

**Synthesis of a Phosphorus-Based Epoxy Reactive Flame Retardant Analog to  
Diglycidyl Ether of Bisphenol A (DGEBA) and its Behavior as a Matrix in a  
Carbon Fiber Composite**

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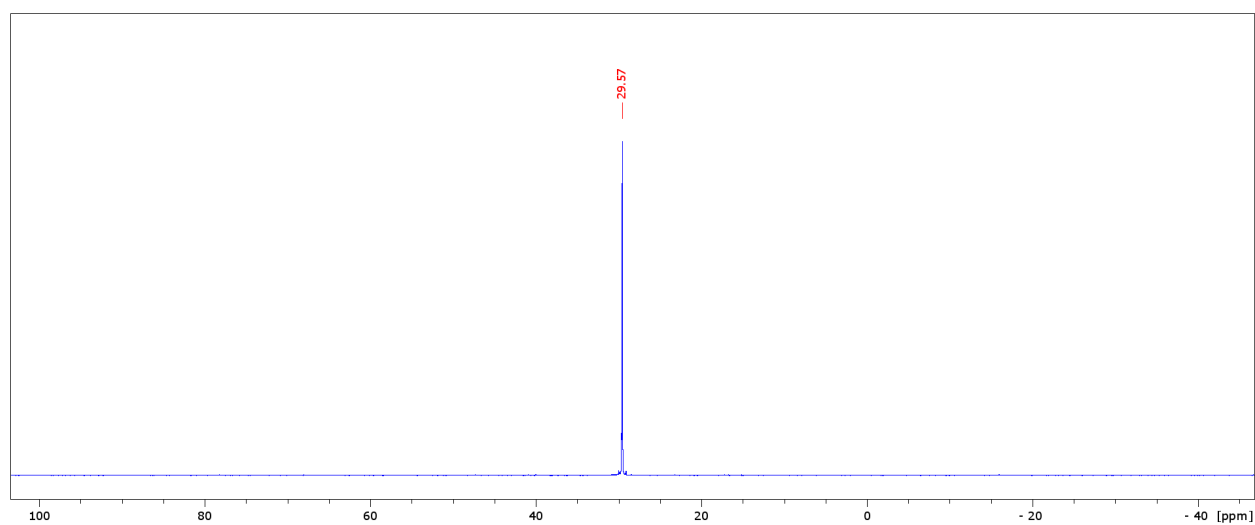
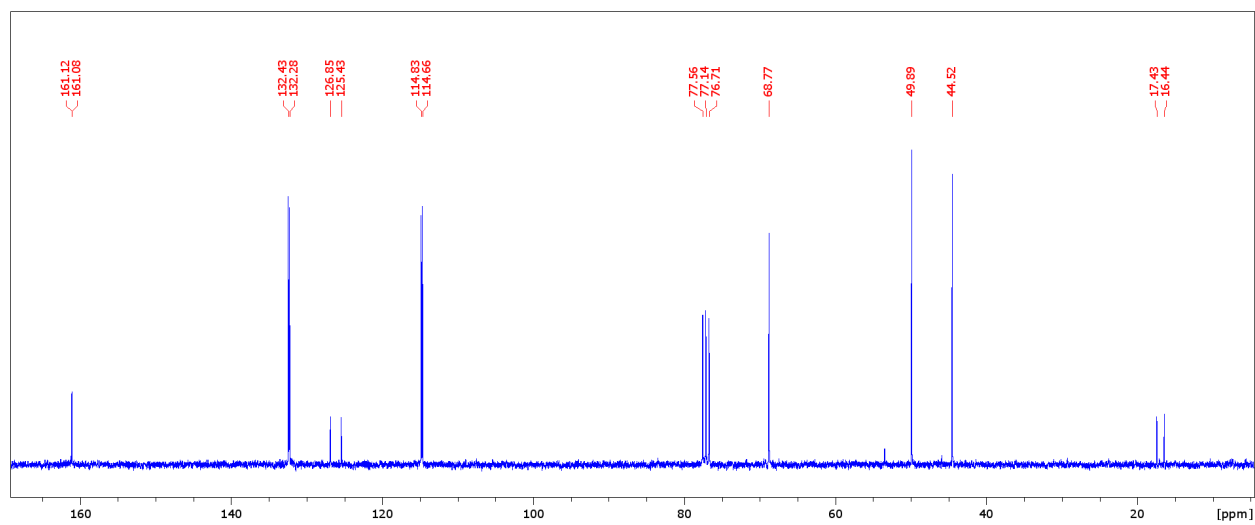
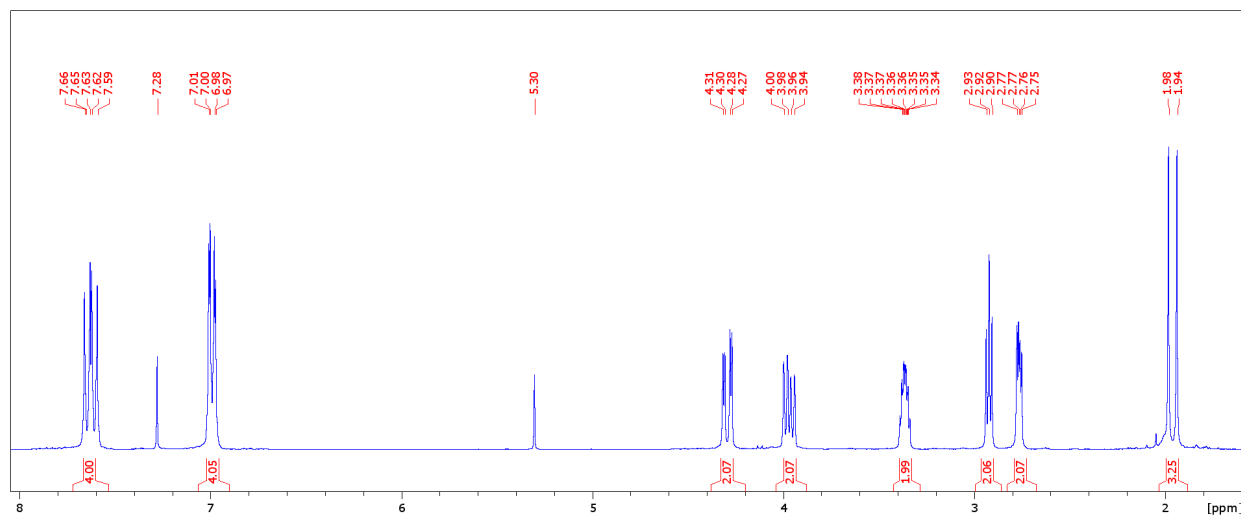
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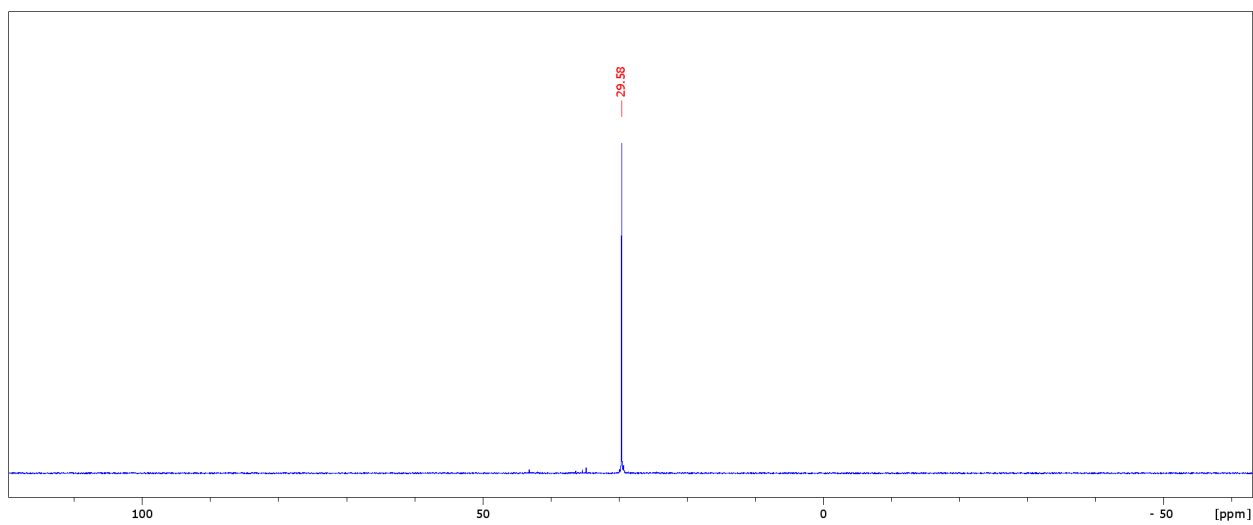
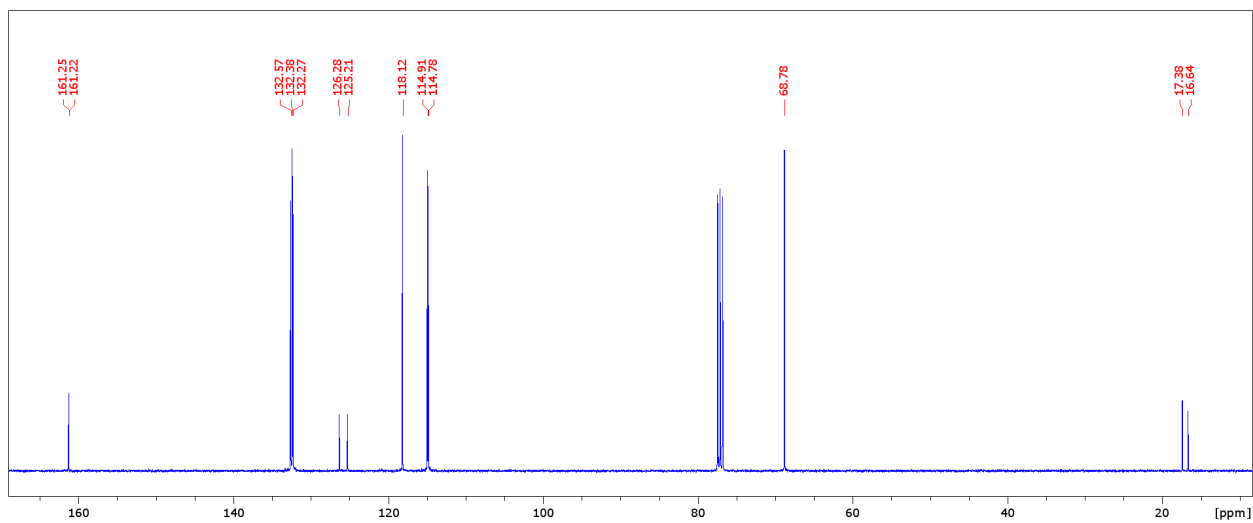
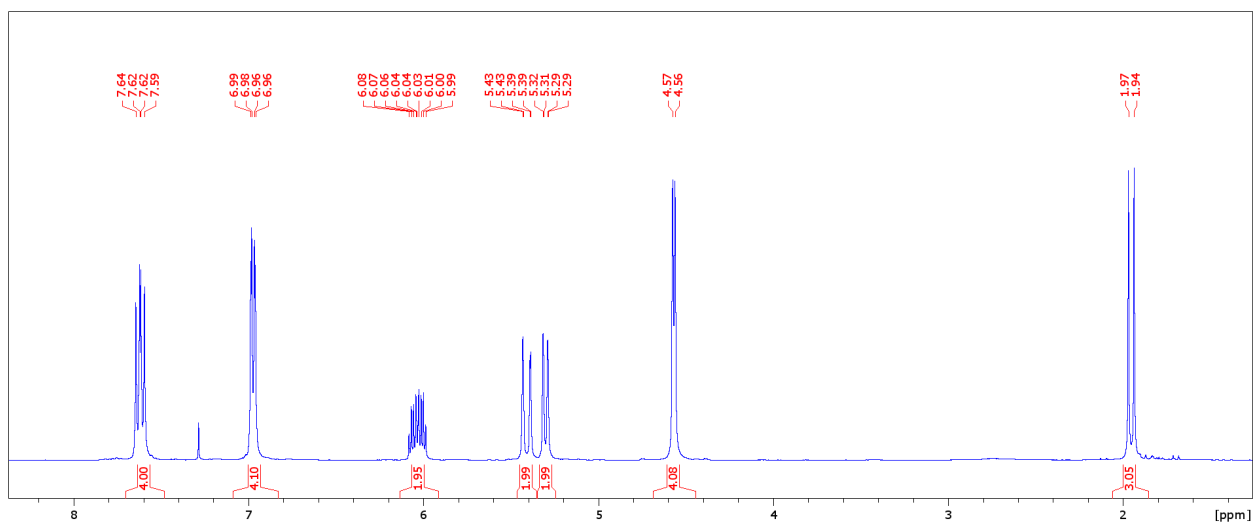
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**Supplementary Information**

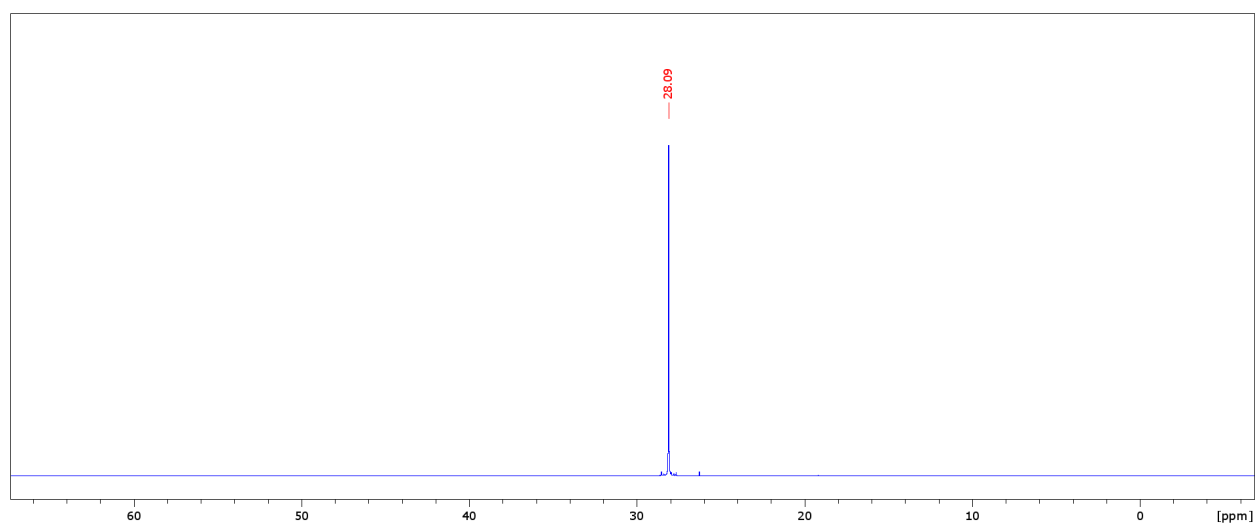
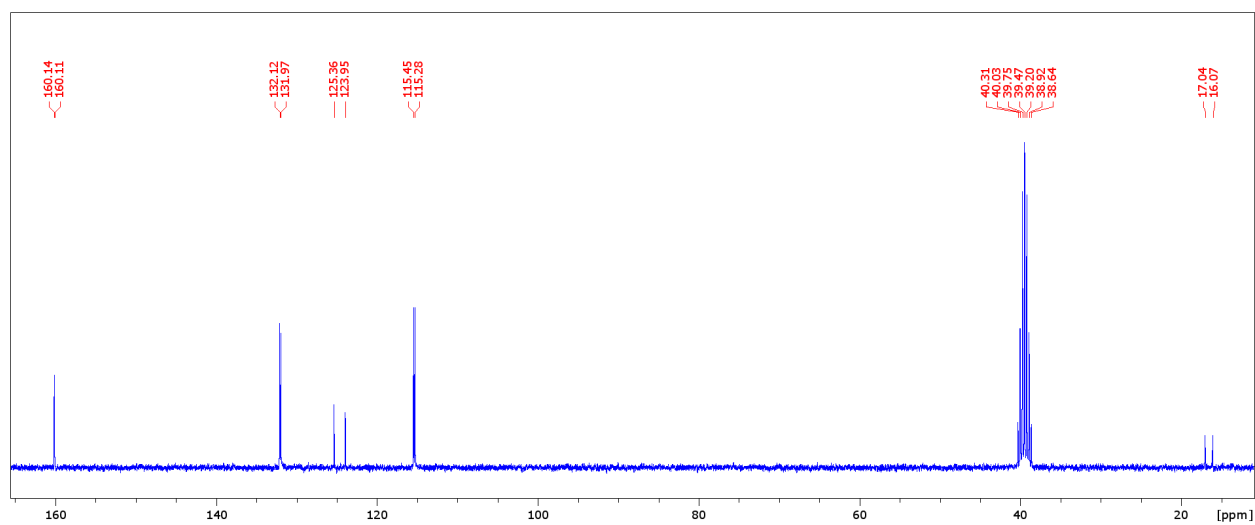
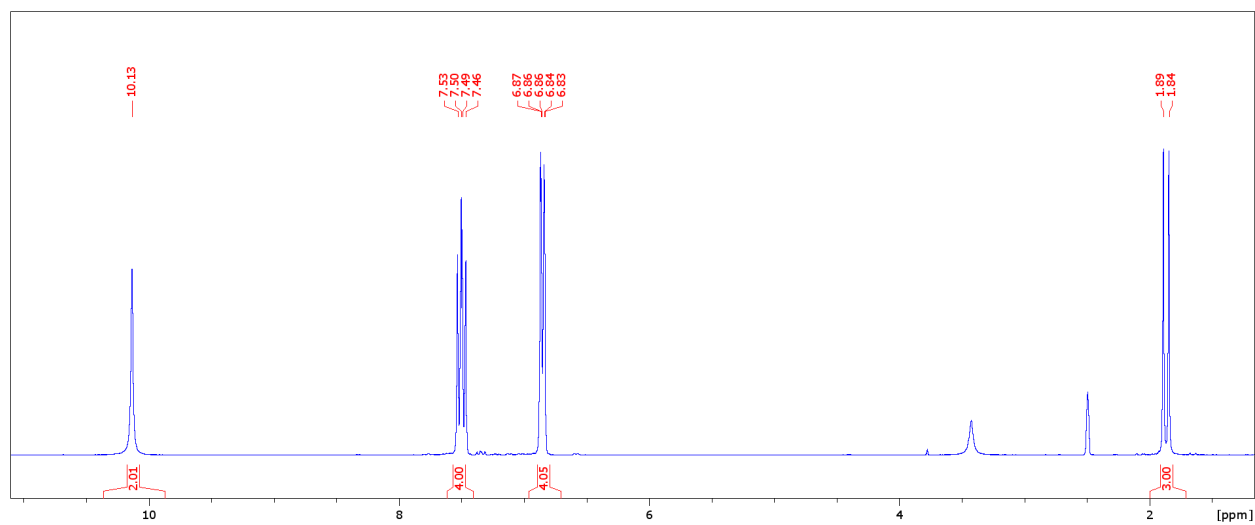
NMR Spectra of Intermediate and Target Structures



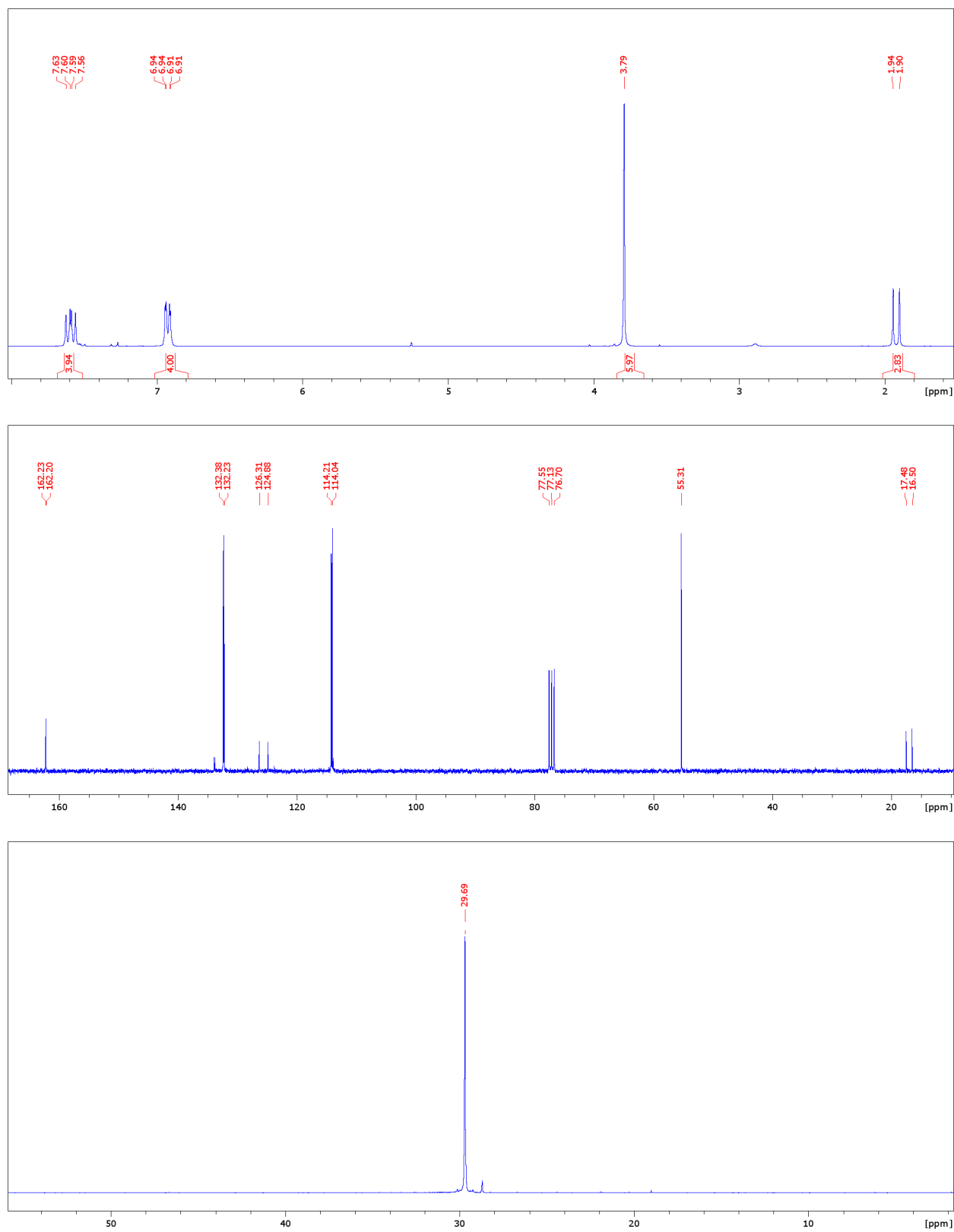
**Figure S1:** <sup>1</sup>H-, <sup>13</sup>C- and <sup>31</sup>P-NMR spectra of P-DGEBA (Compound 1).  
Spectra in CDCl<sub>3</sub>.



**Figure S2:** <sup>1</sup>H-, <sup>13</sup>C- and <sup>31</sup>P-NMR spectra of di(*p*-allyloxyphenyl)methylphosphine oxide (Compound 6). Spectra in CDCl<sub>3</sub>.



**Figure S3:**  $^1\text{H}$ -,  $^{13}\text{C}$ - and  $^{31}\text{P}$ -NMR spectra of di(*p*-hydroxyphenyl)methylphosphine oxide (Compound 4). Spectra in  $\text{DMSO-}d_6$ .



**Figure S4:** <sup>1</sup>H-, <sup>13</sup>C- and <sup>31</sup>P-NMR spectra of di(p-methoxyphenyl)methylphosphine oxide (Compound 3). Spectra in CDCl<sub>3</sub>.