

## SUPPORTING INFORMATION

For

### Synthesis of unusual dinuclear chiral iron complex and its application in asymmetric hydrophosphorylation of aldehydes

P. Muthupandi and G. Sekar\*

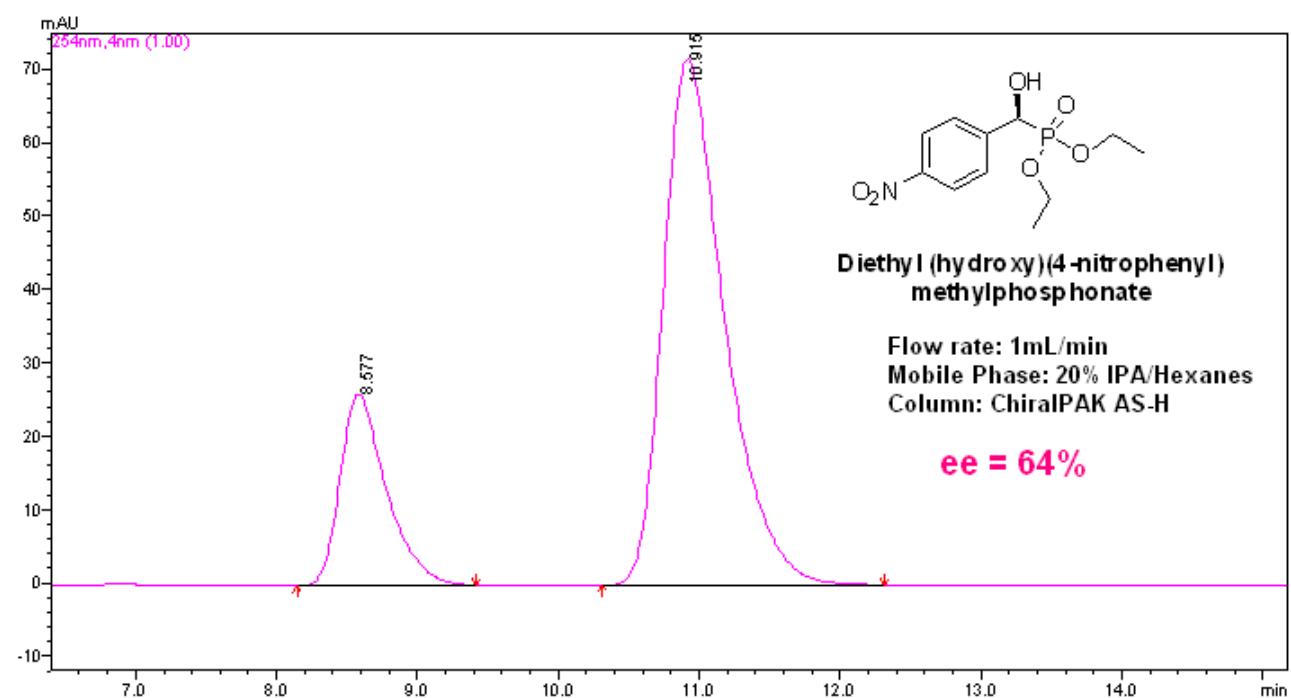
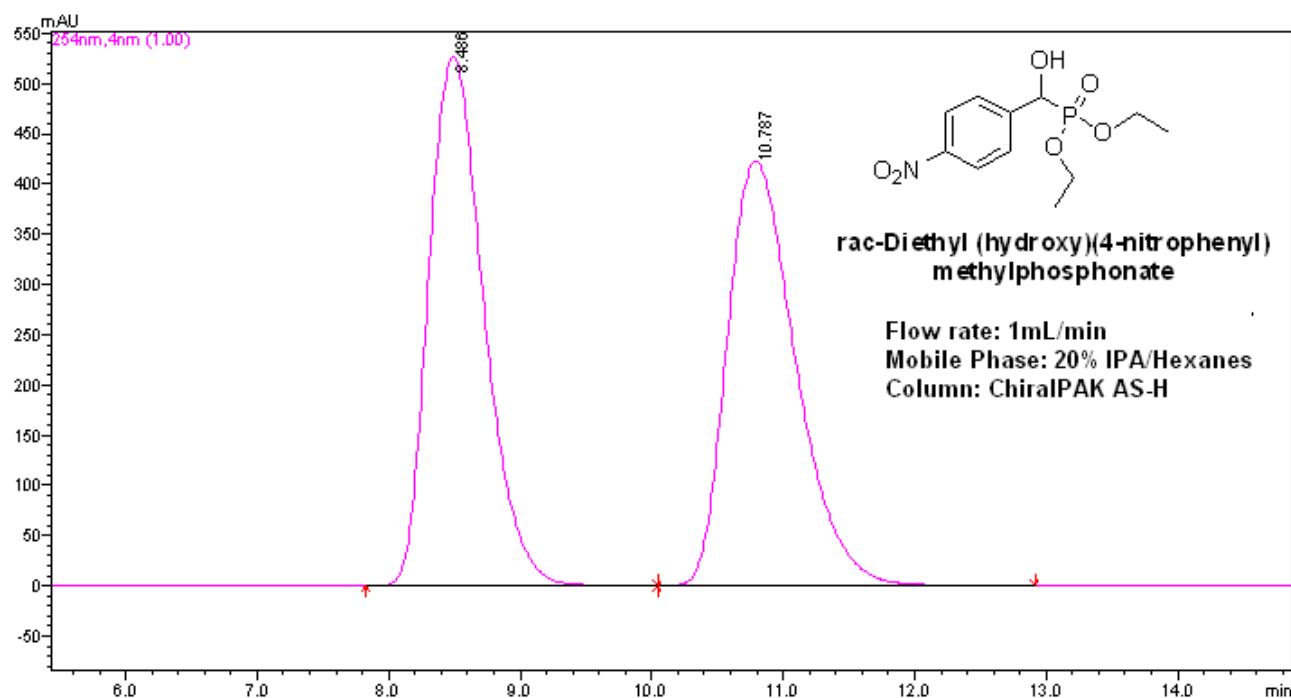
*Department of Chemistry, Indian Institute of Technology Madras, Chennai,*

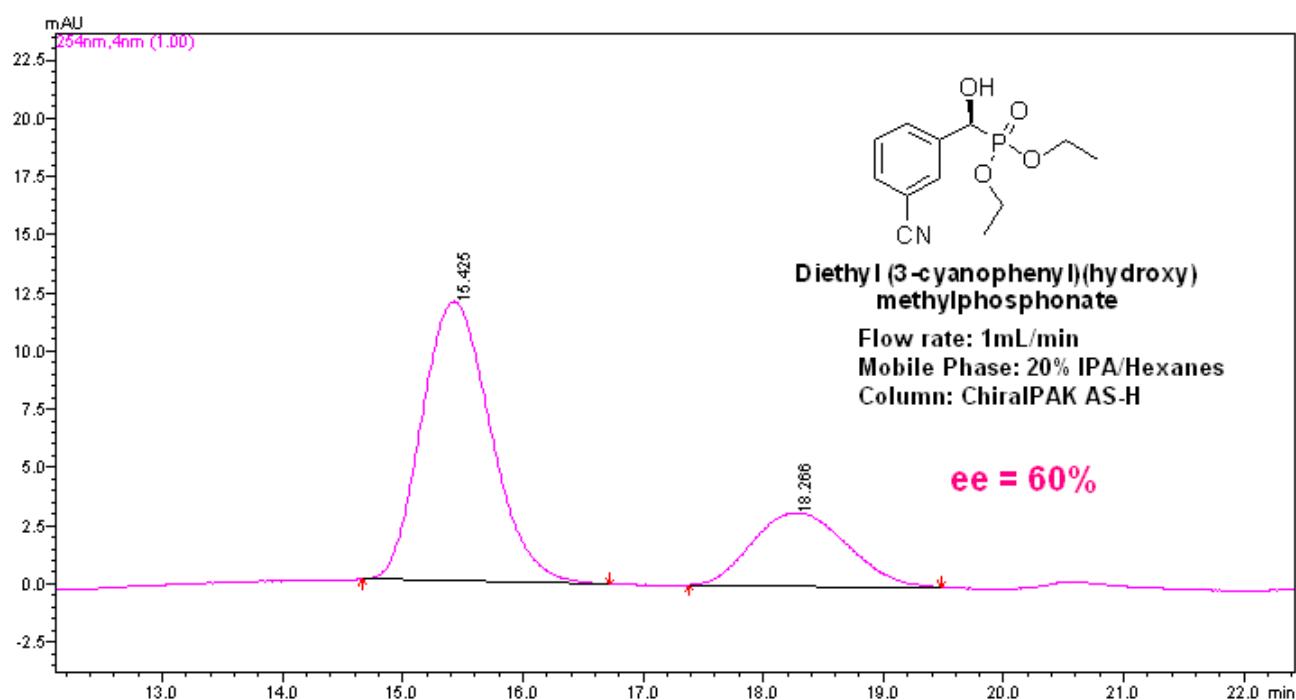
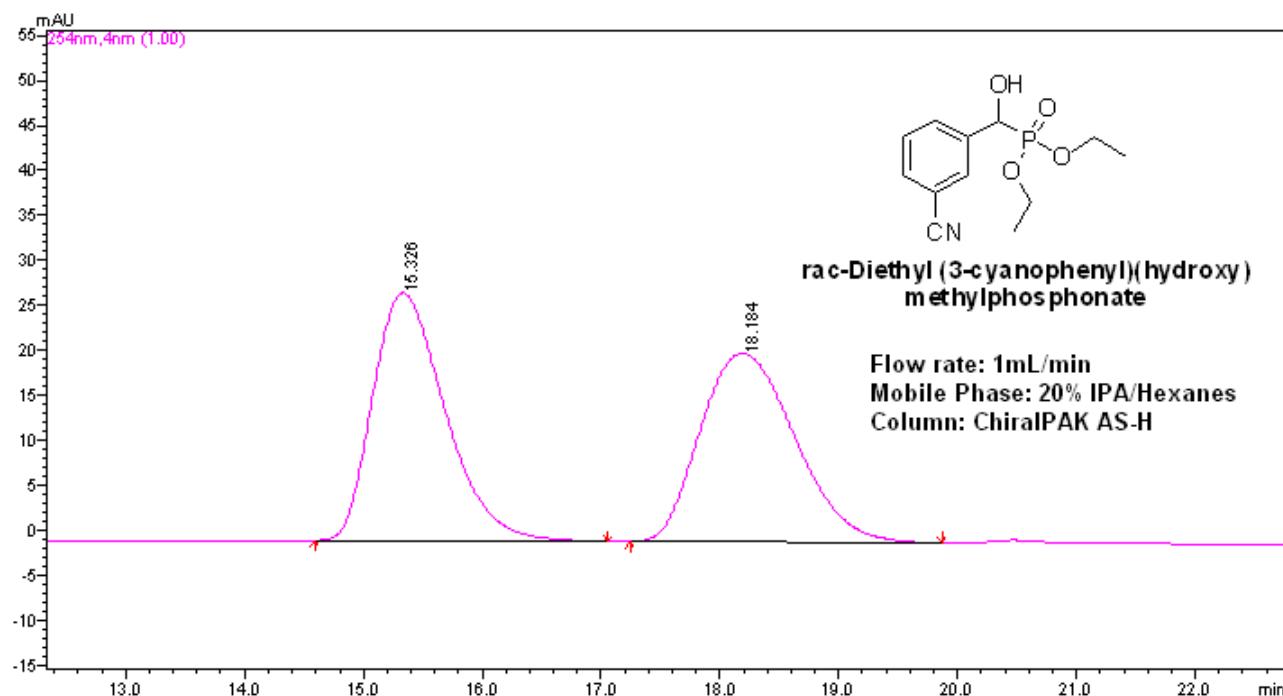
*Tamil Nadu-600 036, India*

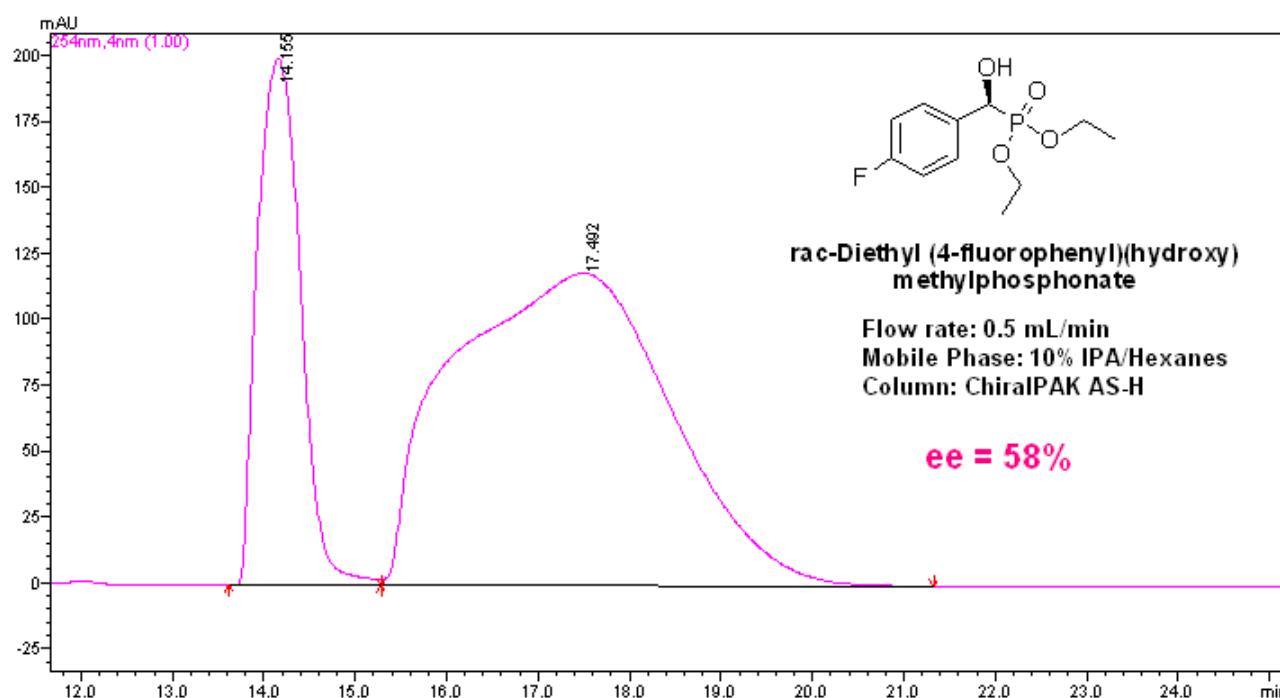
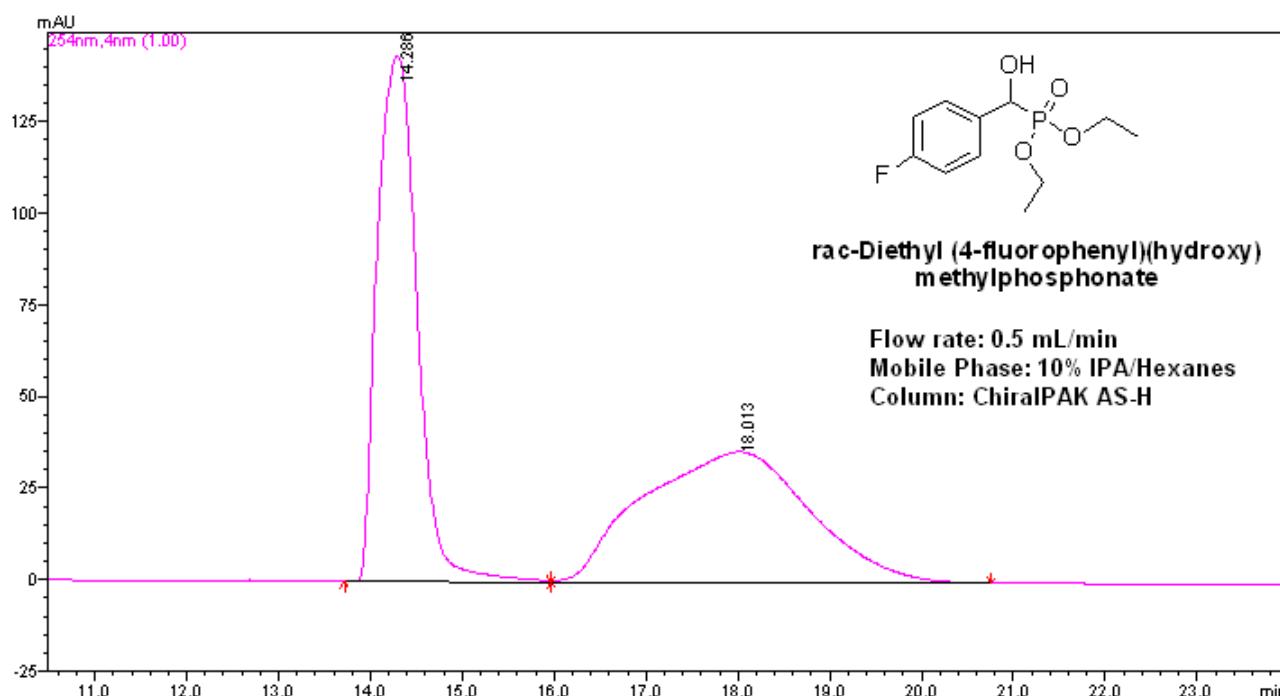
[gsekar@iitm.ac.in](mailto:gsekar@iitm.ac.in)

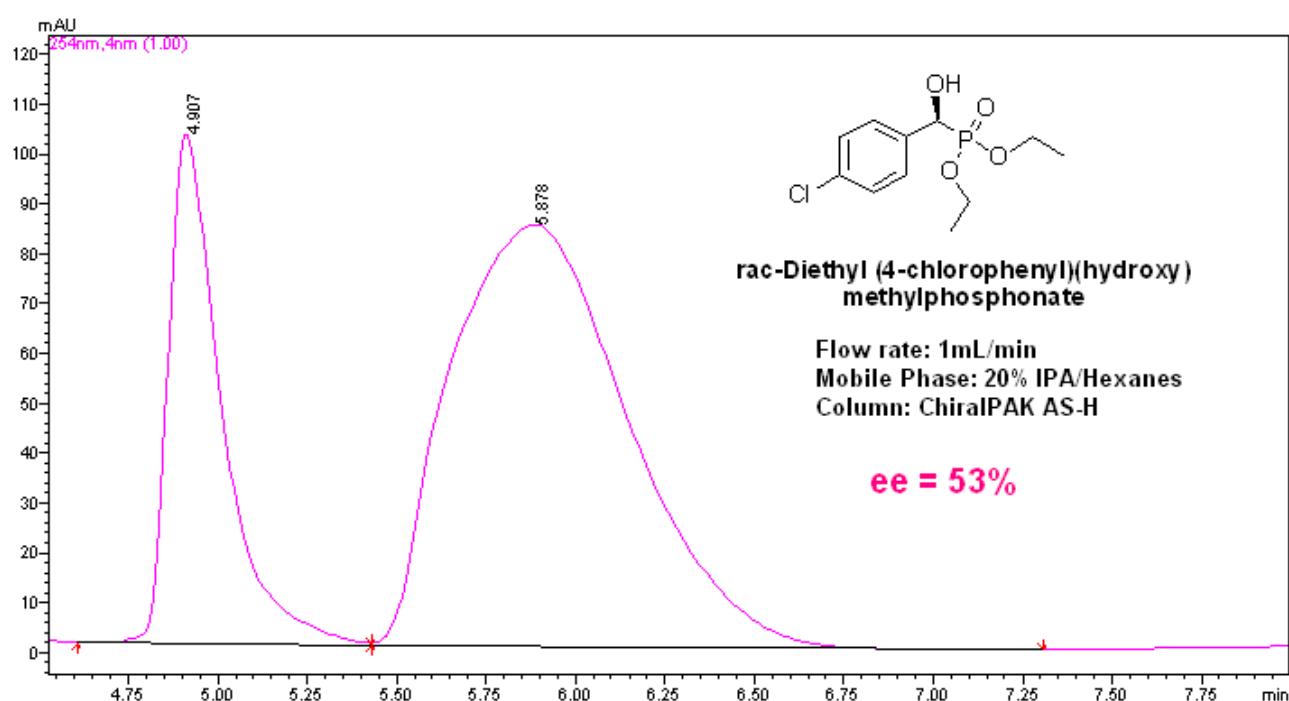
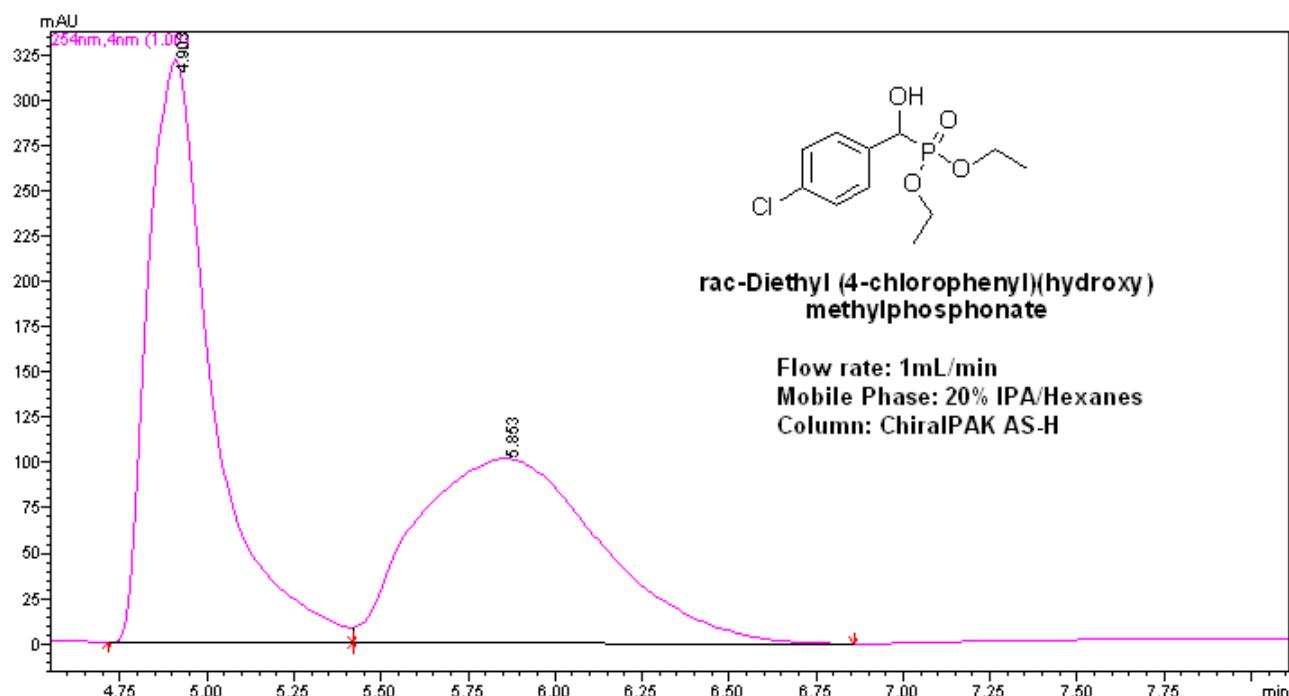
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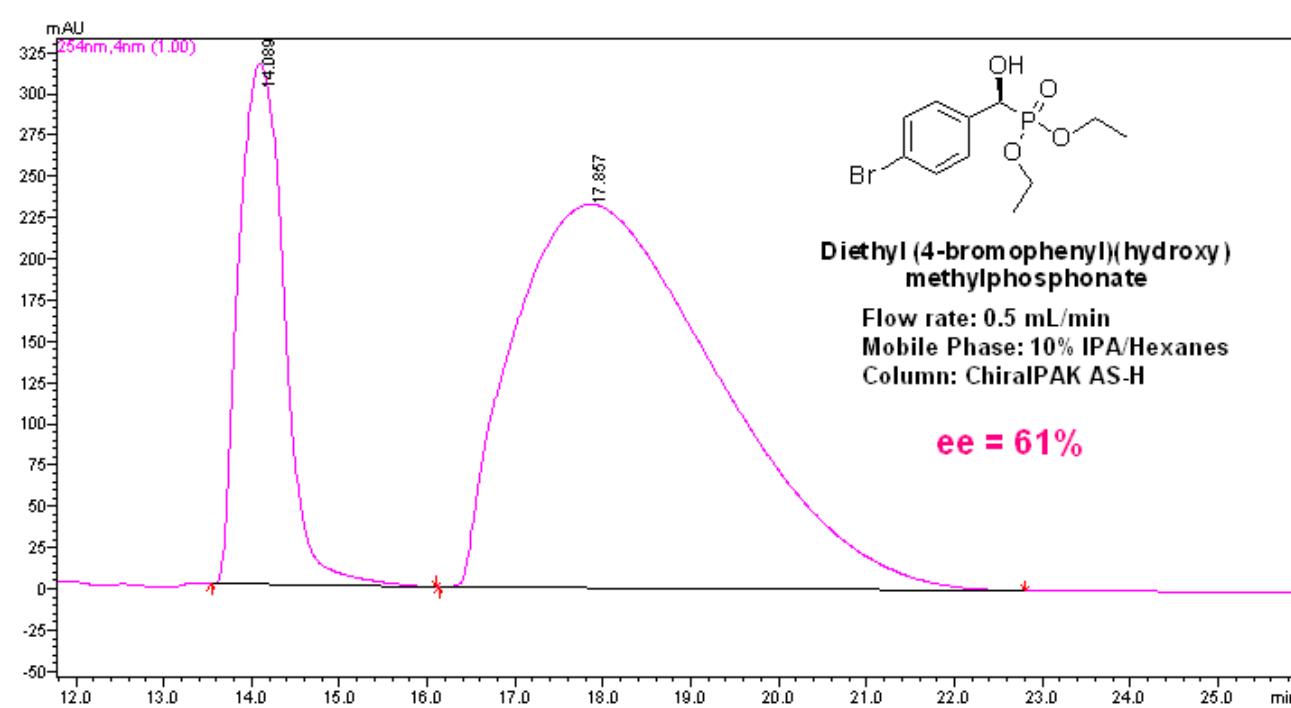
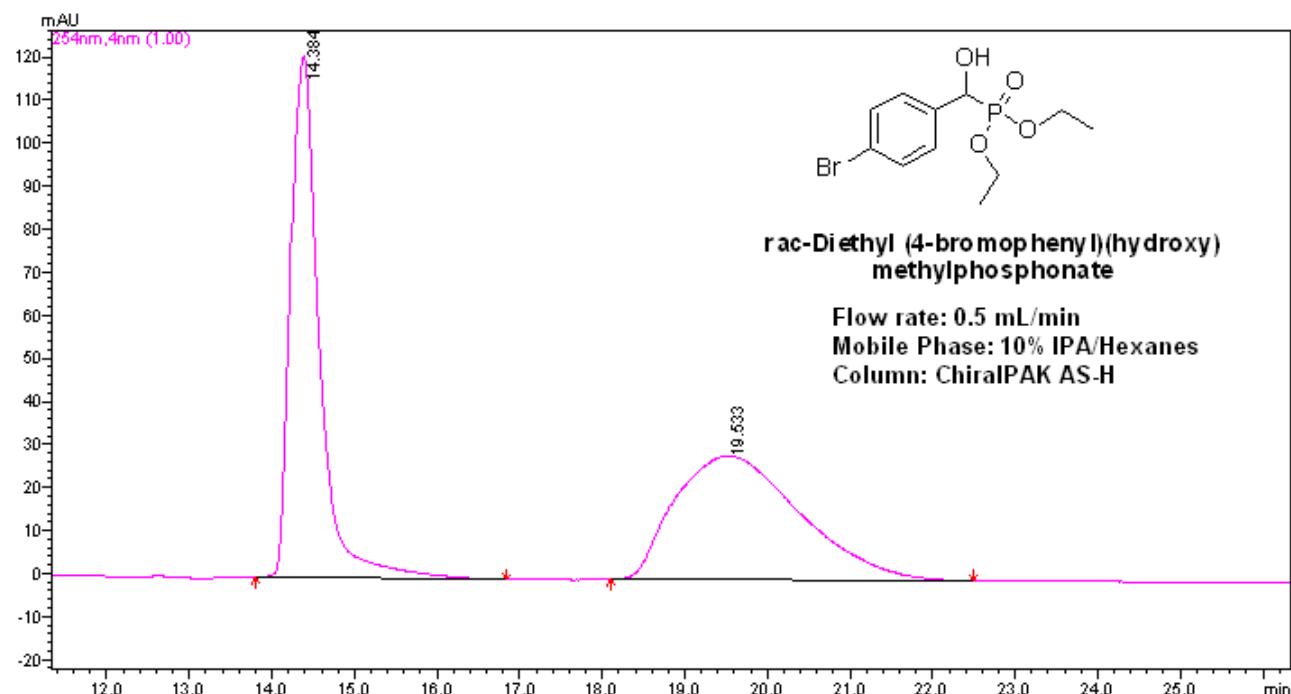
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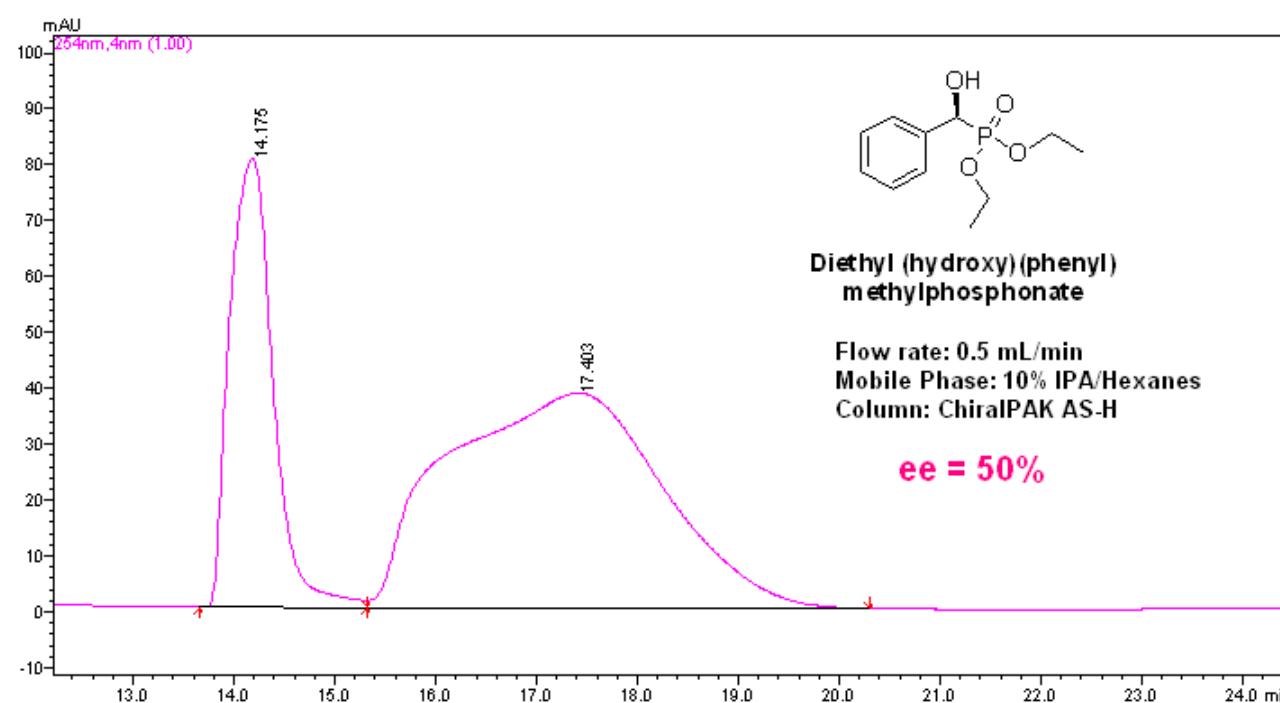
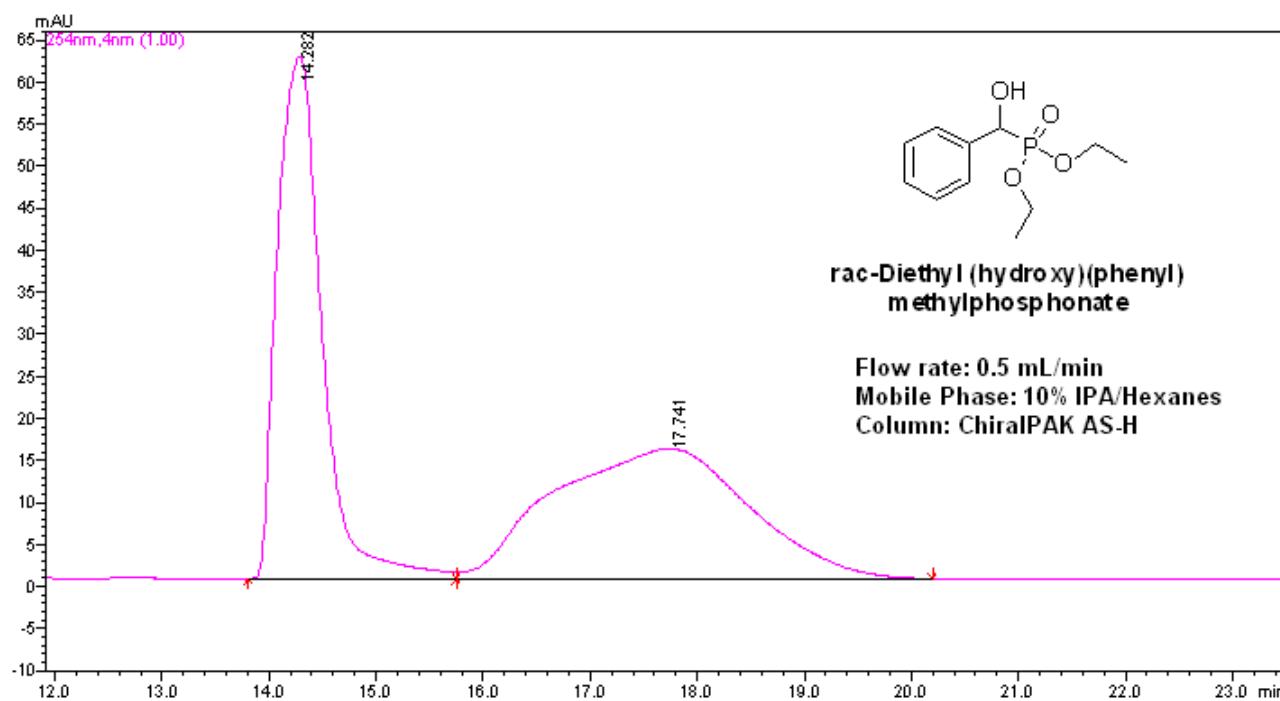


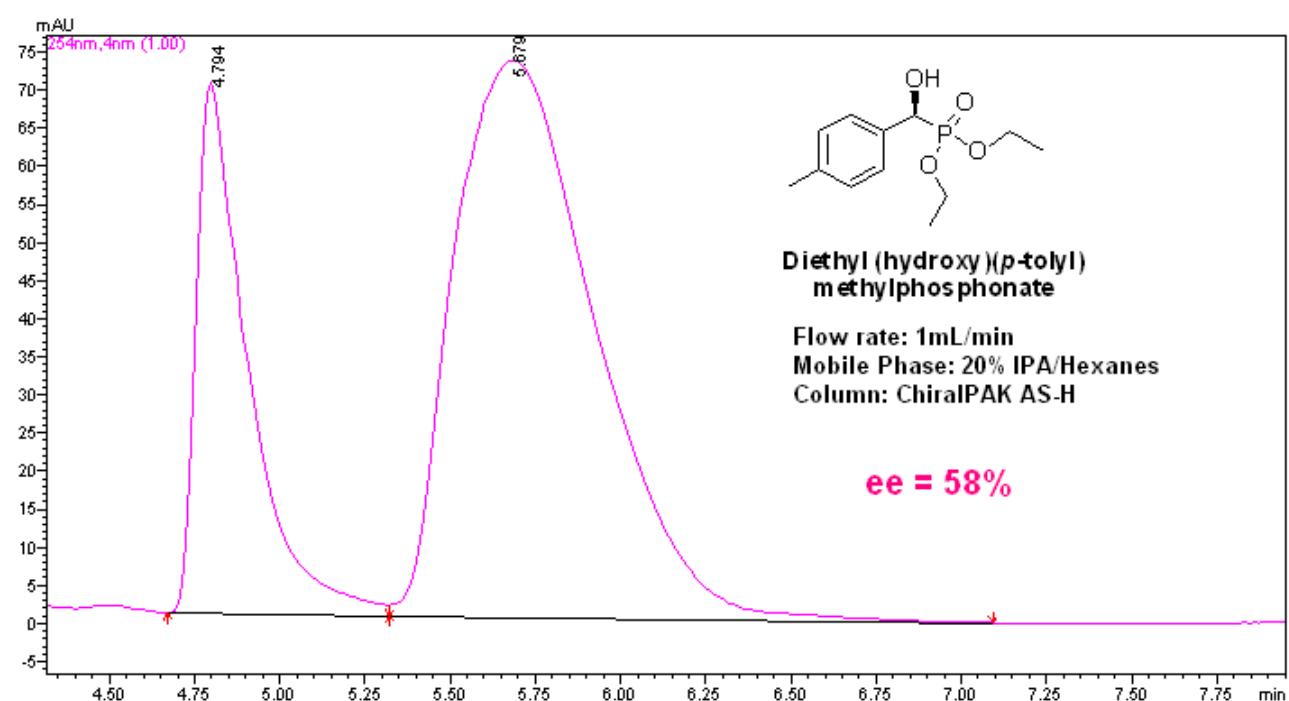
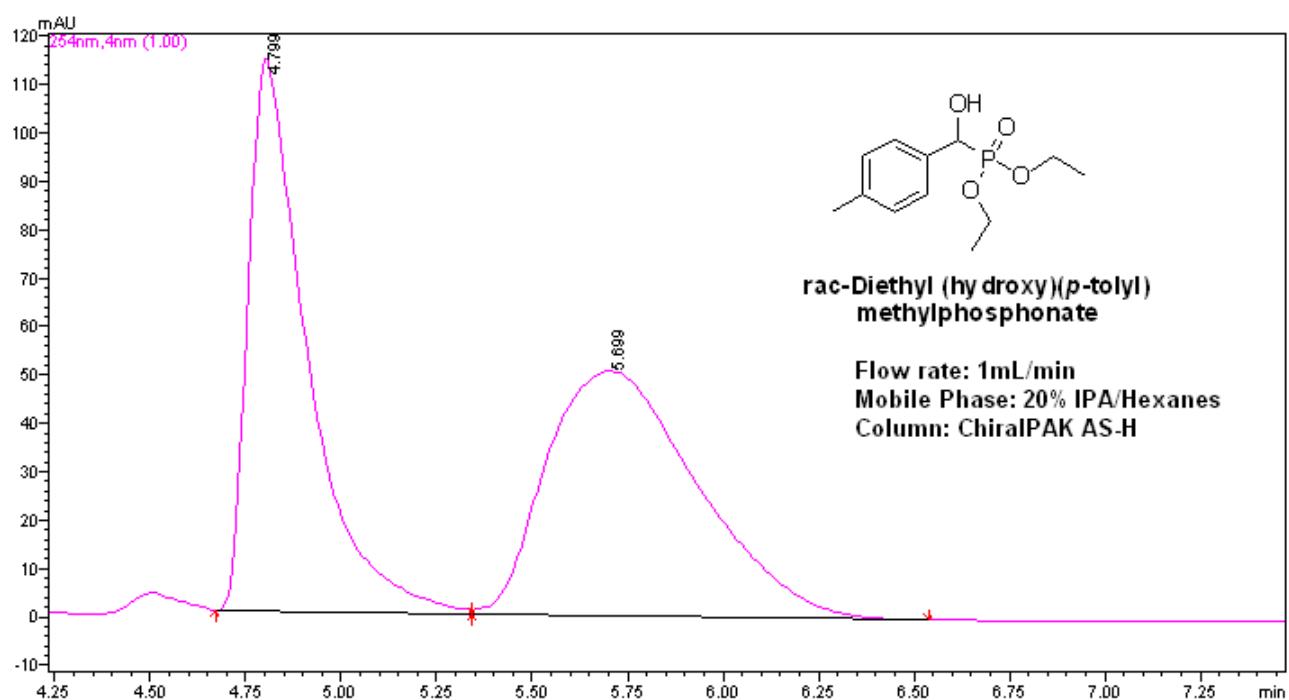


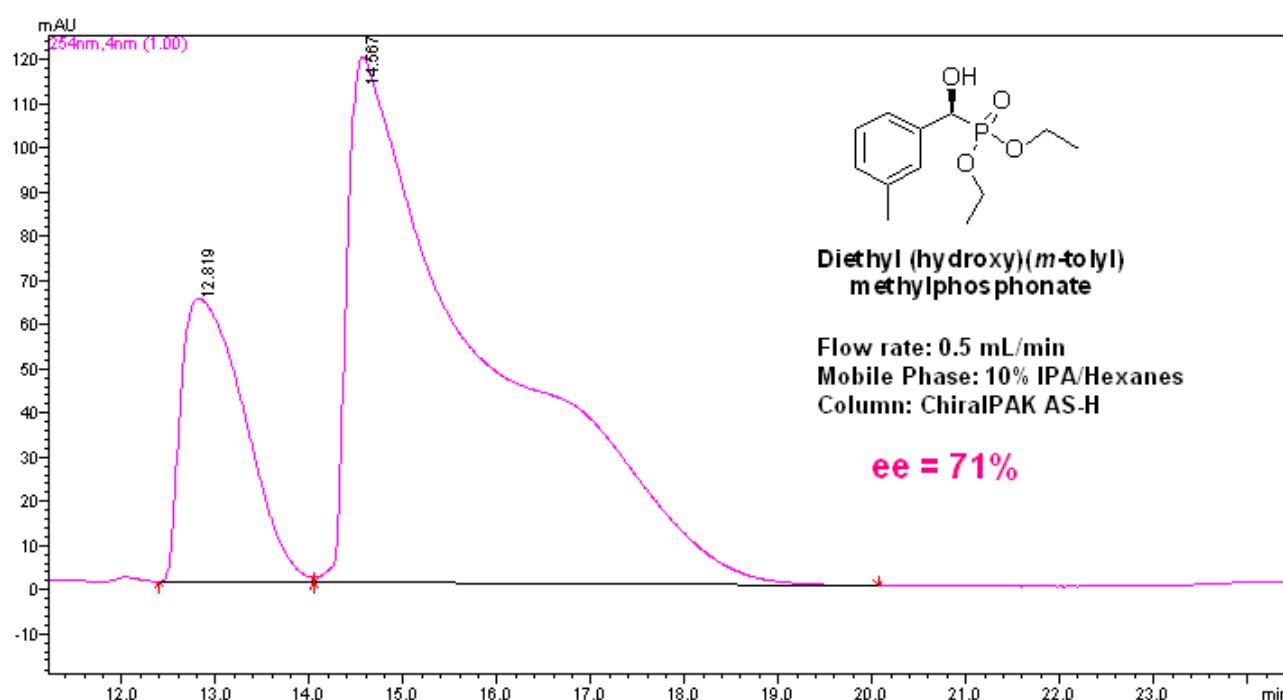
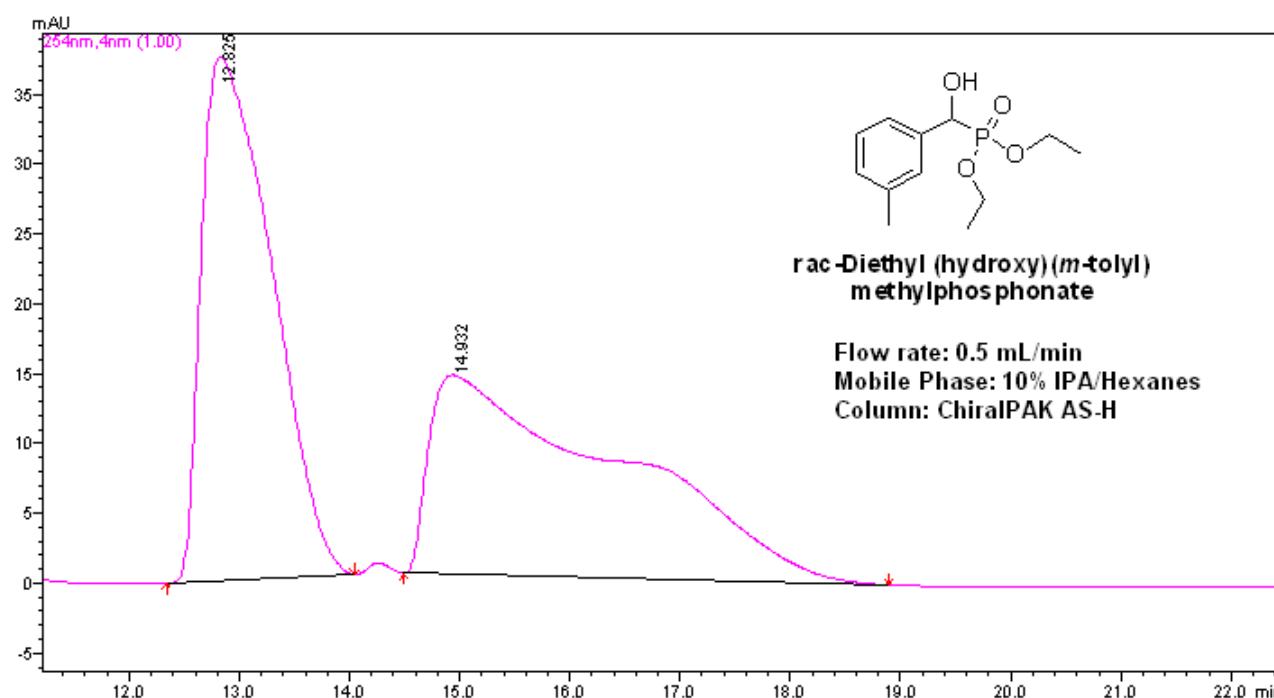


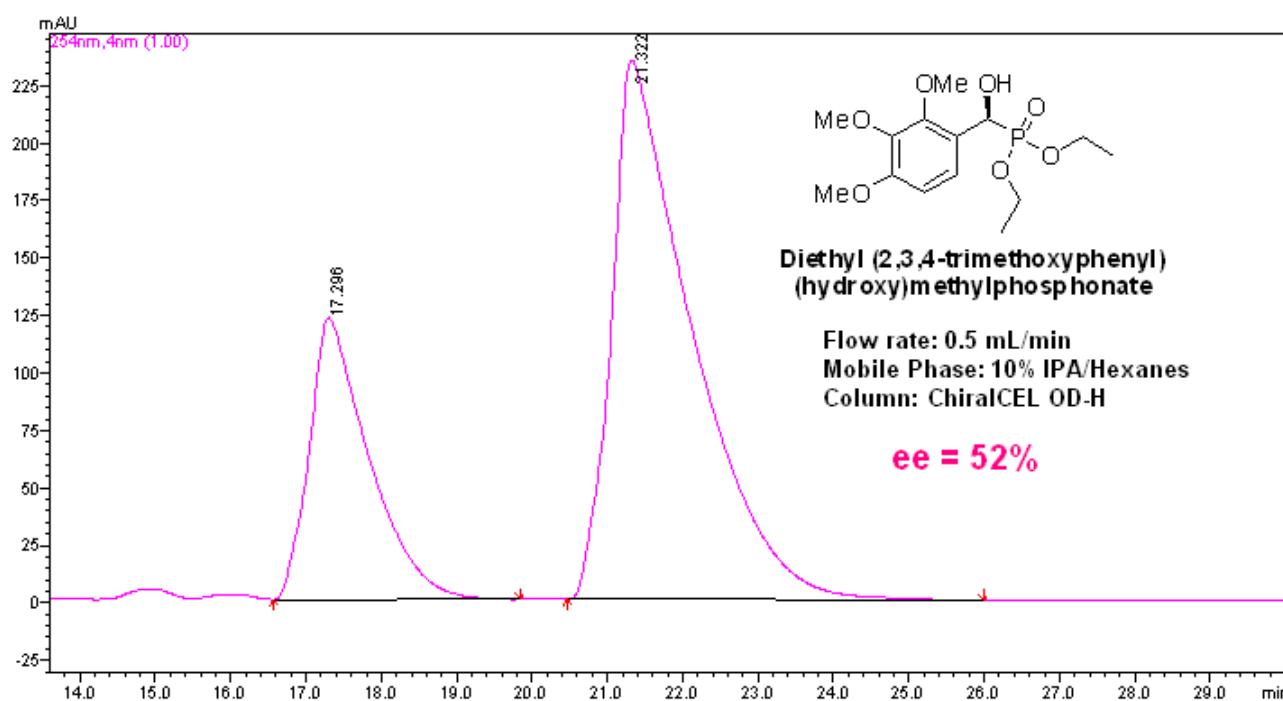
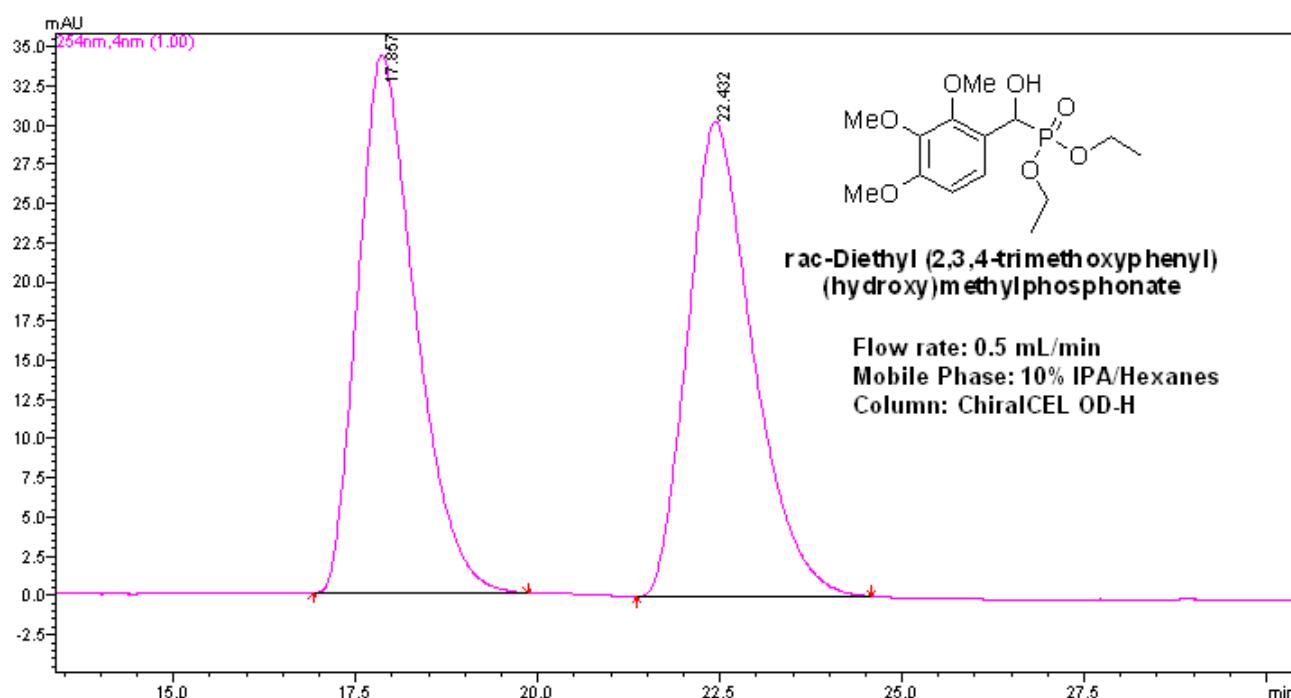


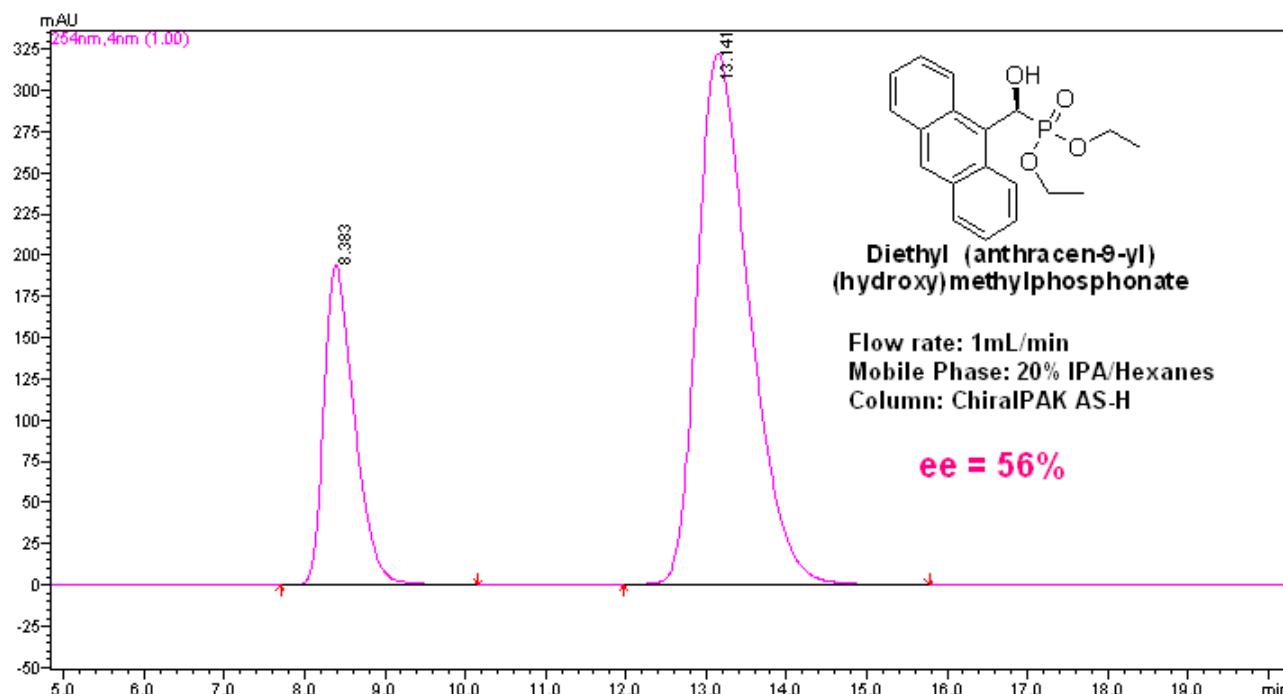


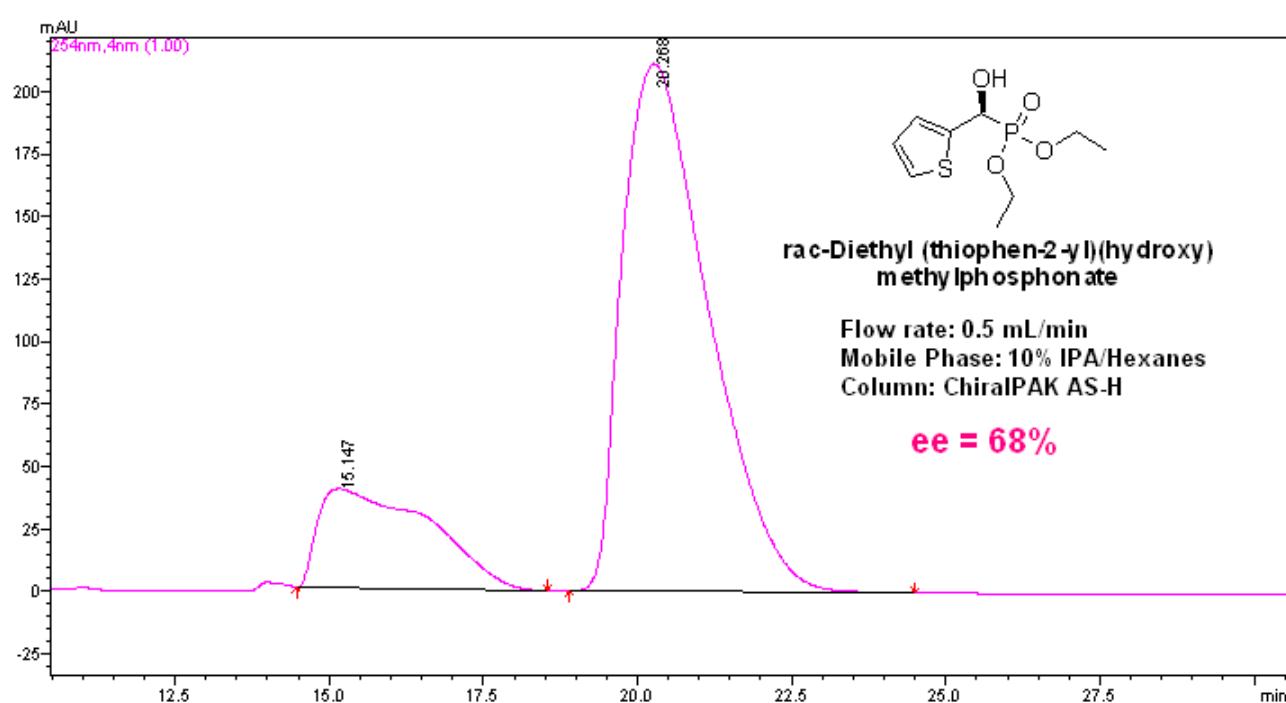
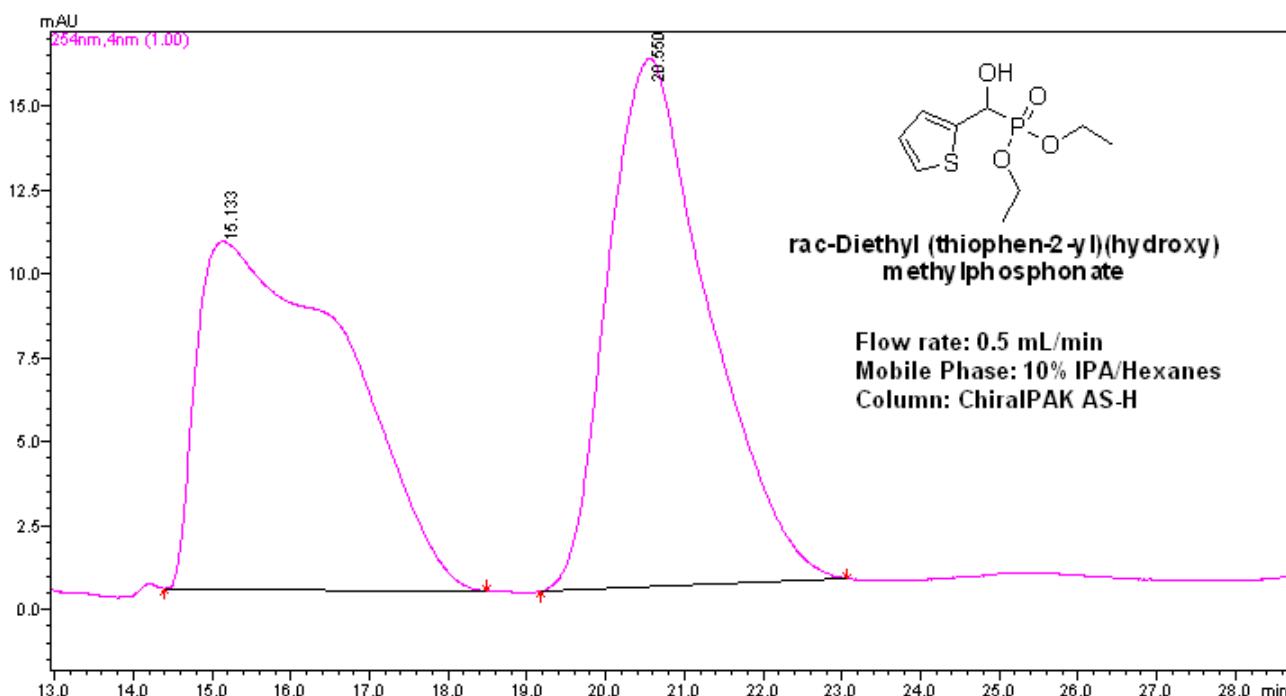


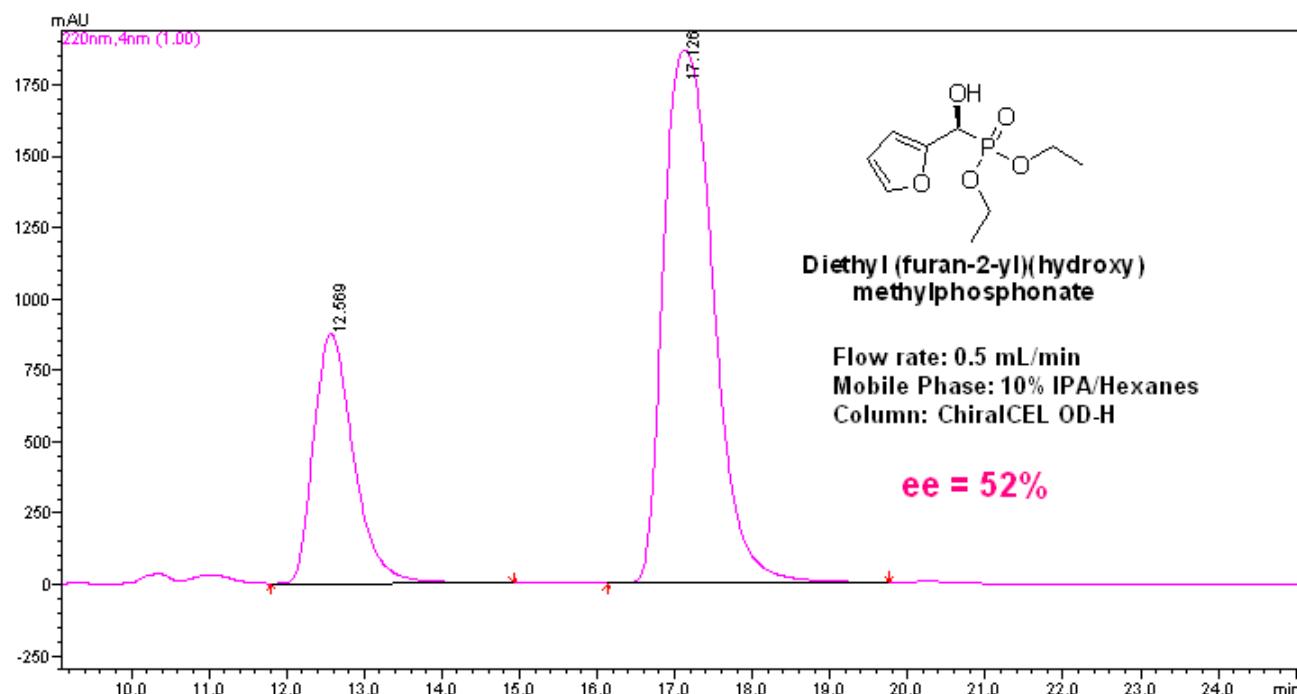




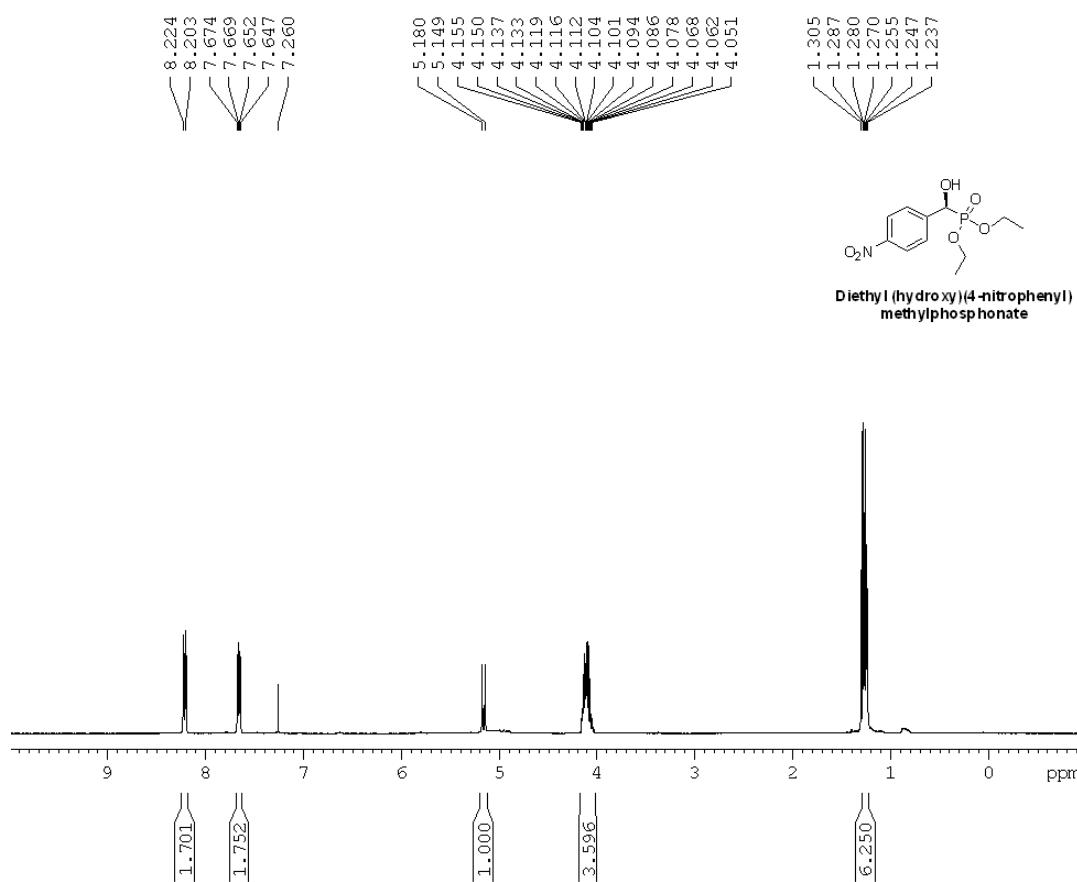




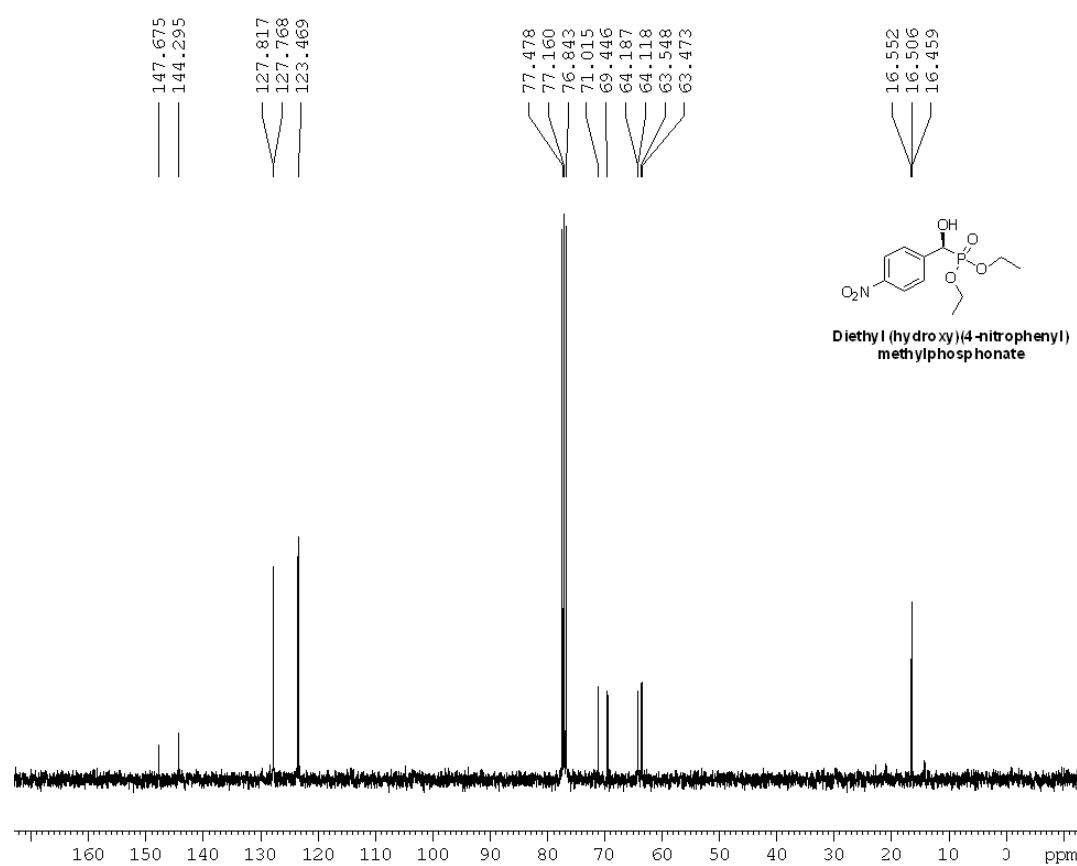




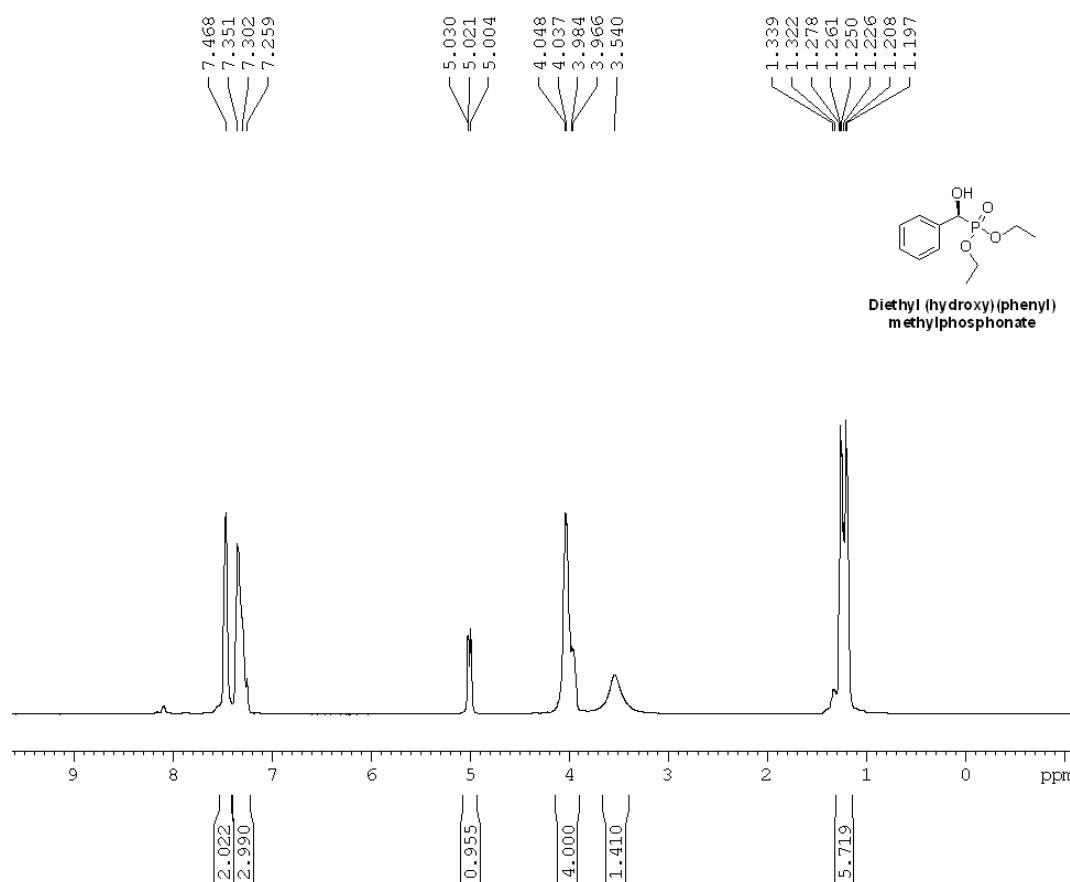
**400 MHz  $^1\text{H}$  NMR of Diethyl (hydroxy)(4-nitrophenyl)methylphosphonate in  $\text{CDCl}_3$**



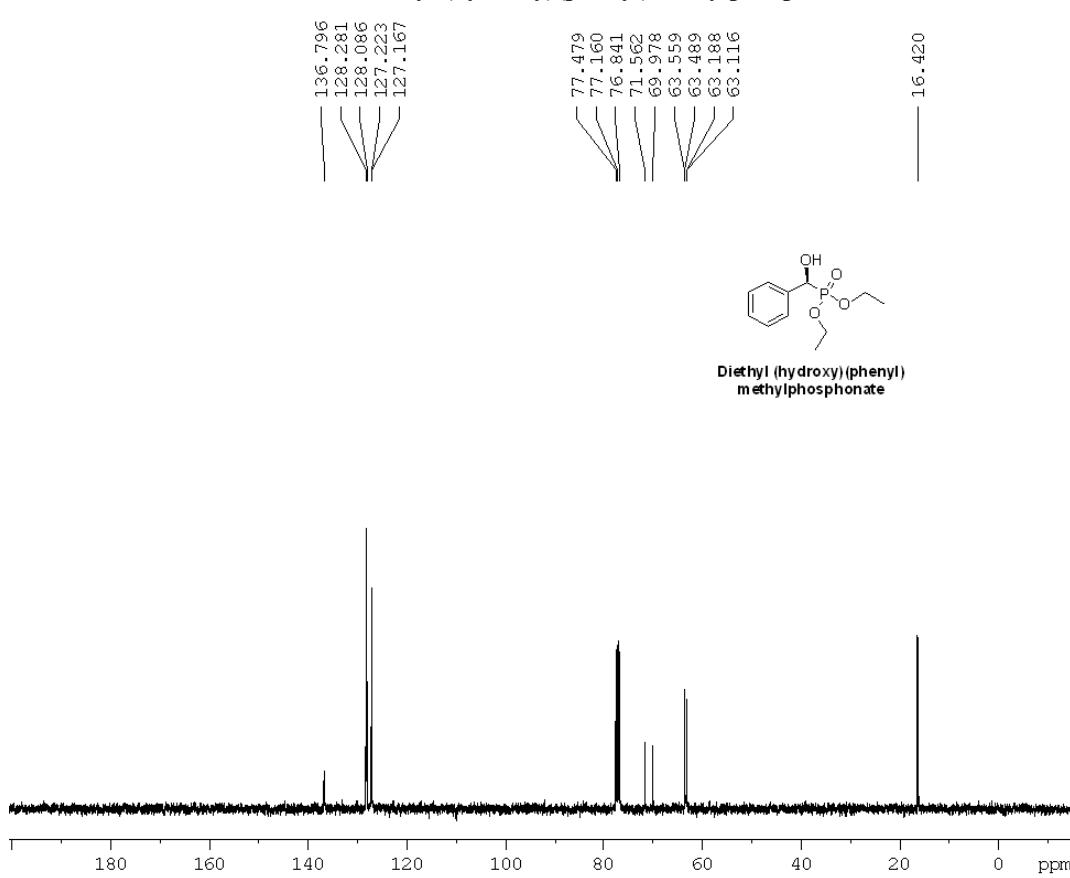
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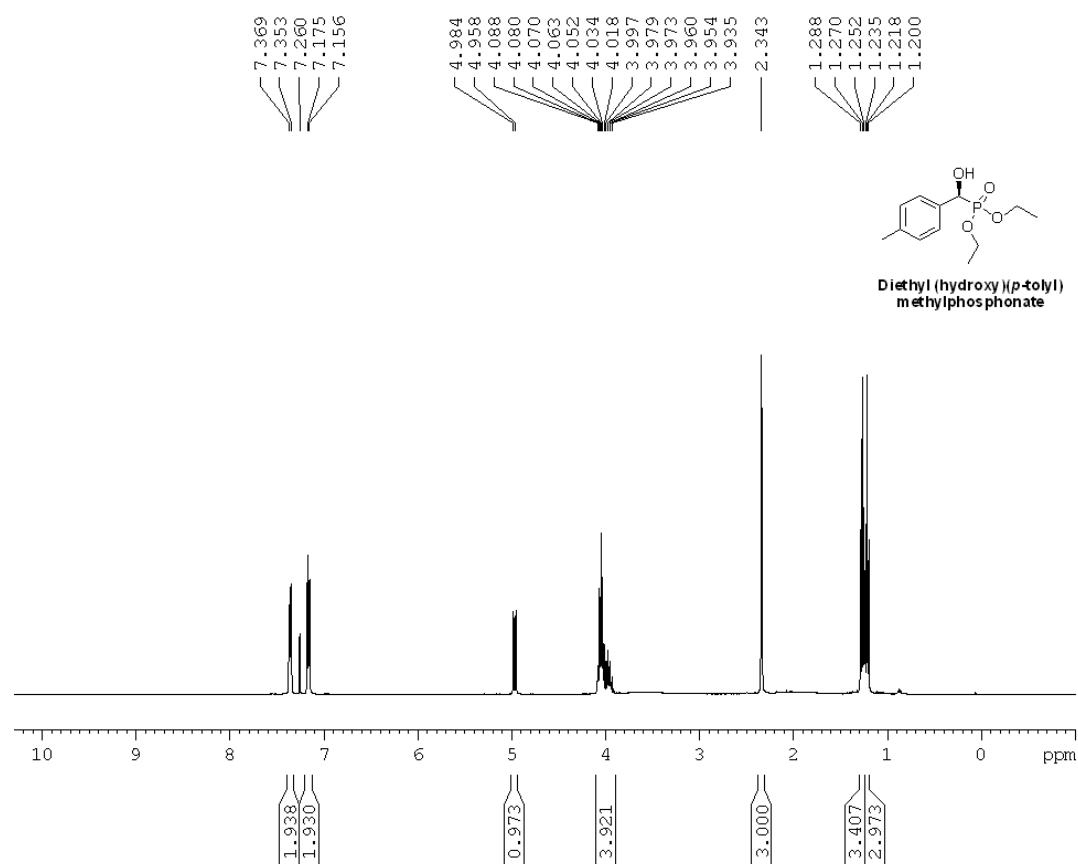
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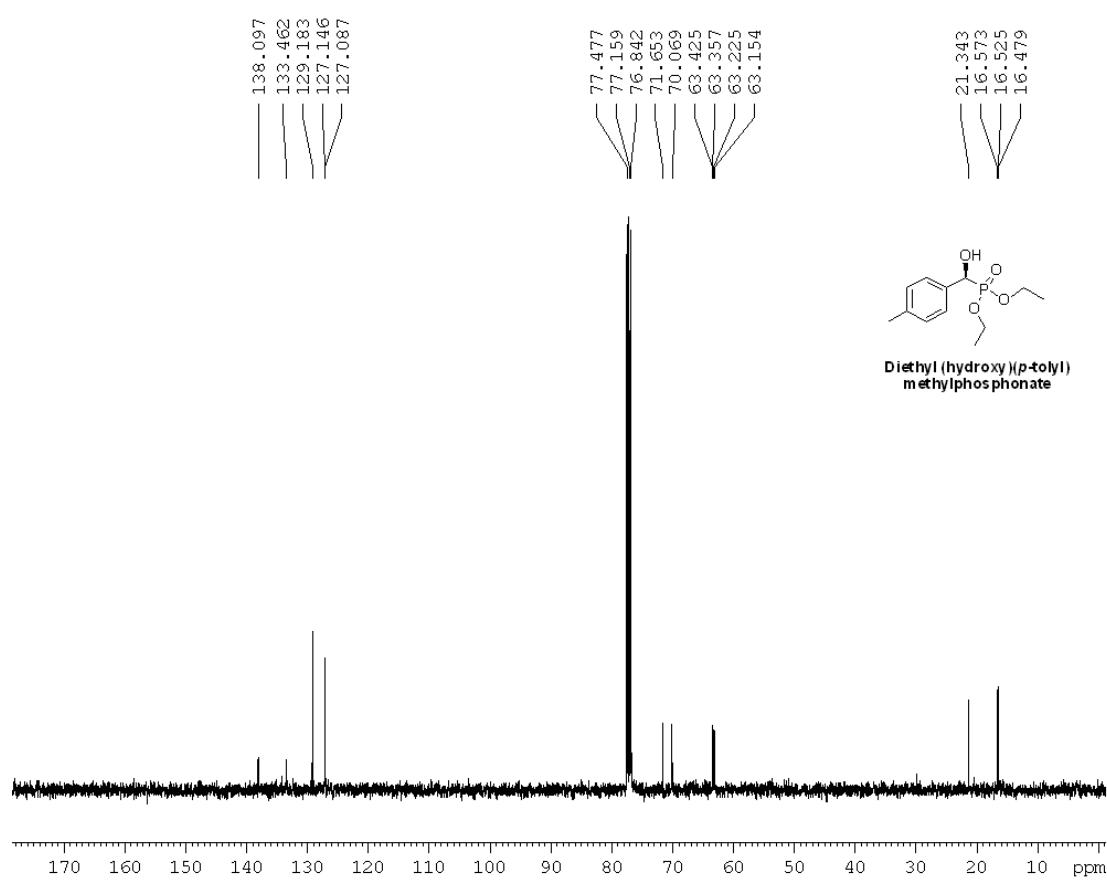
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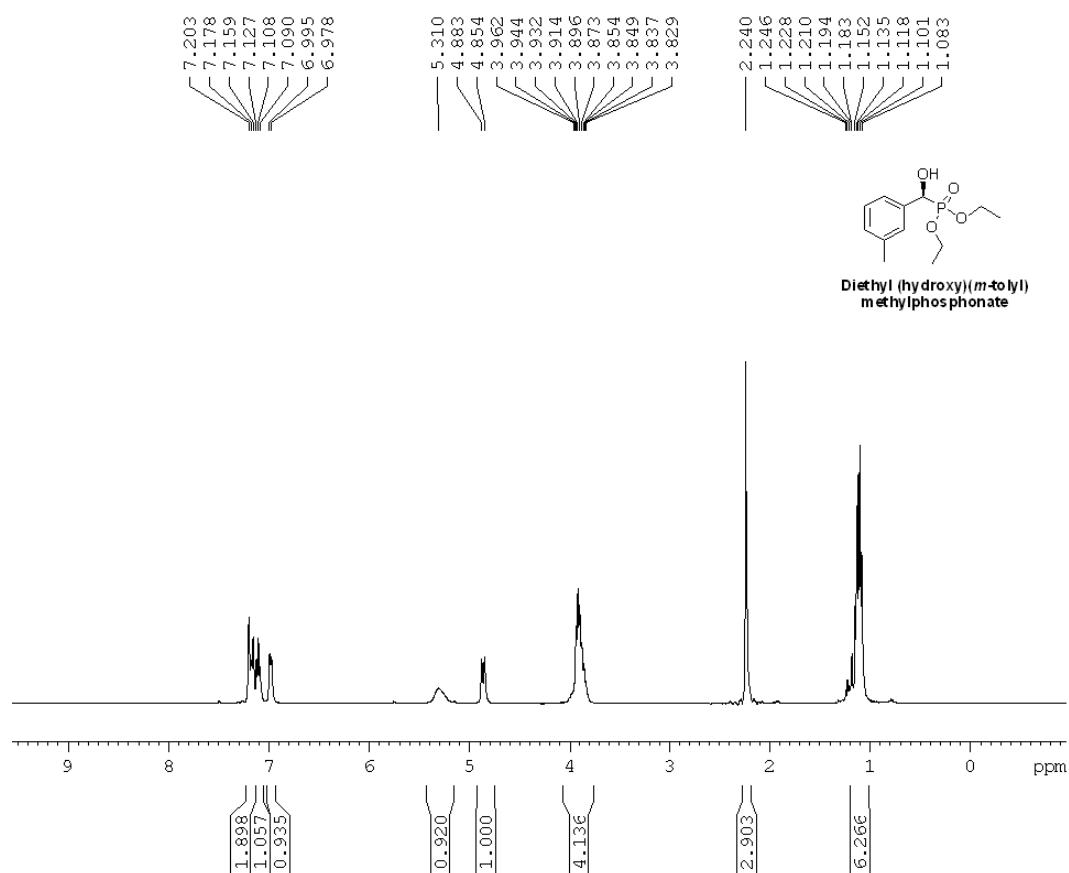
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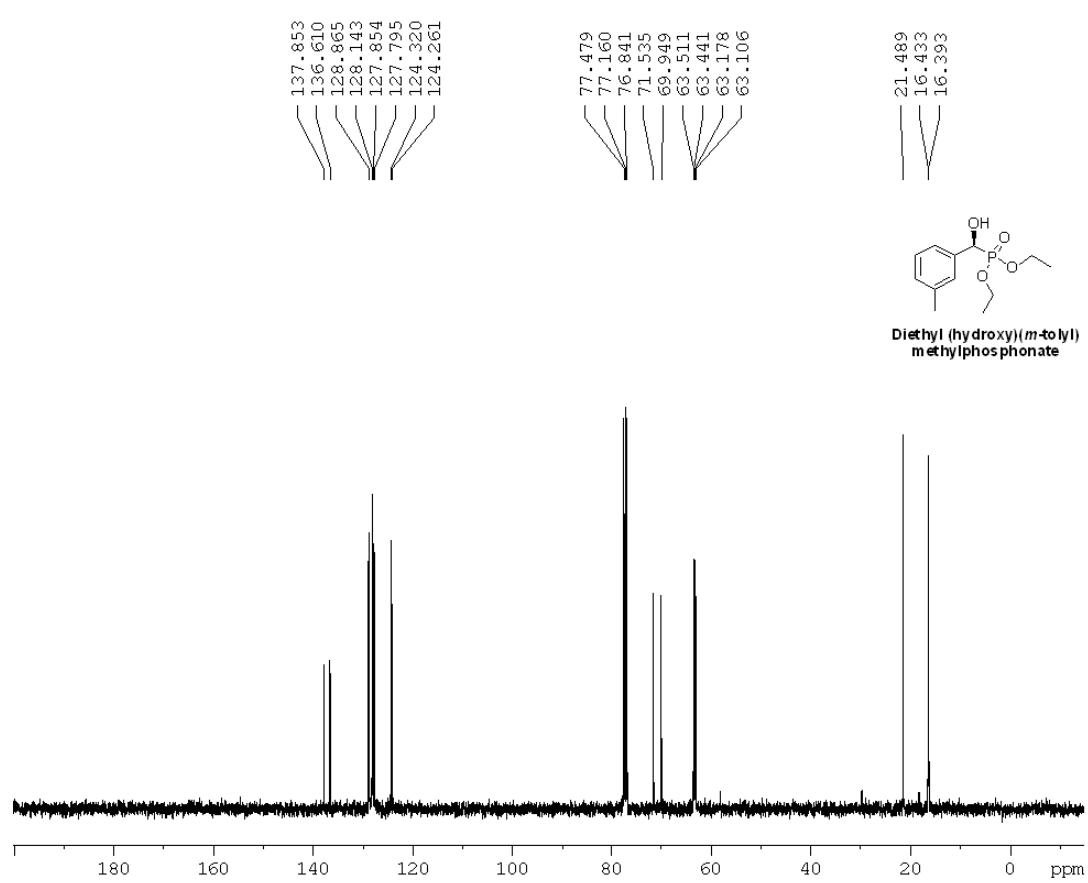
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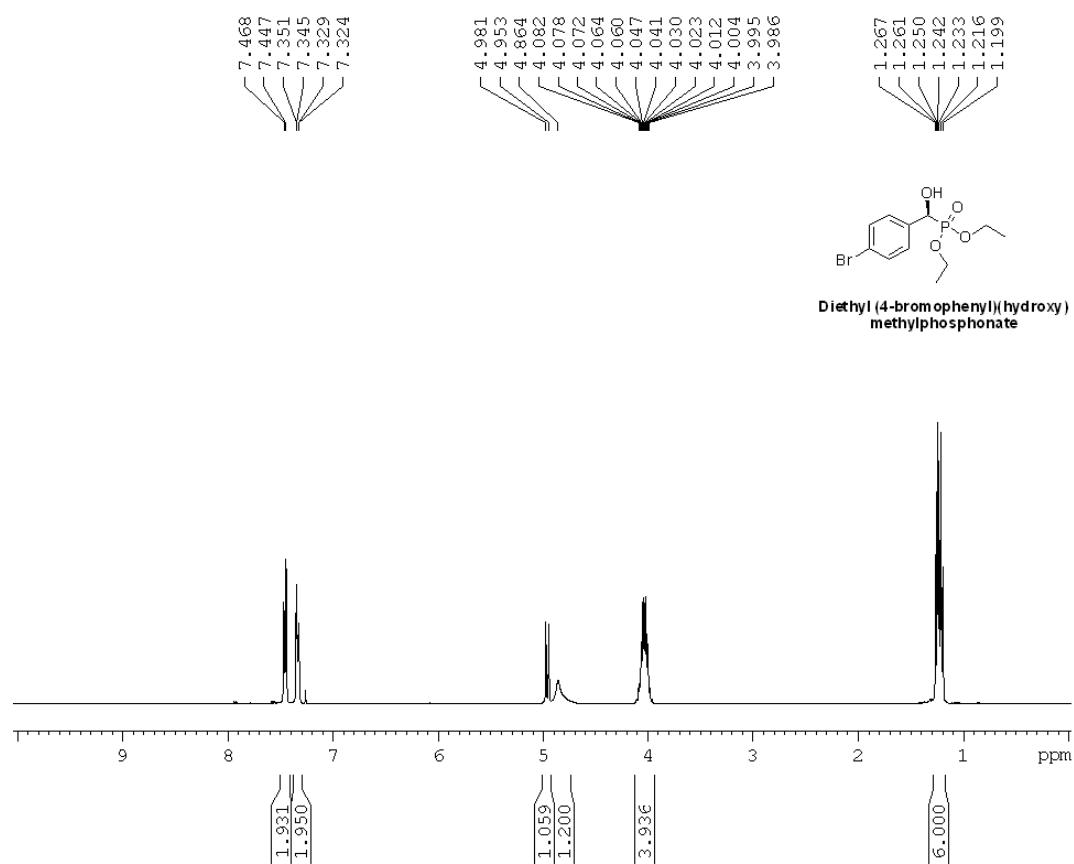
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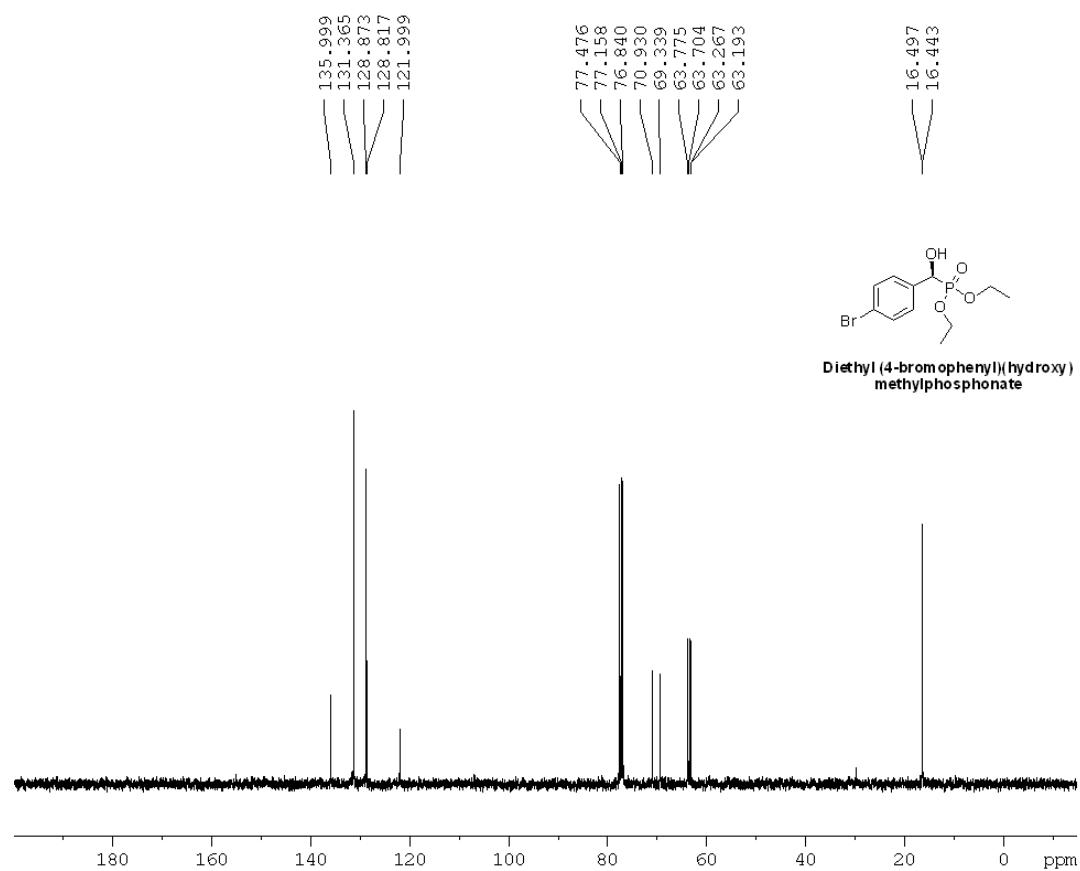
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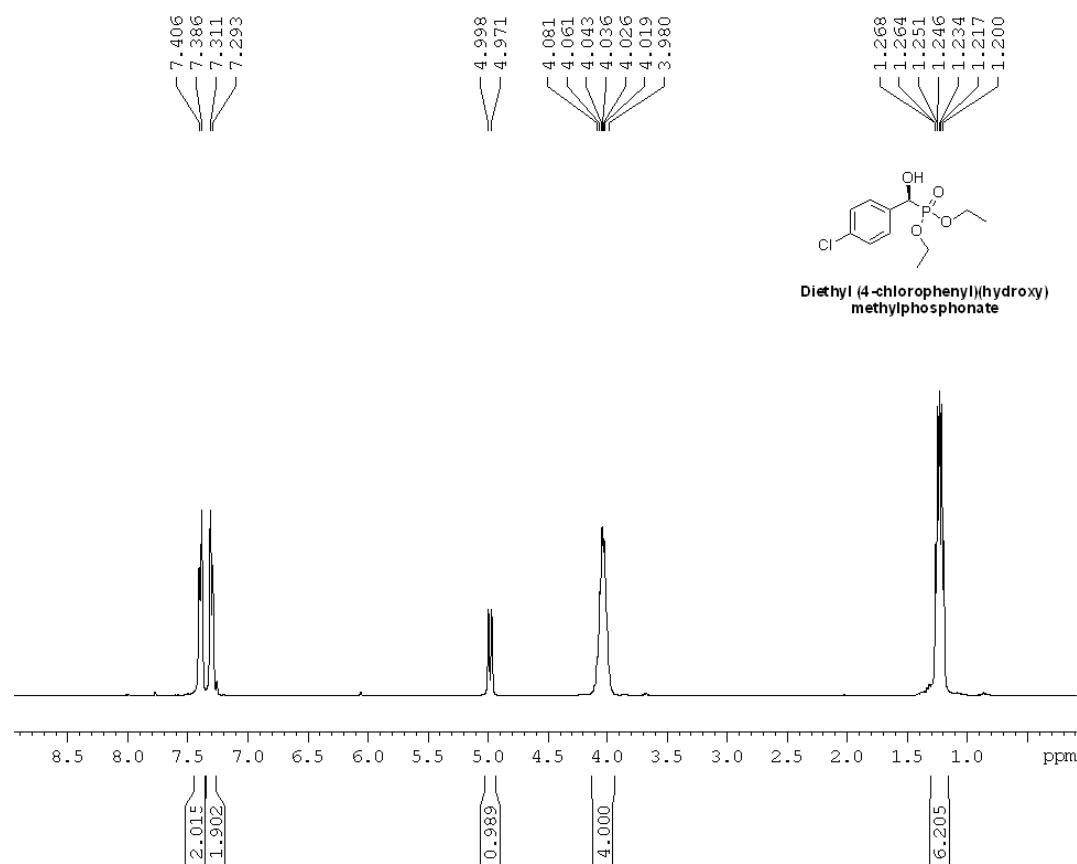
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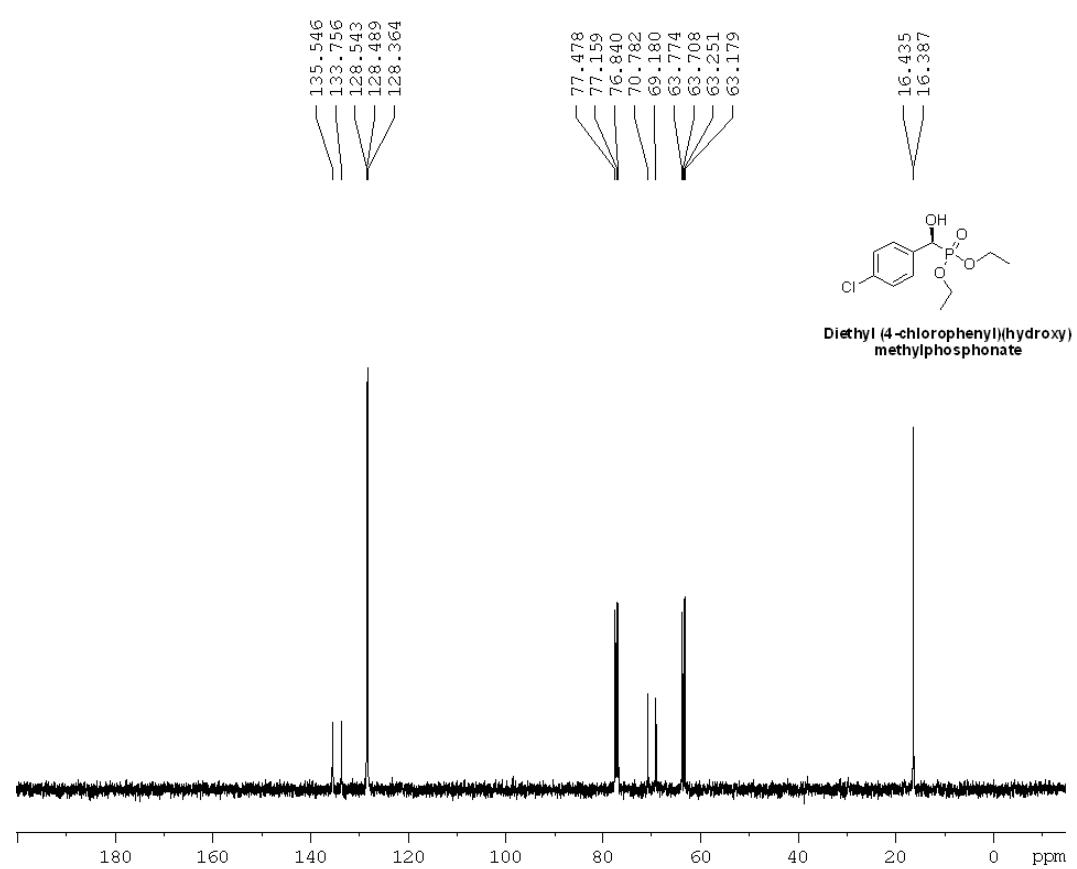
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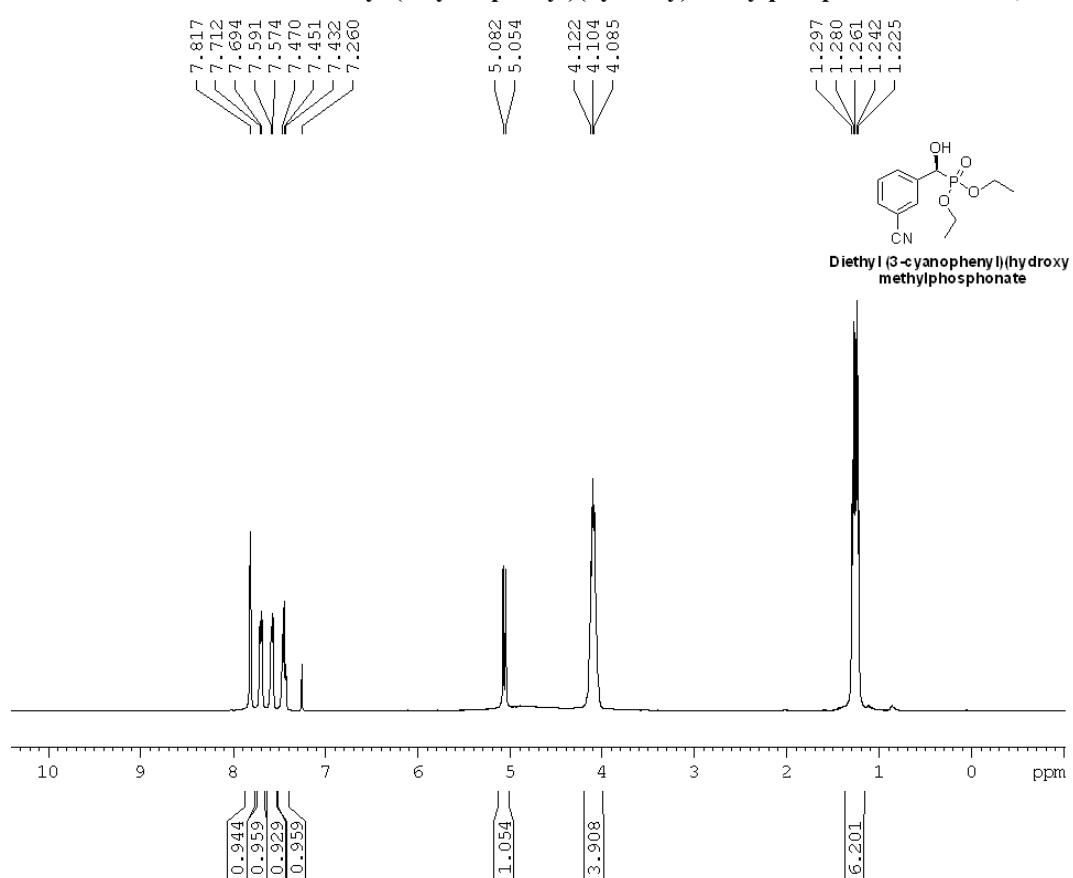
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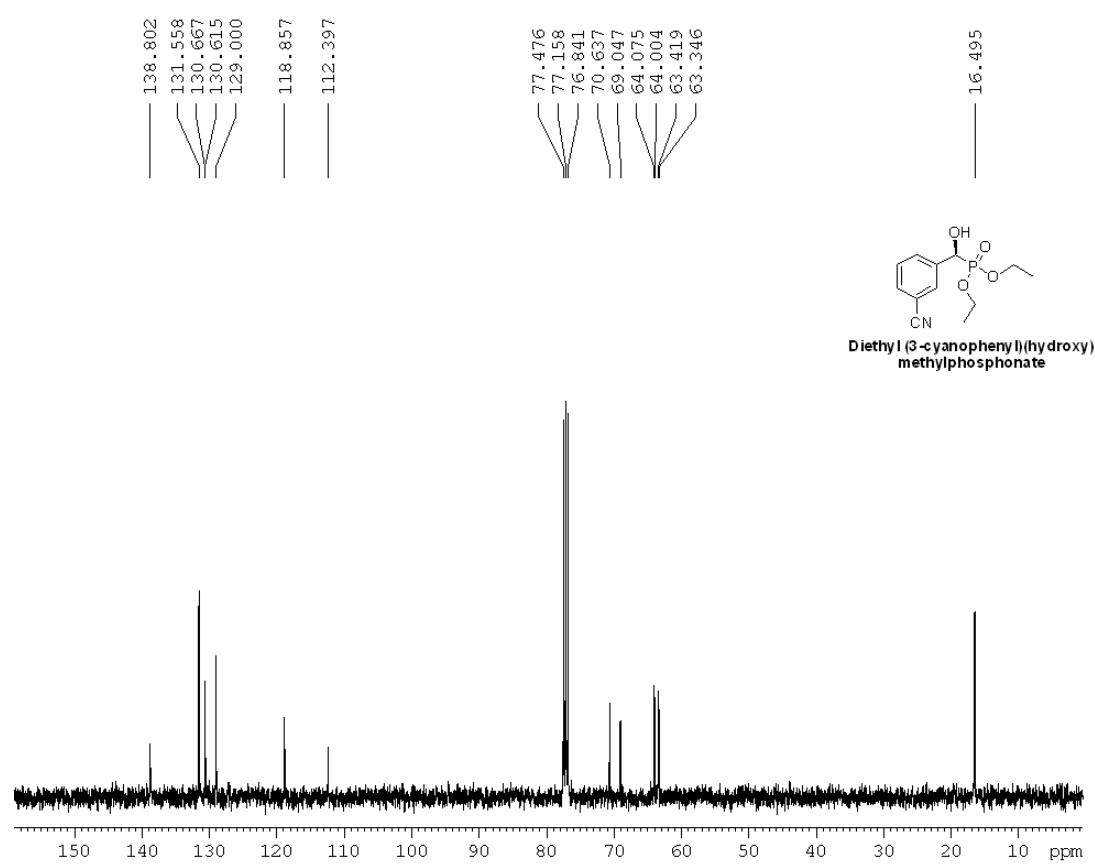
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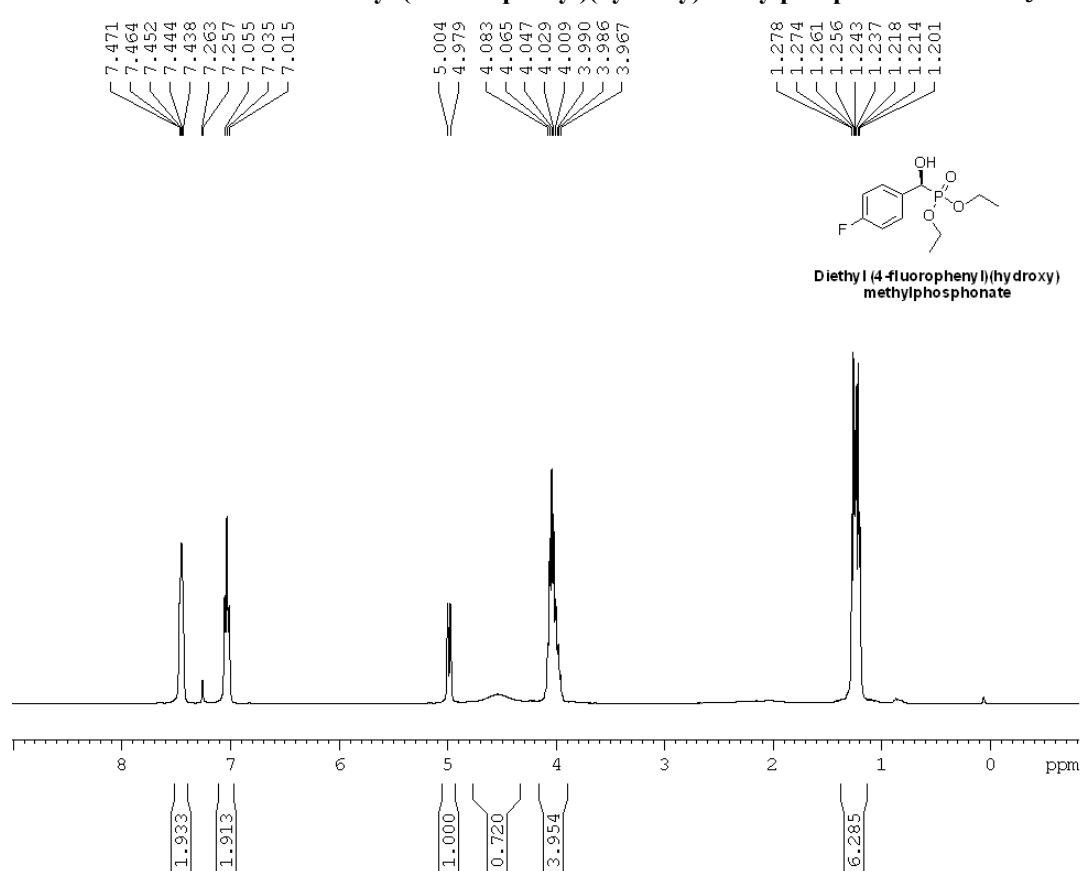
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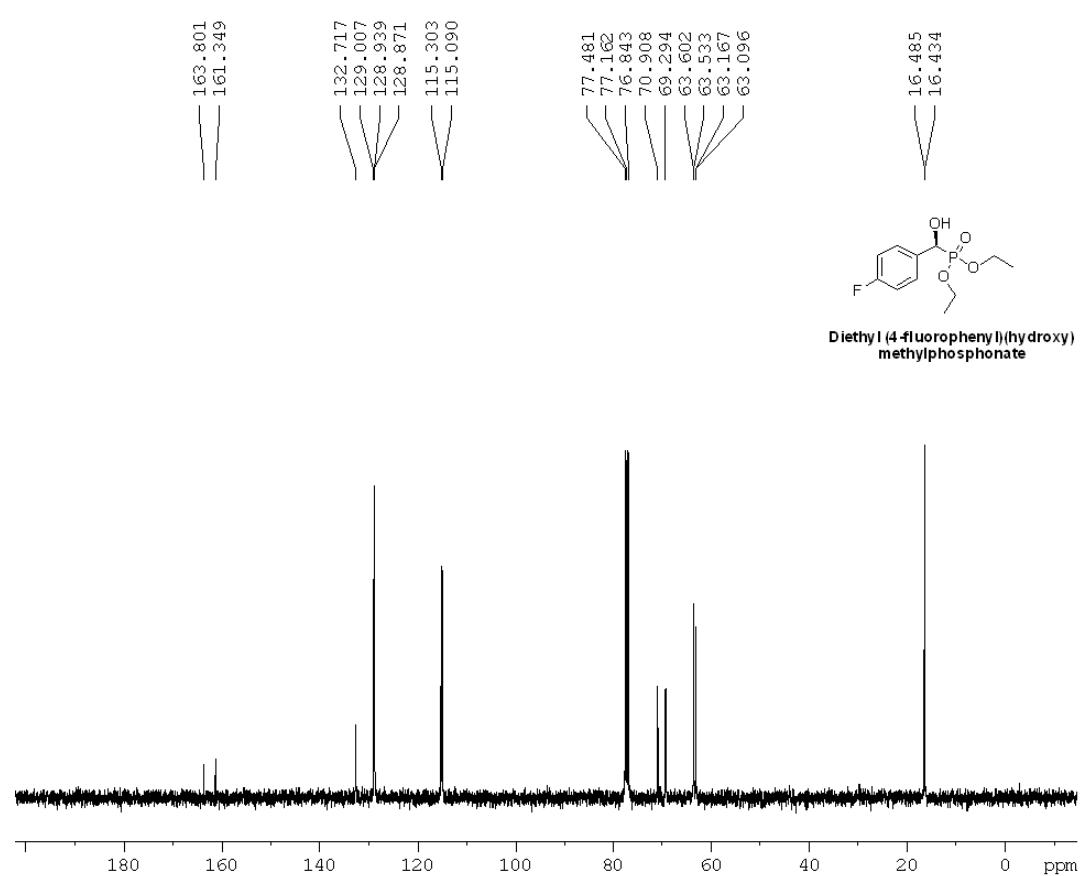
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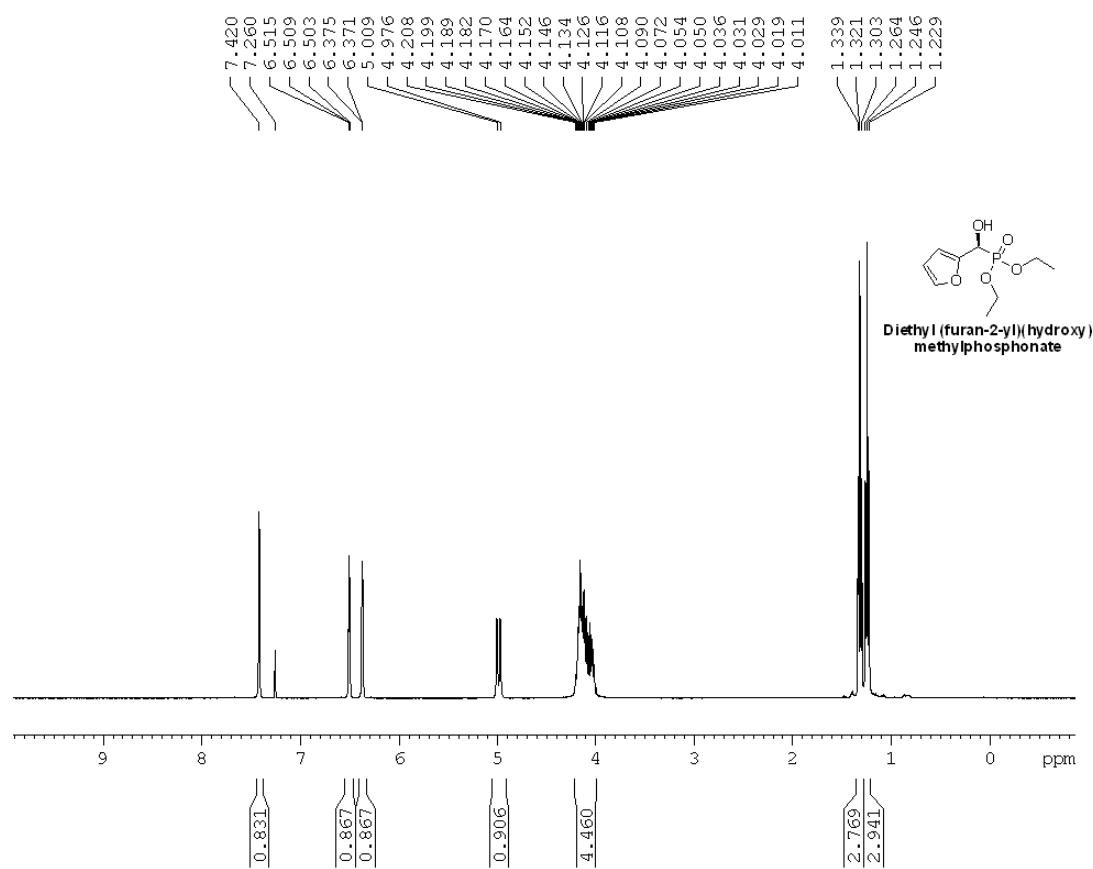
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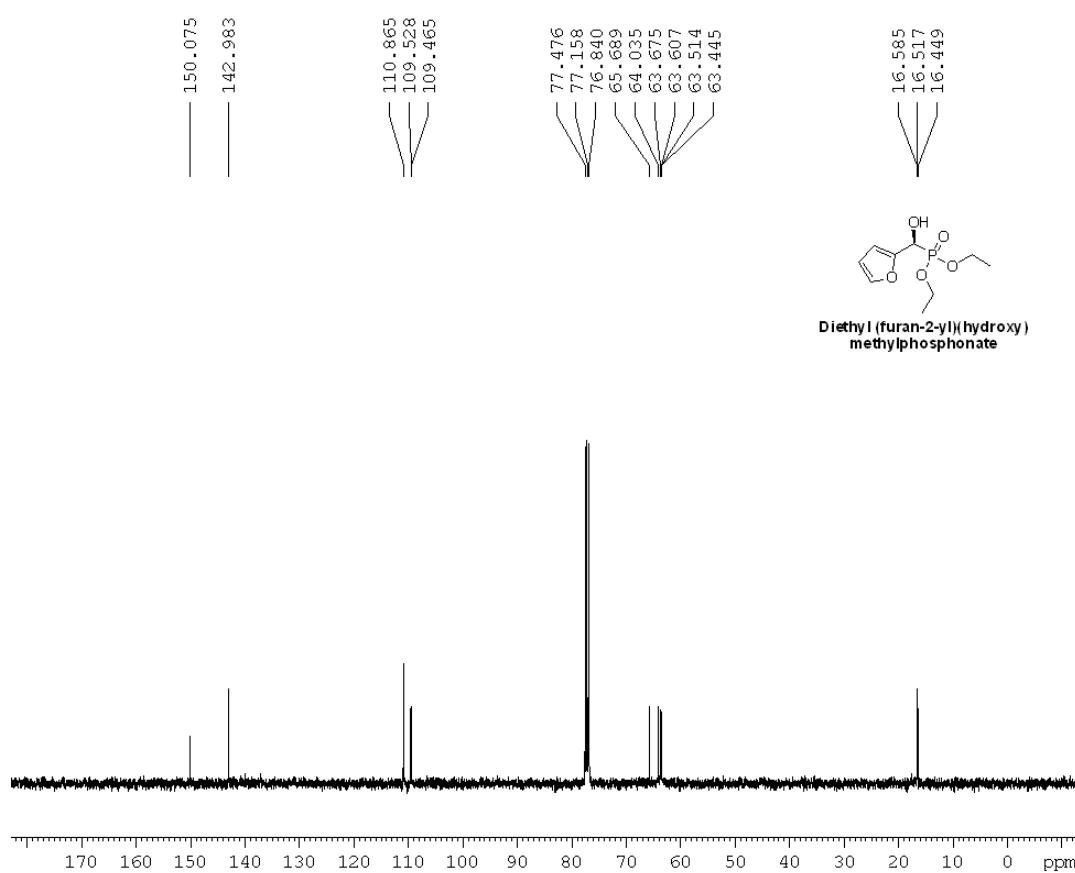
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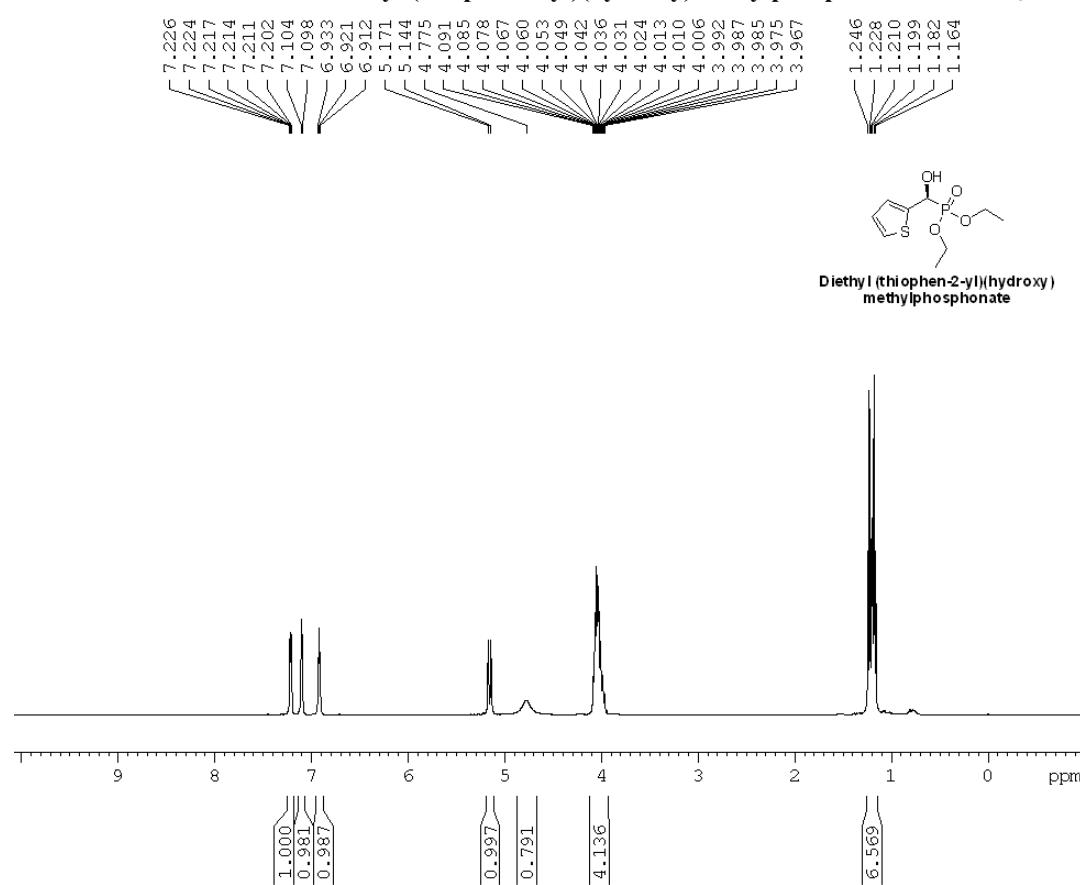
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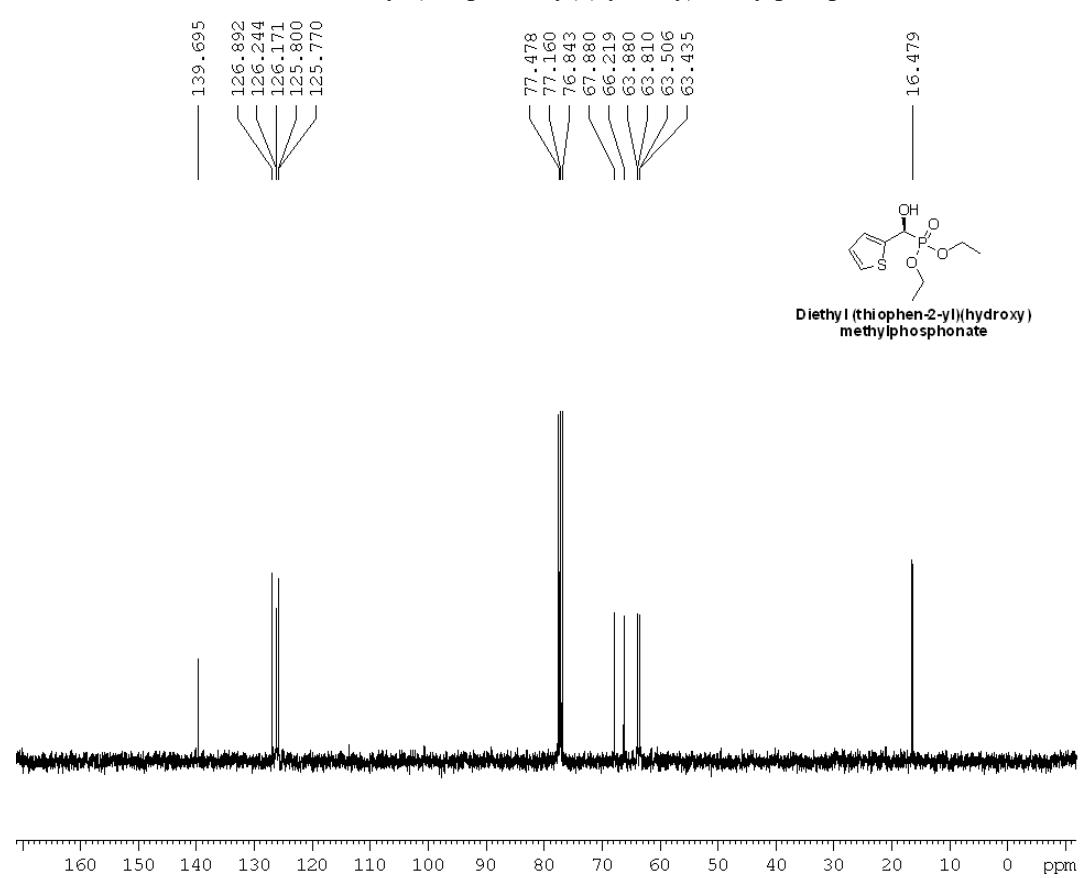
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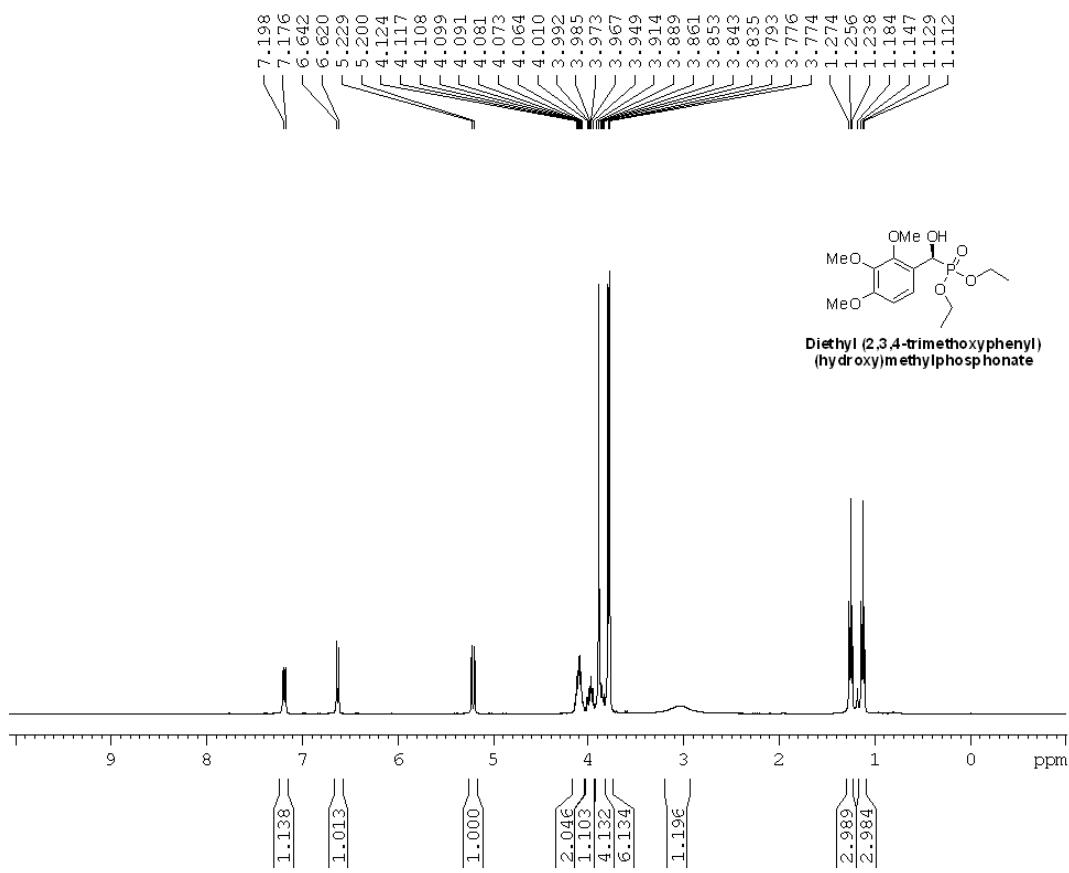
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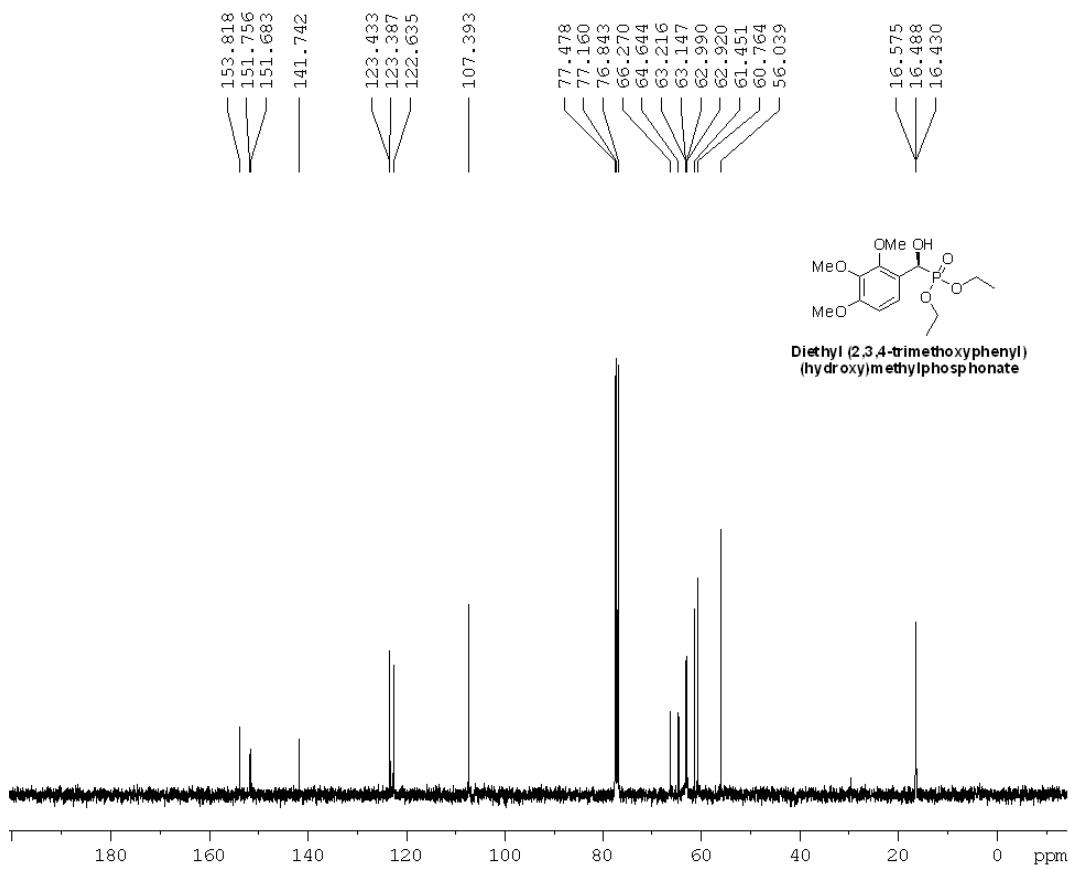
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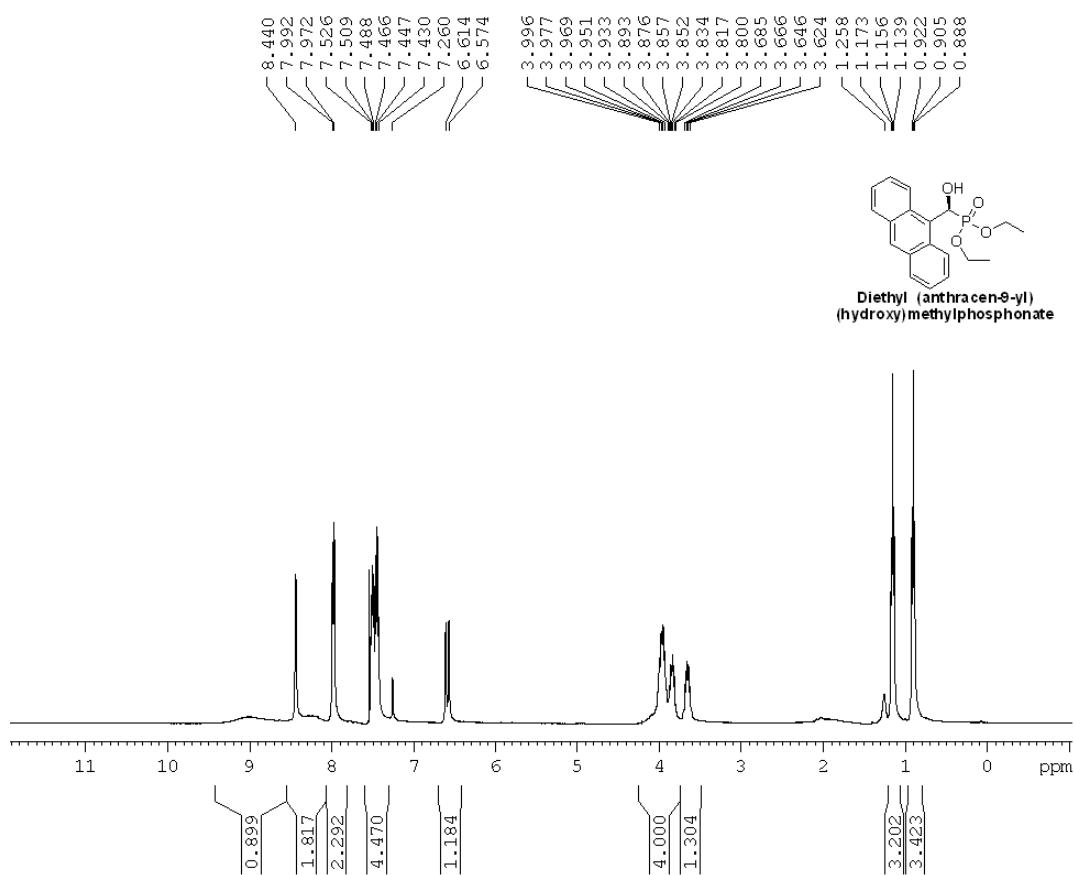
**400 MHz  $^1\text{H}$  NMR of Diethyl (2,3,4-trimethoxyphenyl)(hydroxy)methylphosphonate in  $\text{CDCl}_3$**



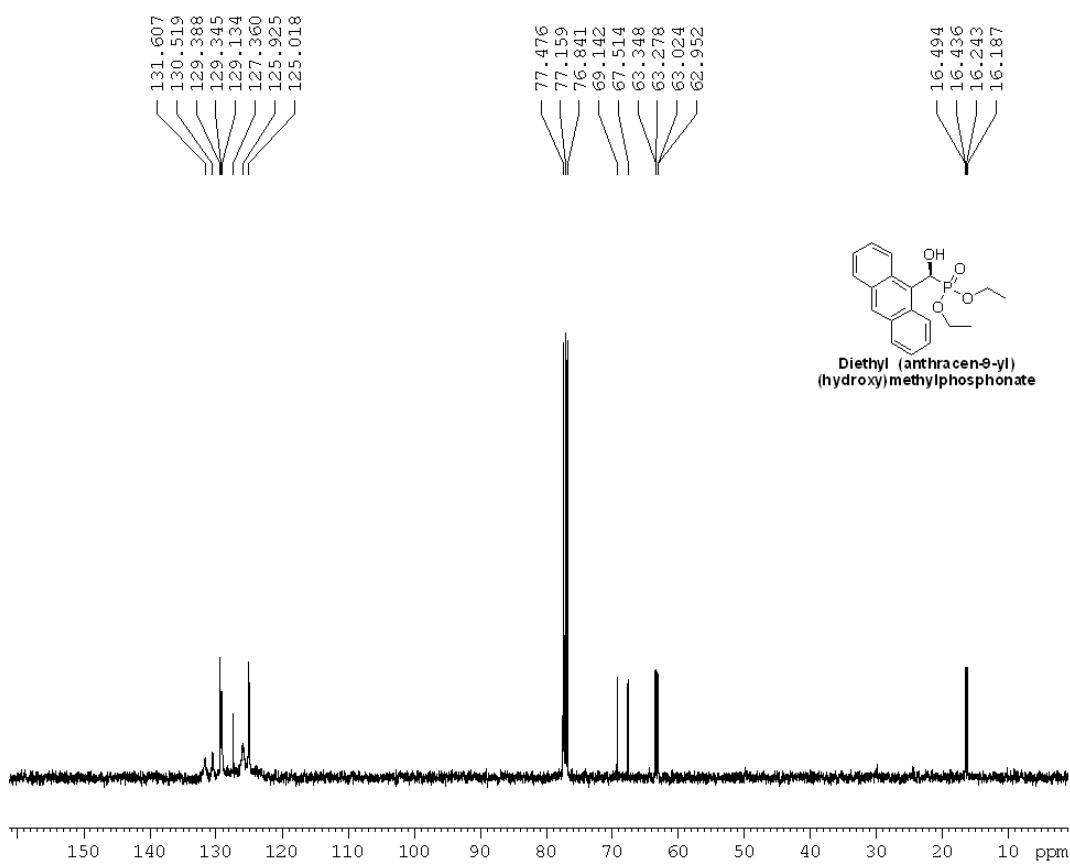
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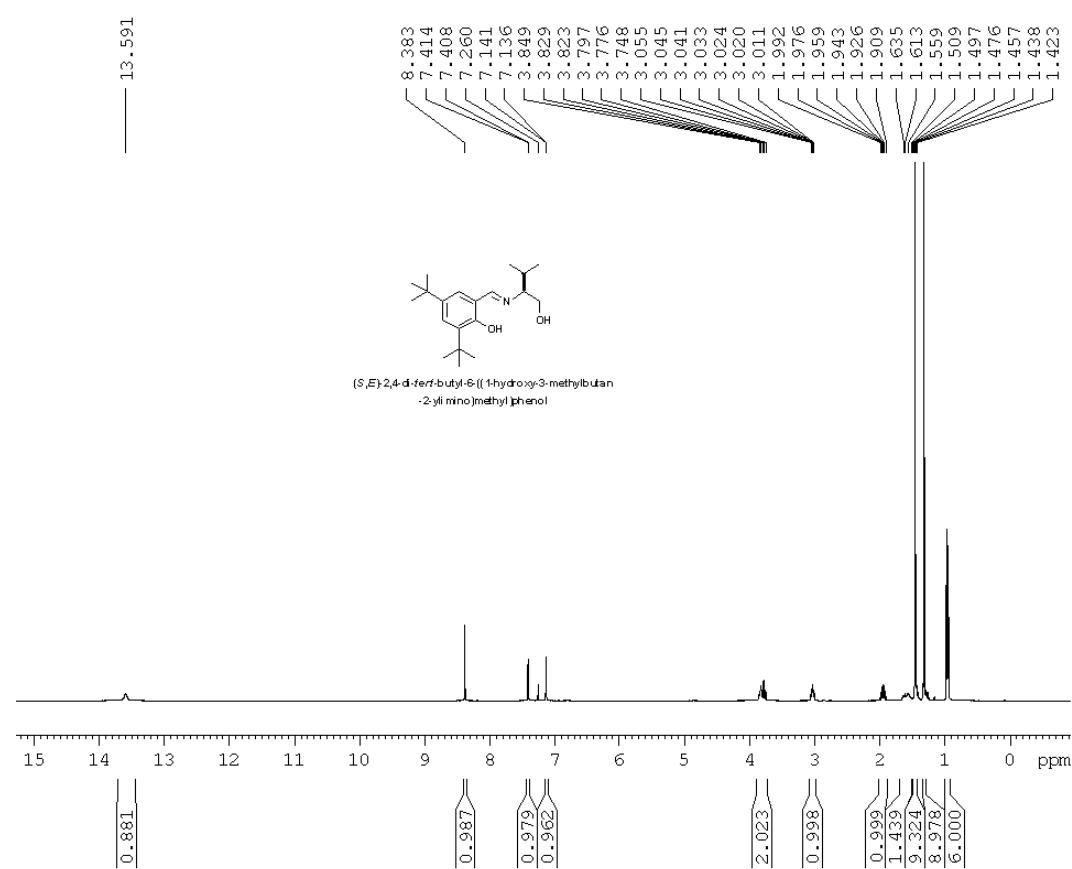
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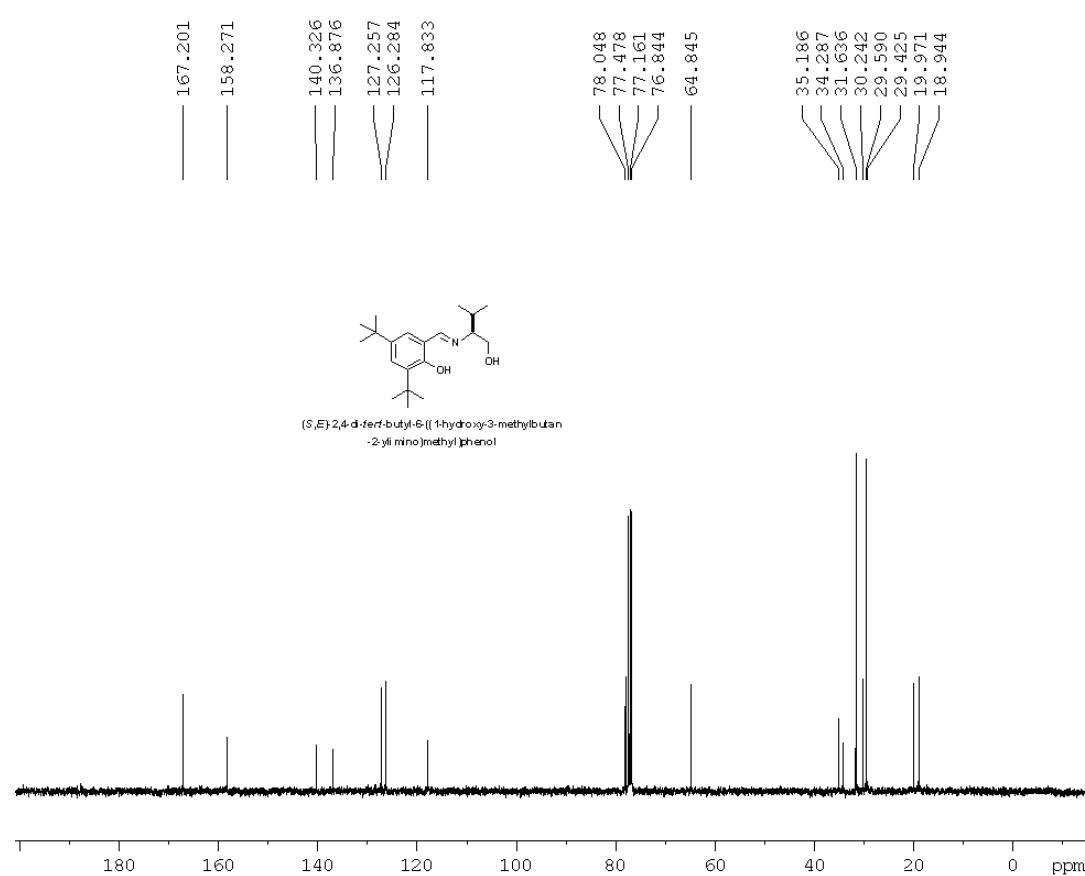
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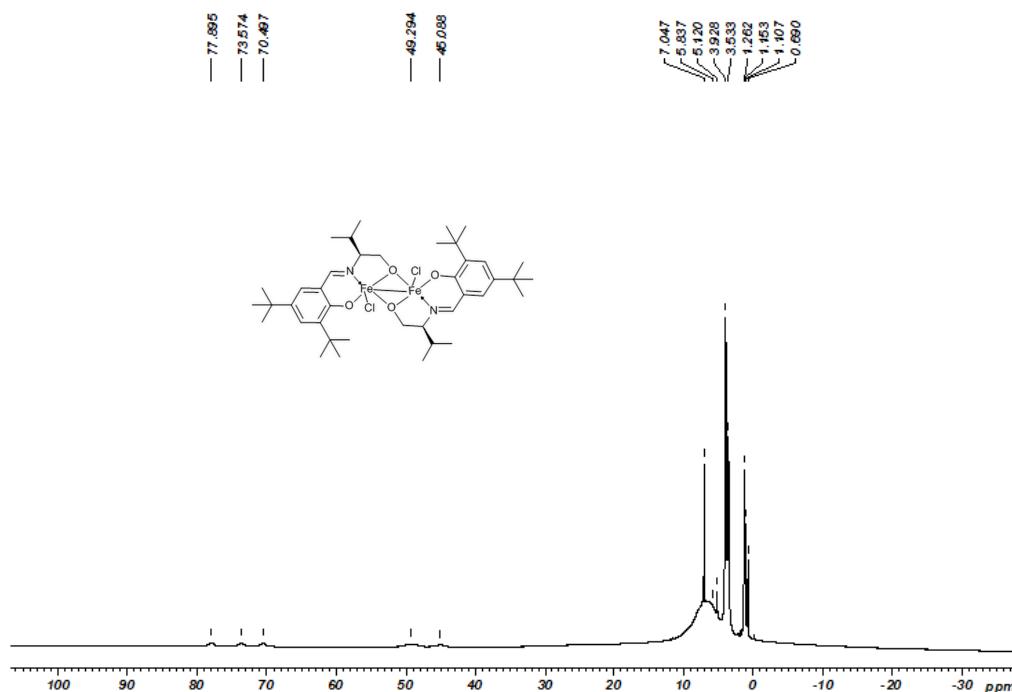
400 MHz  $^1\text{H}$  NMR of (S,E)-2,4-di-tert-butyl-6-((1-hydroxy-3-methylbutan-2ylimino)methyl)phenol in  $\text{CDCl}_3$



100 MHz  $^{13}\text{C}$  NMR of (S,E)-2,4-di-tert-butyl-6-((1-hydroxy-3-methylbutan-2ylimino)methyl)phenol in  $\text{CDCl}_3$



400 MHz paramagnetic  $^1\text{H}$  NMR of chiral Fe complex in  $\text{CDCl}_3$



HRMS of chiral Fe complex in  $\text{CDCl}_3$

