

SUPPORTING INFORMATION FOR

A Direct Route from White Phosphorus and Fluorous Alkyl and Aryl Iodides to the Corresponding Trialkyl- and Triarylphosphines

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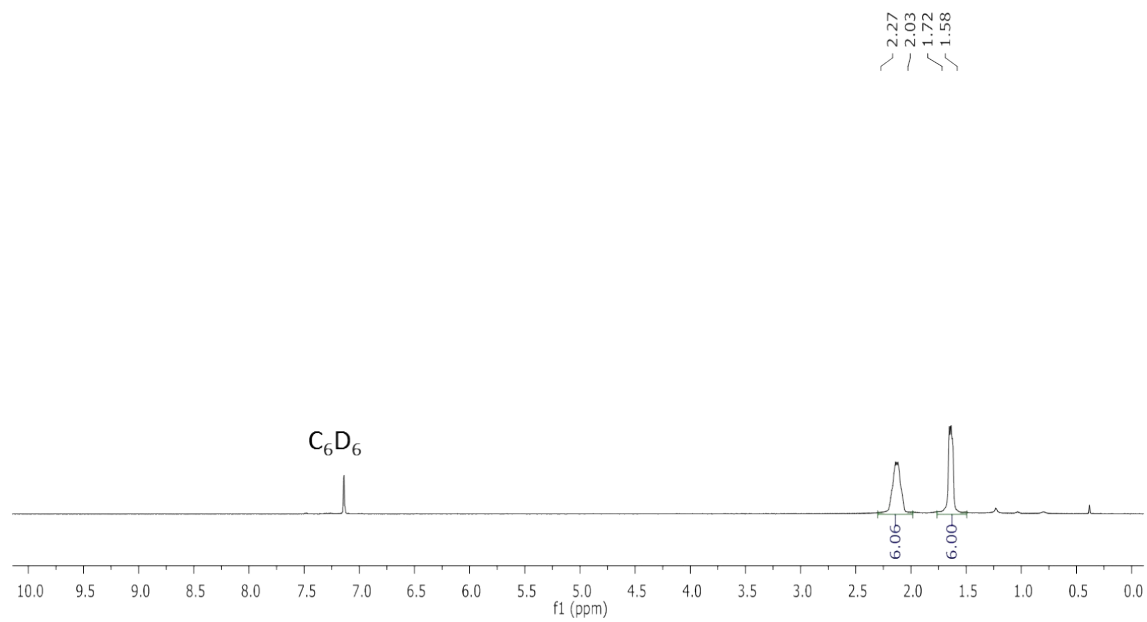
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Cambridge, Massachusetts 02139-4307, USA

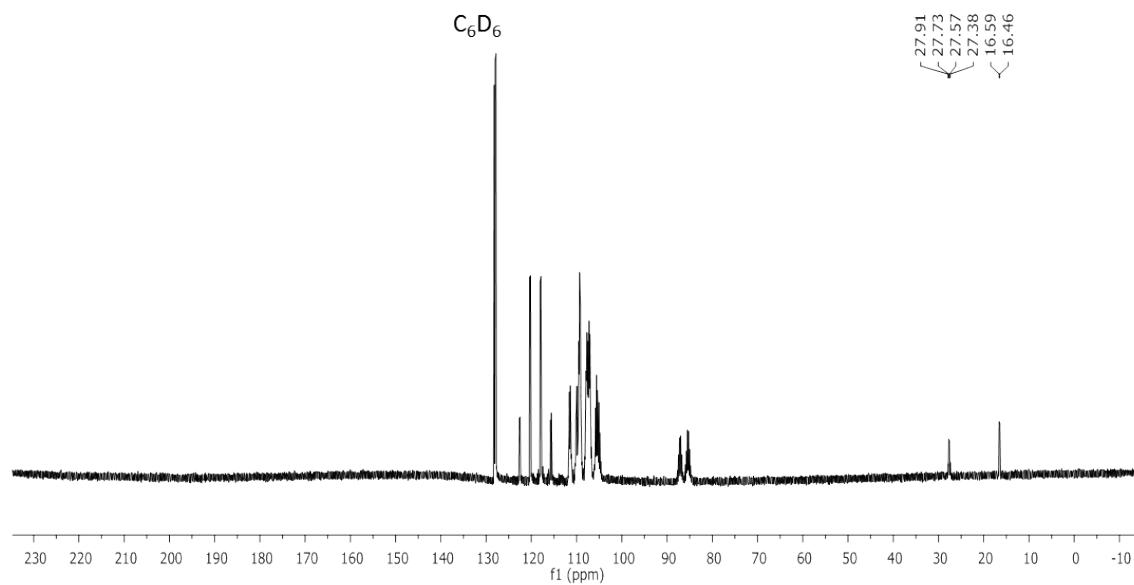
E-mail: ccummins@mit.edu

P((CH₂)₂R_{f8})₃

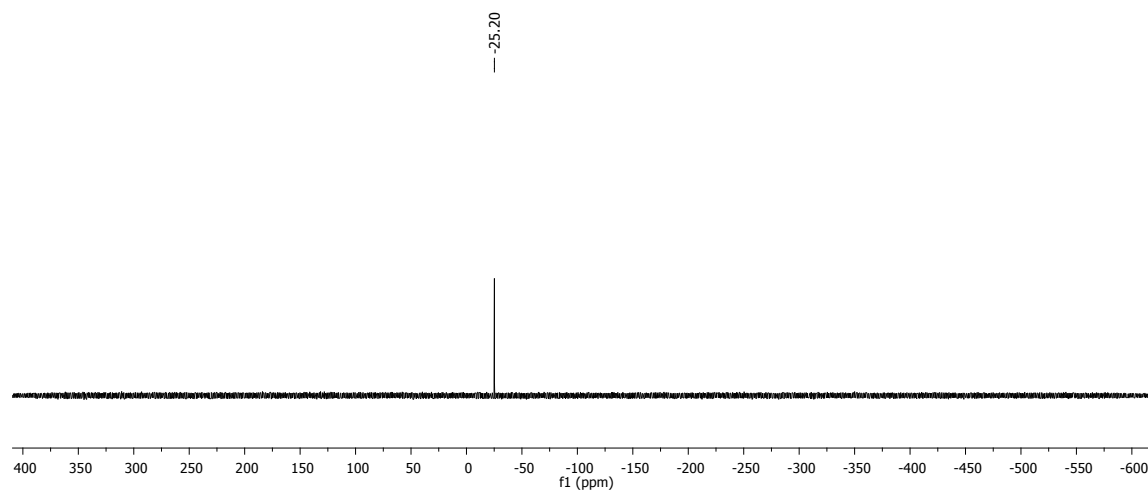
¹H NMR (CF₃C₆F₁₁, 500 MHz), internal C₆D₆ filled capillary



¹³C{¹H} NMR (CF₃C₆F₁₁, 125 MHz), internal C₆D₆ filled capillary

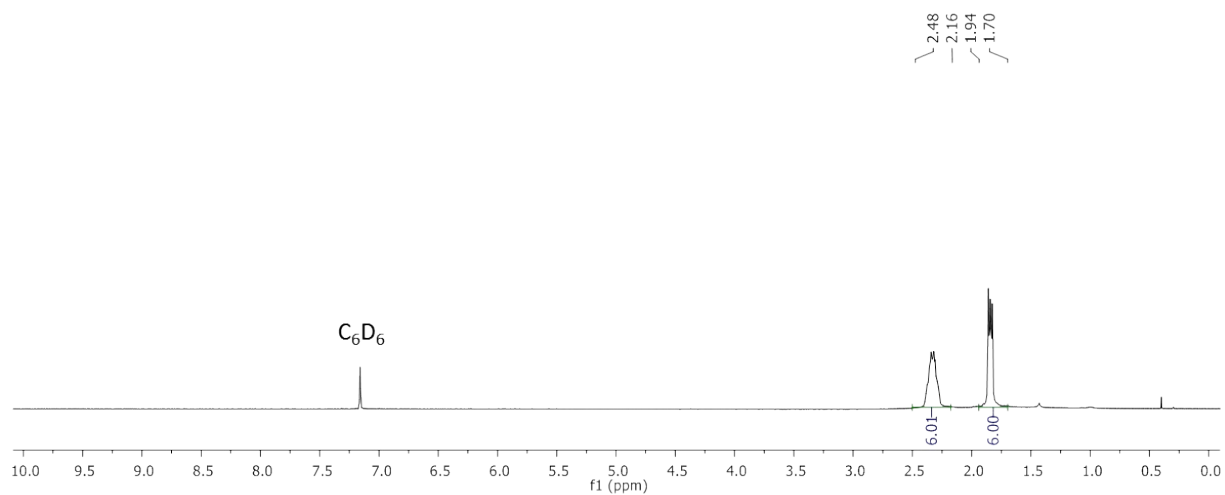


$^{31}\text{P}\{^1\text{H}\}$ NMR ($\text{CF}_3\text{C}_6\text{F}_{11}$, 202 MHz), 85% aqueous H_3PO_4 external standard

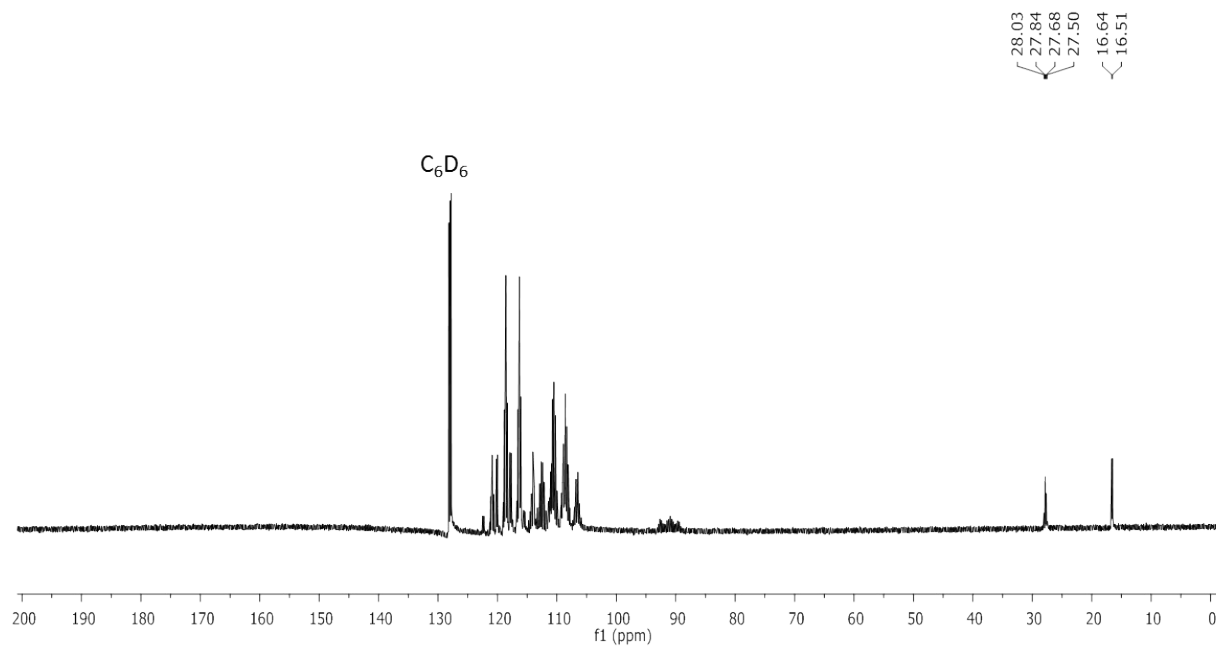


P((CH₂)₂R_{f10})₃

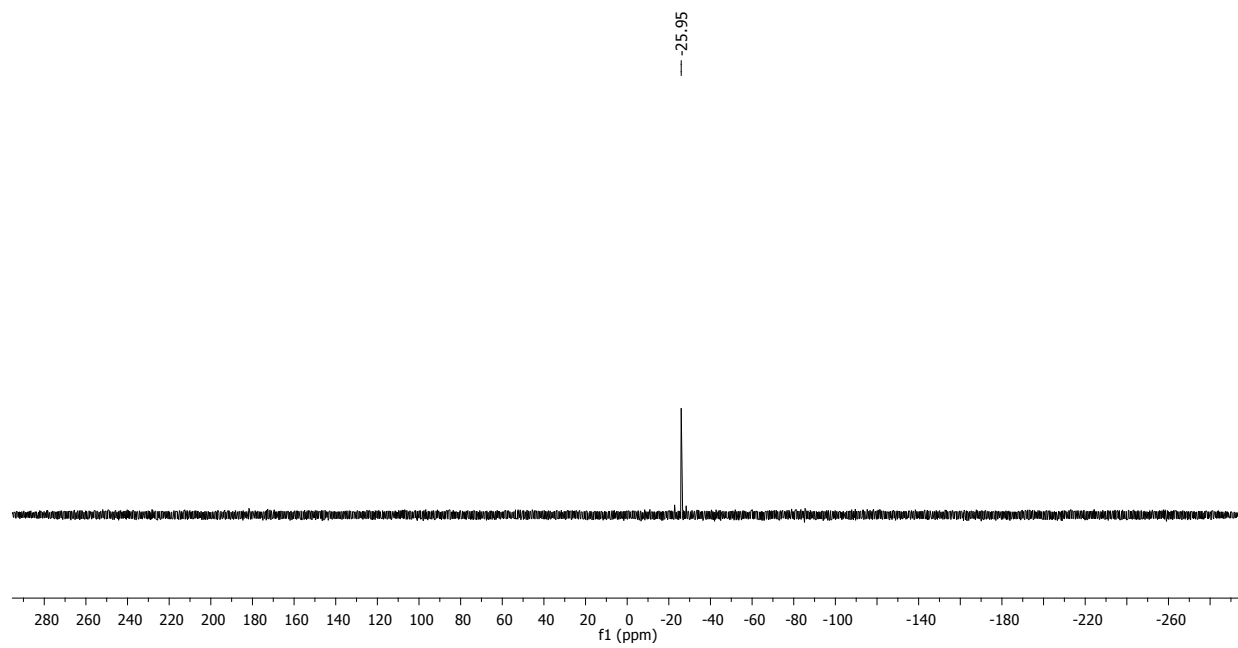
¹H NMR (CF₃C₆F₁₁, 500 MHz), internal C₆D₆ filled capillary

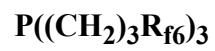


¹³C{¹H} NMR (CF₃C₆F₁₁, 125 MHz), internal C₆D₆ filled capillary

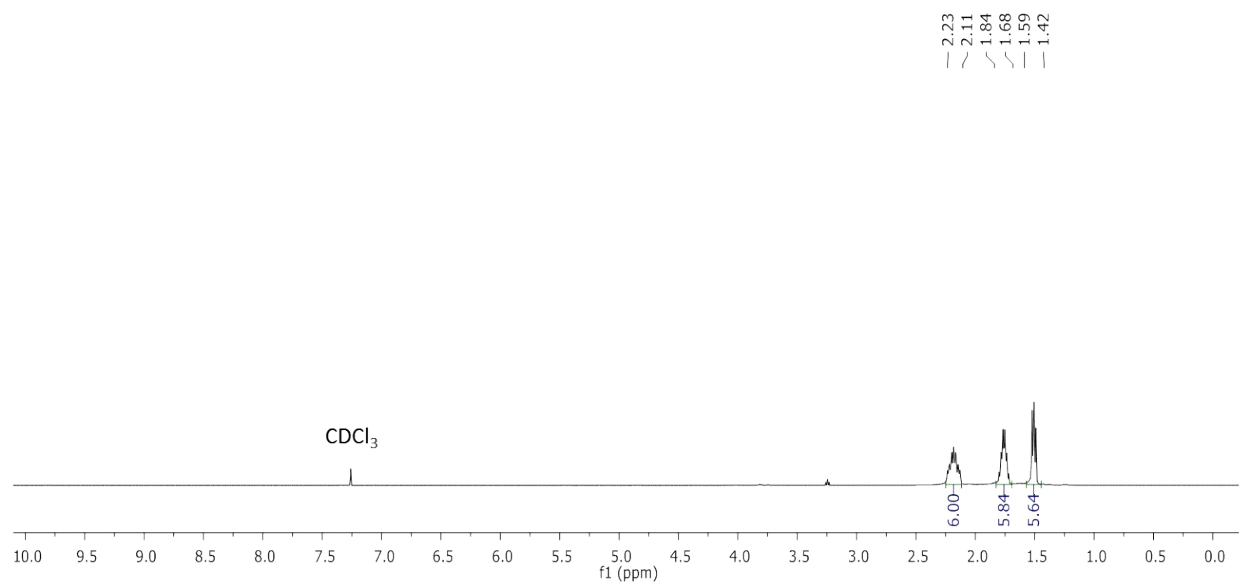


$^{31}\text{P}\{^1\text{H}\}$ NMR ($\text{CF}_3\text{C}_6\text{F}_{11}$, 202 MHz), 85% aqueous H_3PO_4 external standard

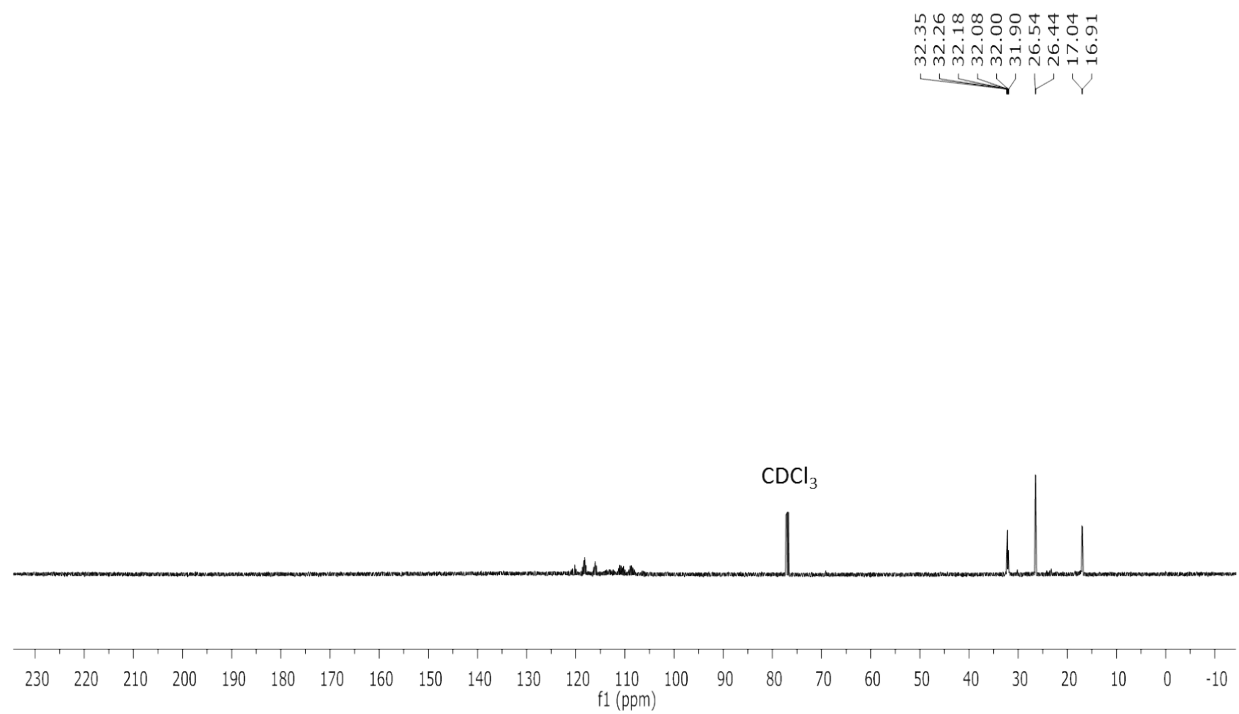




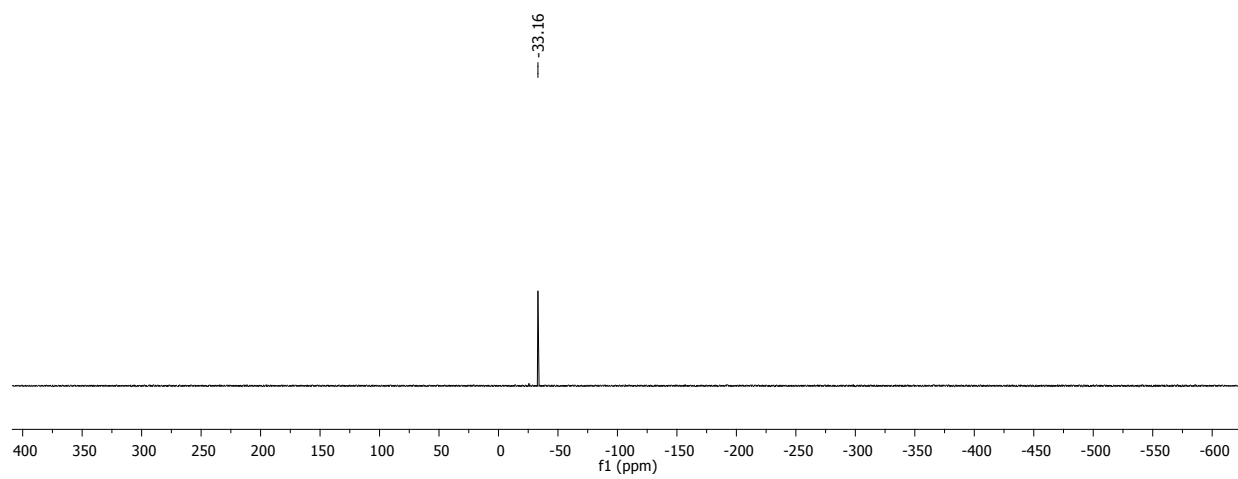
¹H NMR (CDCl₃, 500 MHz)



¹³C{¹H} NMR (CDCl₃, 125 MHz)

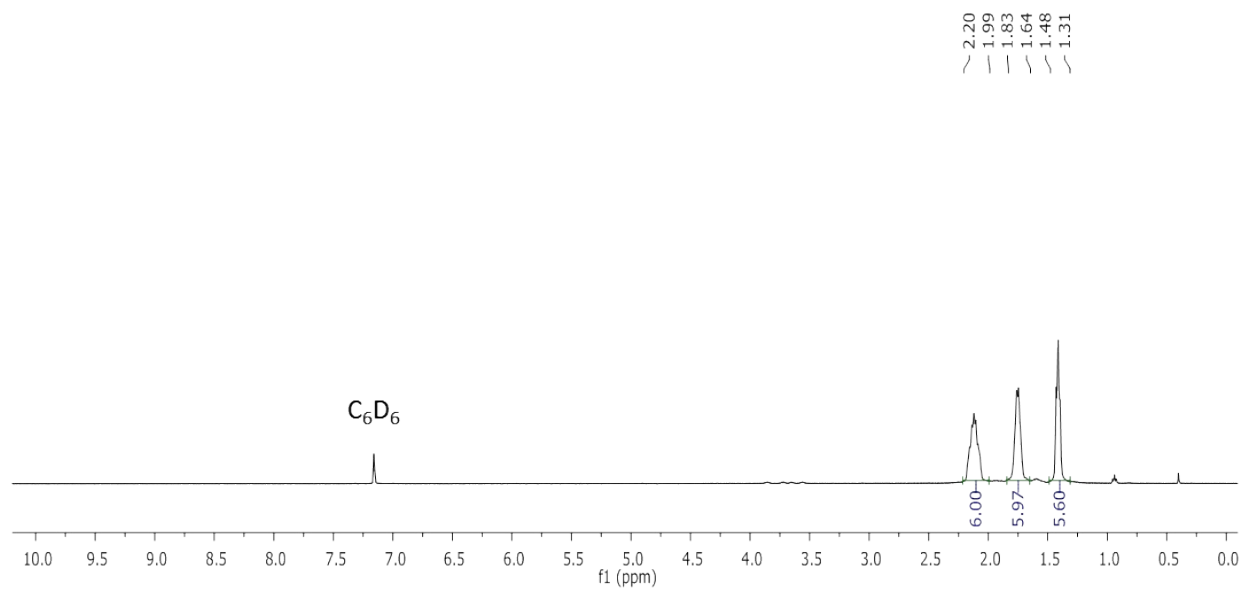


$^{31}\text{P}\{^1\text{H}\}$ NMR (CDCl_3 , 202 MHz), 85% aqueous H_3PO_4 external standard

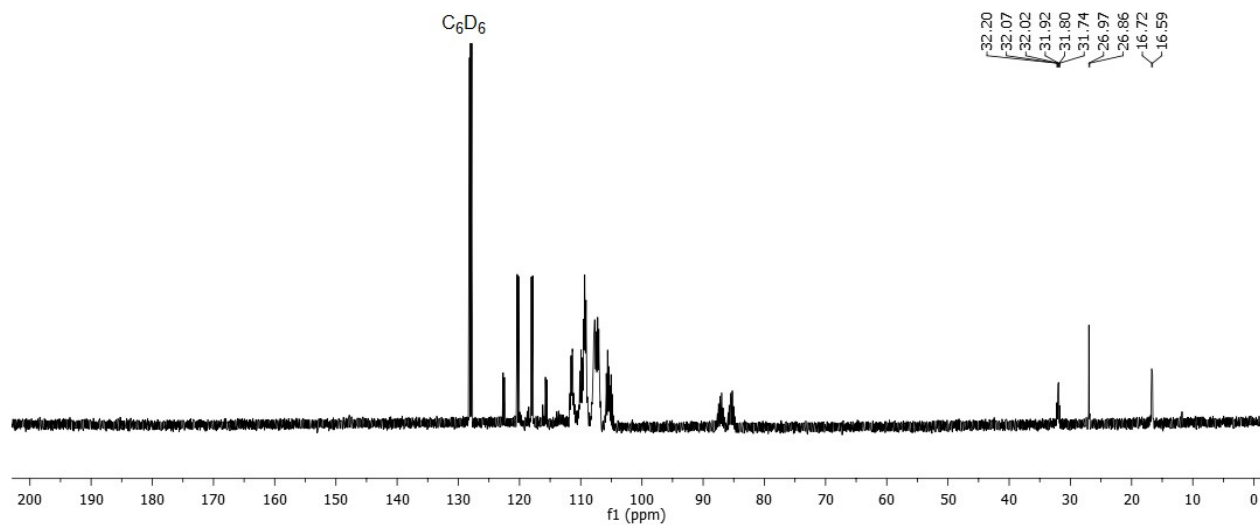


P((CH₂)₃R_{f8})₃

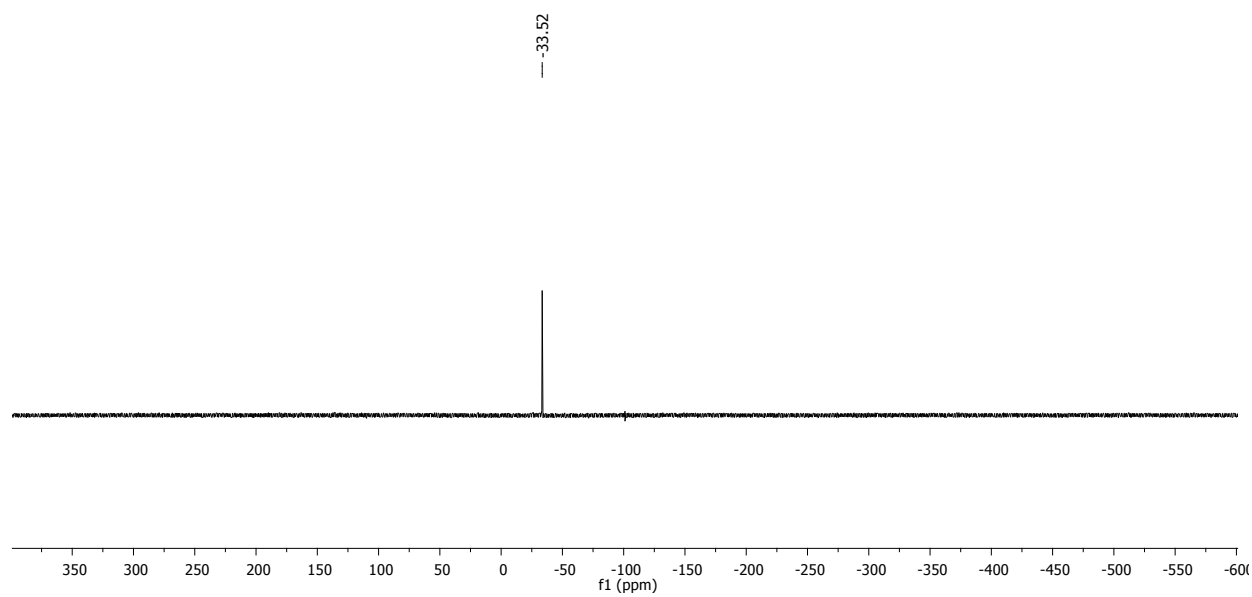
¹H NMR (CF₃C₆F₁₁, 500 MHz), internal C₆D₆ filled capillary



¹³C{¹H} NMR (CF₃C₆F₁₁, 125 MHz), internal C₆D₆ filled capillary

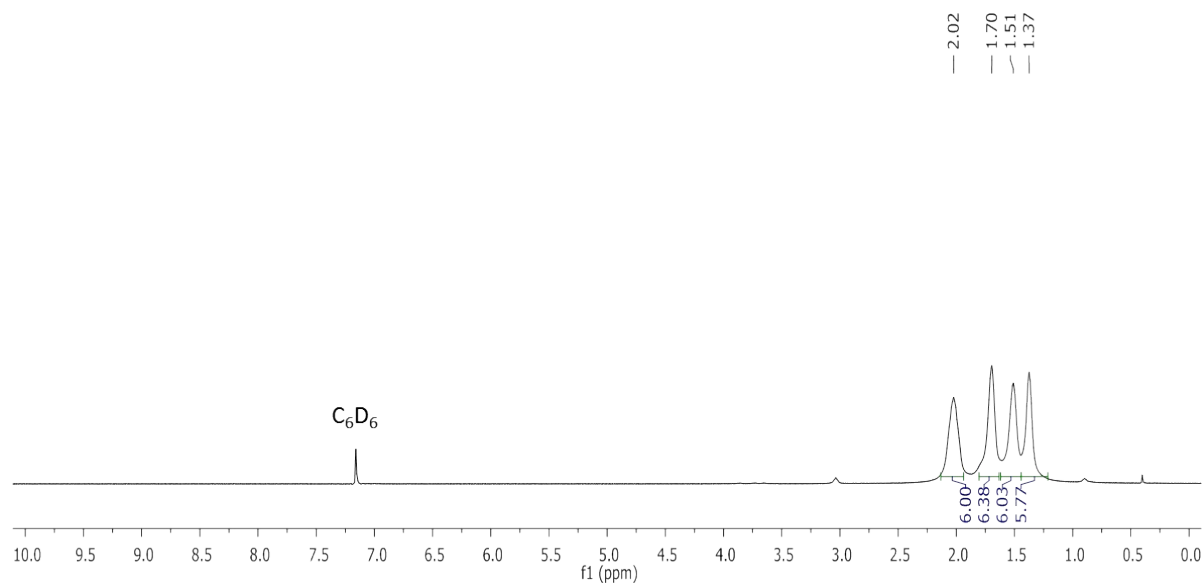


$^{31}\text{P}\{^1\text{H}\}$ NMR ($\text{CF}_3\text{C}_6\text{F}_{11}$, 202 MHz), 85% aqueous H_3PO_4 external standard

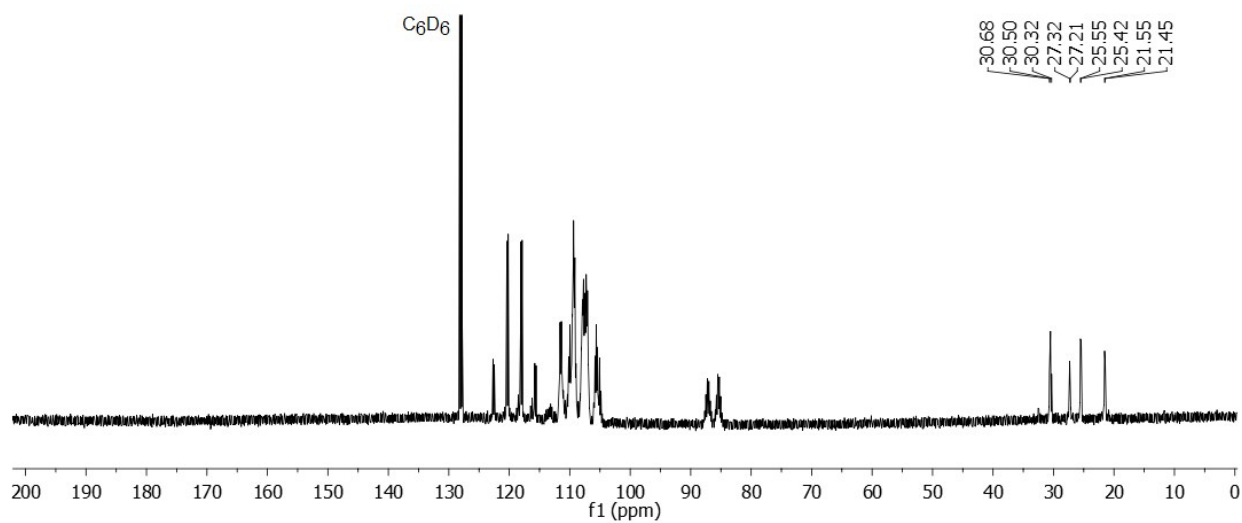


P((CH₂)₄R_{f8})₃

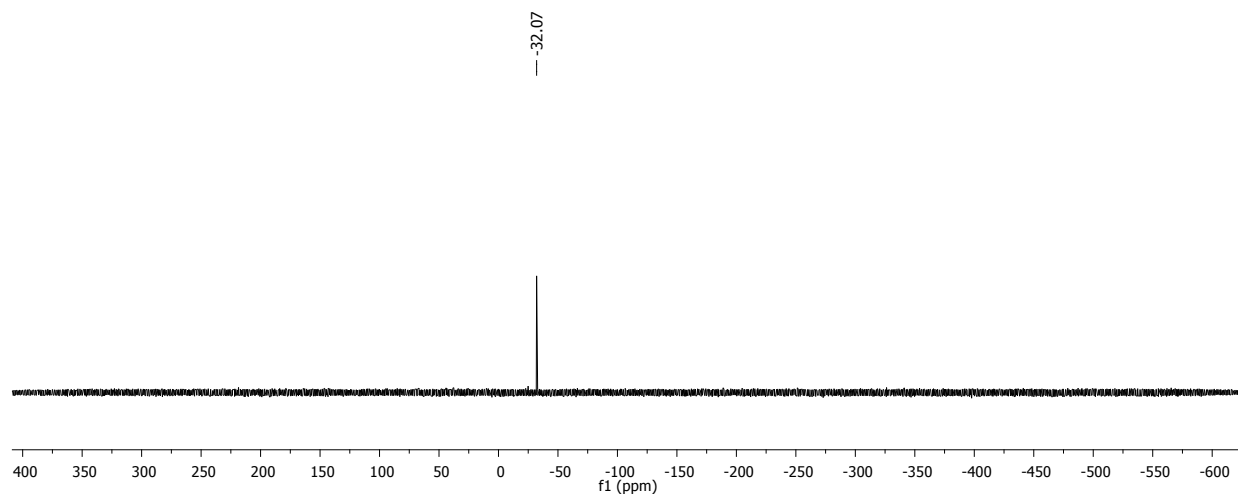
¹H NMR (CF₃C₆F₁₁, 500 MHz), internal C₆D₆ filled capillary



¹³C{¹H} NMR (CF₃C₆F₁₁, 125 MHz), internal C₆D₆ filled capillary

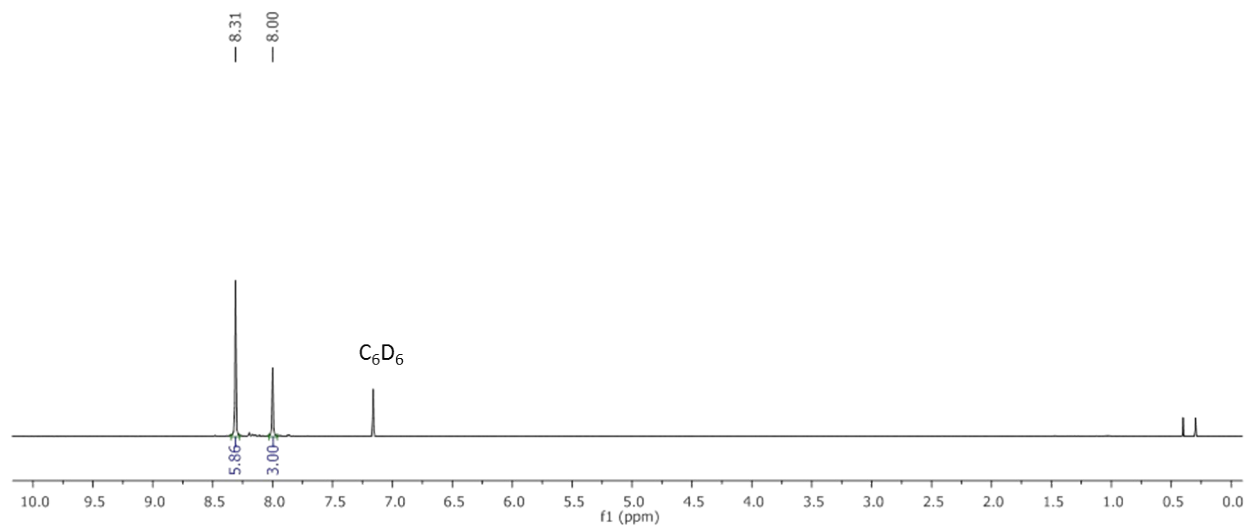


$^{31}\text{P}\{^1\text{H}\}$ NMR ($\text{CF}_3\text{C}_6\text{F}_{11}$, 202 MHz), 85% aqueous H_3PO_4 external standard

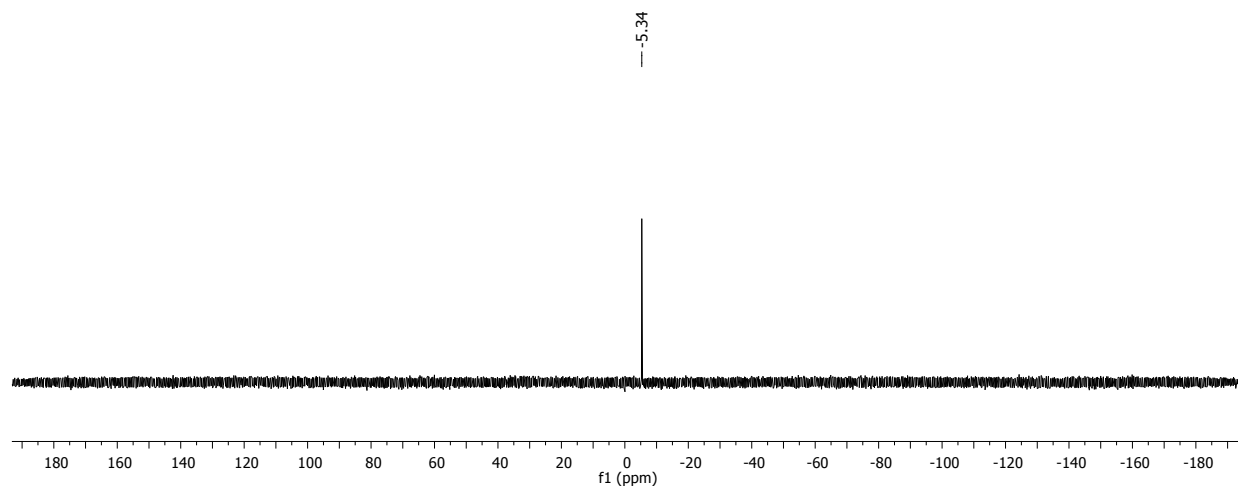


P(C₆H₃(3,5-R_{f6})₂)₃

¹H NMR (FC-72, 500 MHz), internal C₆D₆ filled capillary

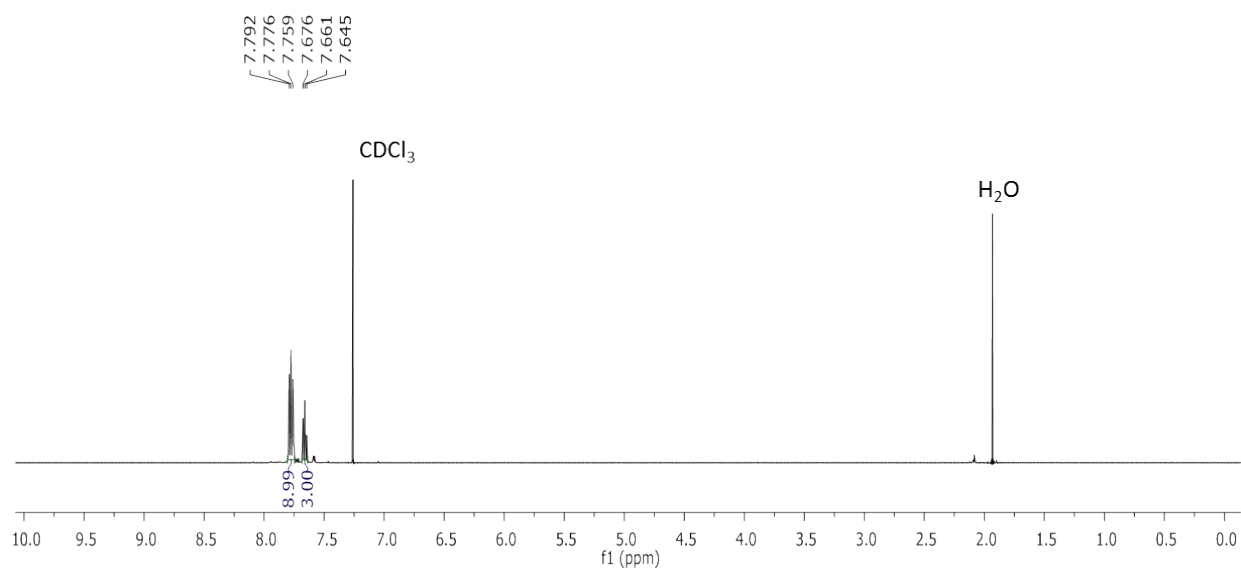


³¹P{¹H} NMR (FC-72, 202 MHz), 85% aqueous H₃PO₄ external standard

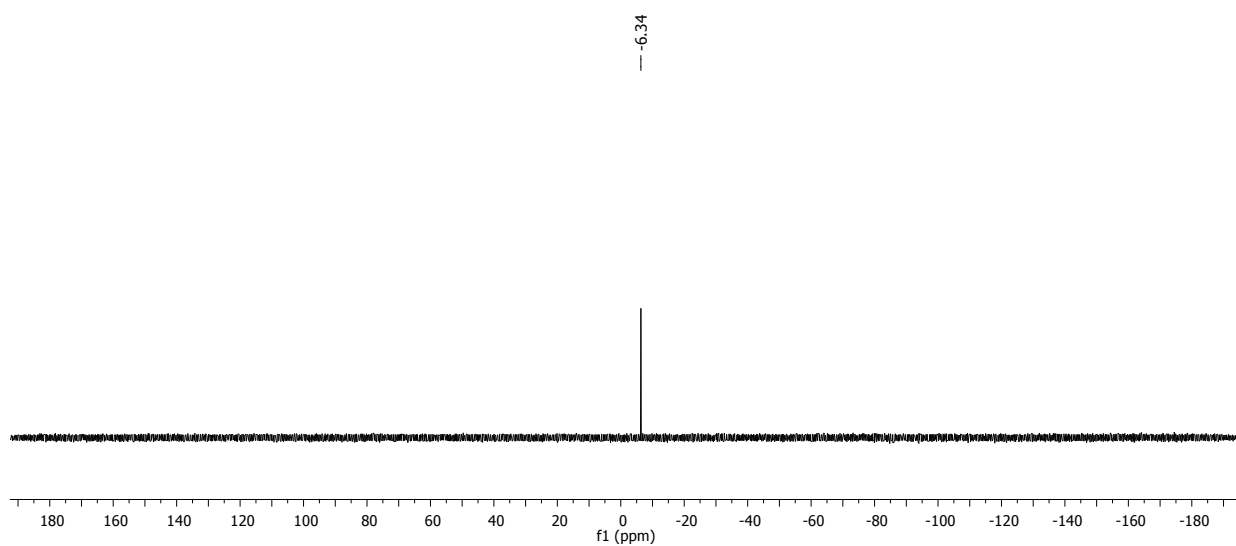


P(C₆H₄(3-R_{f6}))₃

¹H NMR (CDCl₃, 500 MHz)

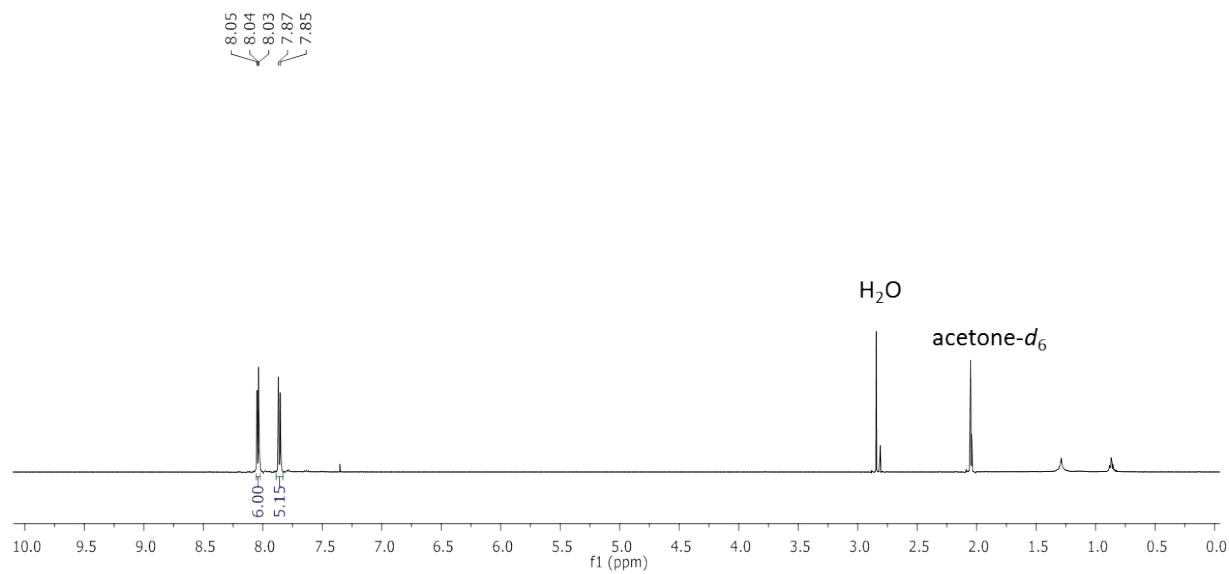


³¹P{¹H} NMR (CDCl₃, 202 MHz), 85% aqueous H₃PO₄ external standard



P(C₆H₄(4-R_{f6}))₃

¹H NMR (acetone-*d*₆, 500 MHz)



³¹P{¹H} NMR (acetone-*d*₆, 202 MHz), 85% aqueous H₃PO₄ external standard

