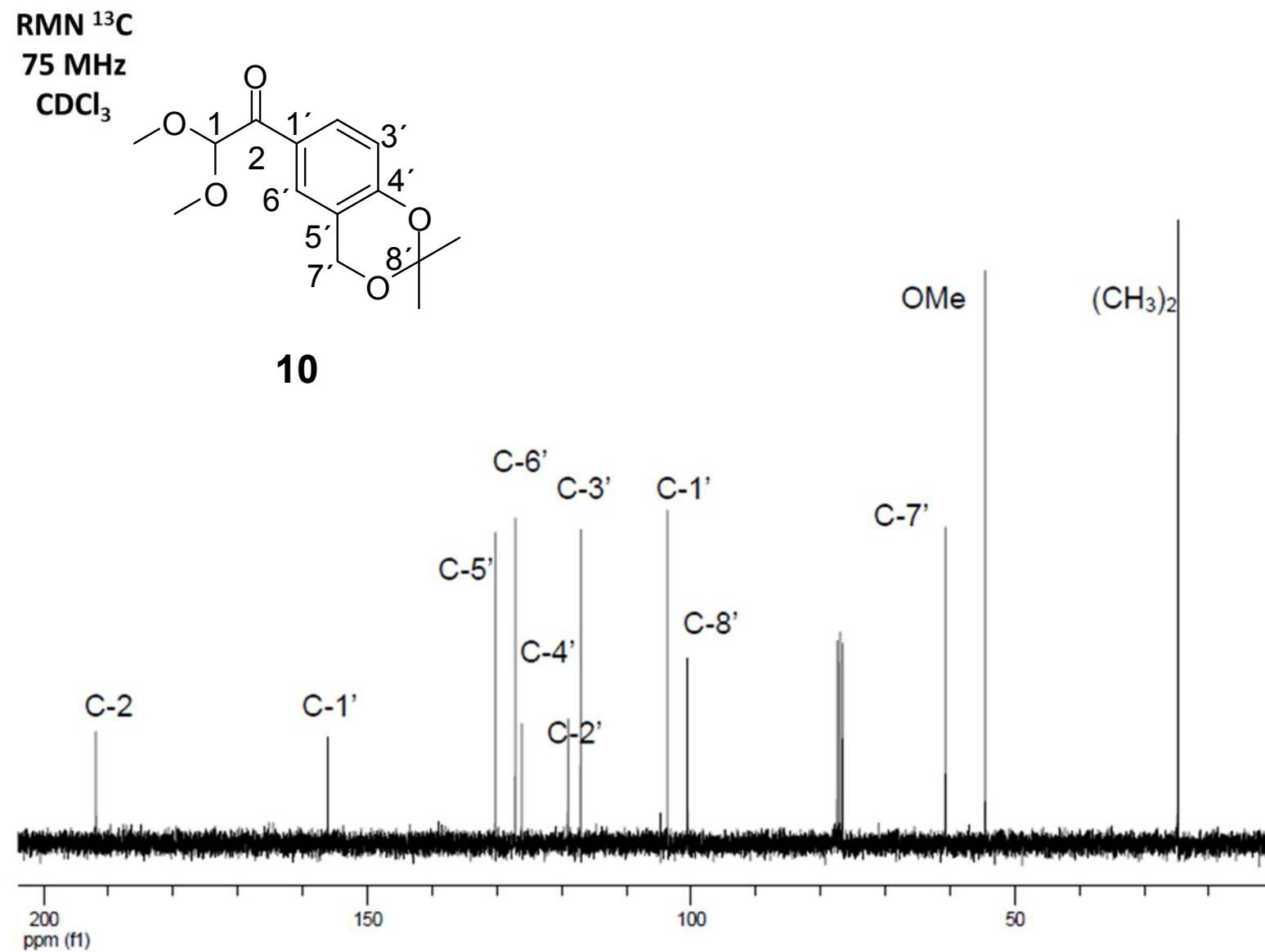
**9**



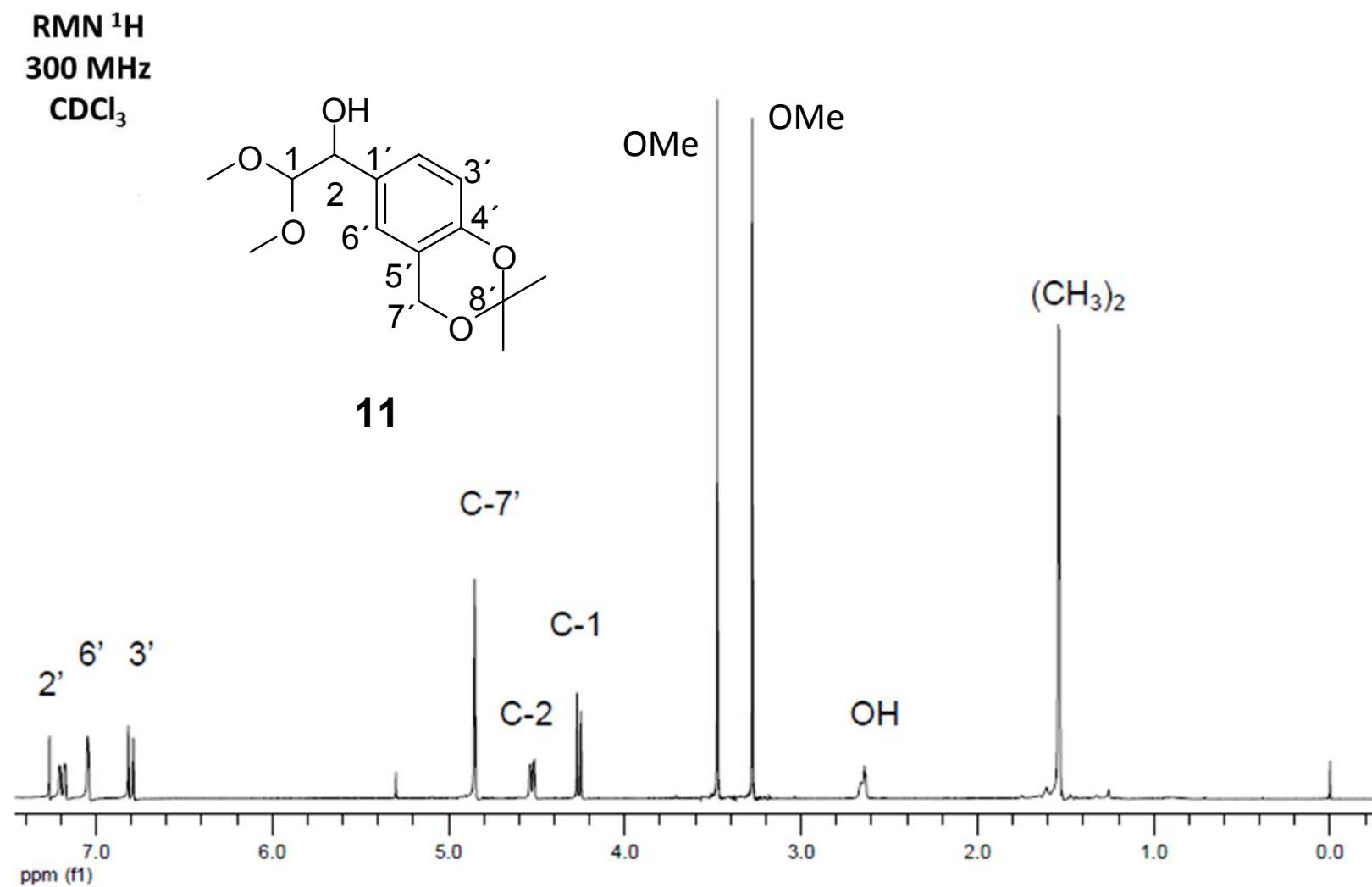
**Figure S23.**  $^1\text{H}$ -NMR spectrum of  $\alpha$ -ketoacetal **10**.

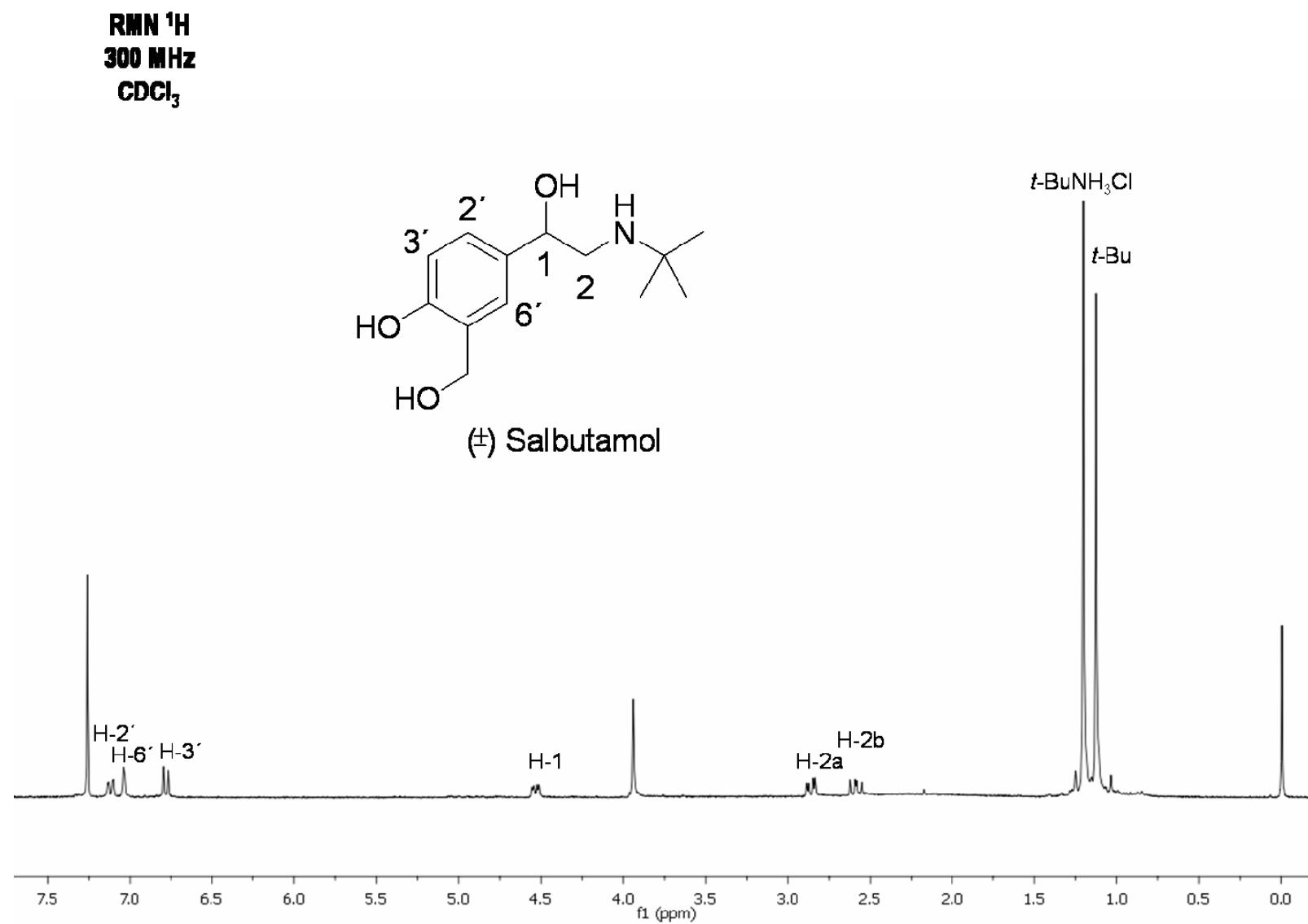
**RMN  $^1\text{H}$**   
**300 MHz**  
 **$\text{CDCl}_3$**



**Figure S24.**  $^{13}\text{C}$ -NMR spectrum of  $\alpha$ -ketoacetal **10**.

**Figure S25.**  $^{13}\text{H}$ -NMR spectrum of  $\alpha$ -hydroxyacetal **11**.



**Figure S26.**  $^1\text{H}$ -NMR spectrum of *rac*-salbutamol.

**Figure S27.**  $^{13}\text{C}$ -NMR spectrum of *rac*-salbutamol.