

Supporting Information

Rh(I)-Catalyzed Pauson-Khand Reaction and Cycloisomerization of Allenynes: Selective Preparation of Monocyclic-, Bicyclo[m.3.0]-, and Bicyclo[5.2.0]-Ring Systems

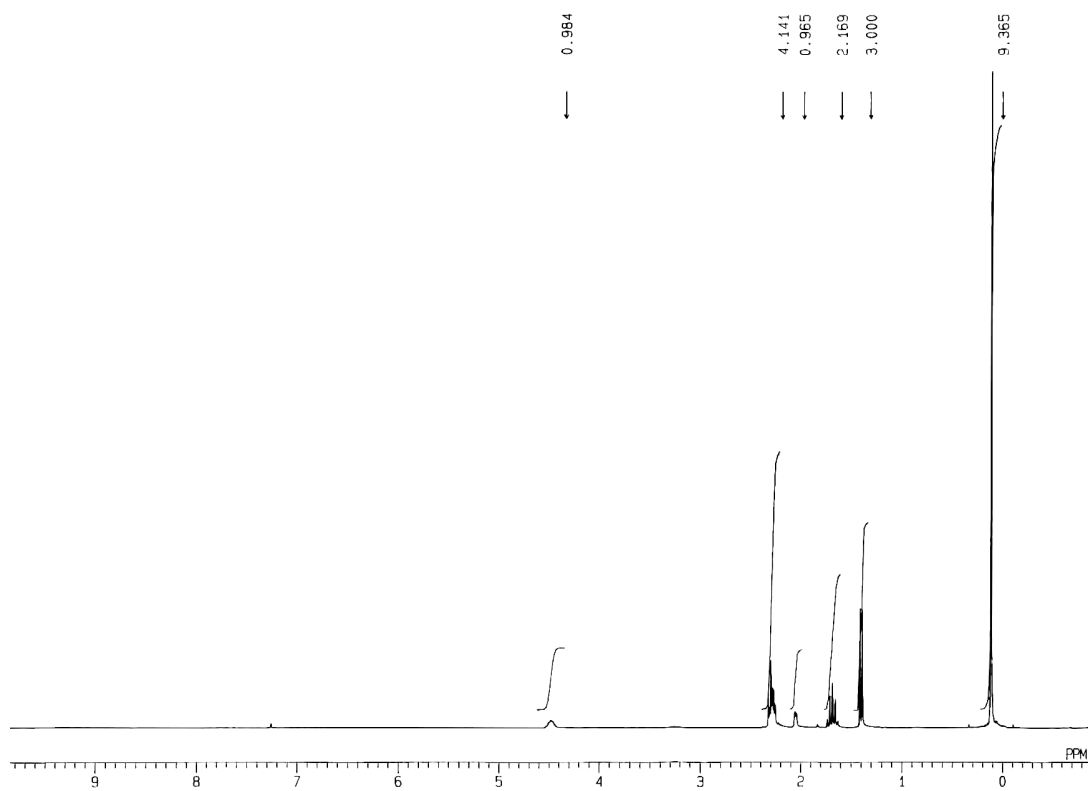
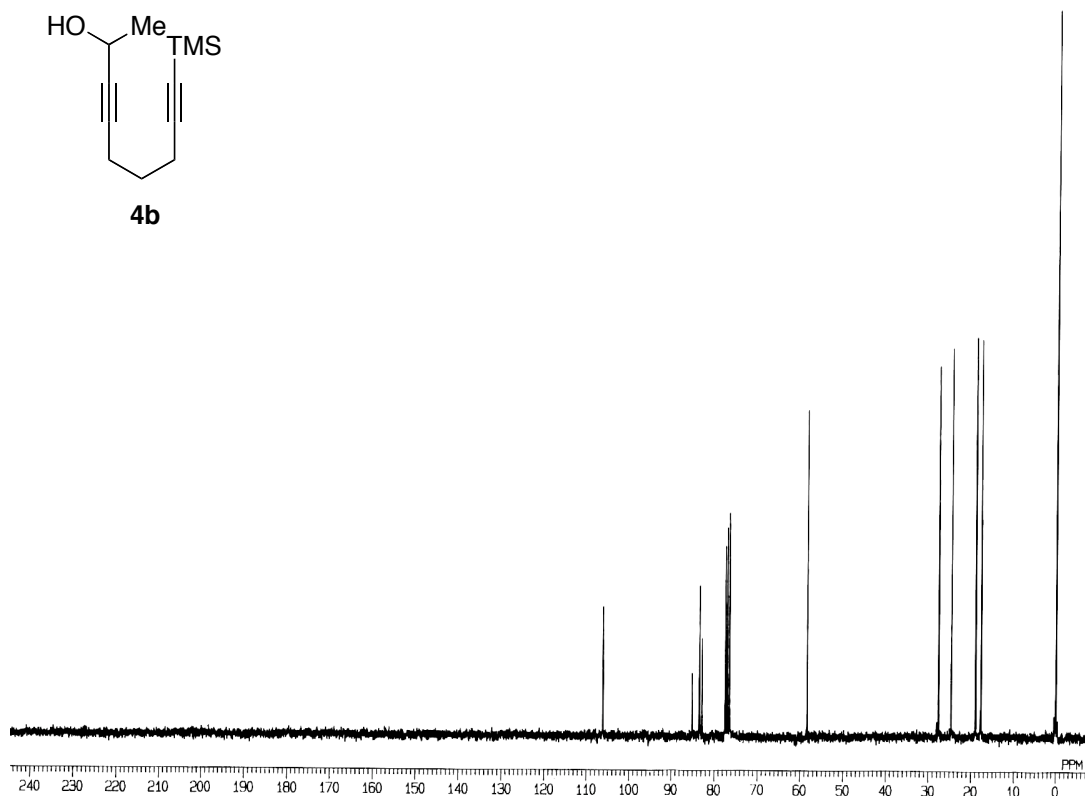
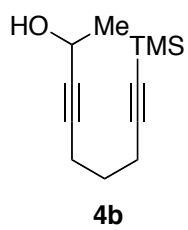
Chisato Mukai,* Fuyuhiko Inagaki, Tatsunori Yoshida, Katsuya Yoshitani,
Yasuyuki Hara, and Shinji Kitagaki

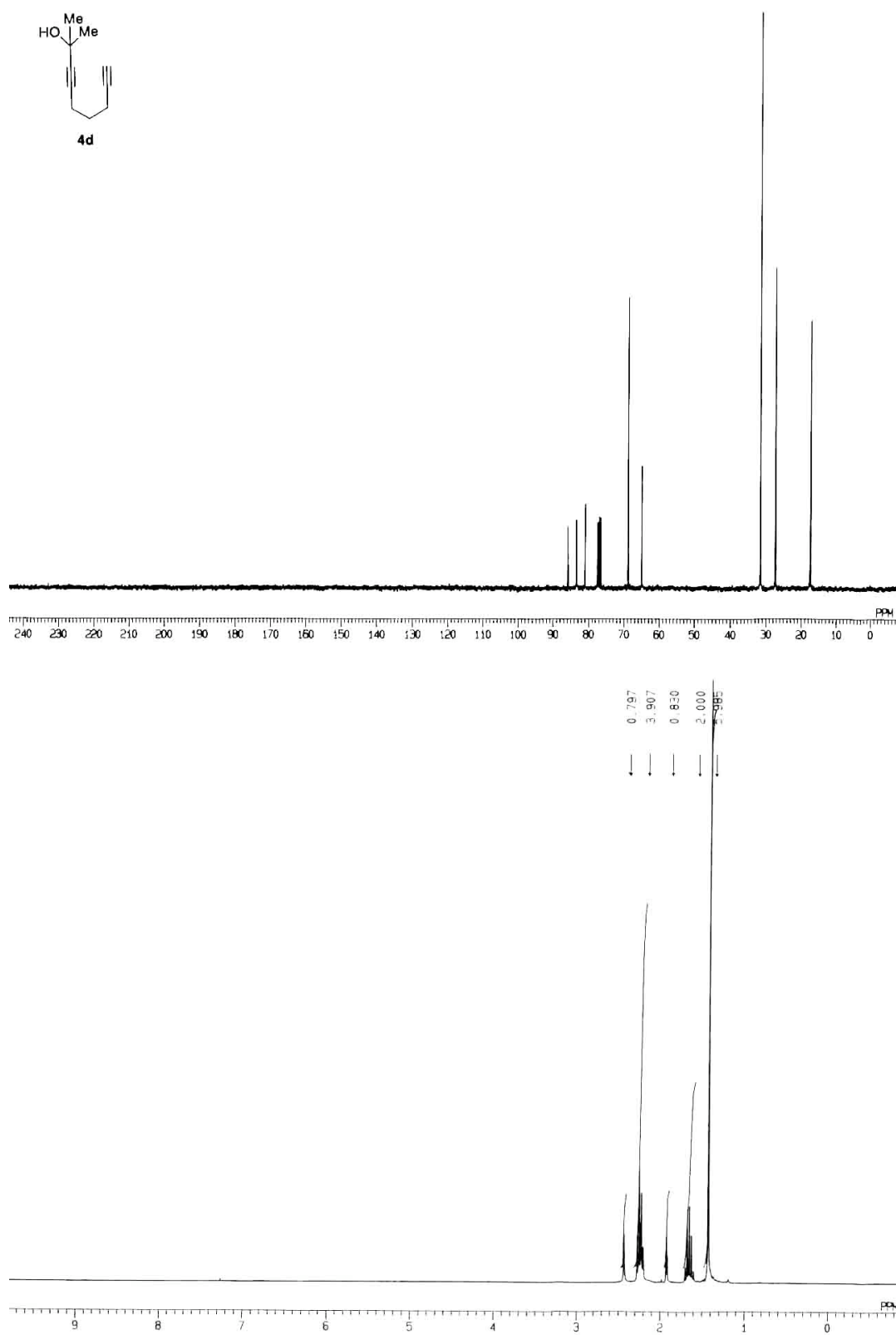
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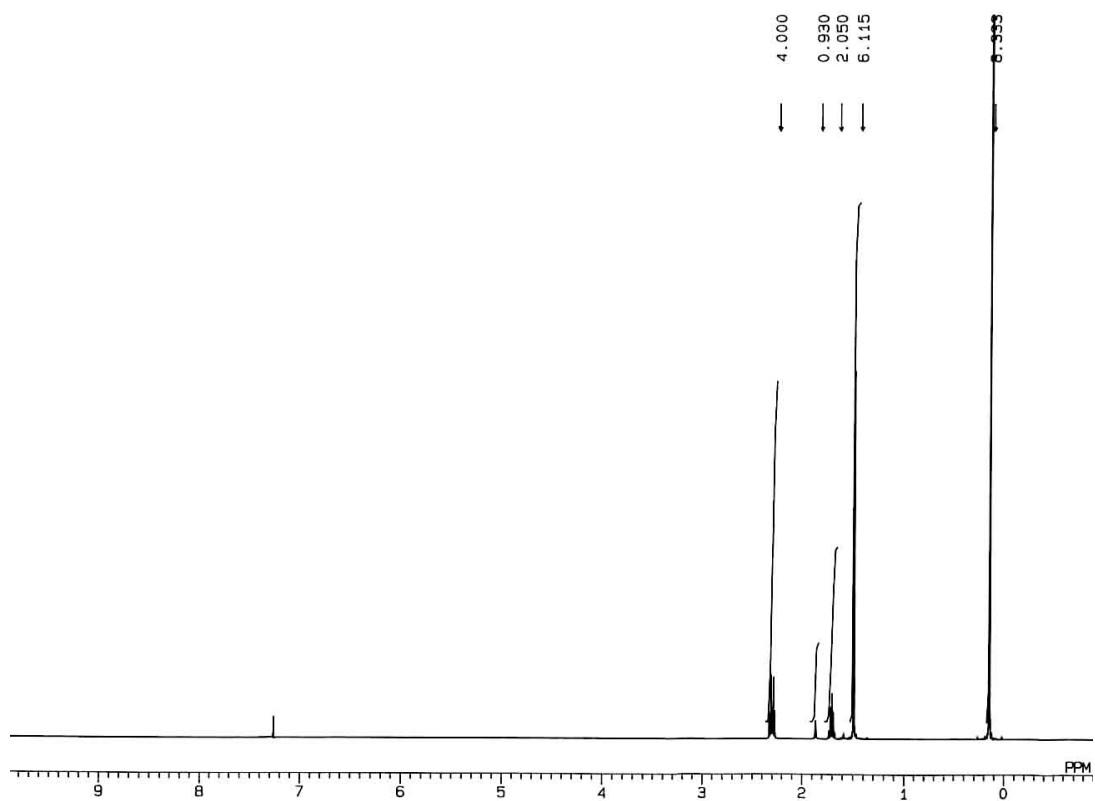
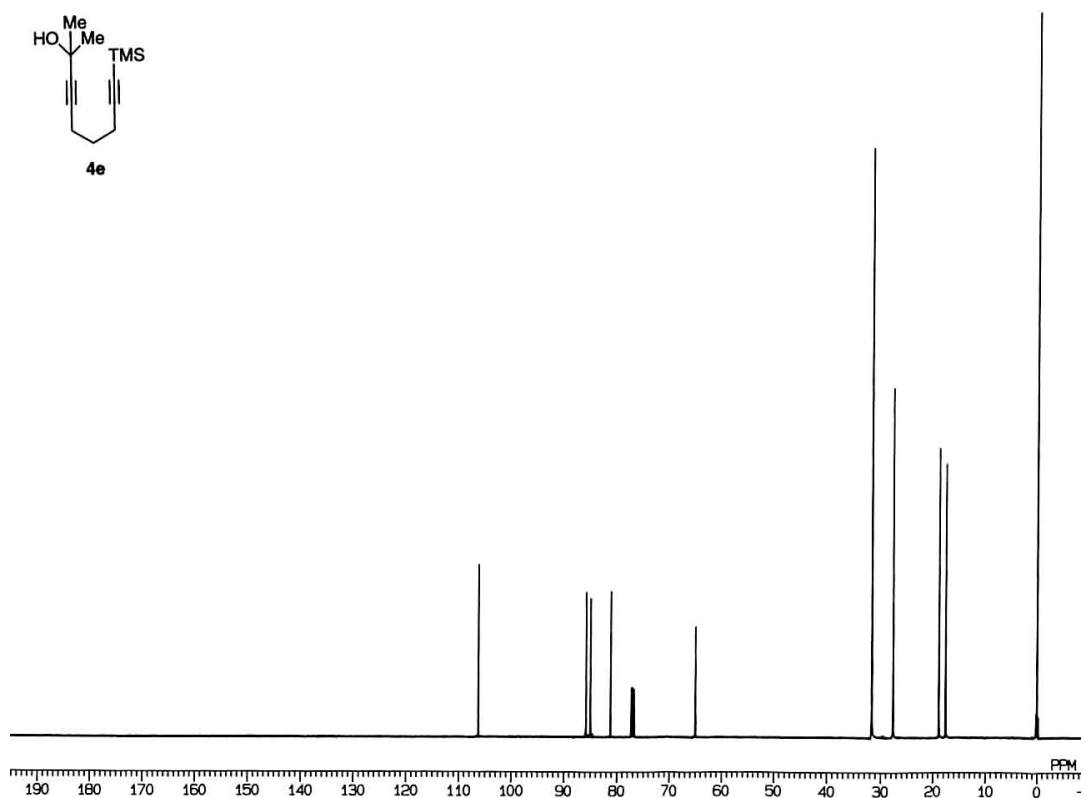
¹H and ¹³C NMR spectra for compounds **4b,d-f**, **5a,c,d,f**, **6c**, **7a-f**, **9b-d,f**, **10a-d,f**, **11a,f**, **12a-e**, **13b,c**, **14a**, **15a-c**, **21a,d**, **24a,b**, **25a,b**, **27a**, **28**, **29**, **31**, **35a,c**, **36a,b,d,e**, **37a-c,e**, **38d,e**, **39**, and **44**, characterization data for compounds **4d-f**, **5b-f**, **6b,c**, **7b-d**, **f**, **9a-f**, **10a-f**, **11b-f**, **12b-e**, **13a-c**, **14a-c**, **15b,c**, **21b-g**, **22b-g**, **25b**, **26b,c**, **27b**, **29**, **35b,c**, **36a-e**, **37b-e**, **38e**, **40**, and **43**, and X-ray crystallographic data for compound **35c**.

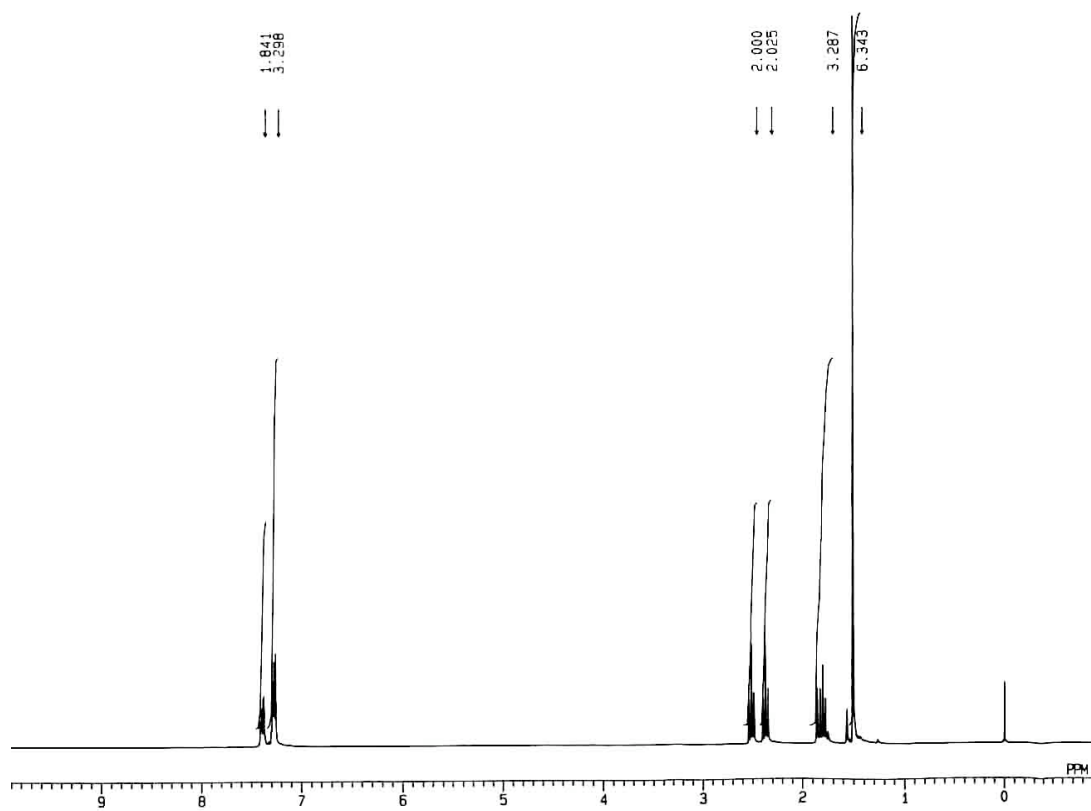
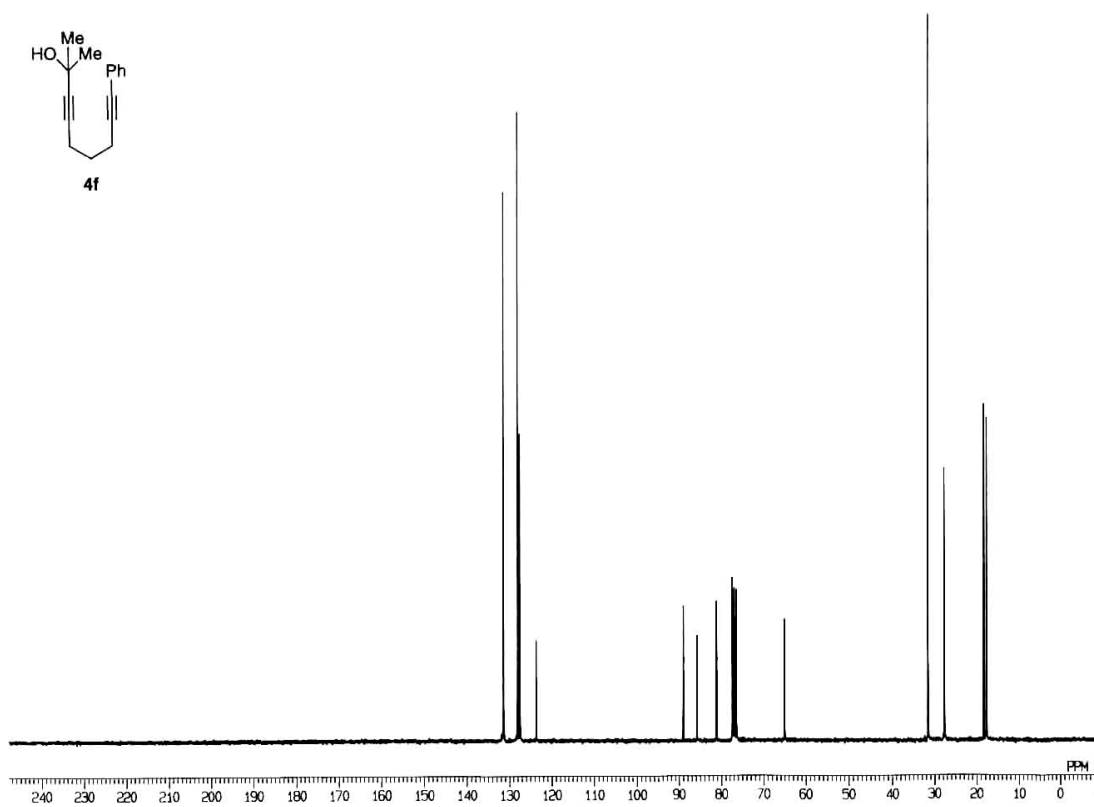
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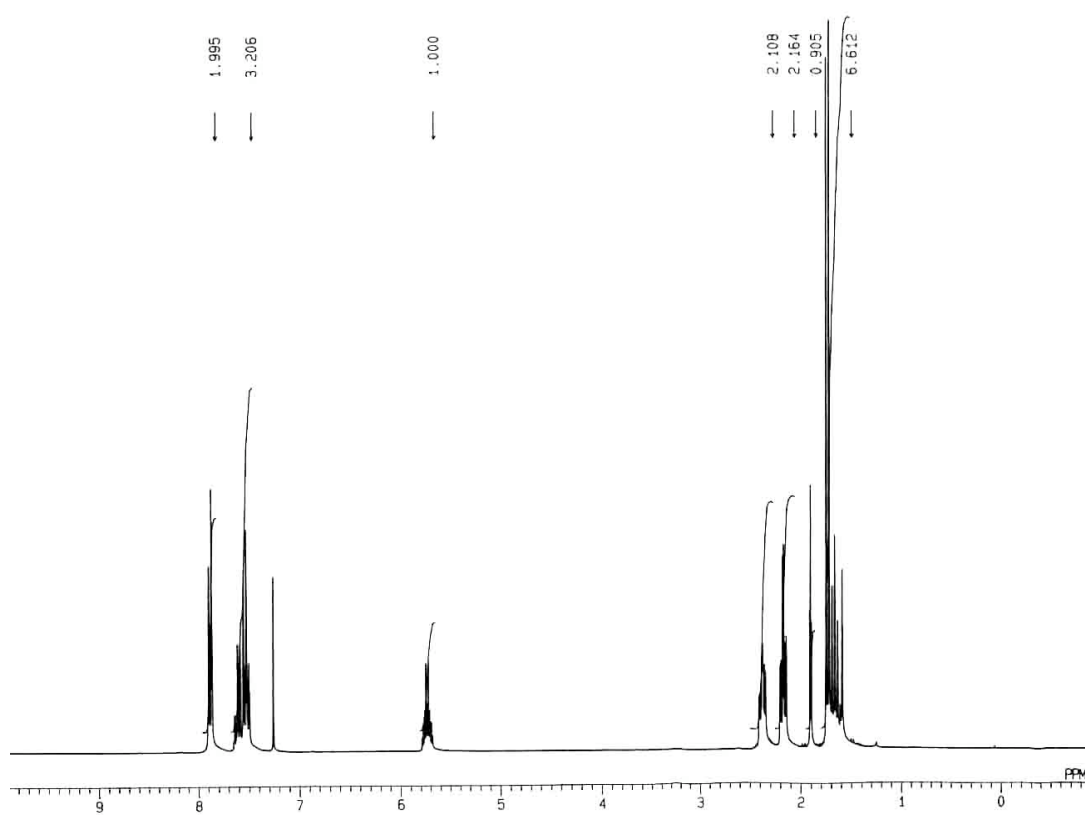
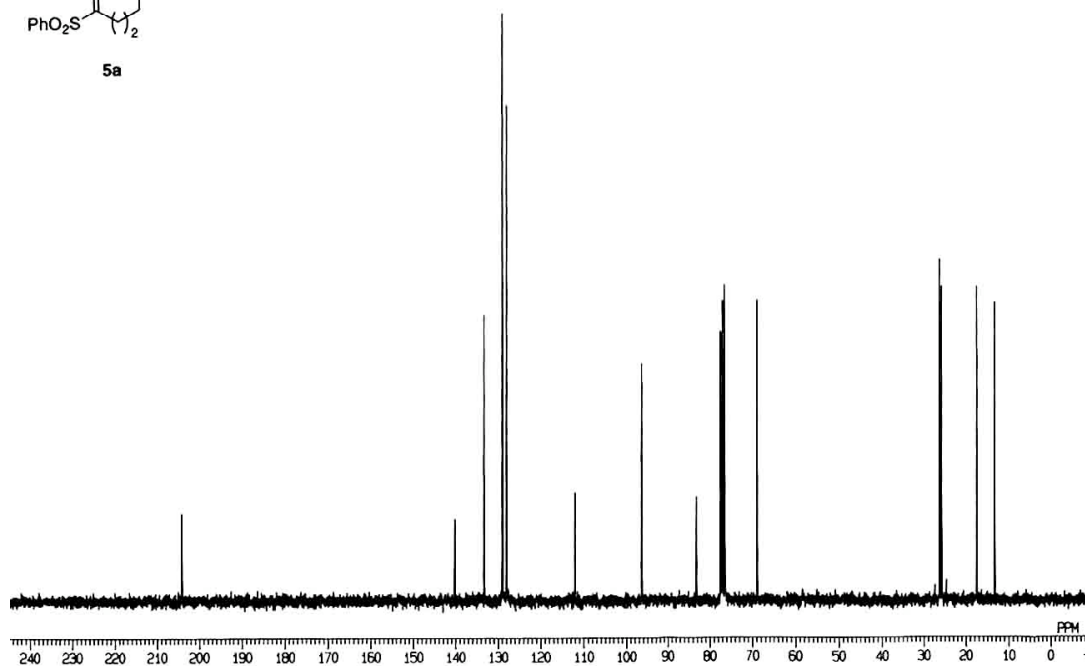
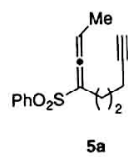
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| S2-S63 | NMR spectra |
| S64-S80 | Characterization data |
| S81-S90 | X-ray crystallographic data |
| S91 | References |

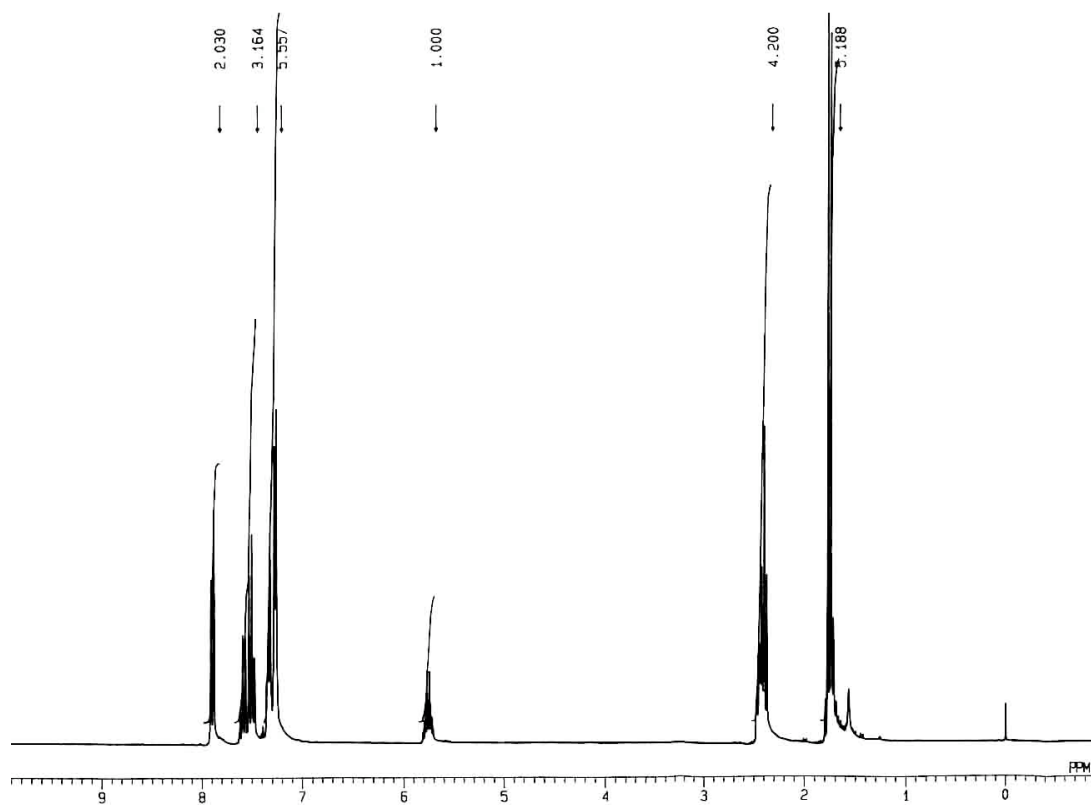
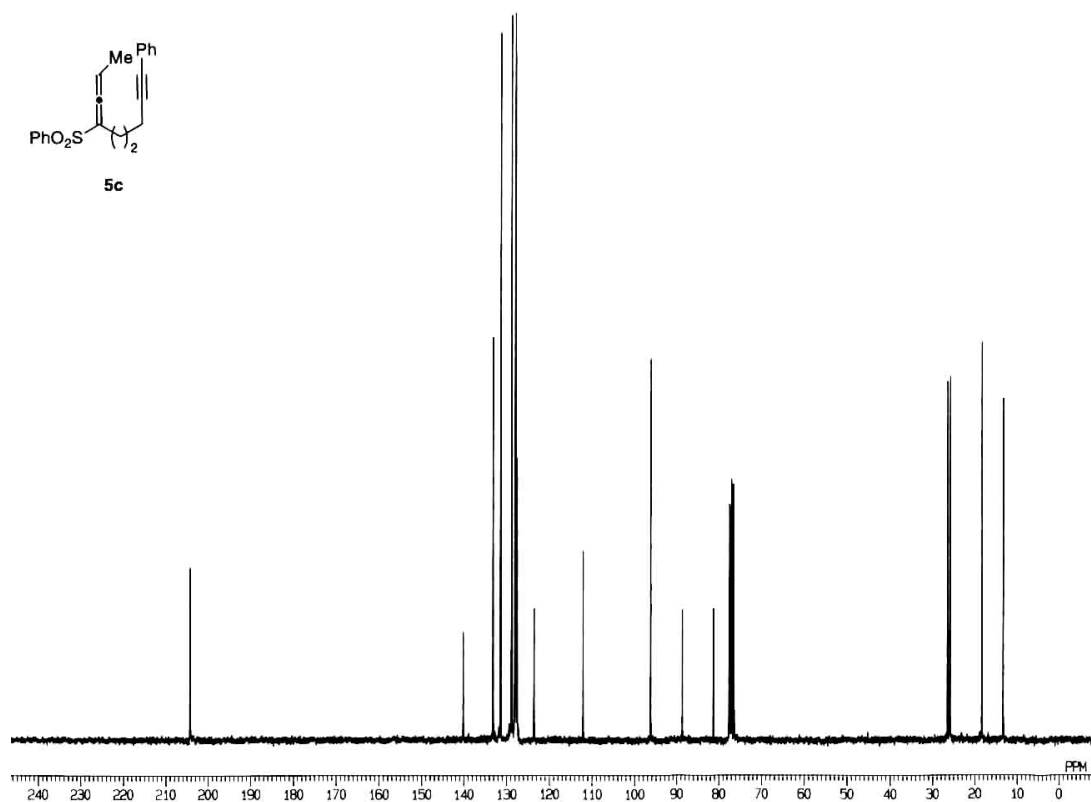
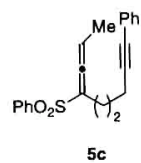


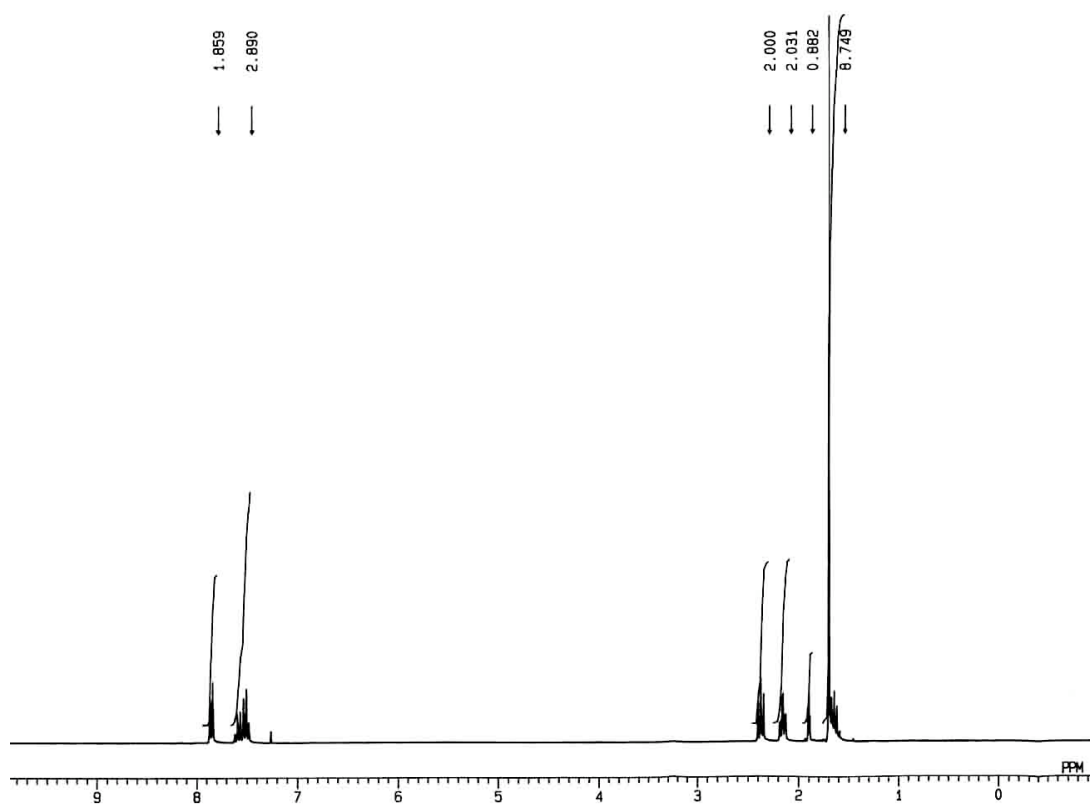
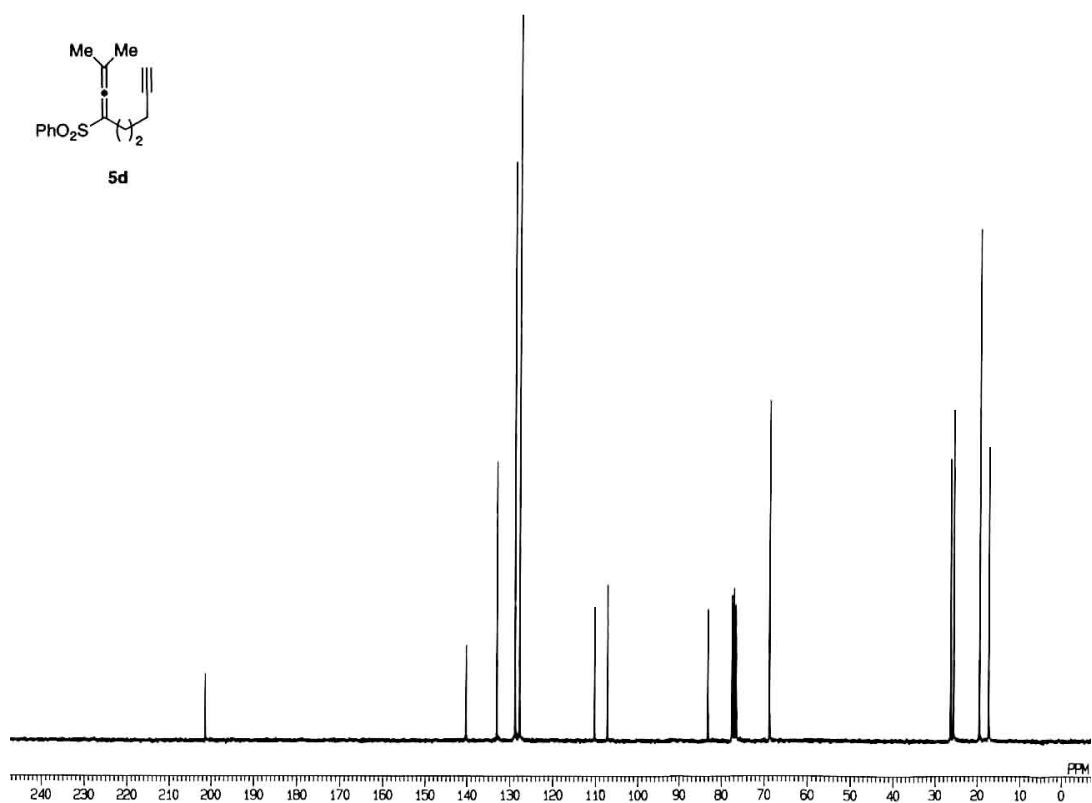
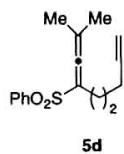


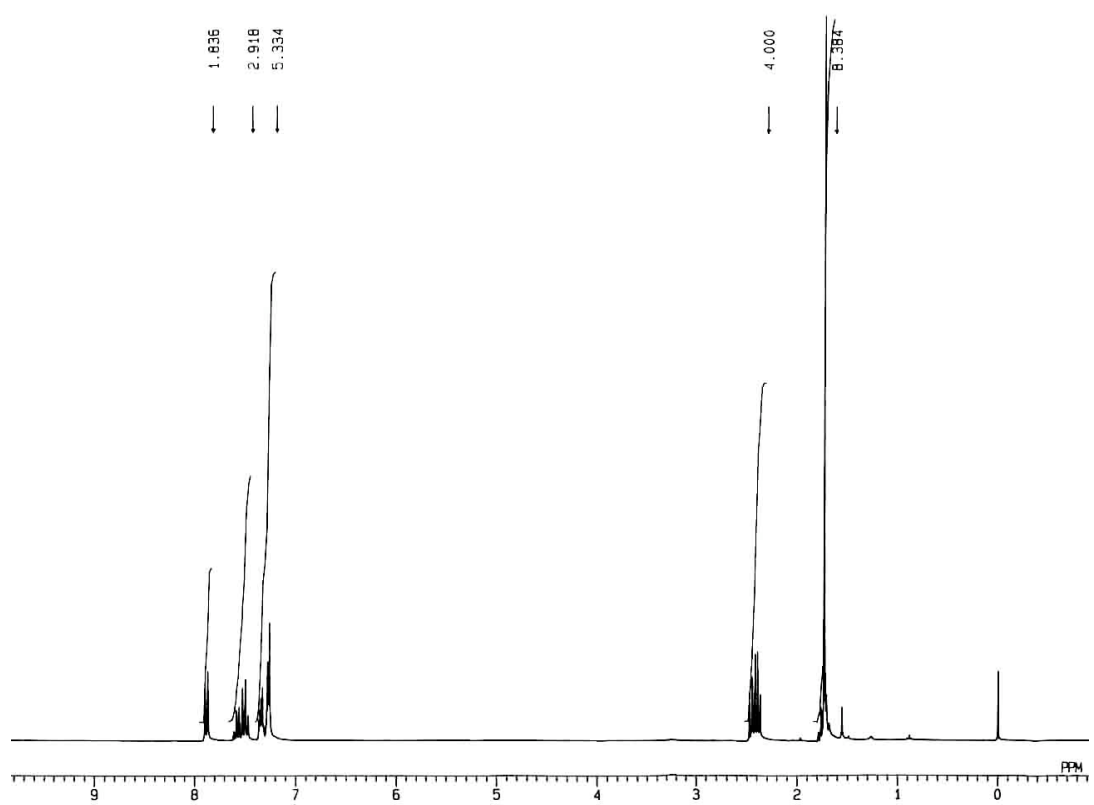
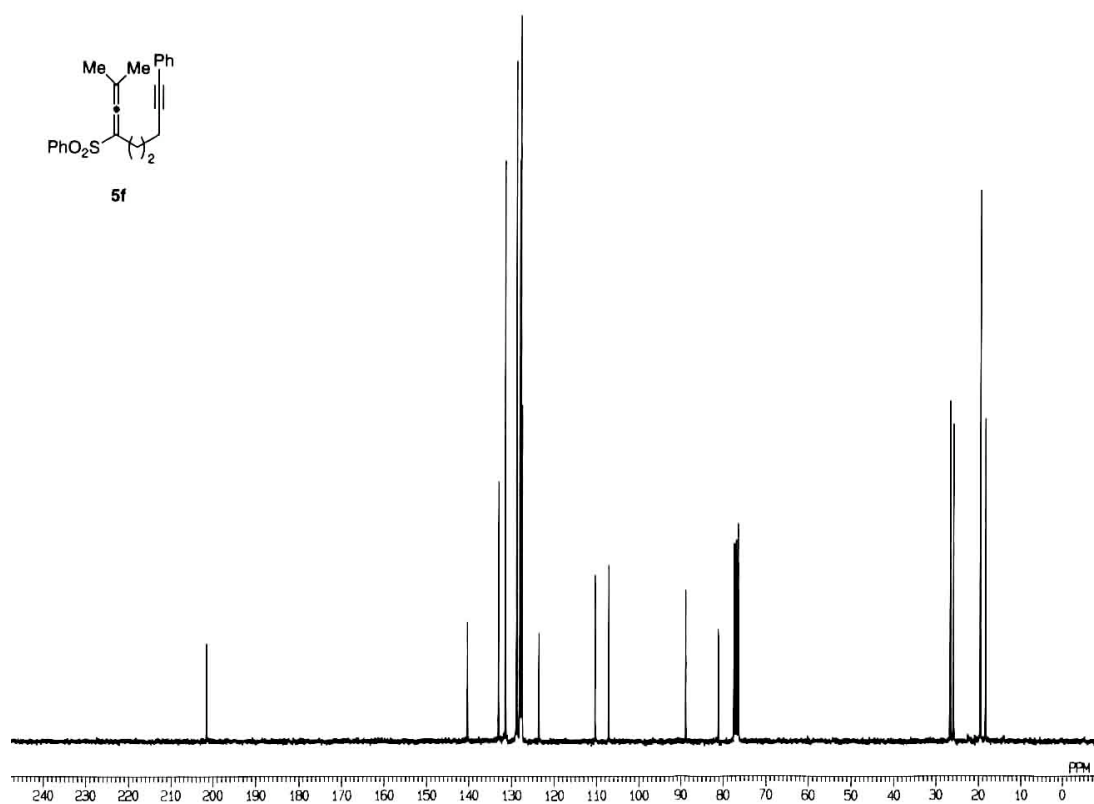


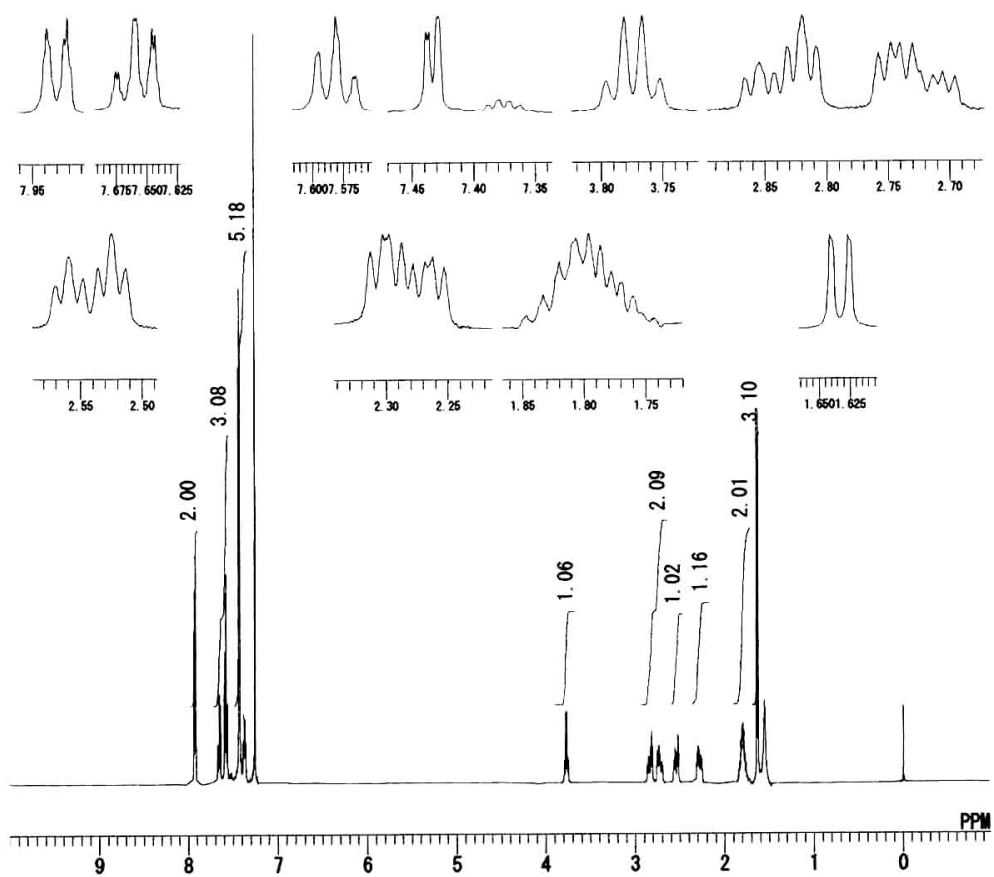
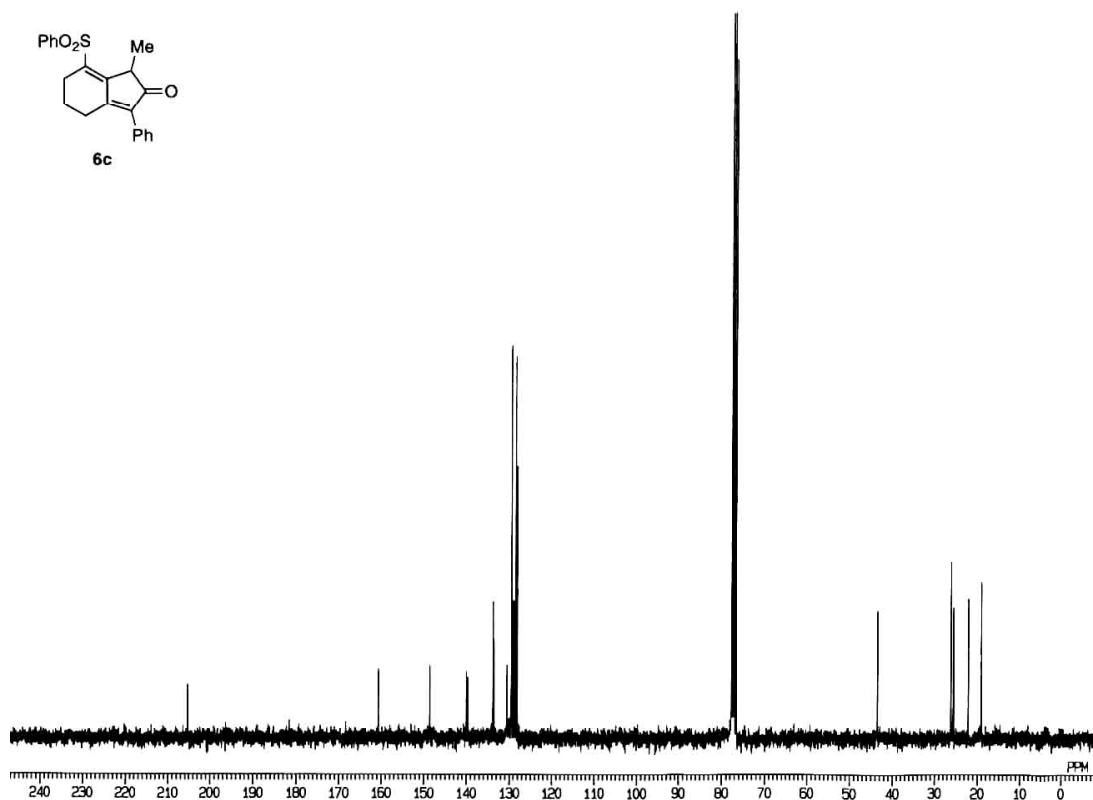
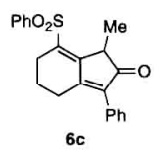


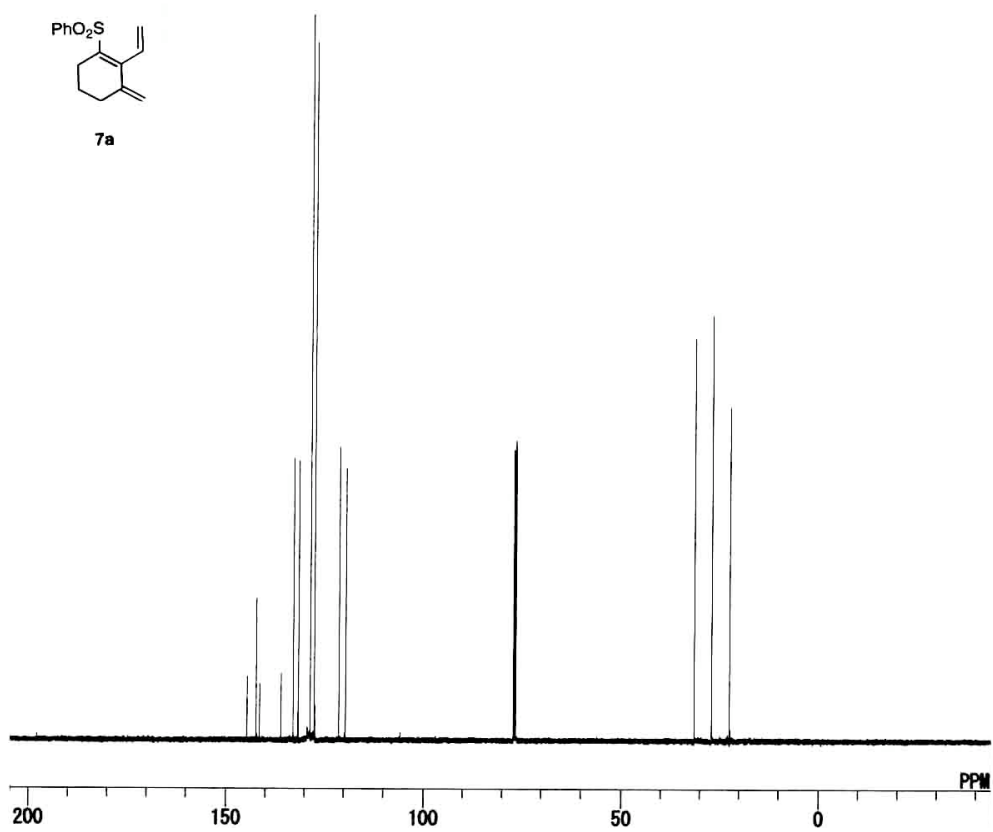


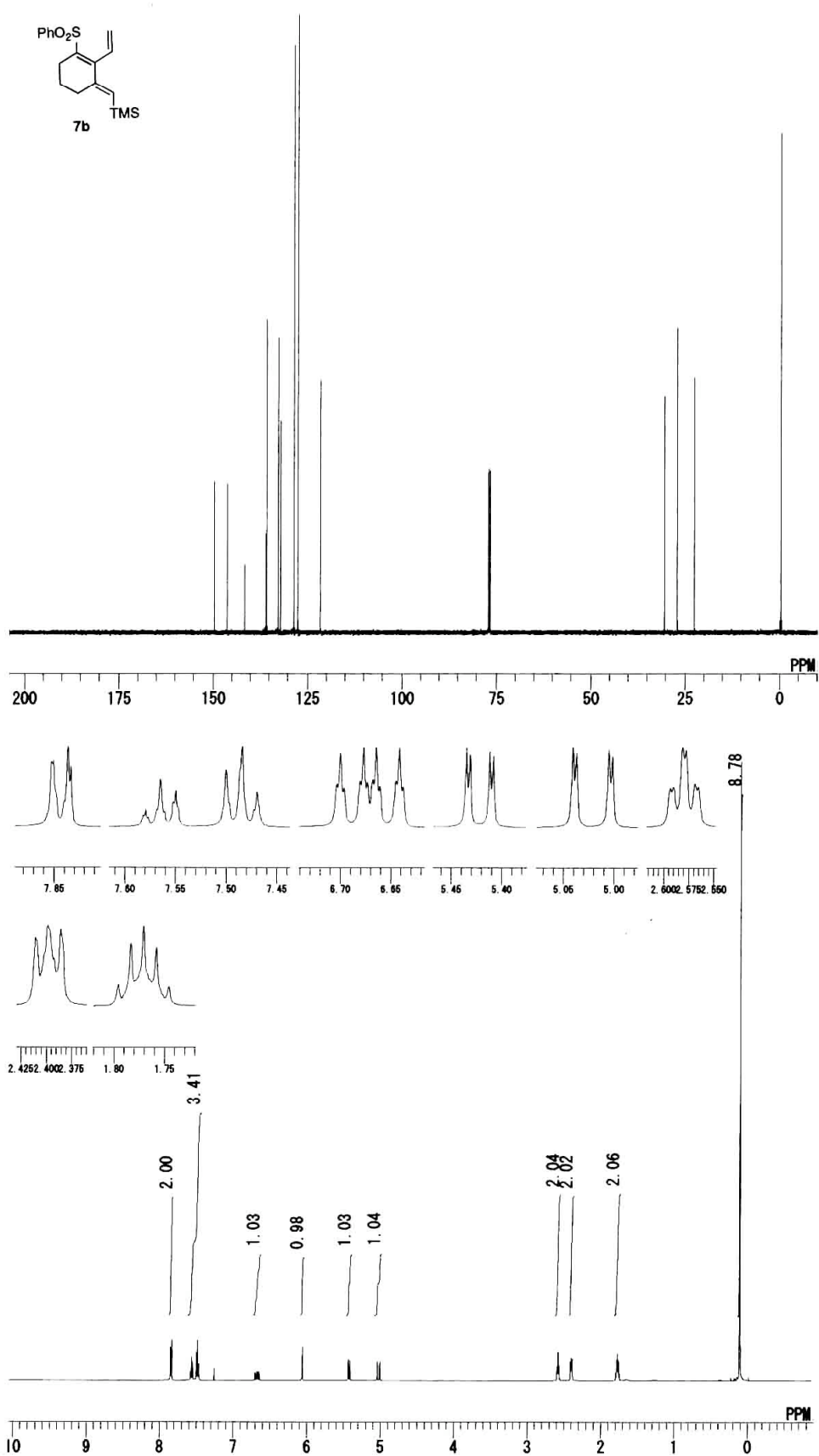


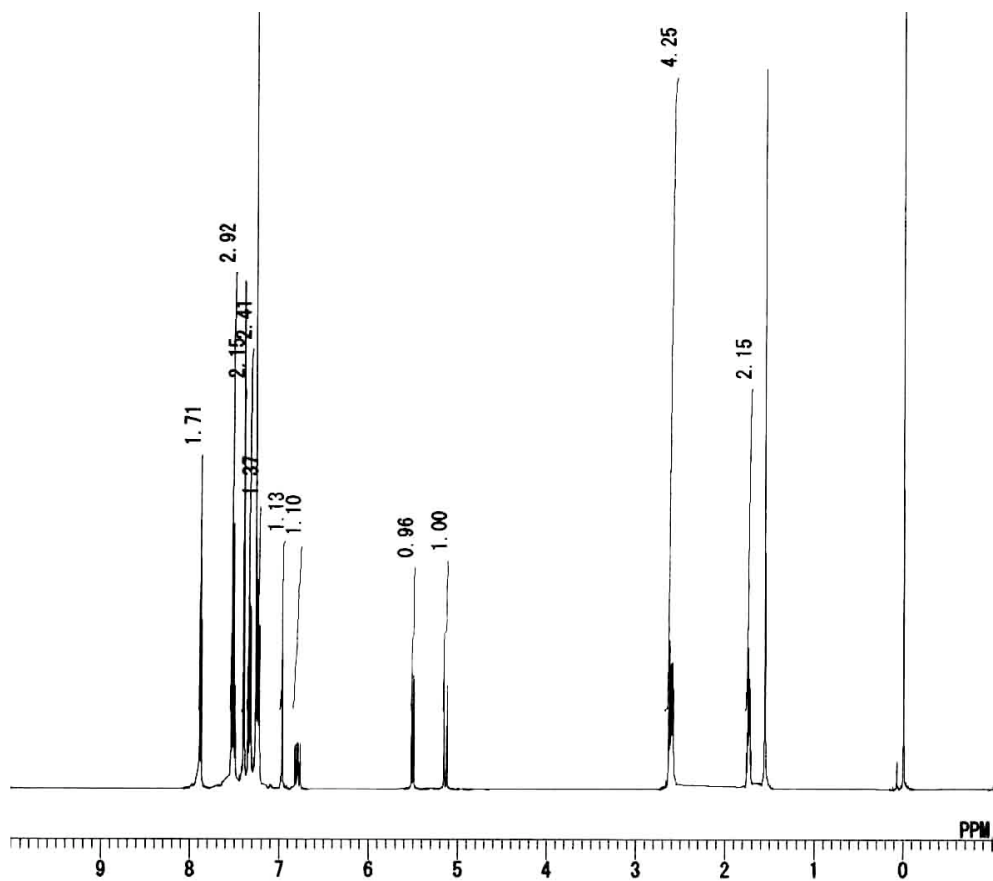
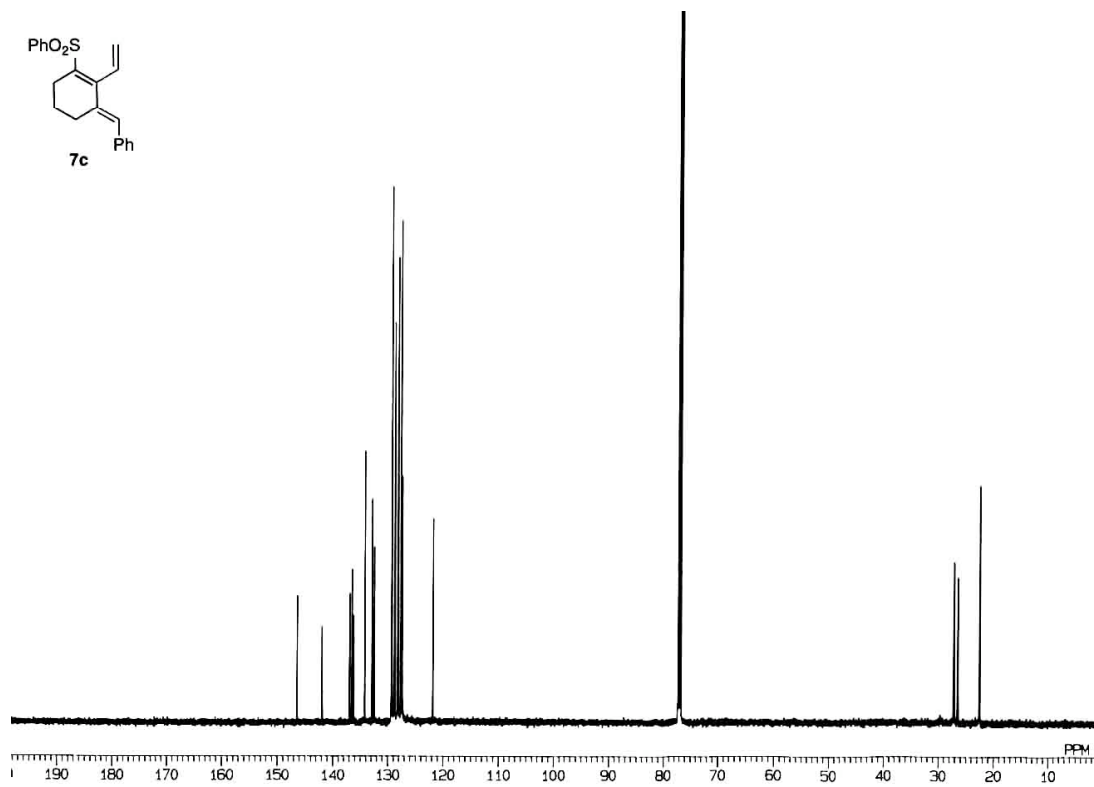
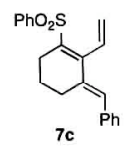


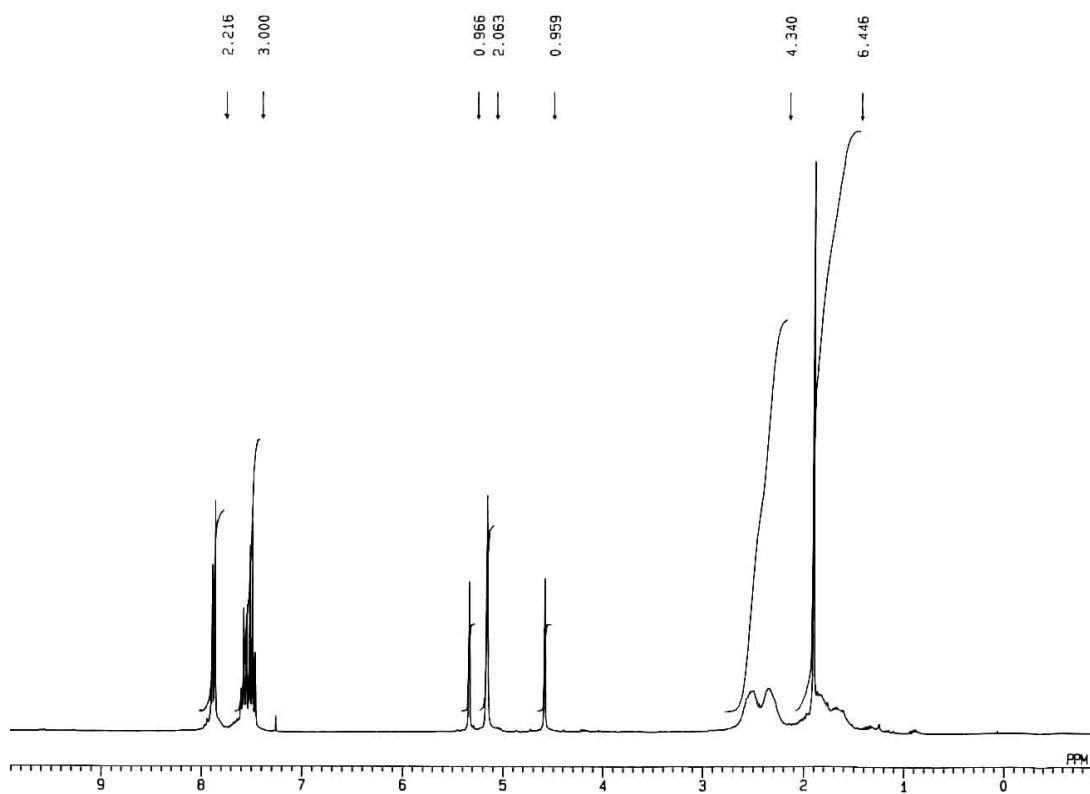
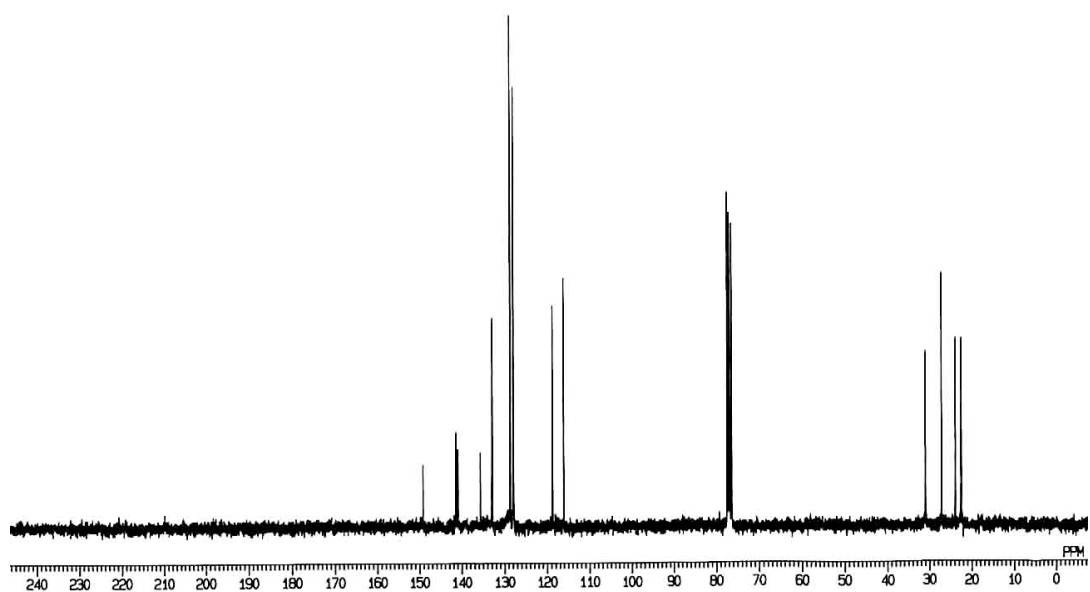
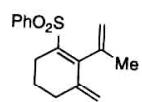


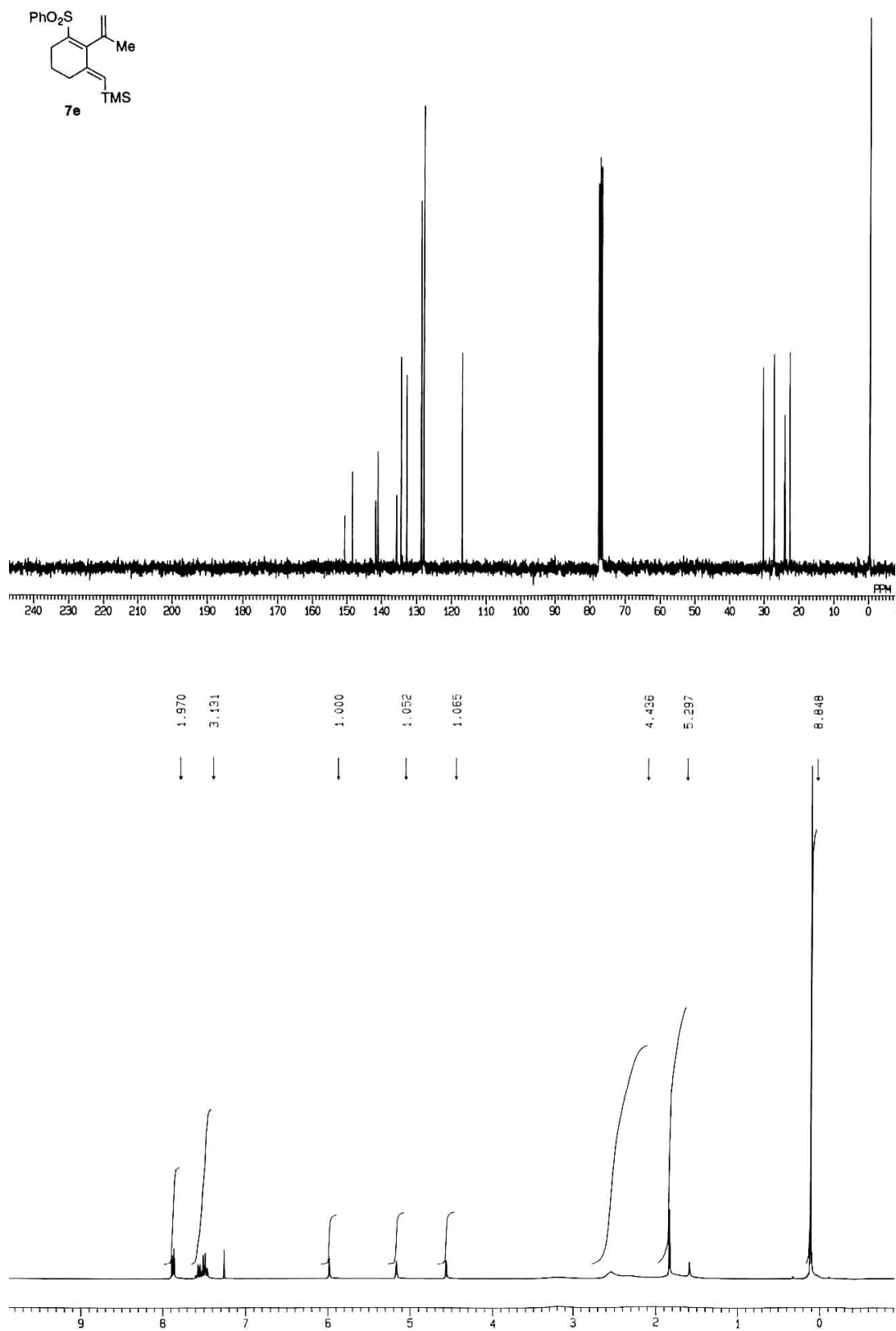


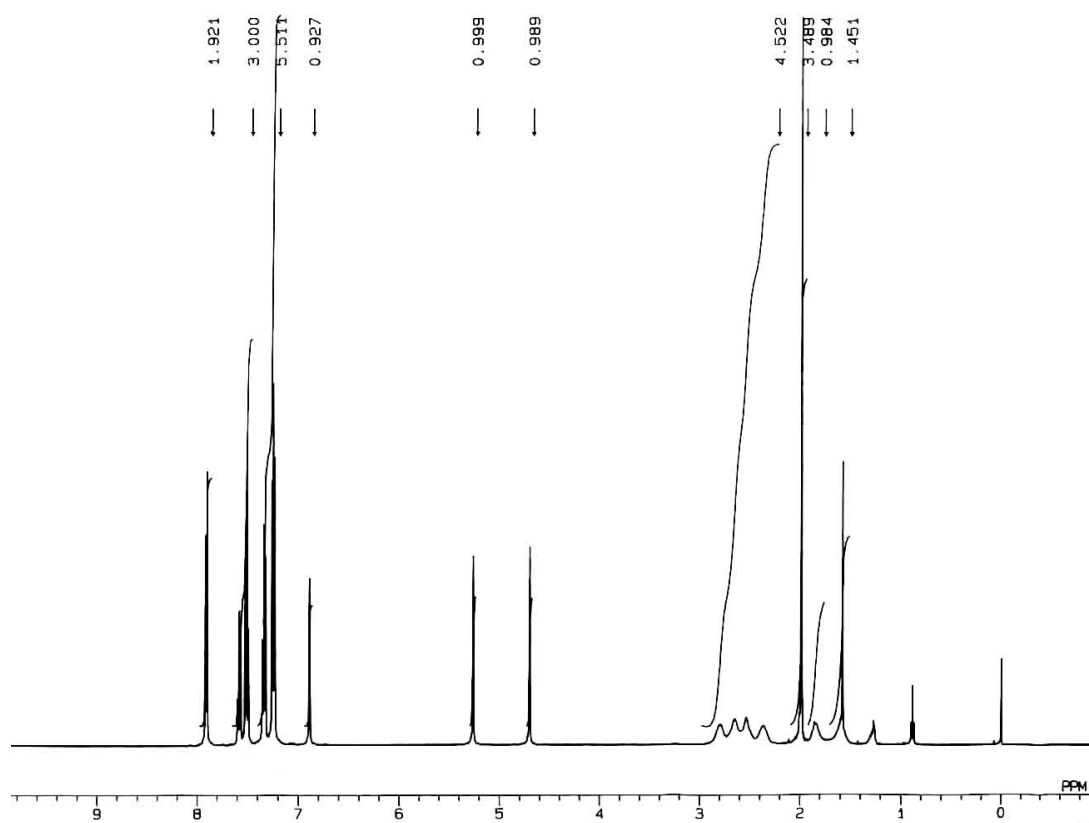
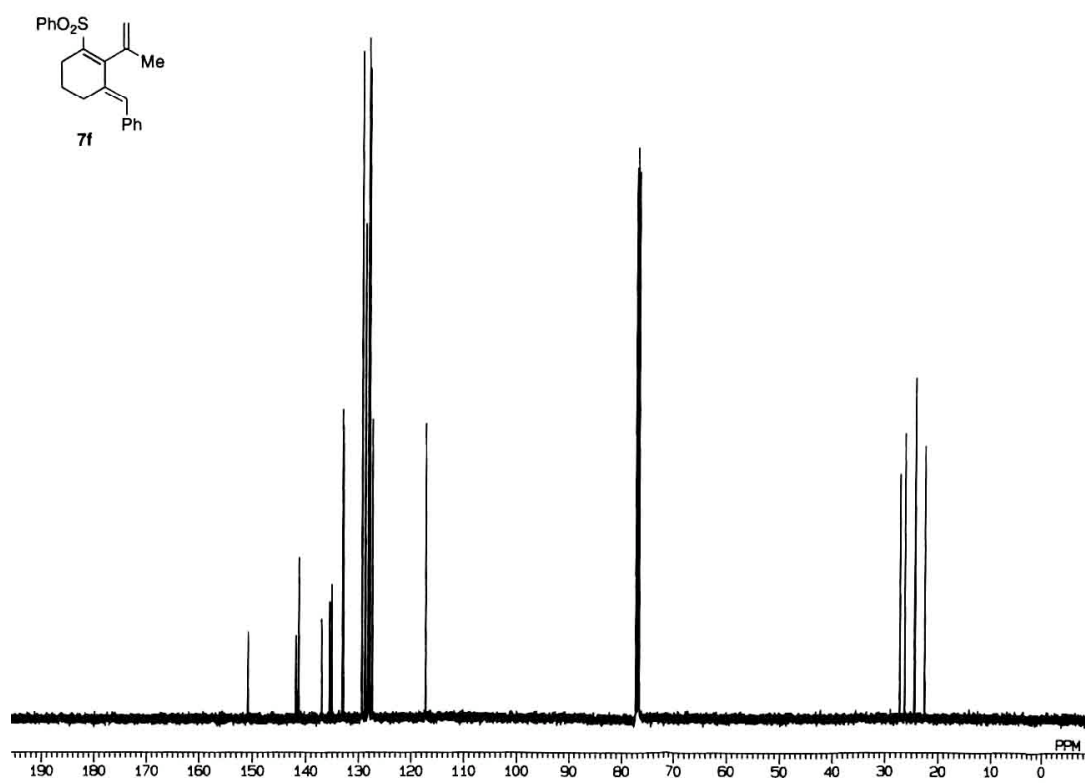


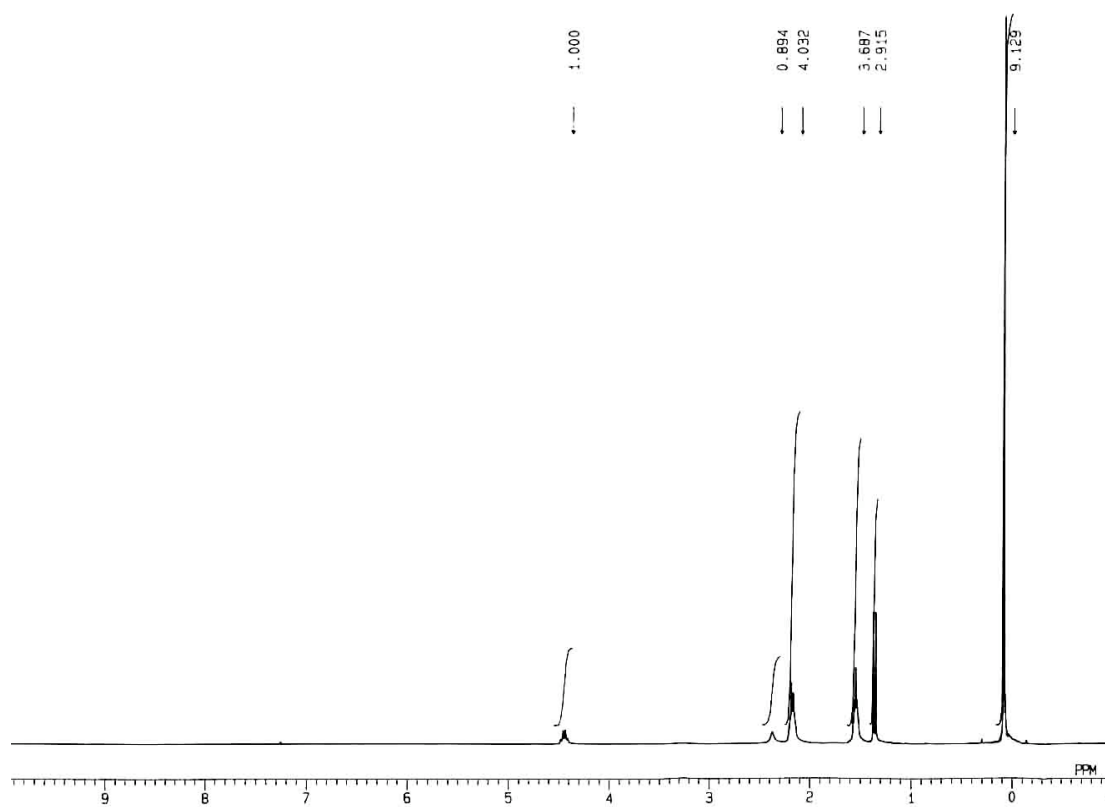
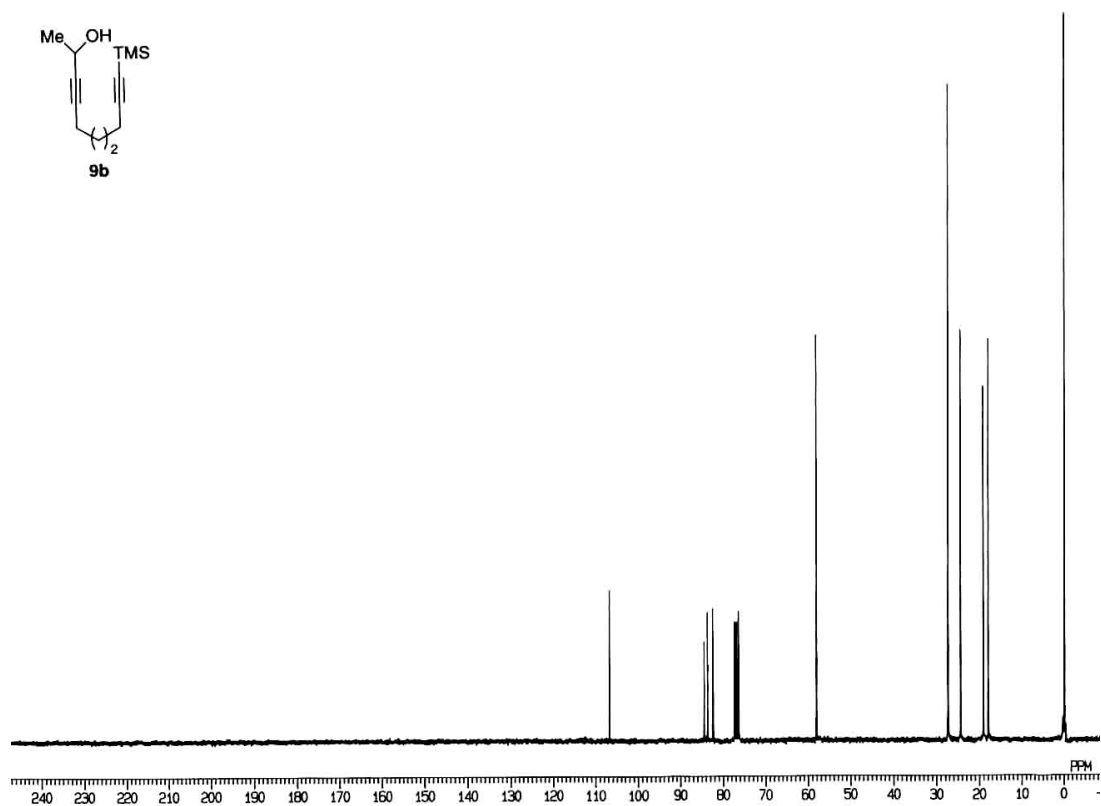


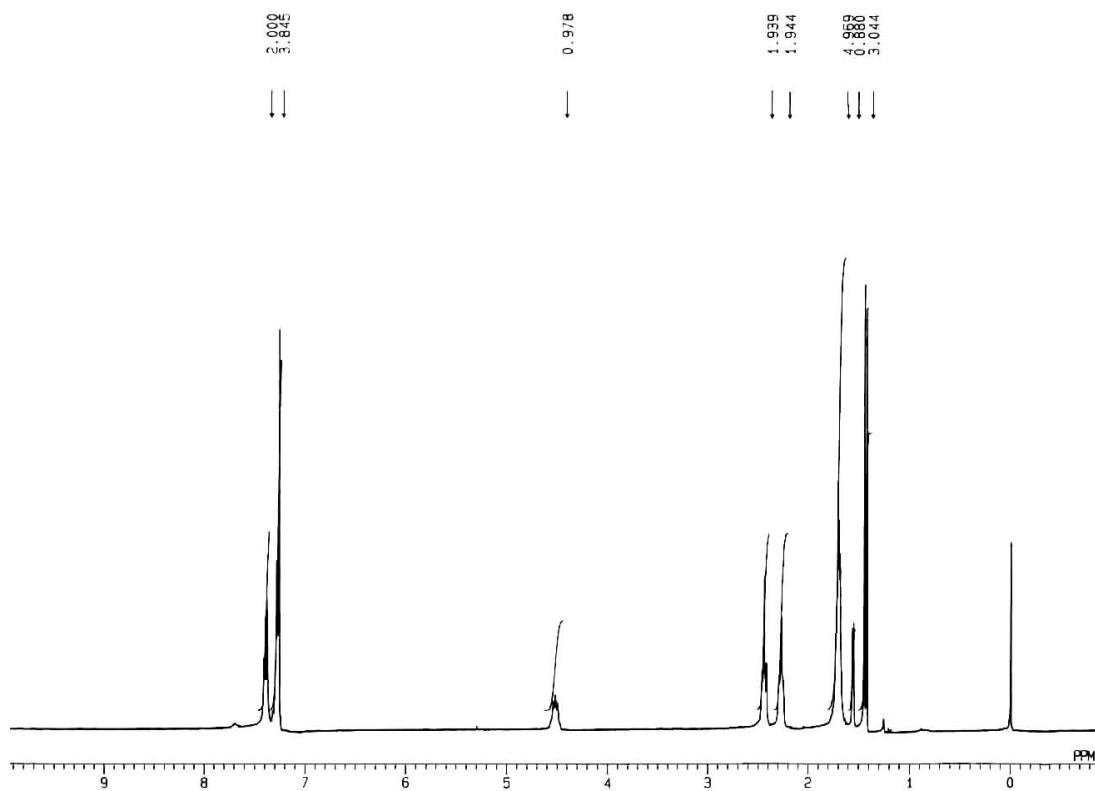
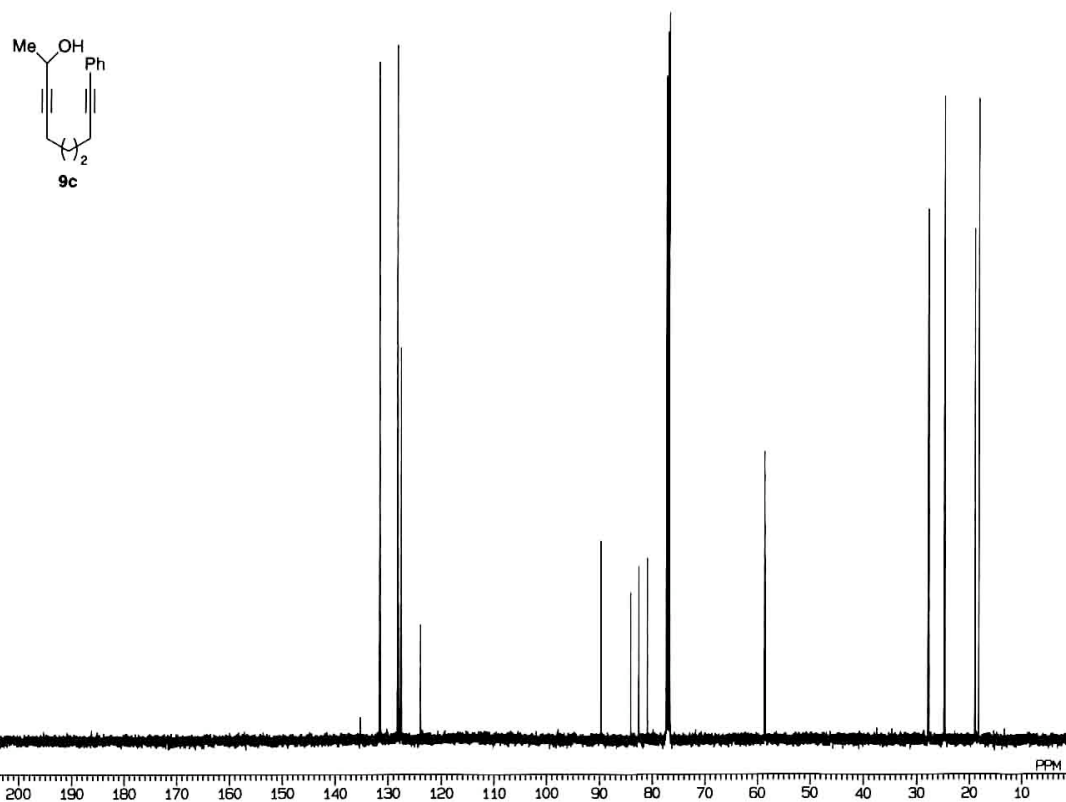


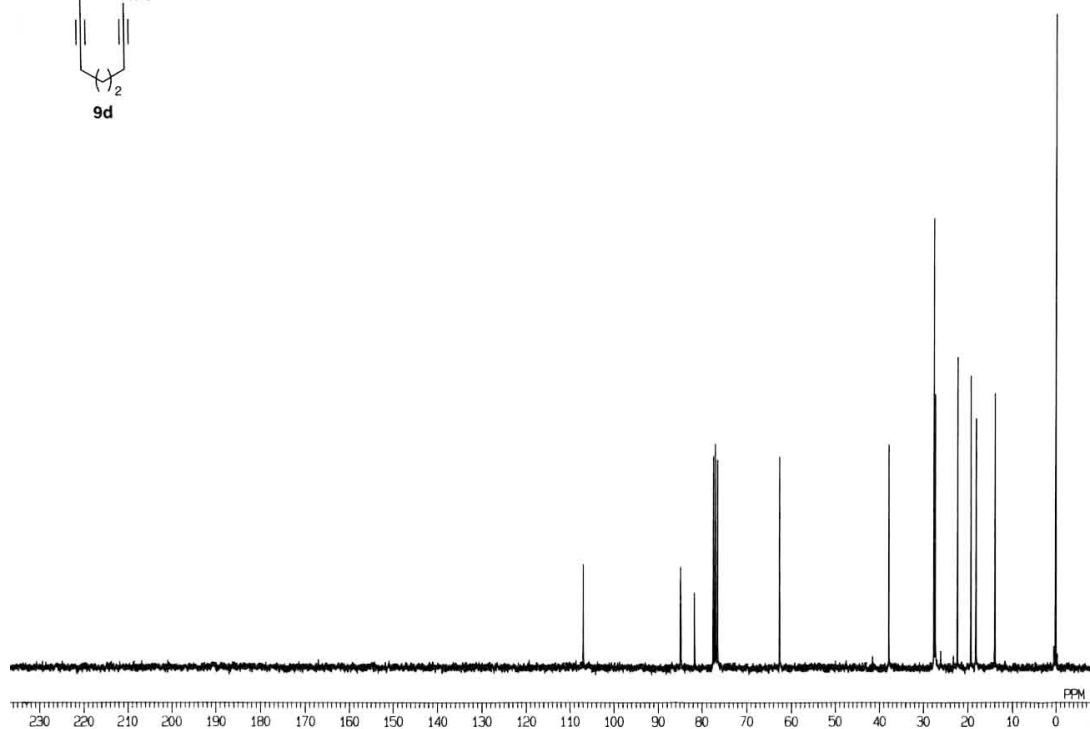


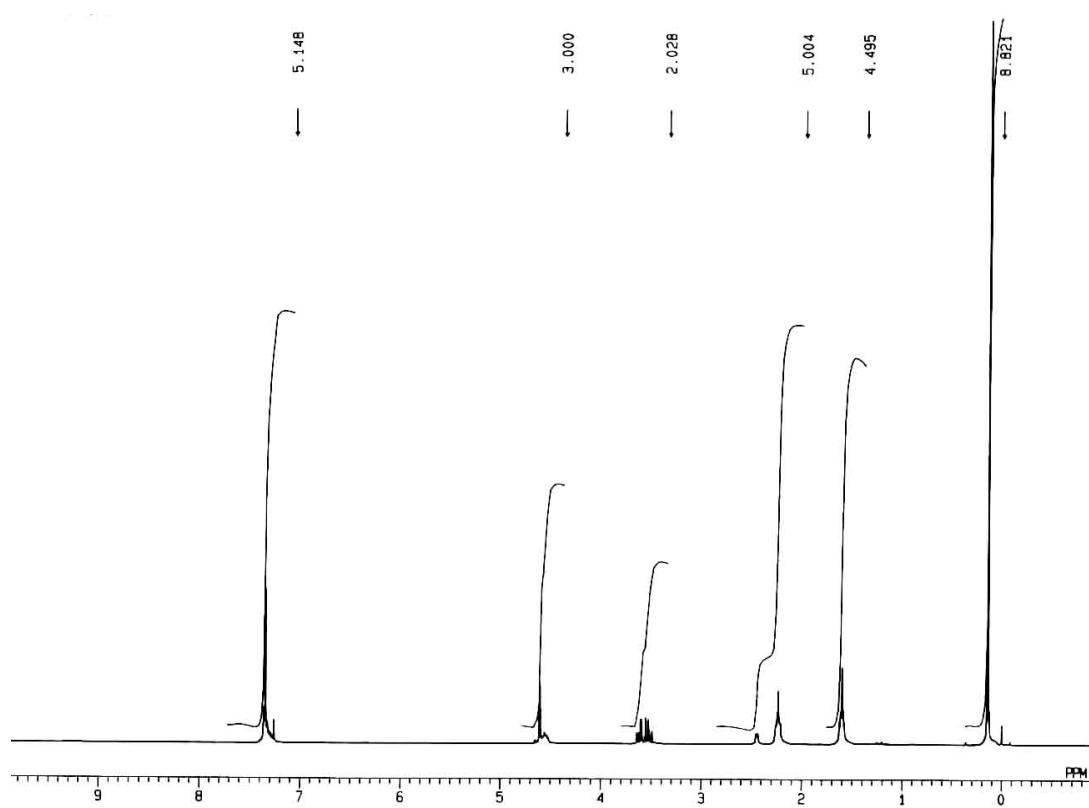
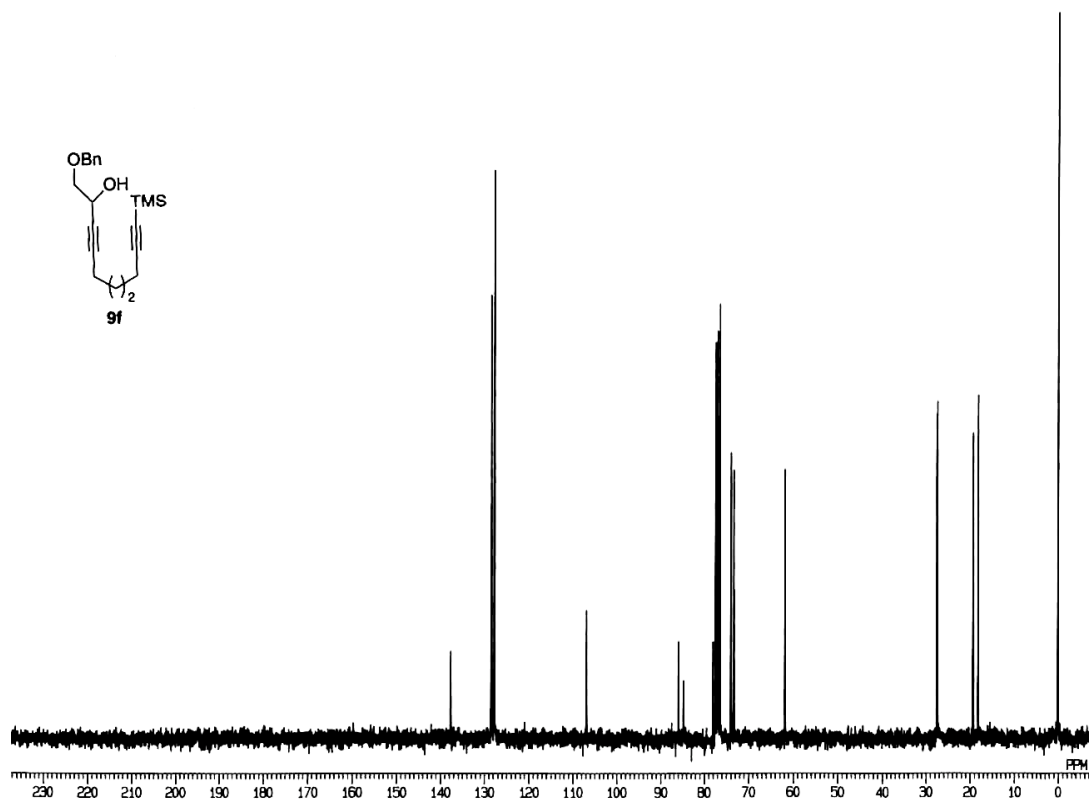


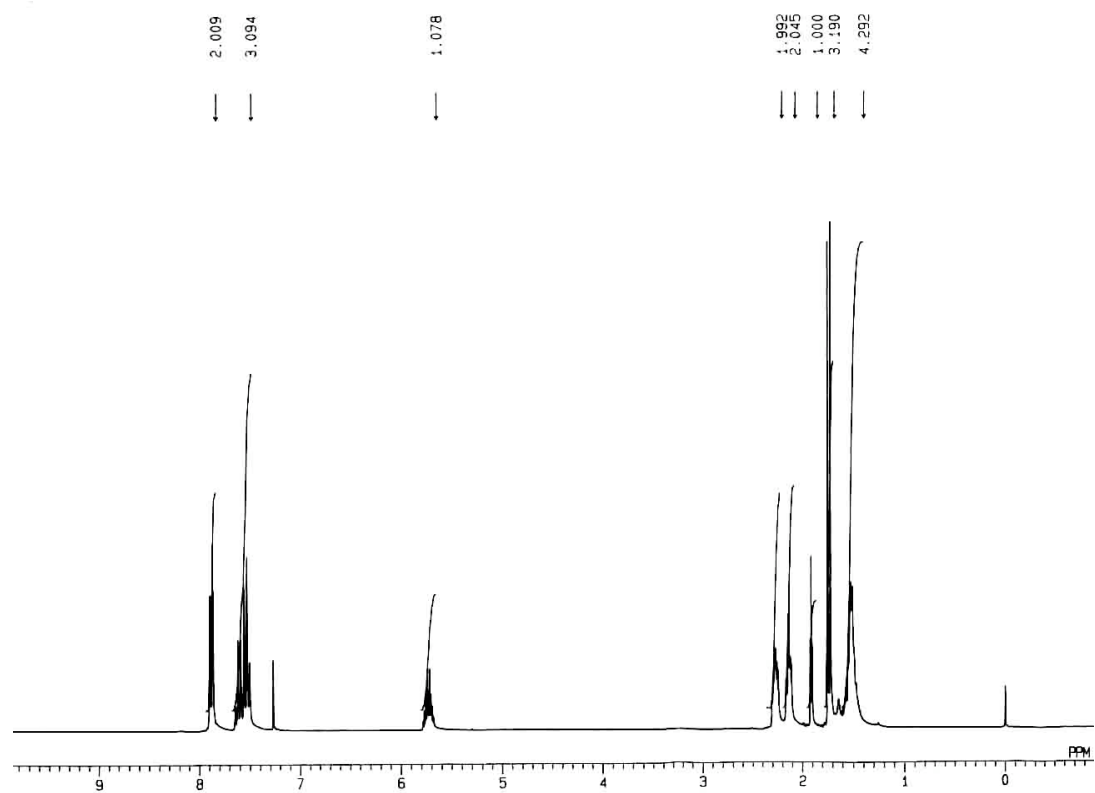
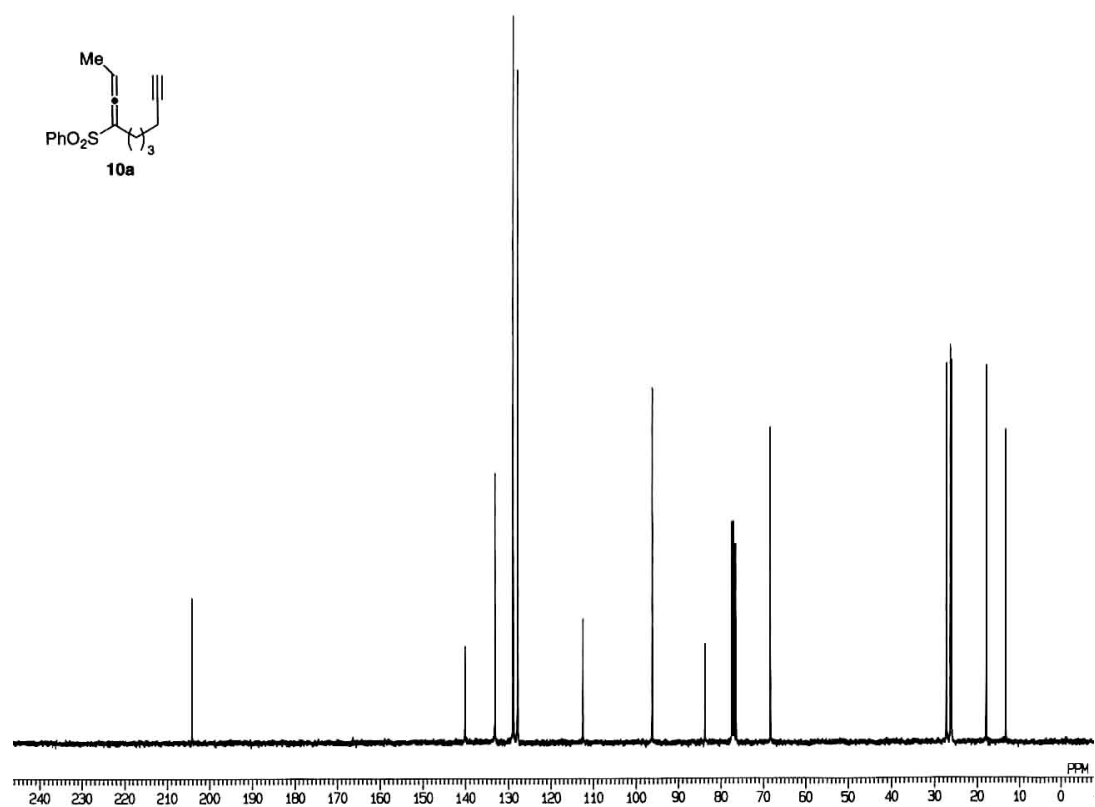


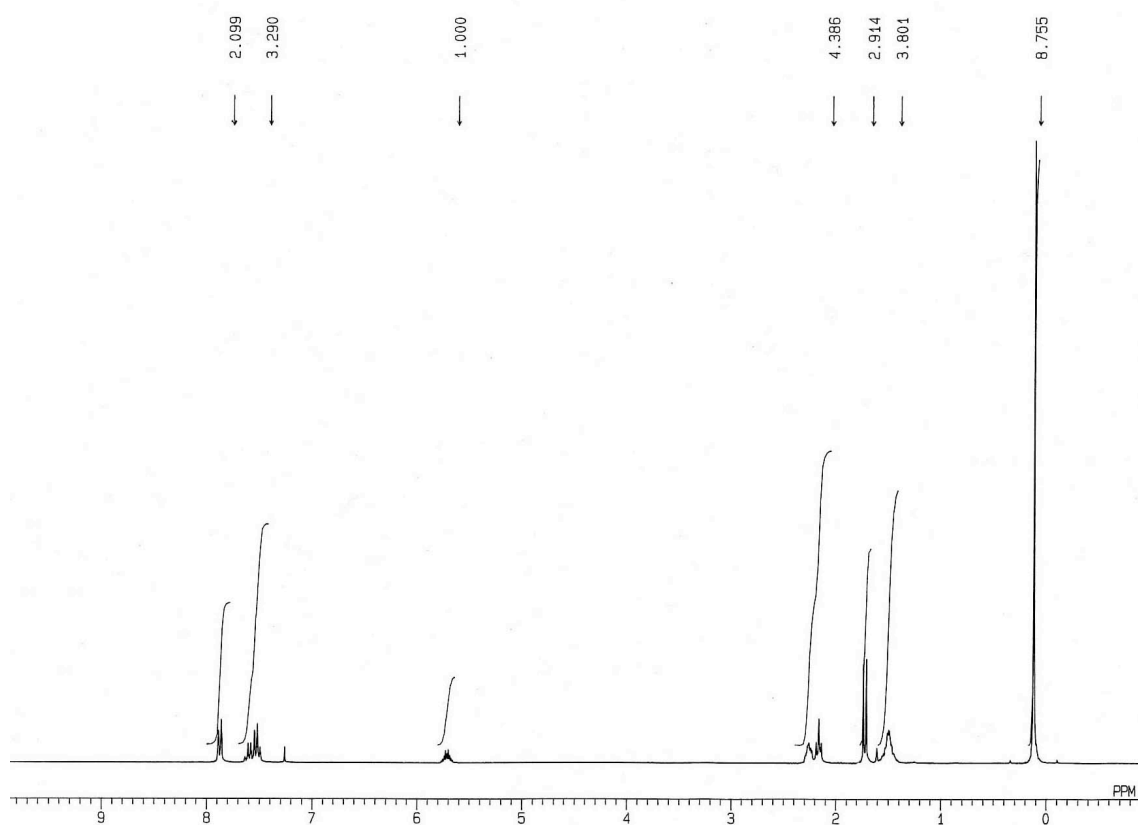
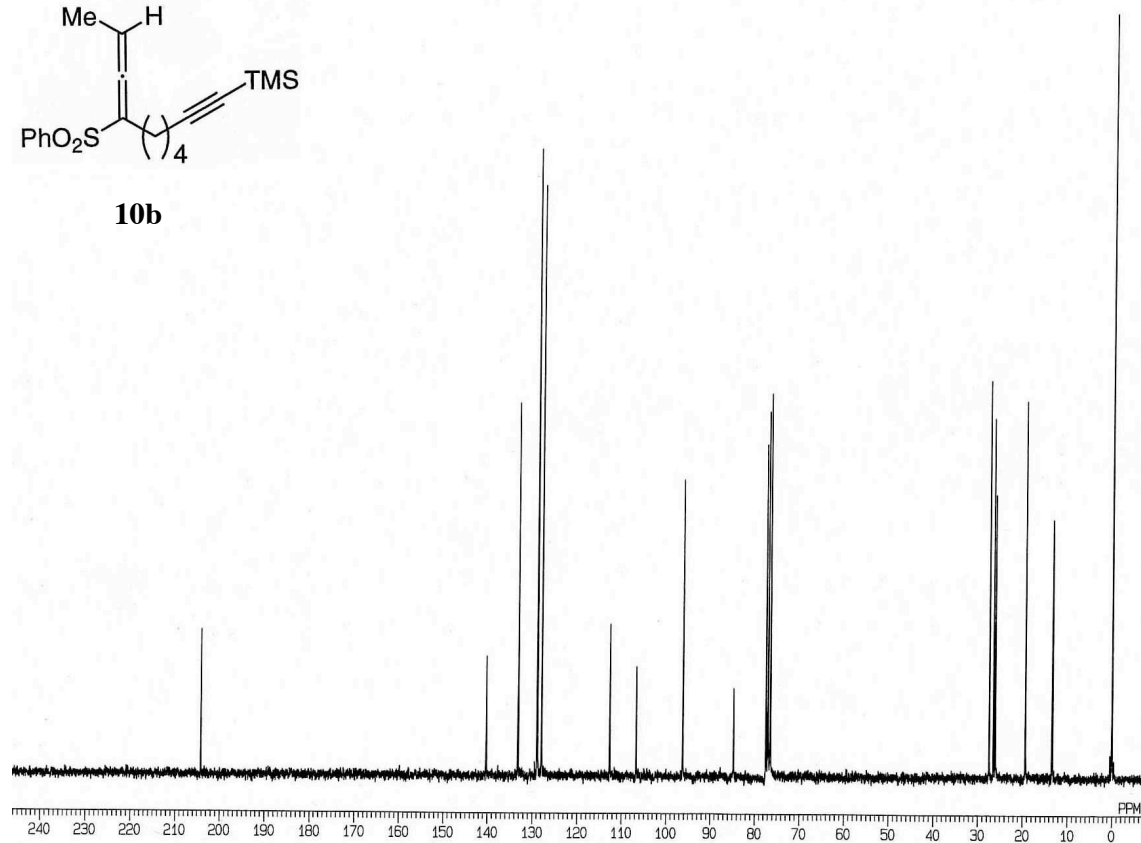
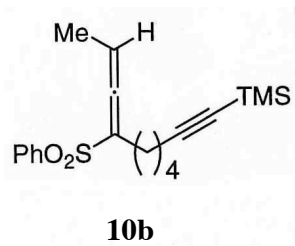


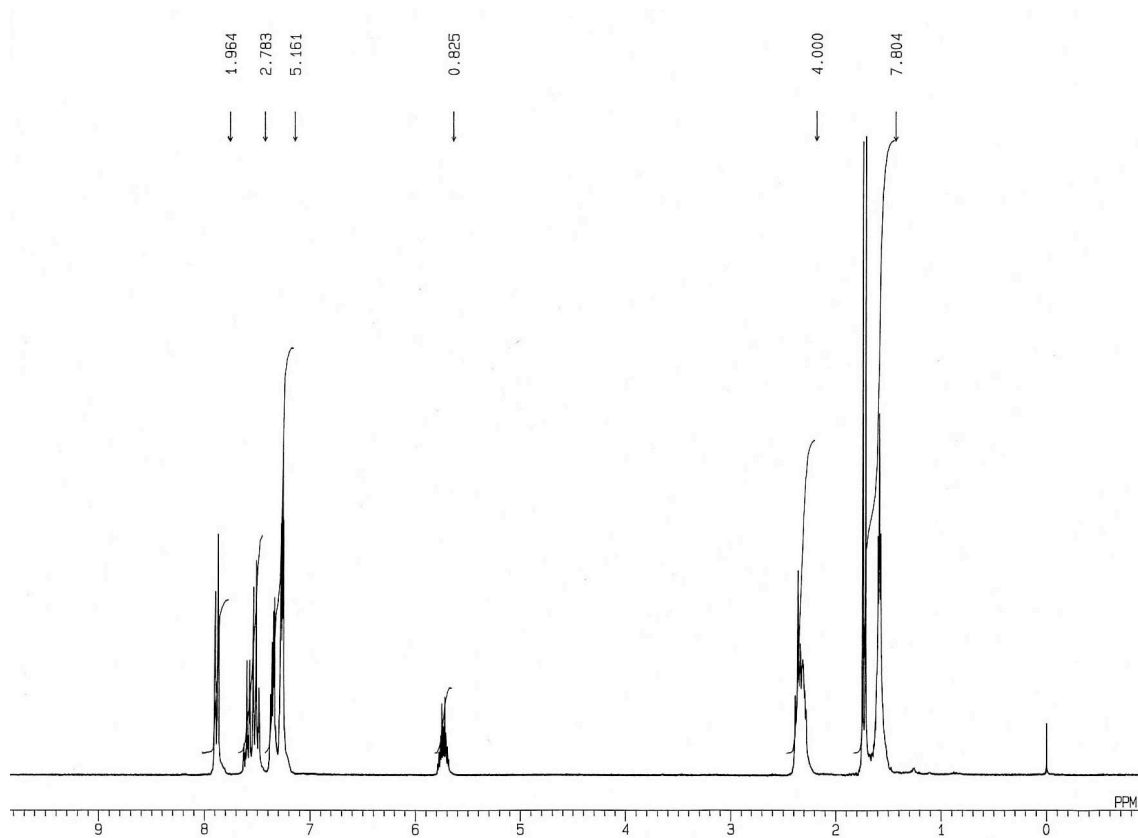
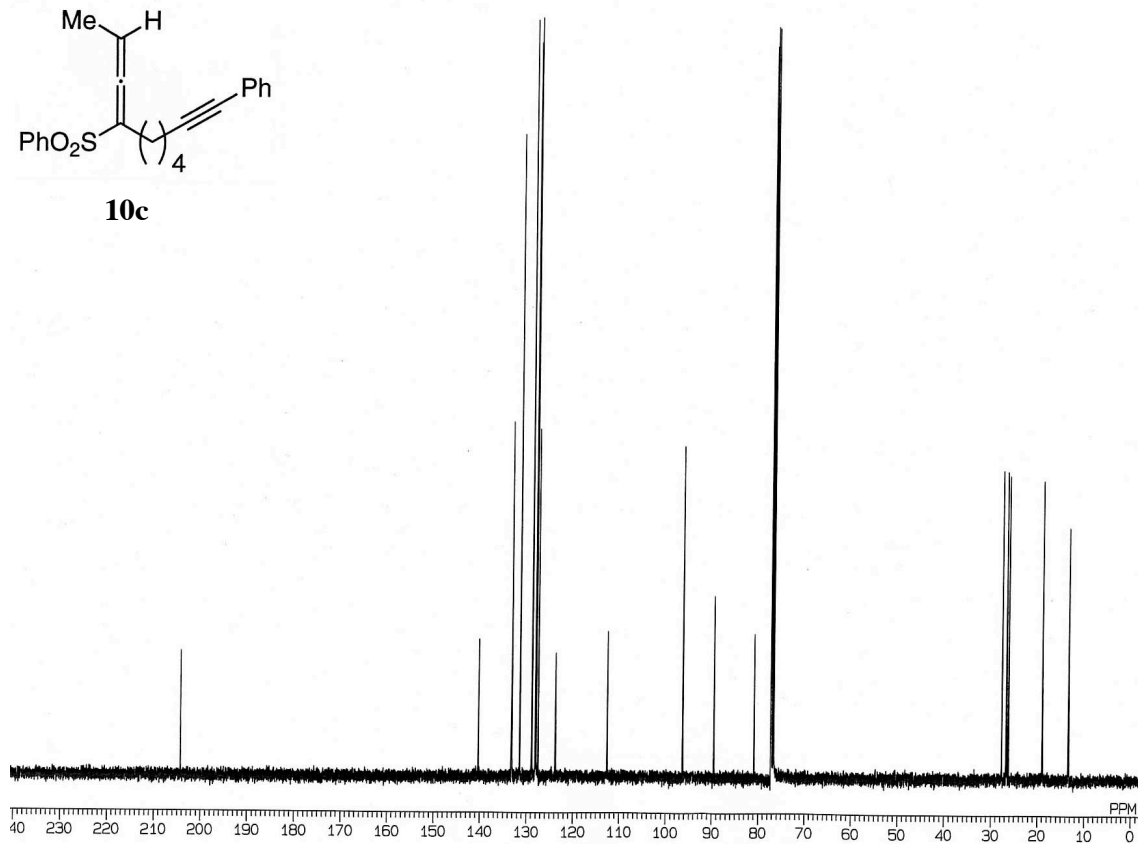
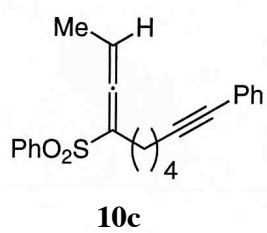


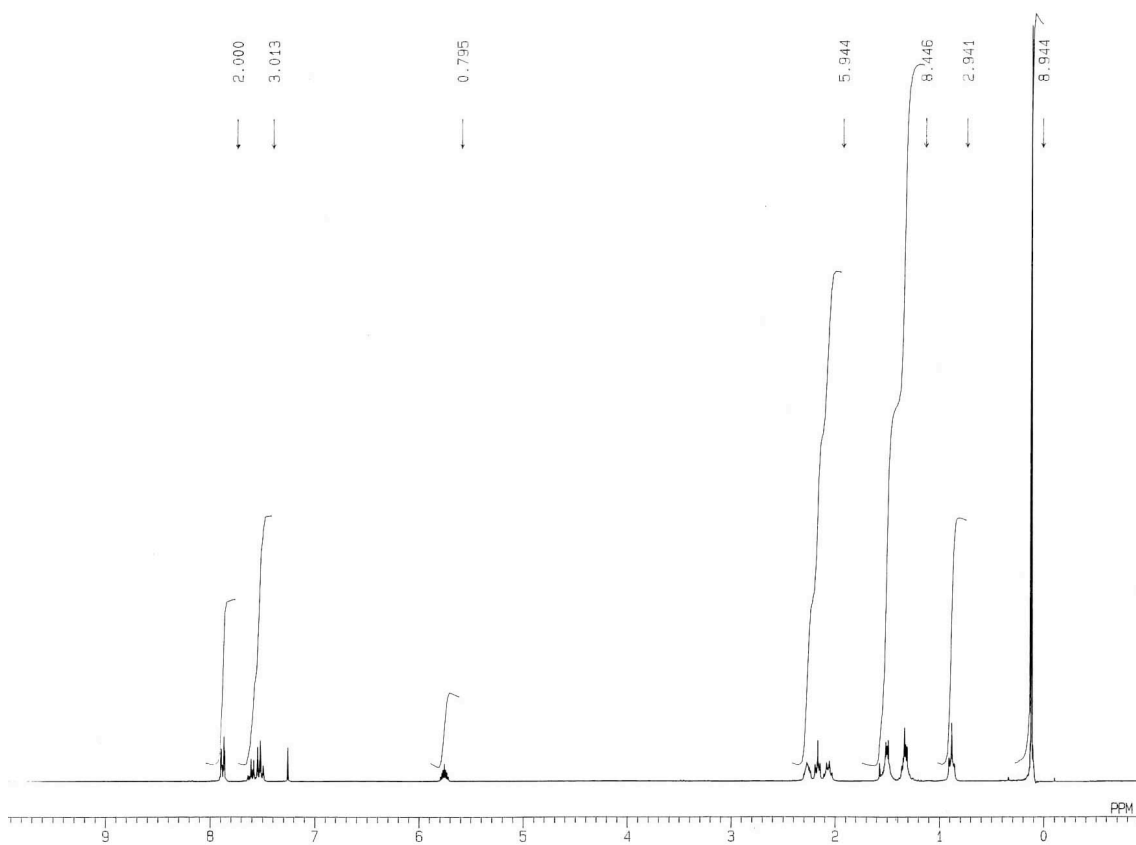
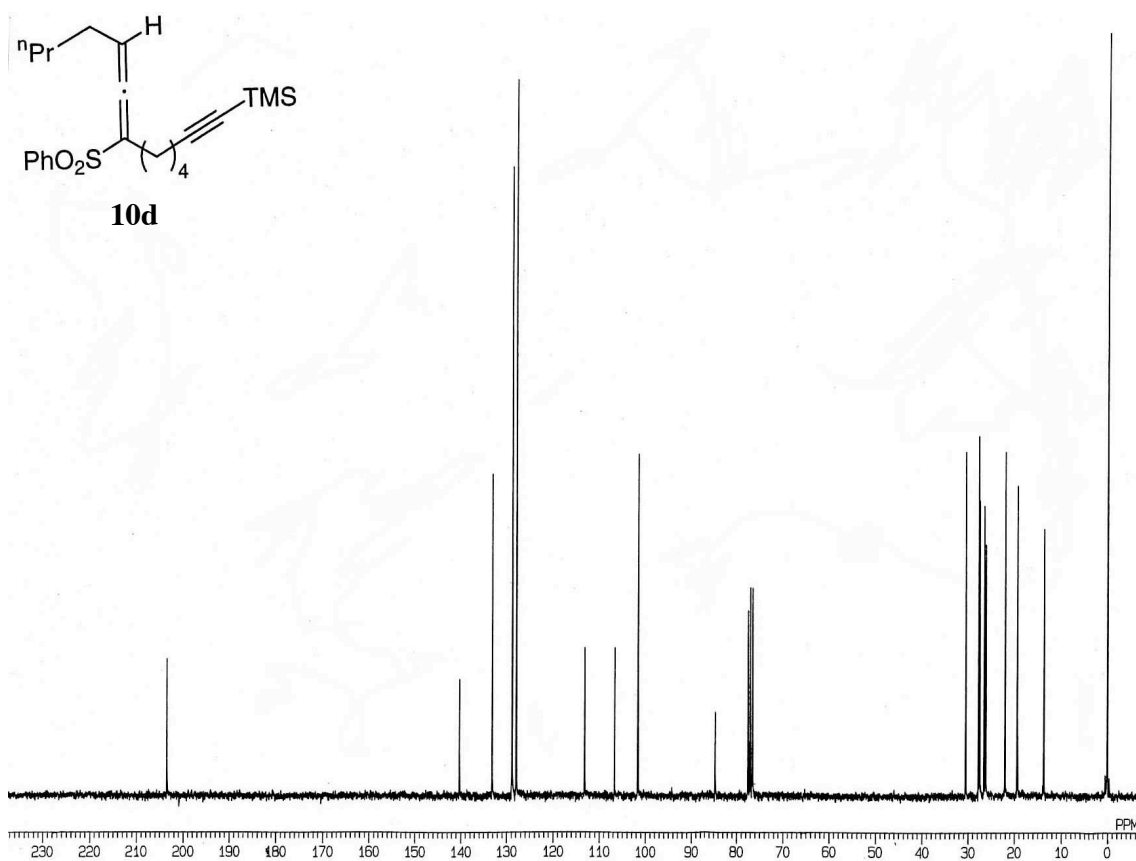


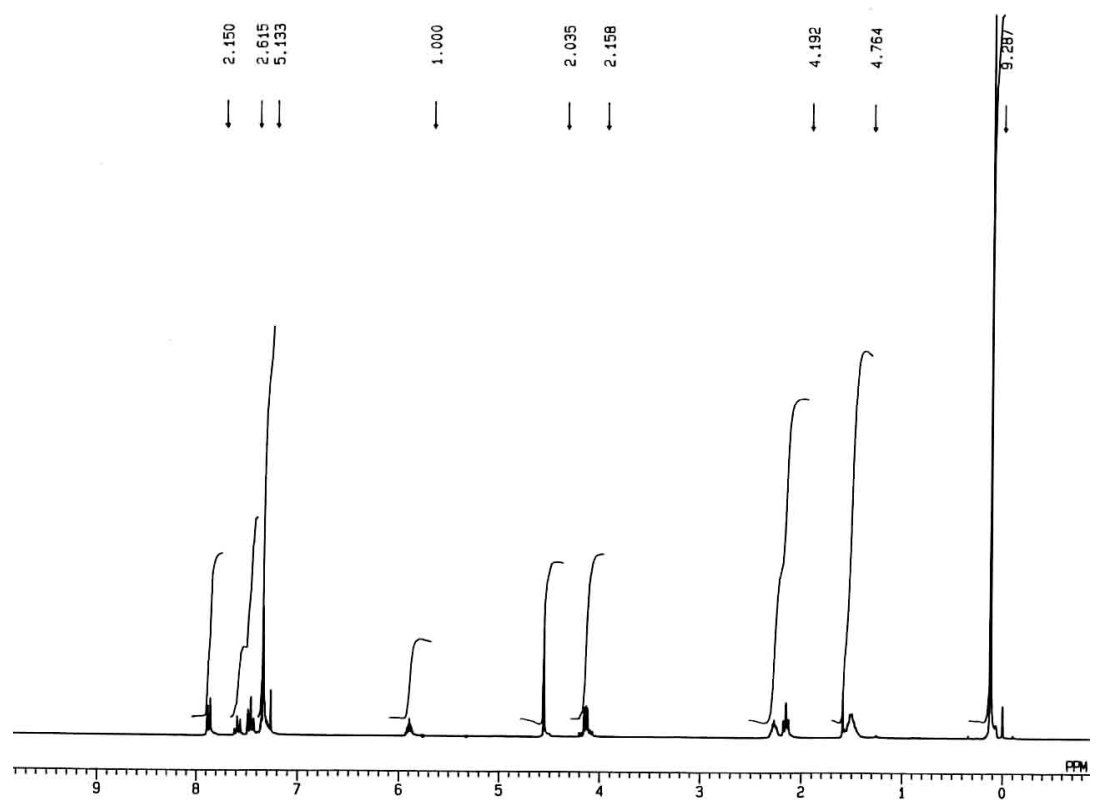
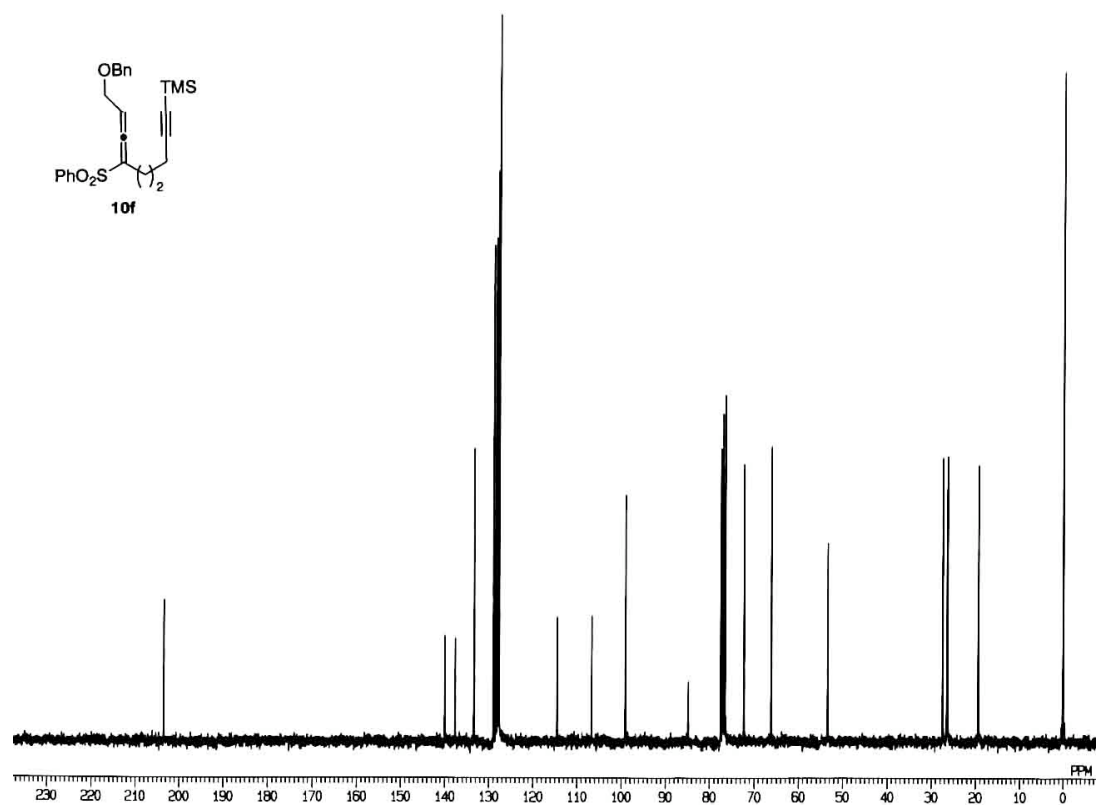


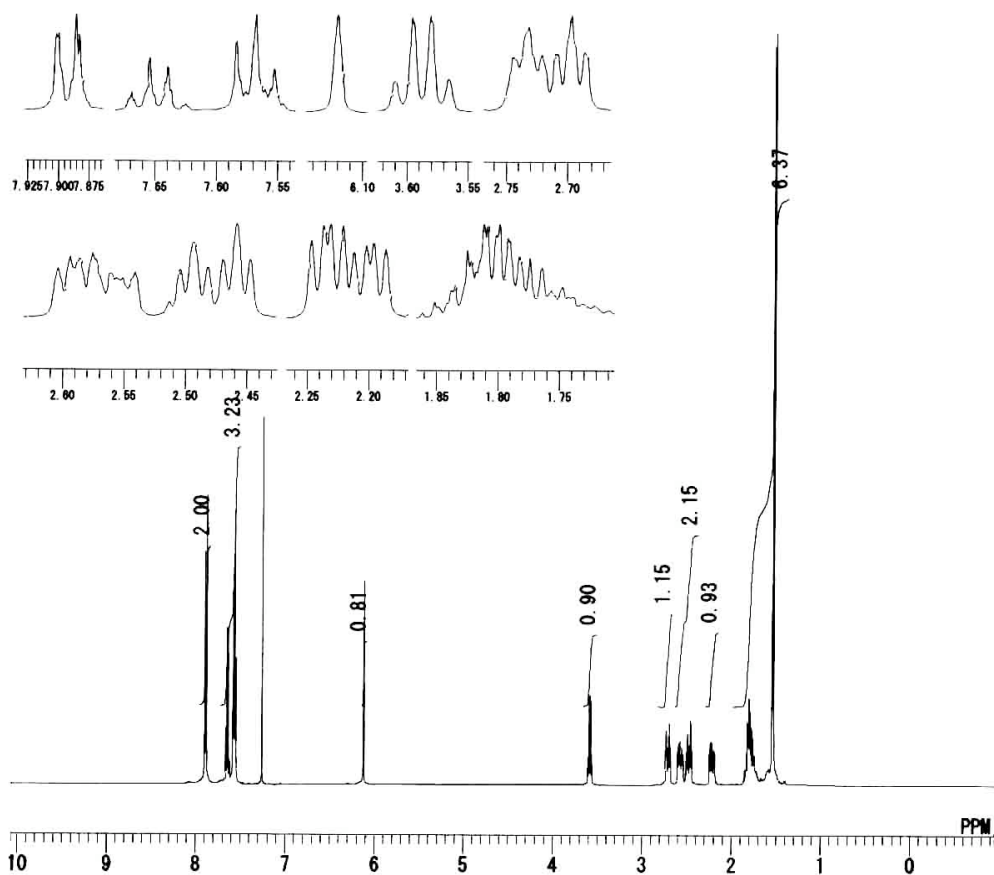
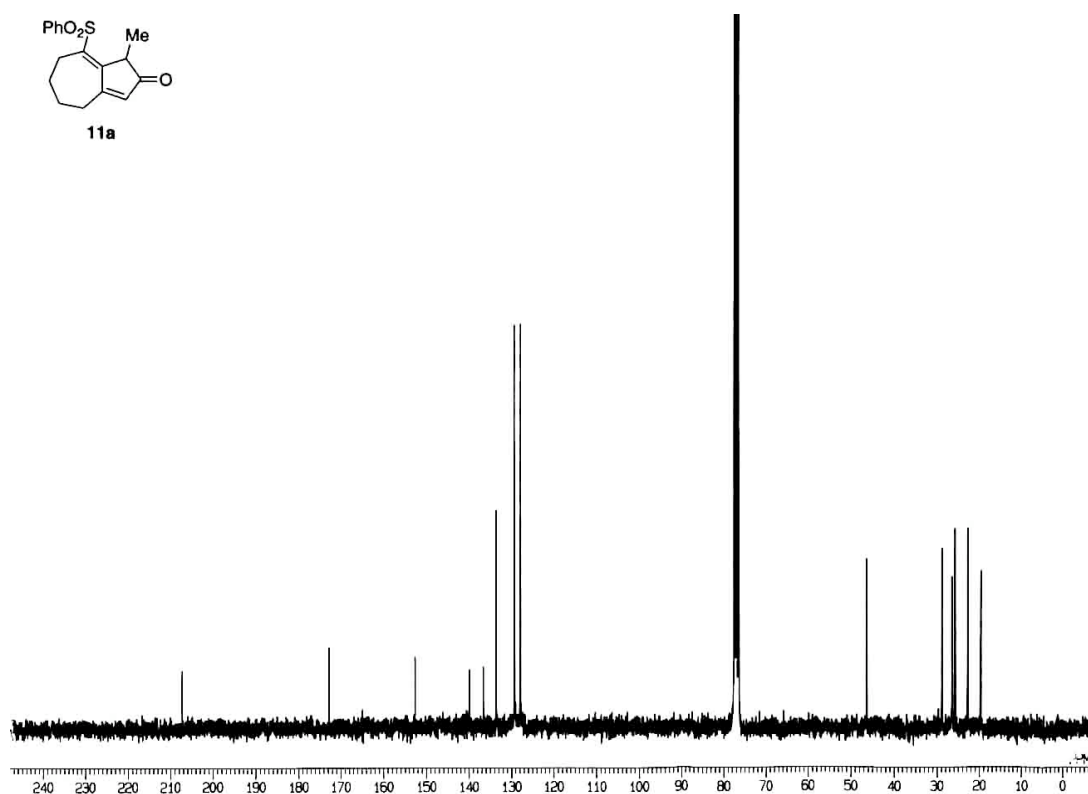
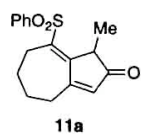


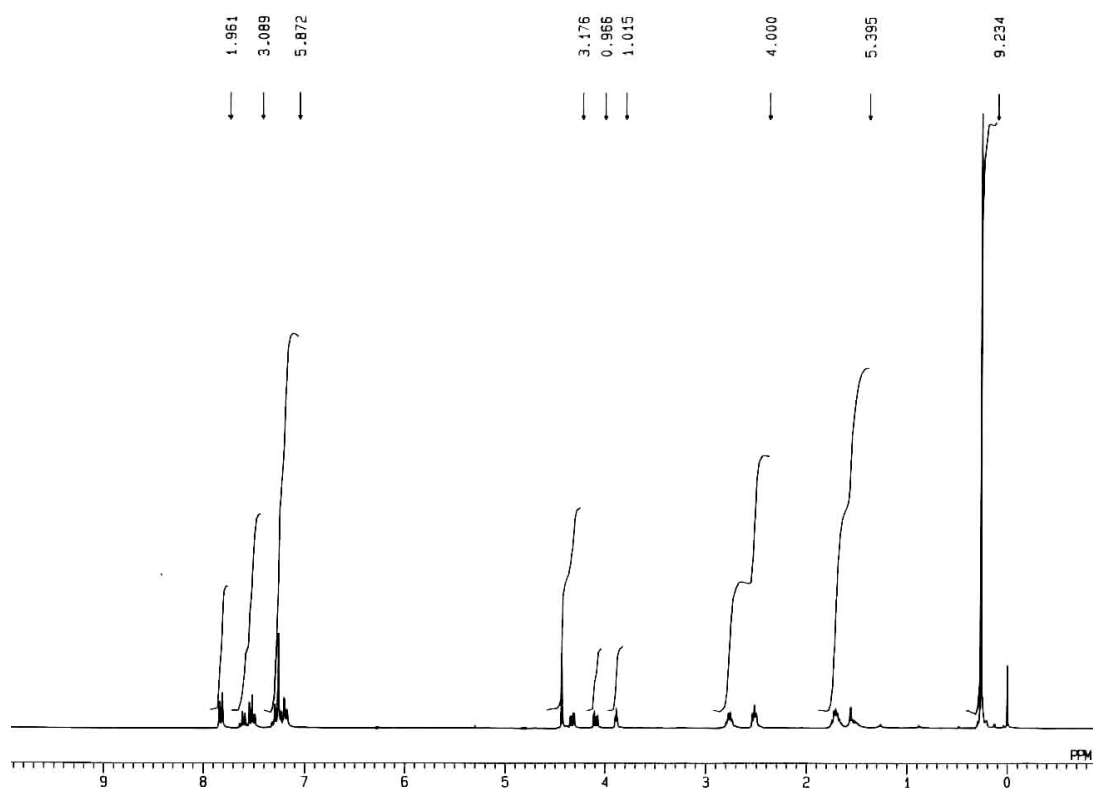
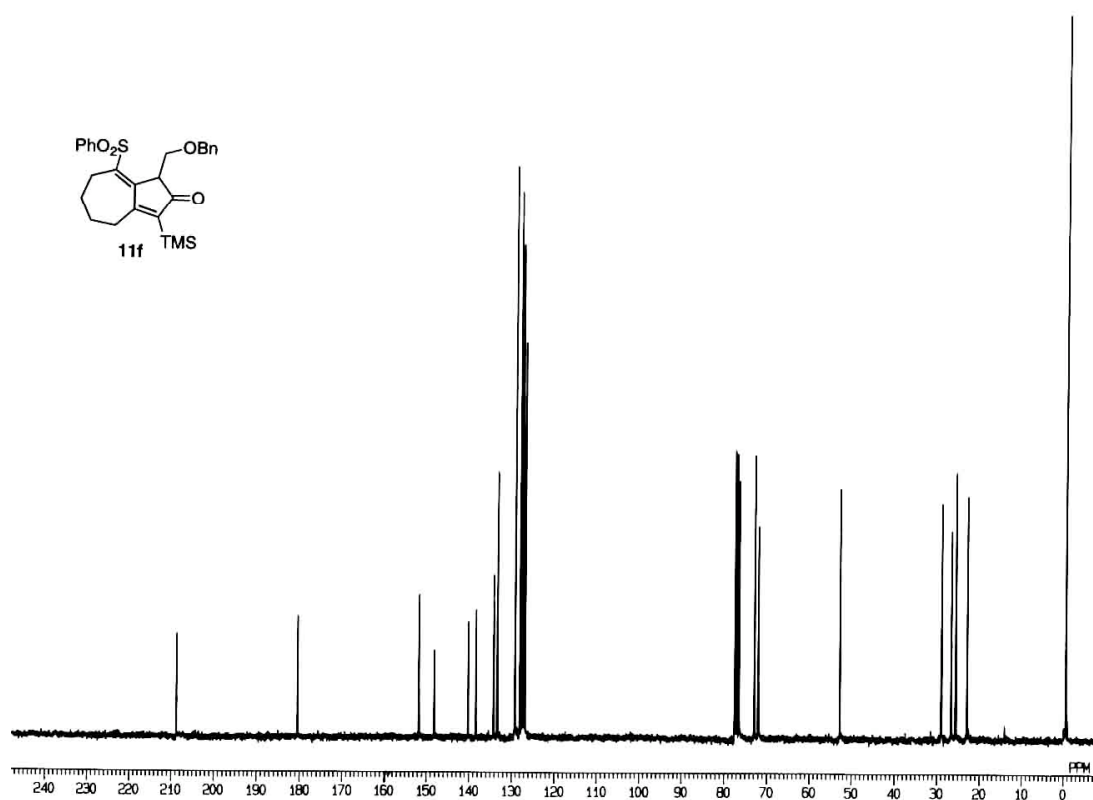


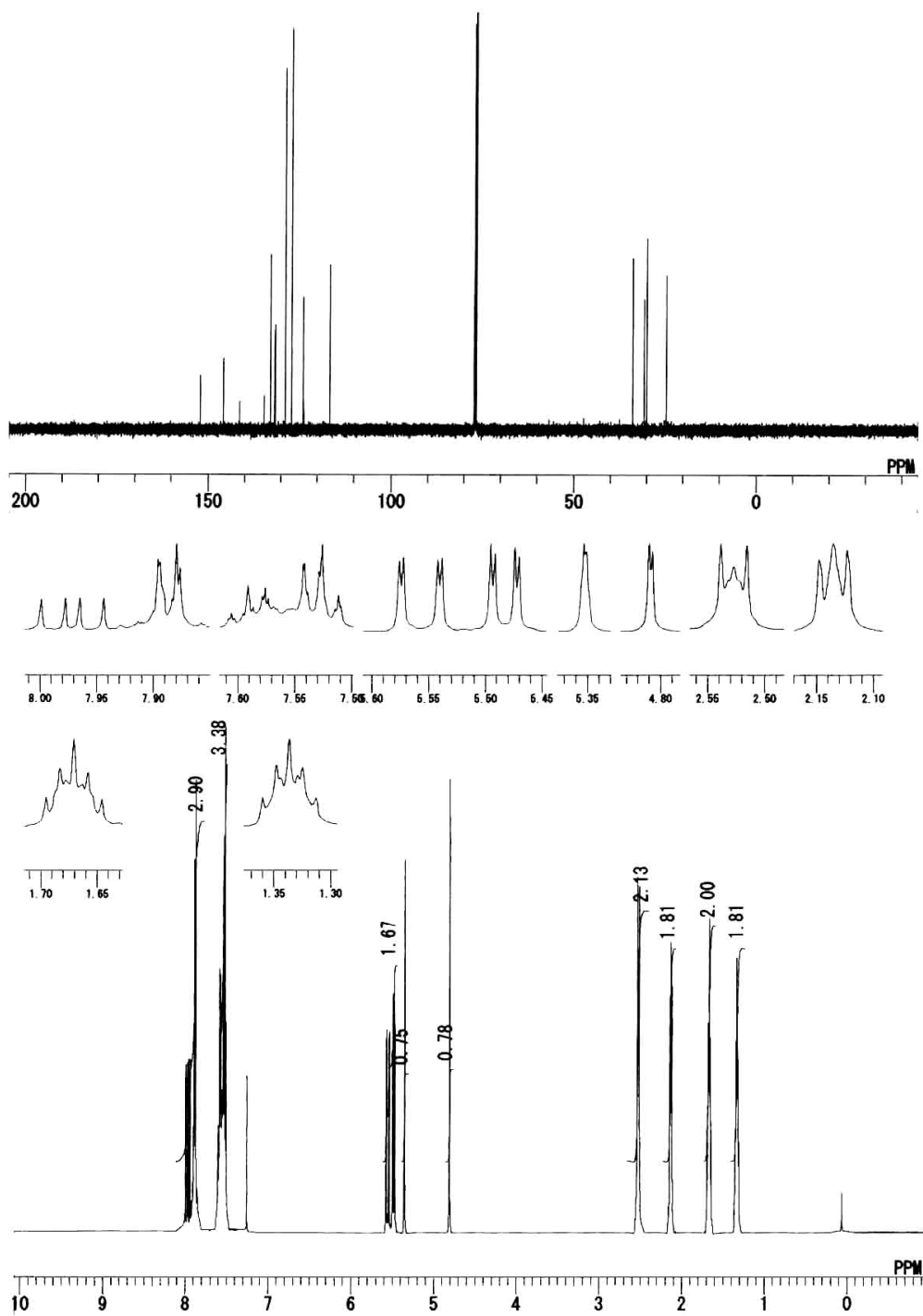
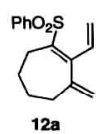


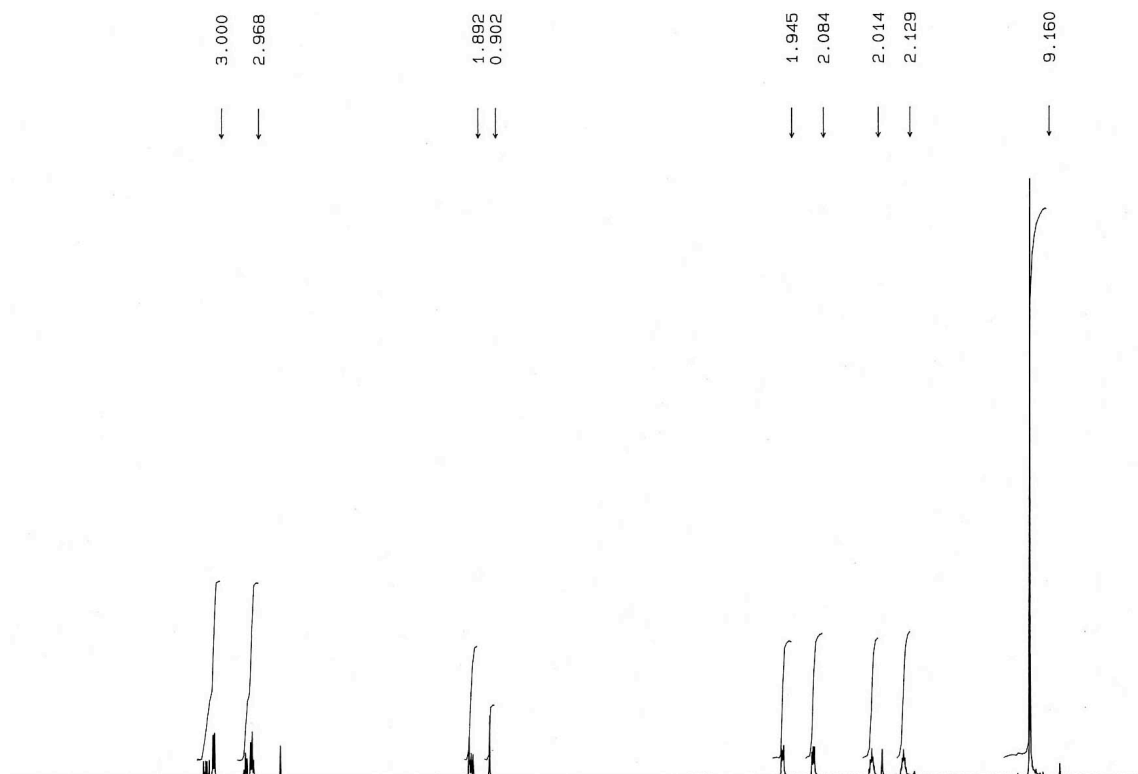
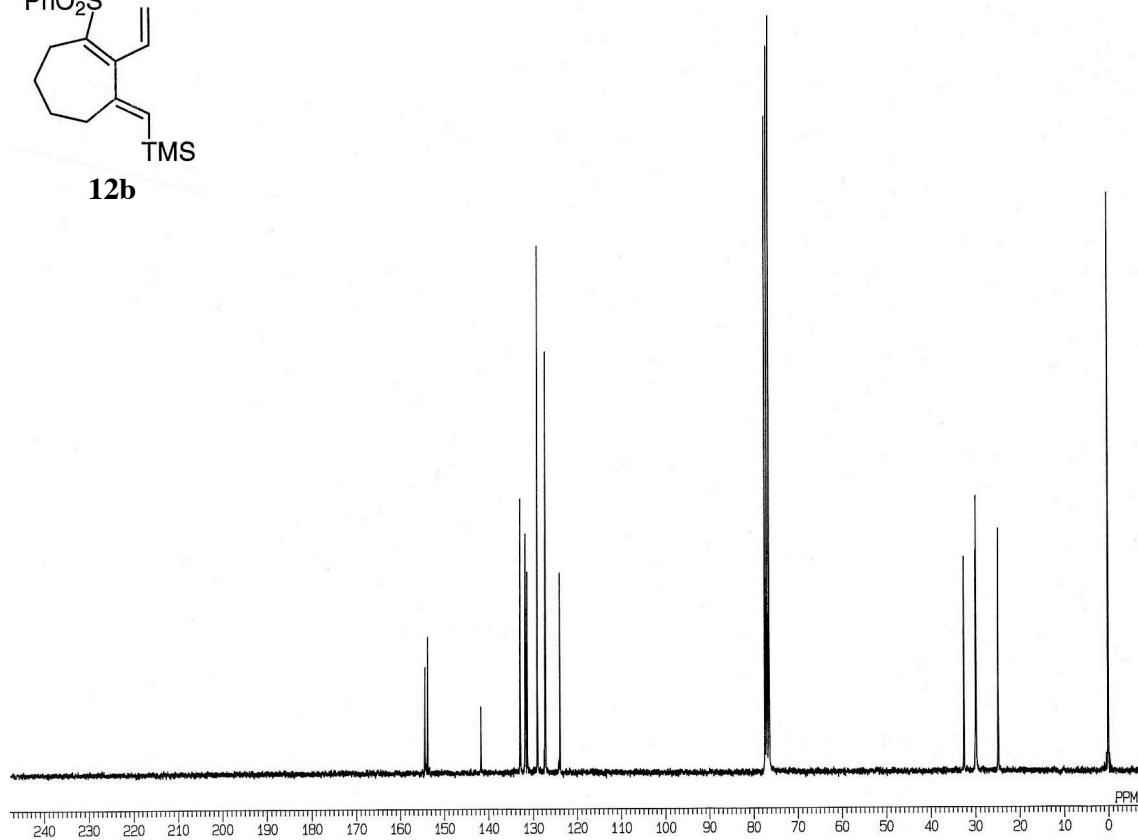
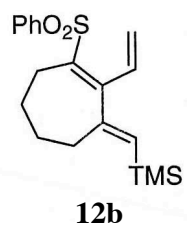


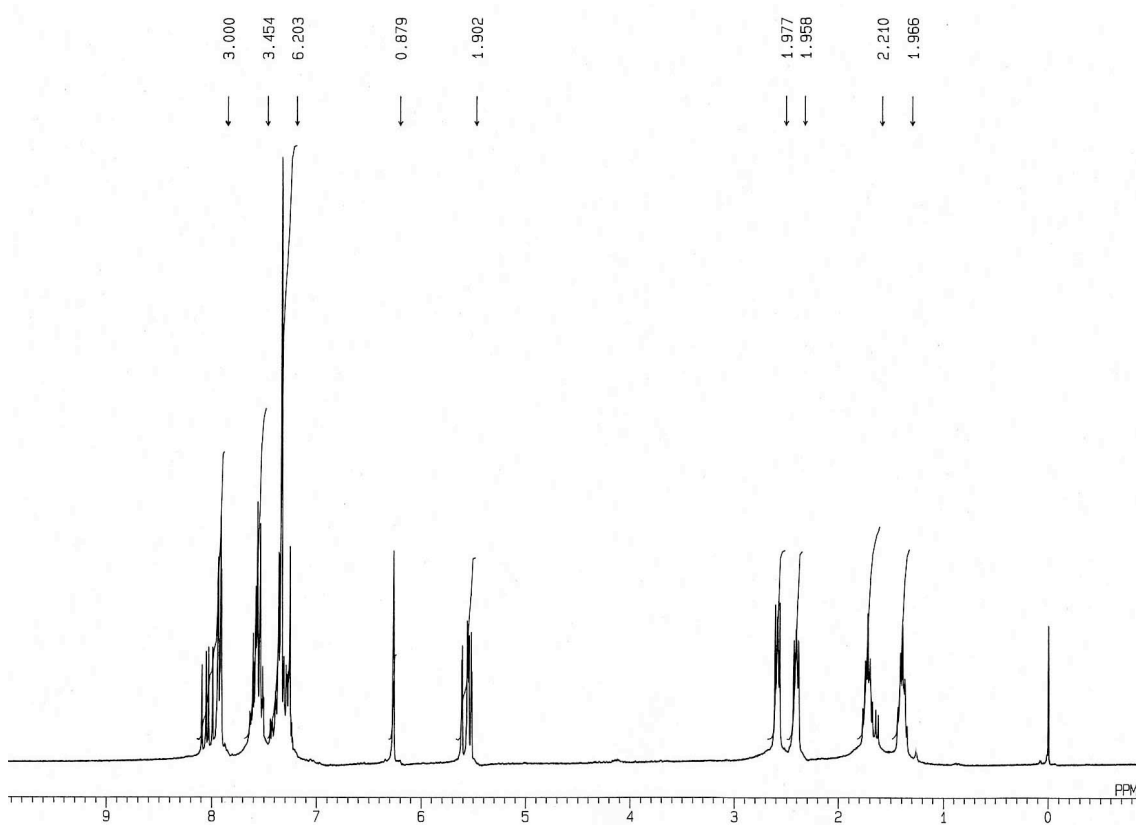
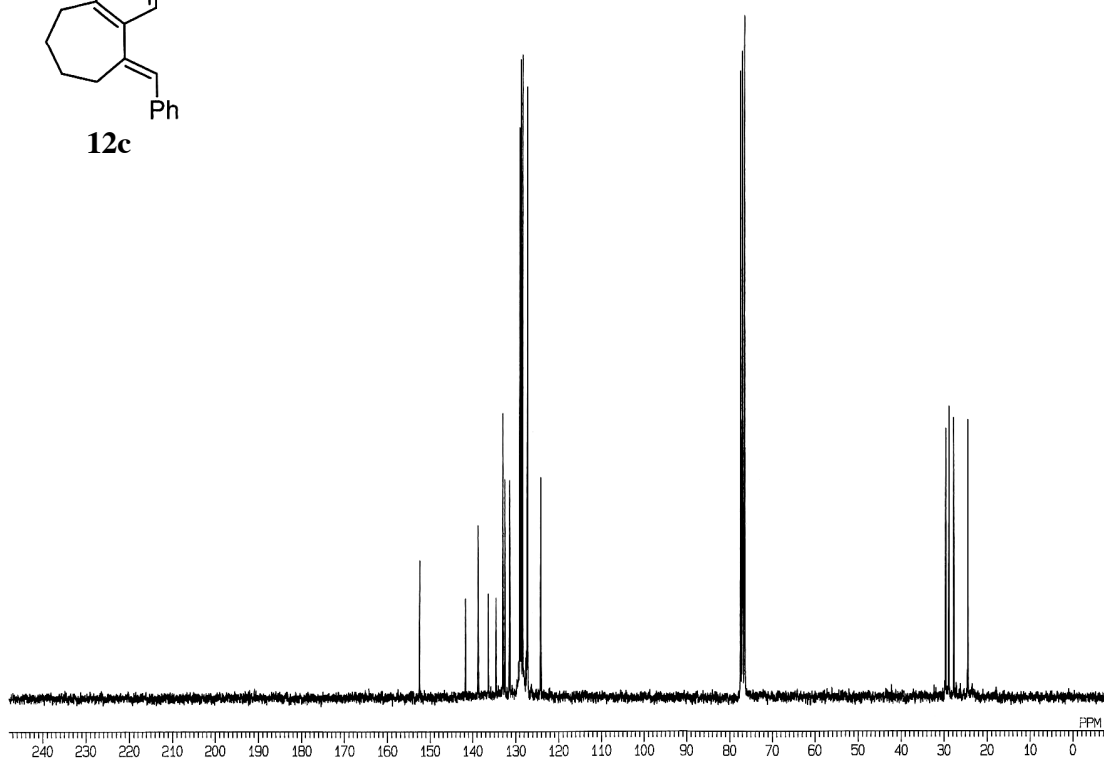
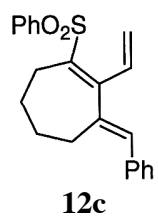


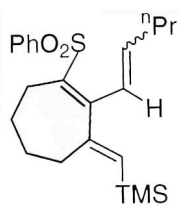






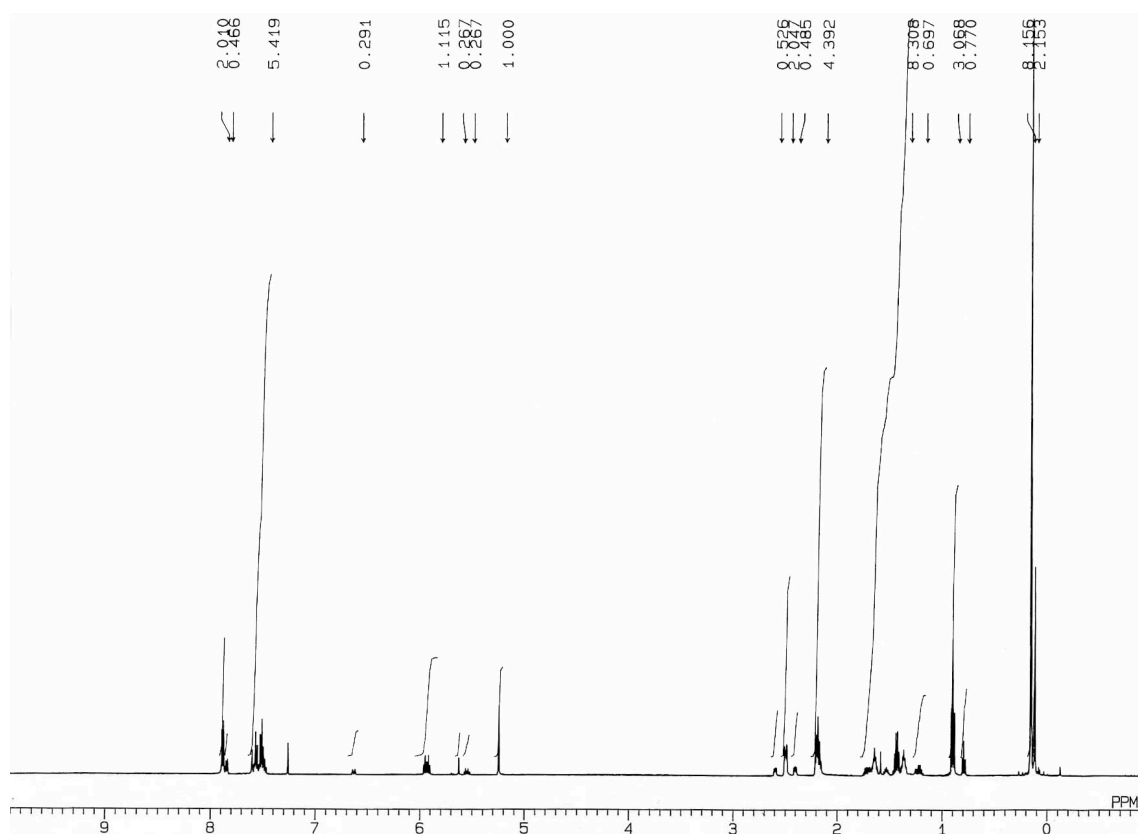
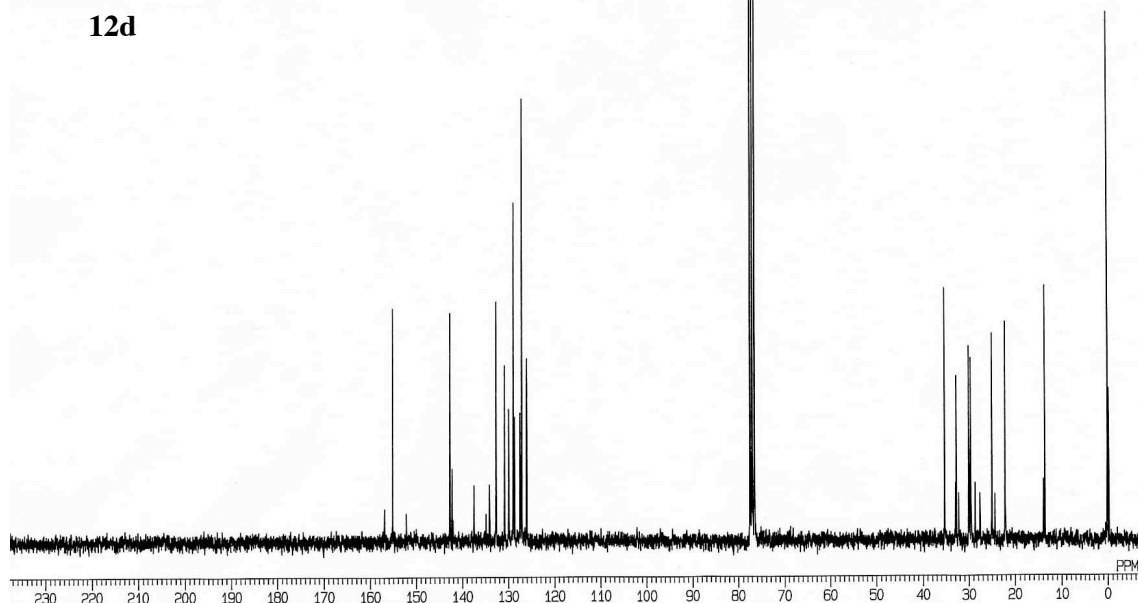


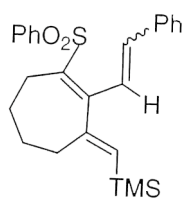




E:Z = 4:1

12d





$E:Z = 3:1$

12e

