

***Supporting Information  
For***

***Synthesis of 10-Methoxydiamantan-3-one***

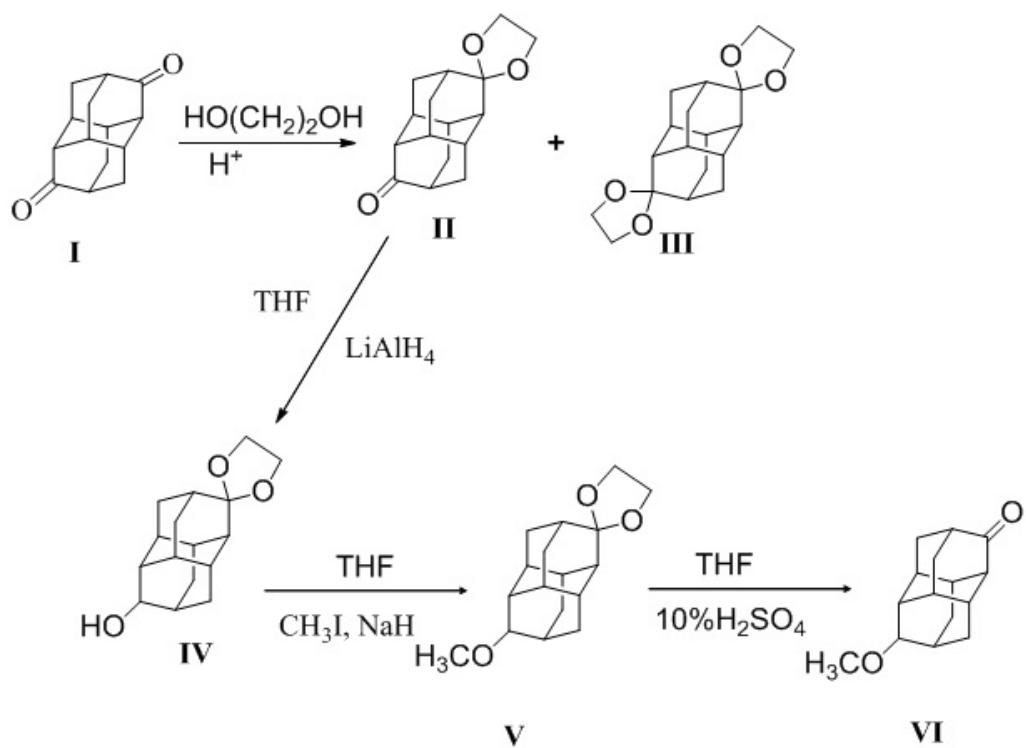
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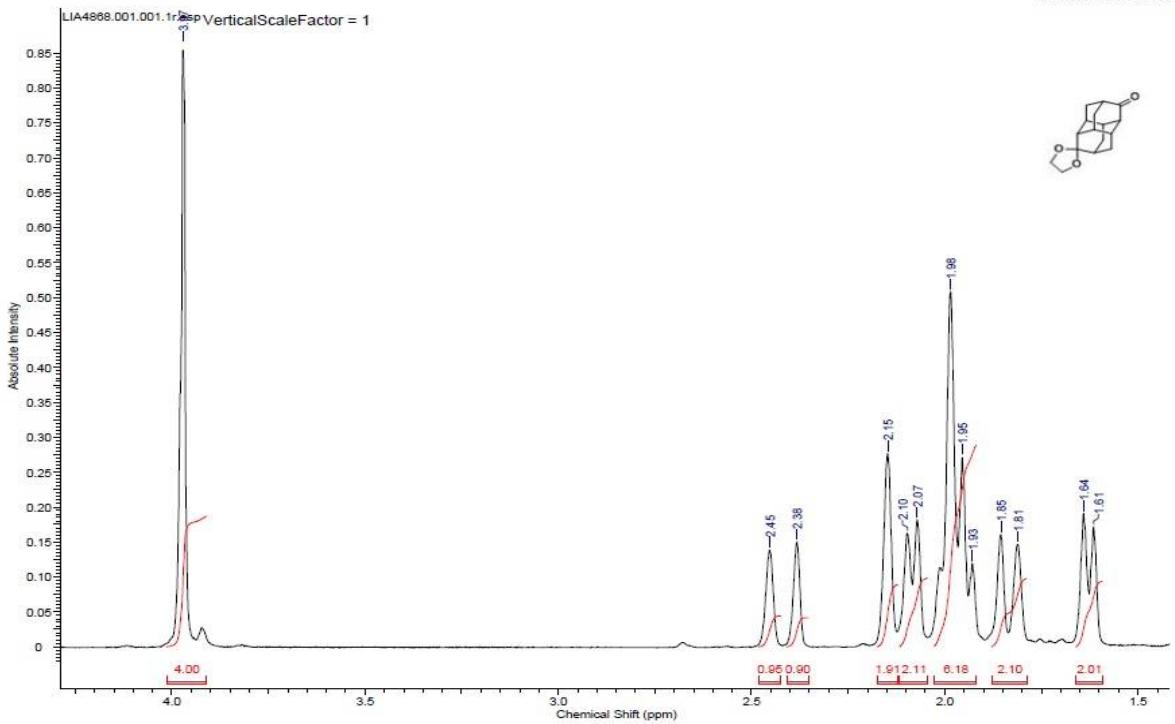
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Table of content	Page
<b>Scheme 1:</b> Sythesis of 10-Methoxydiamantan-3-one	3
<b>Figure S1.</b> $^1H$ NMR, $^{13}C$ NMR spectrum of compound 10-Ethylene ketal diamantan-3-one ( <b>II</b> ).	4
<b>Figure S2.</b> $^1H$ NMR, $^{13}C$ NMR spectrum of compound 3,10 Diethylene ketal diamantan ( <b>III</b> )	5
<b>Figure S3.</b> $^1H$ NMR, $^{13}C$ NMR spectrum of compound Ethylene ketal of 10-hydroxydiamantan-3-one ( <b>IV</b> ).	6
<b>Figure S4.</b> $^1H$ NMR, $^{13}C$ NMR spectrum of compound Ethylene ketal of 10-methoxydiamantan-3-one ( <b>V</b> ).	7
<b>Figure S5.</b> $^1H$ NMR, $^{13}C$ NMR spectrum of compound 10-Methoxydiamantan-3-one ( <b>VI</b> ).	8

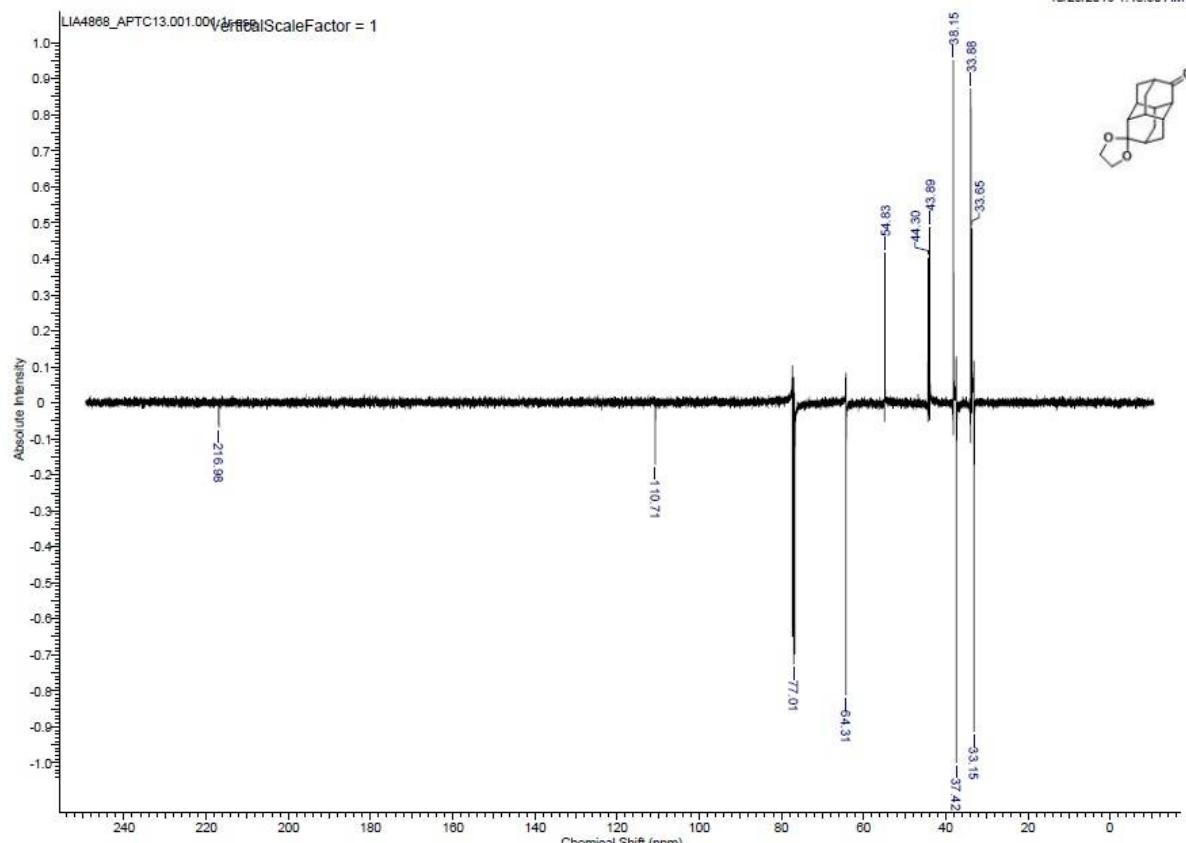


**Scheme 1:** Syhthesis of 10-Methoxydiamantan-3-one

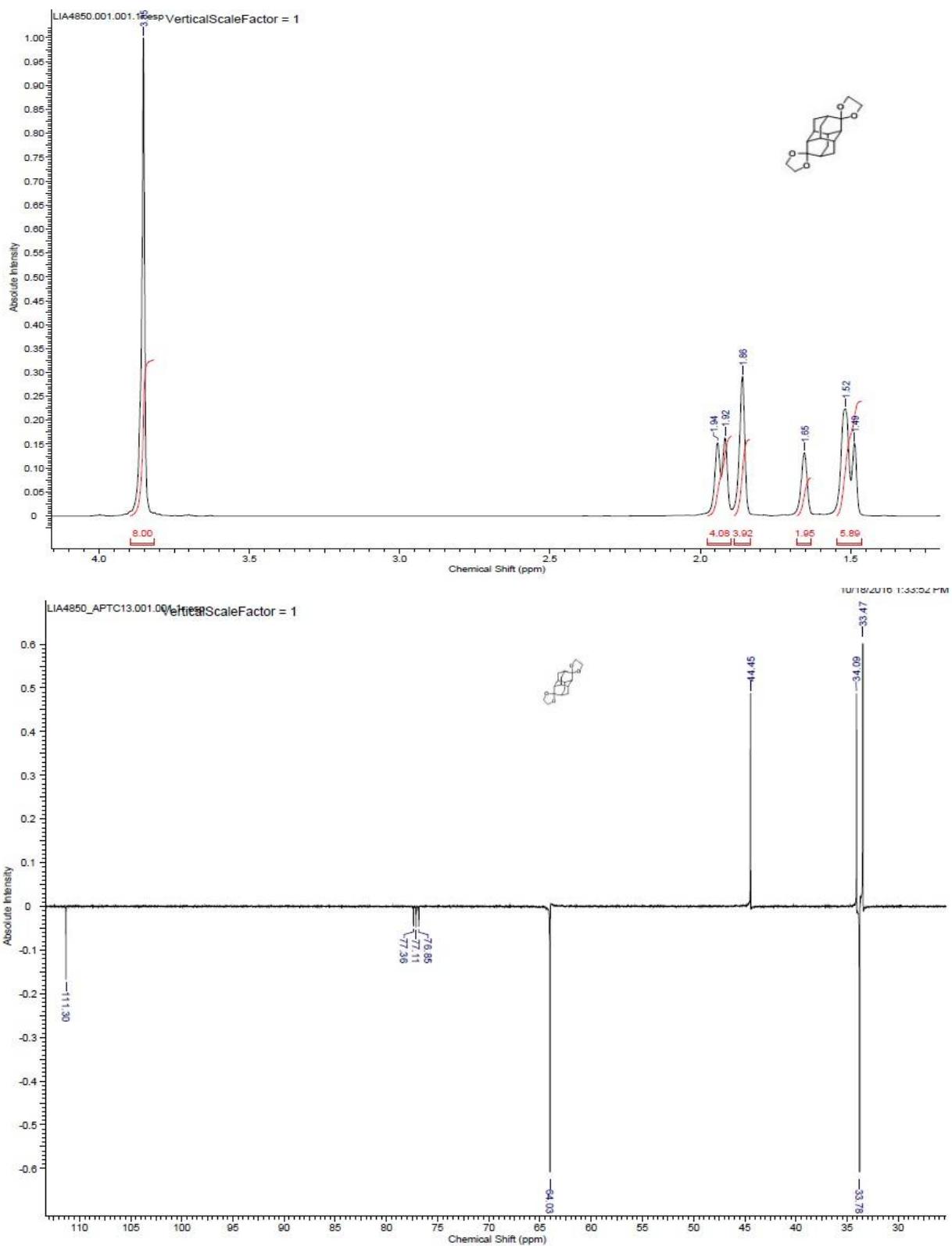
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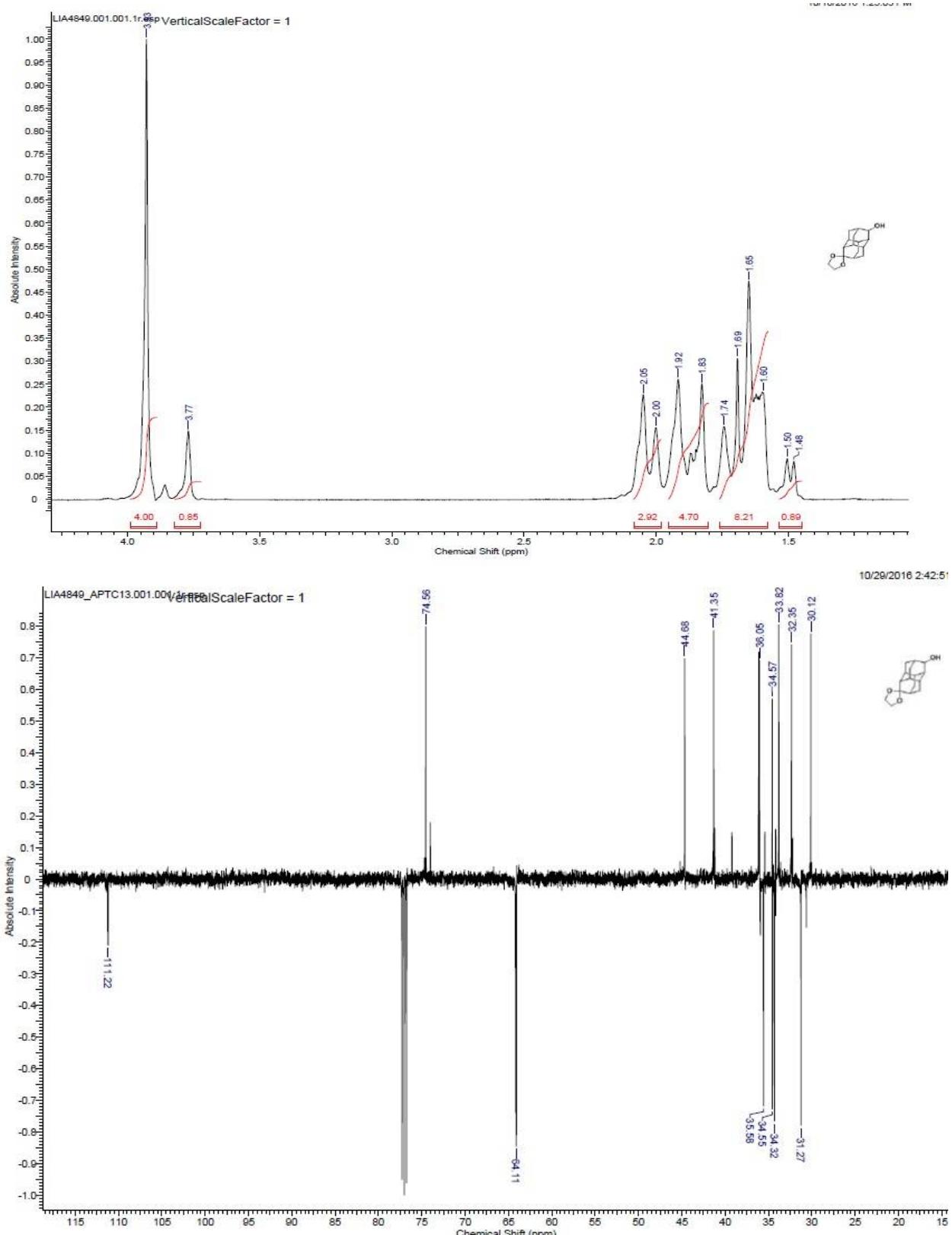
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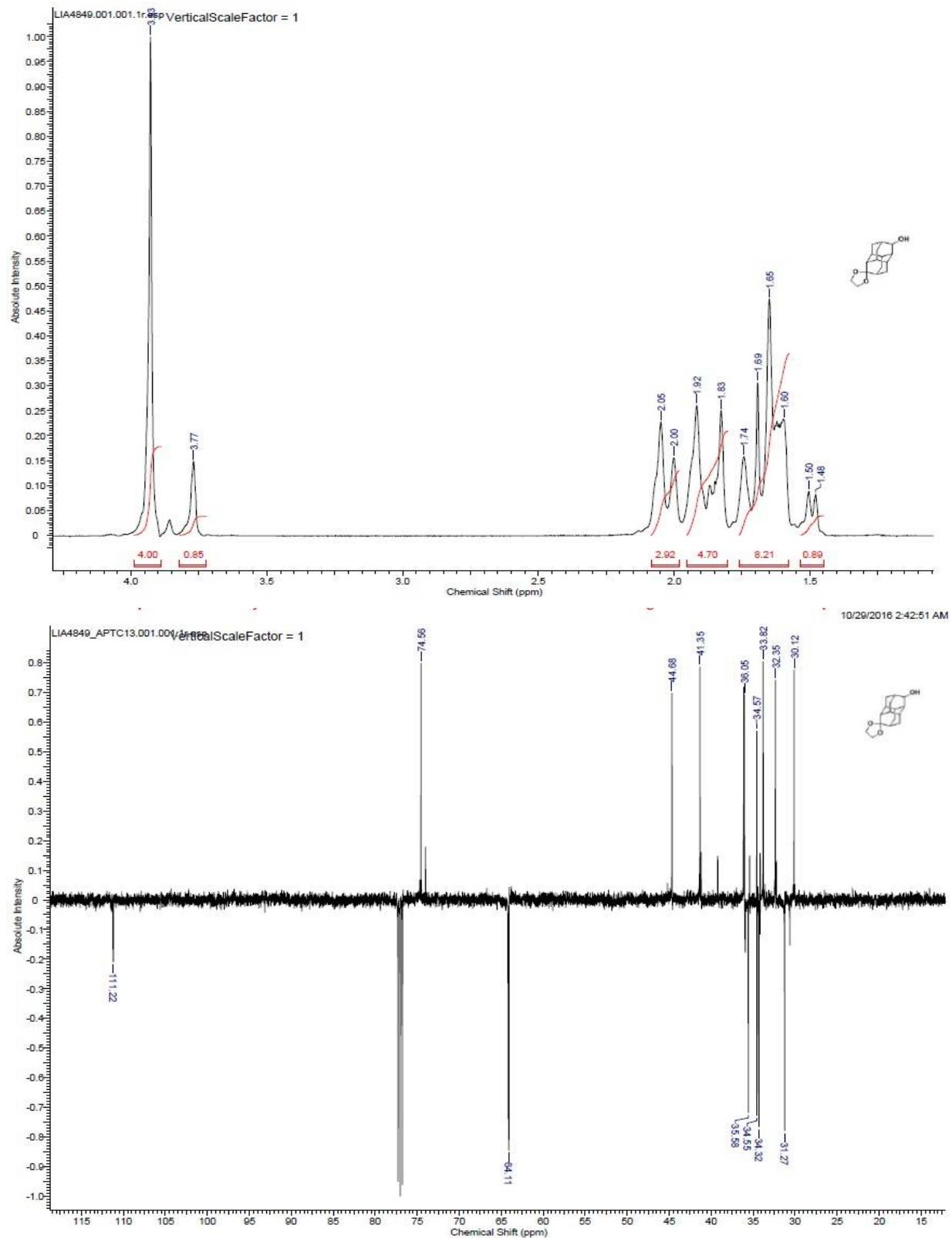
**Figure S1.** <sup>1</sup>H NMR, <sup>13</sup>C NMR spectrum of compound 10-Ethylene ketal diamantan-3-one (**II**).



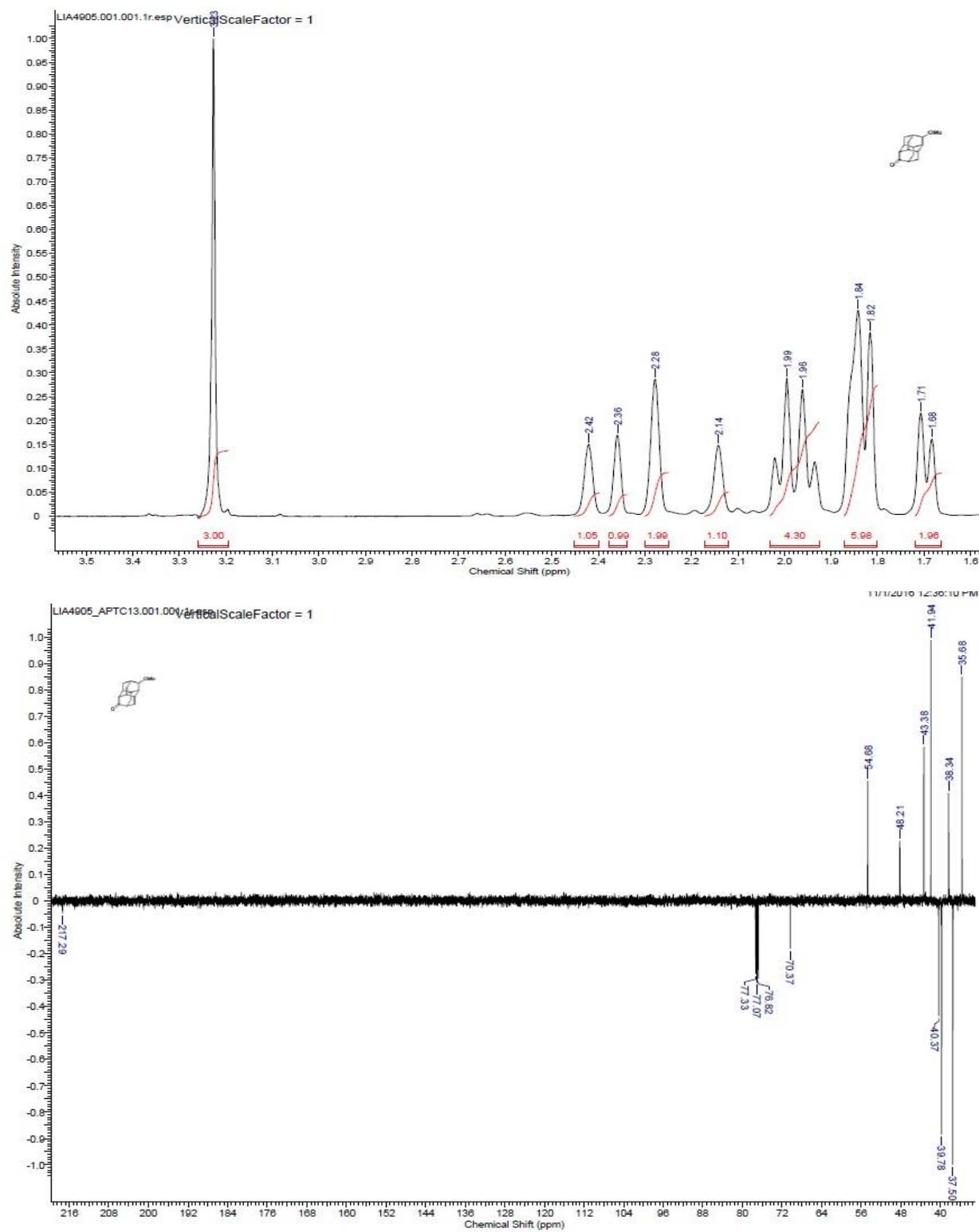
**Figure S2.**  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR spectrum of compound 3,10 Diethylene ketal diamantan (**III**)



**Figure S3.**  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR spectrum of compound Ethylene ketal of 10-hydroxydiamantan-3-one (**IV**).



**Figure S4.**  $^1\text{H}$  NMR ,  $^{13}\text{C}$  NMR spectrum of compound Ethylene ketal of 10-methoxydiamantan-3-one (V).



**Figure S5.**  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR spectrum of compound 10-Methoxydiamantan-3-one (VI).