

Supporting Information

Nickel-Catalyzed Cross-Coupling of Aryl Fluorides and Organozinc Reagents

Feng Zhu and Zhong-Xia Wang*

CAS Key Laboratory of Soft Matter Chemistry and Department of Chemistry, University of
Science and Technology of China, Hefei, Anhui 230026, People's Republic of China

E-mail: zxwang@ustc.edu.cn

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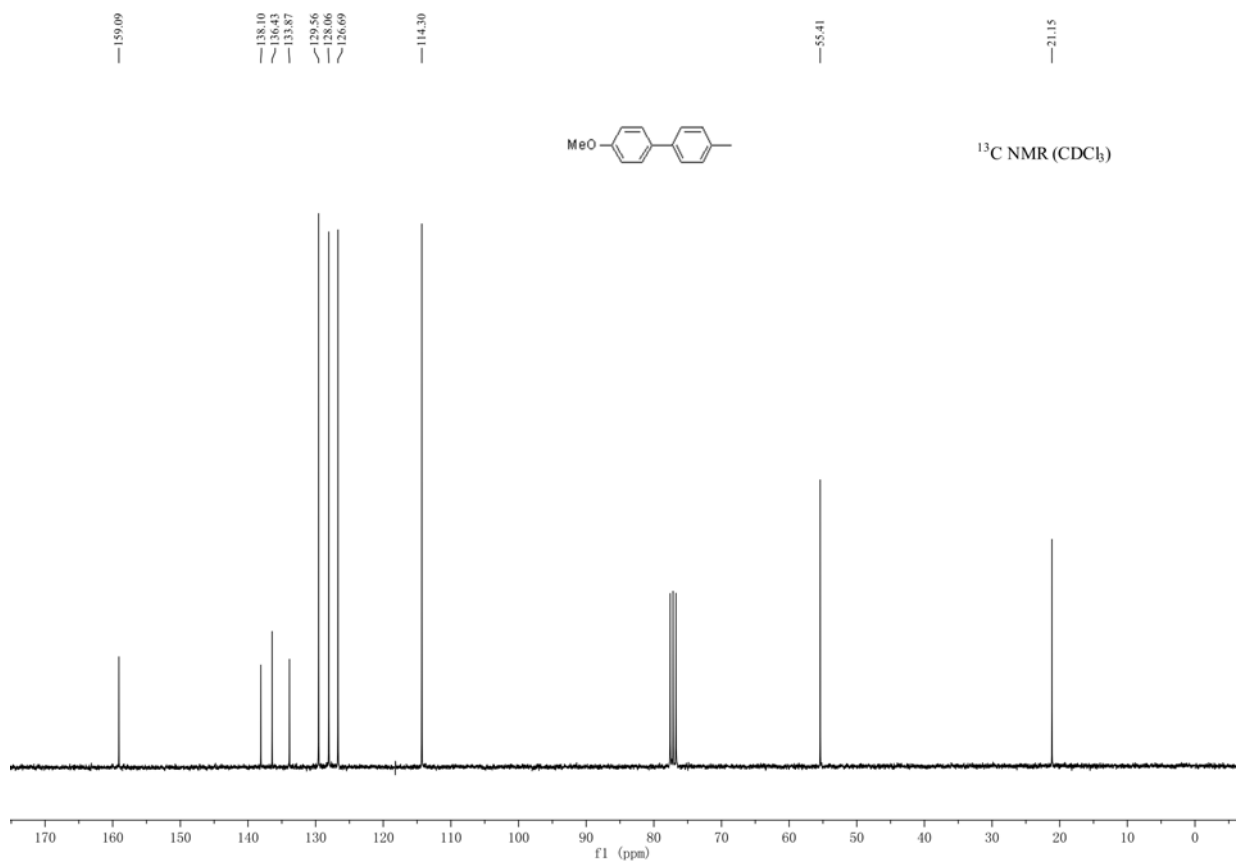
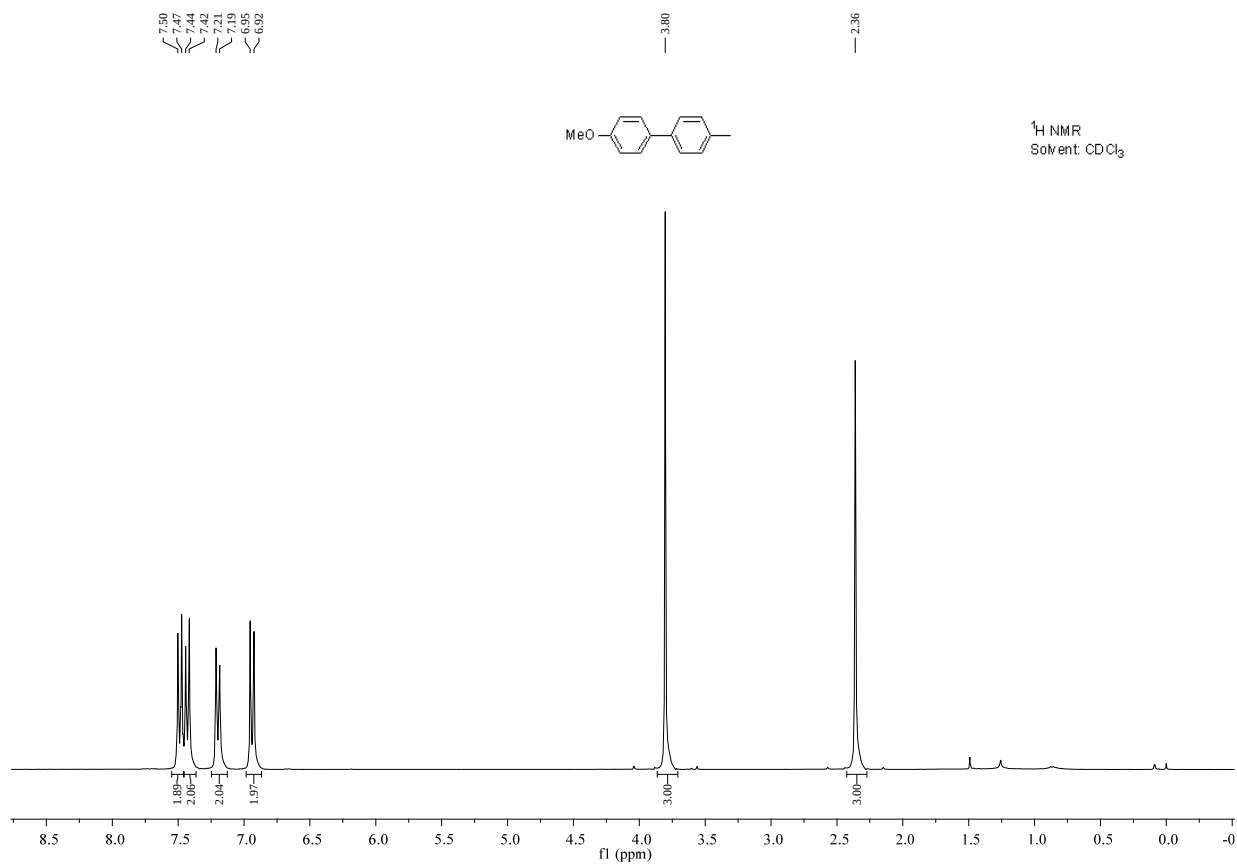
Copies of ^1H , ^{13}C and ^{19}F NMR spectra

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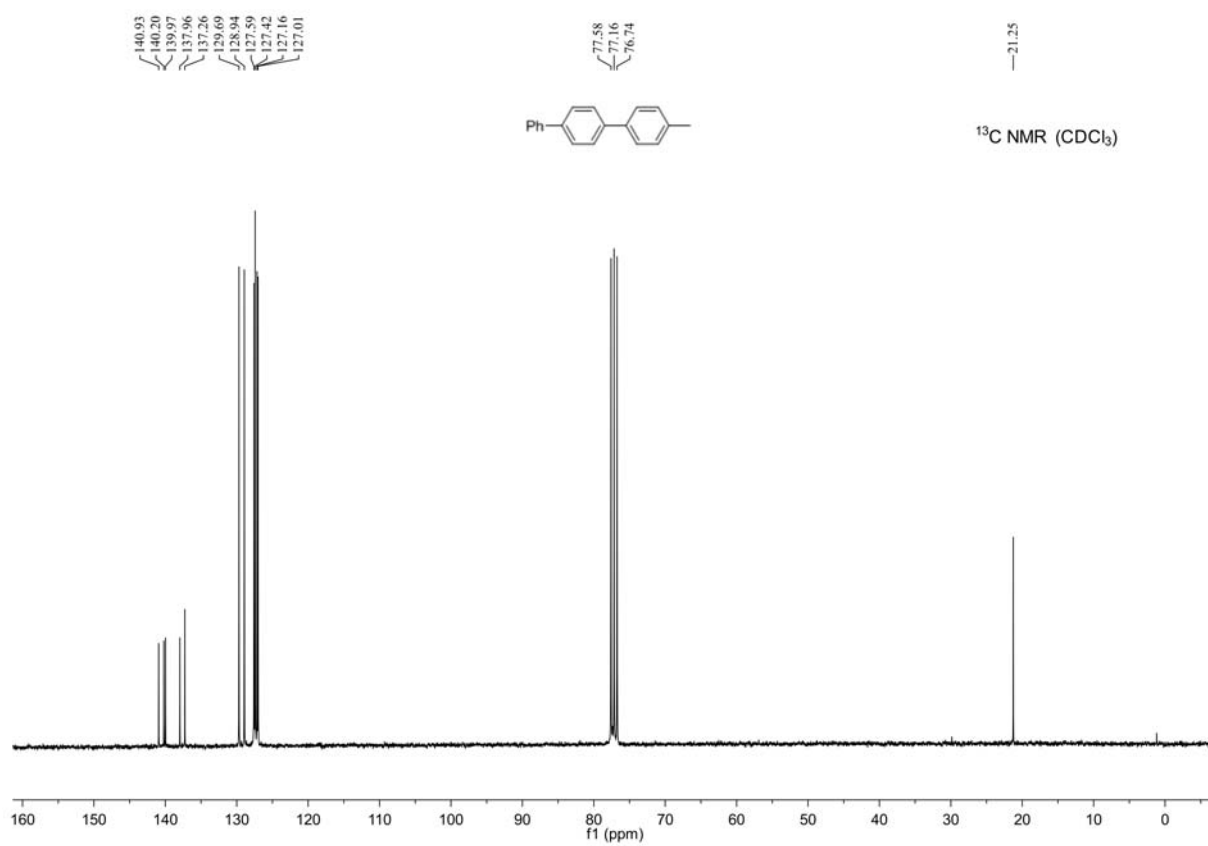
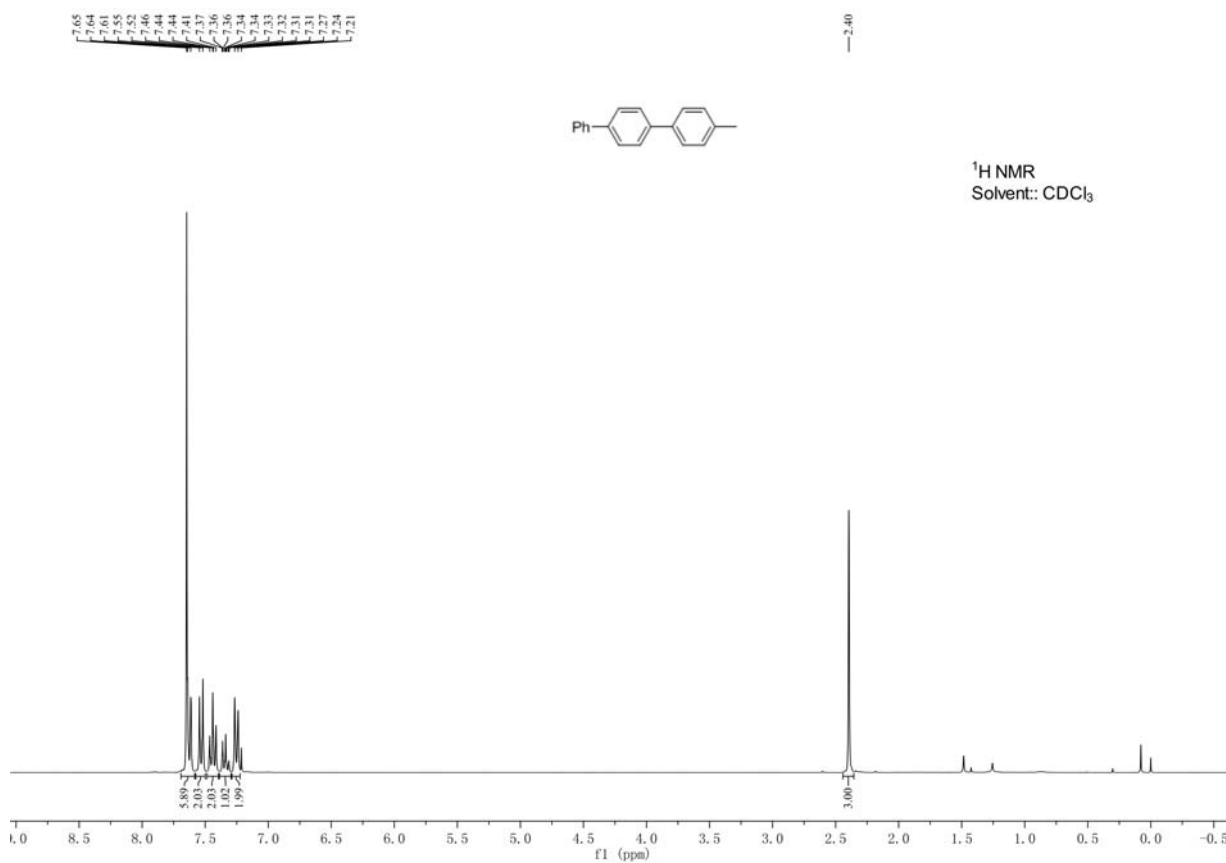
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Copies of ^1H and ^{13}C NMR spectra for the cross-coupling products

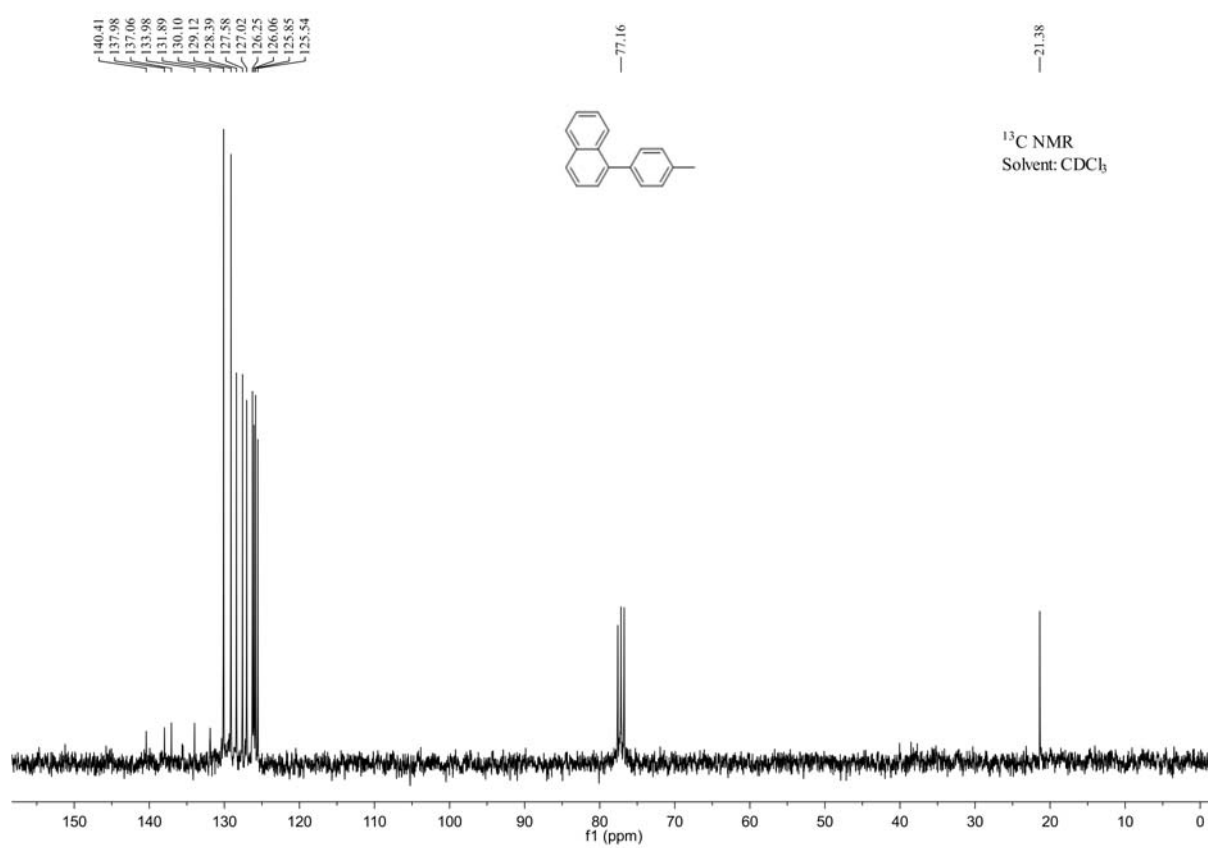
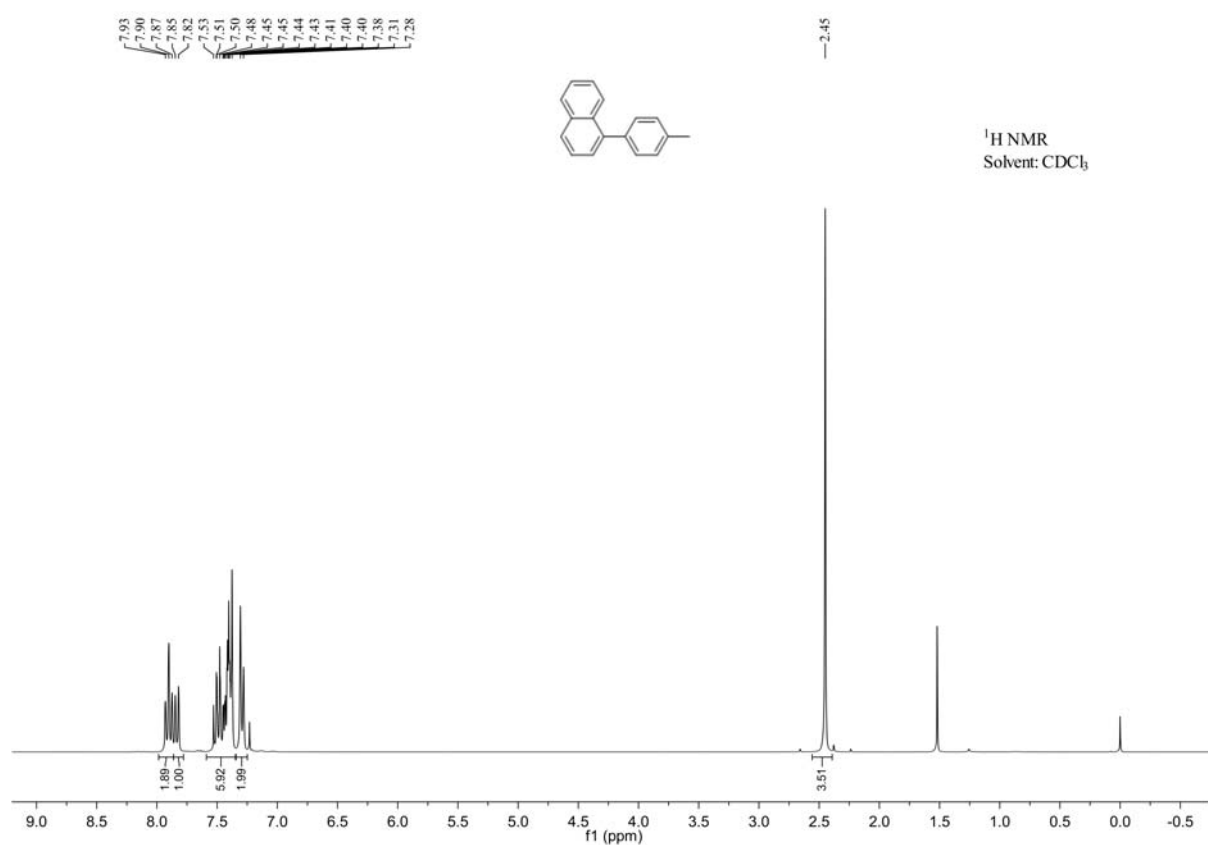
(1) 4-Methoxy-4'-methylbiphenyl (Table 1, entry 14)



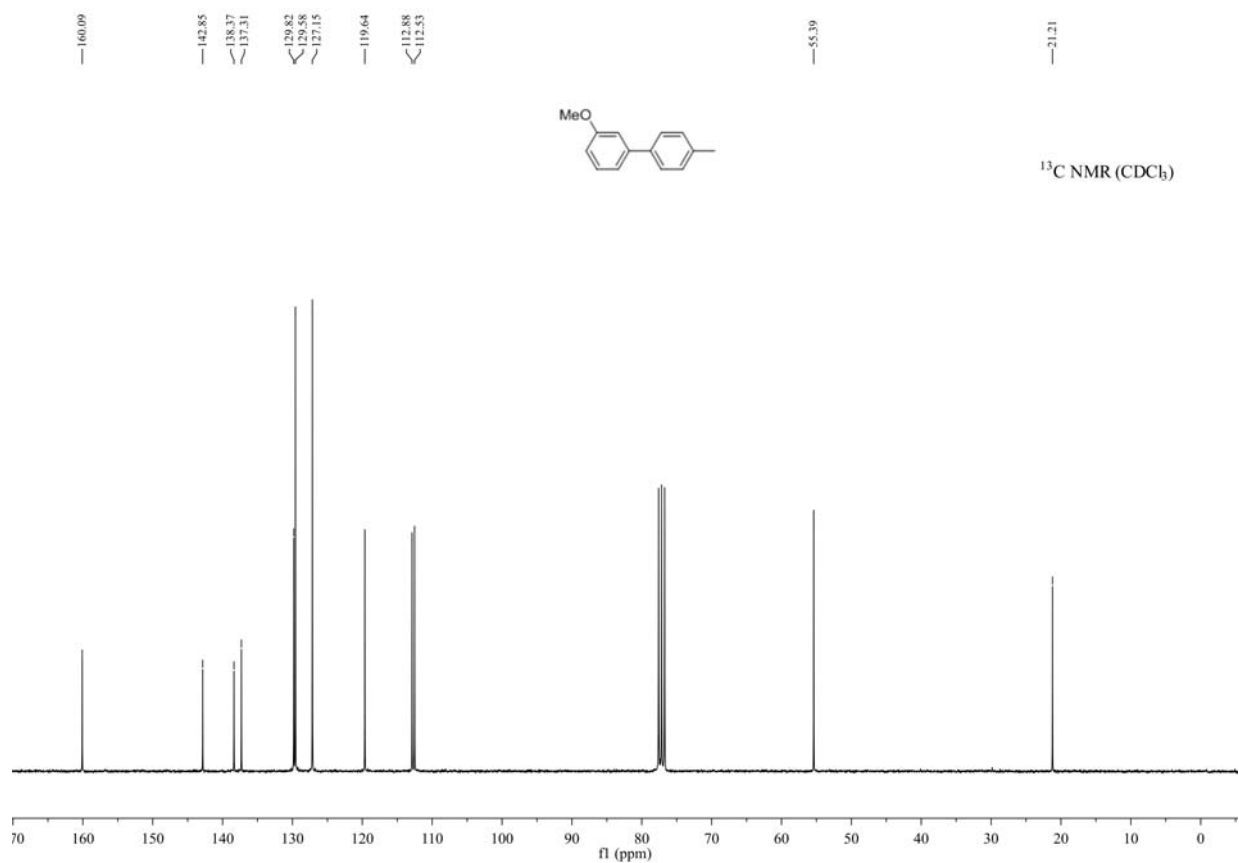
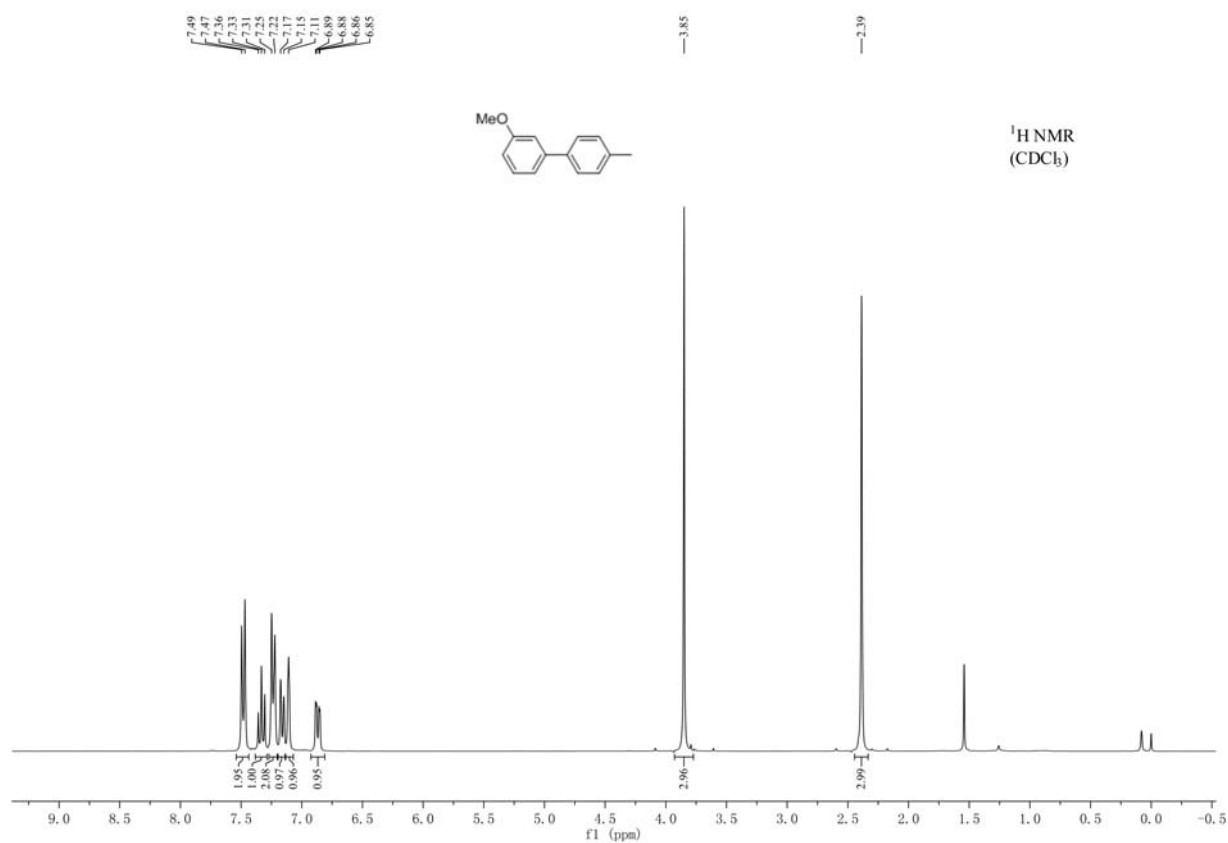
(2) 4-(4-Methylphenyl)biphenyl (Table 2, entry 1)



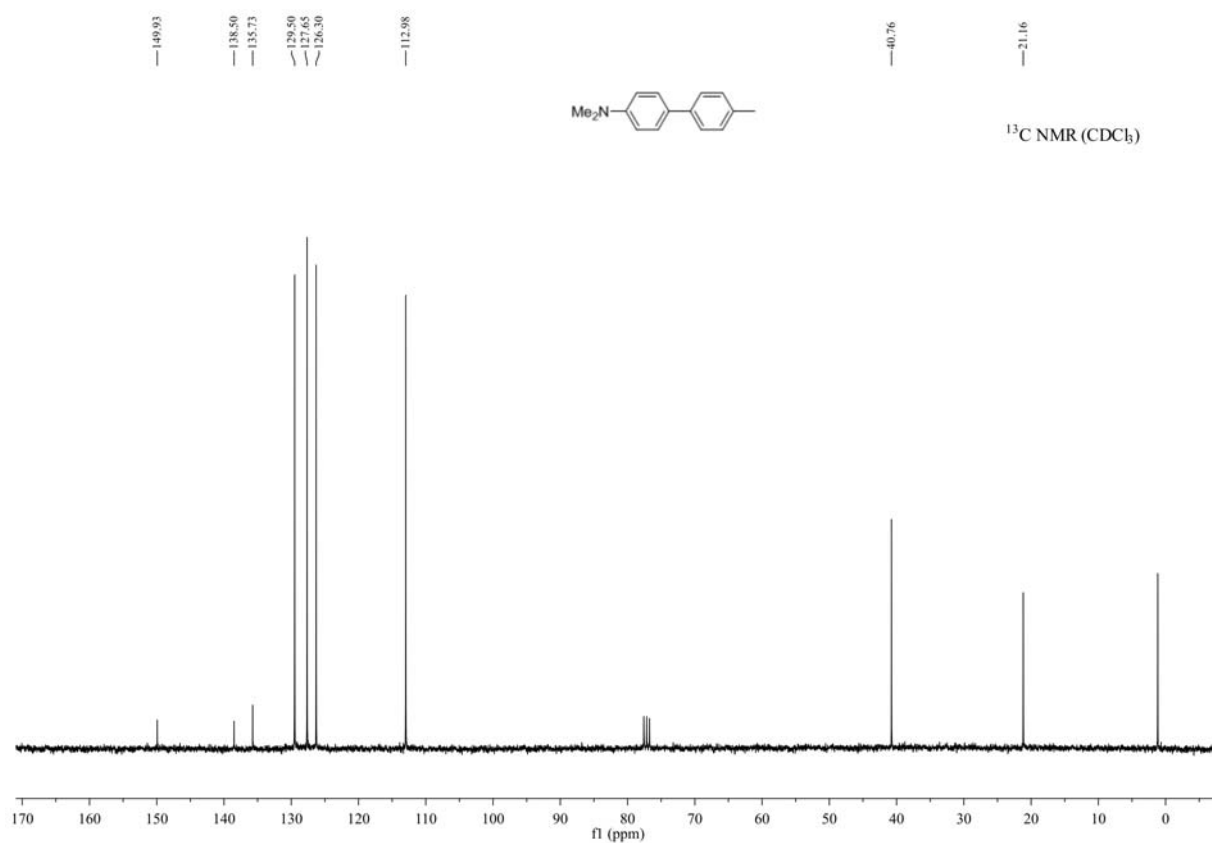
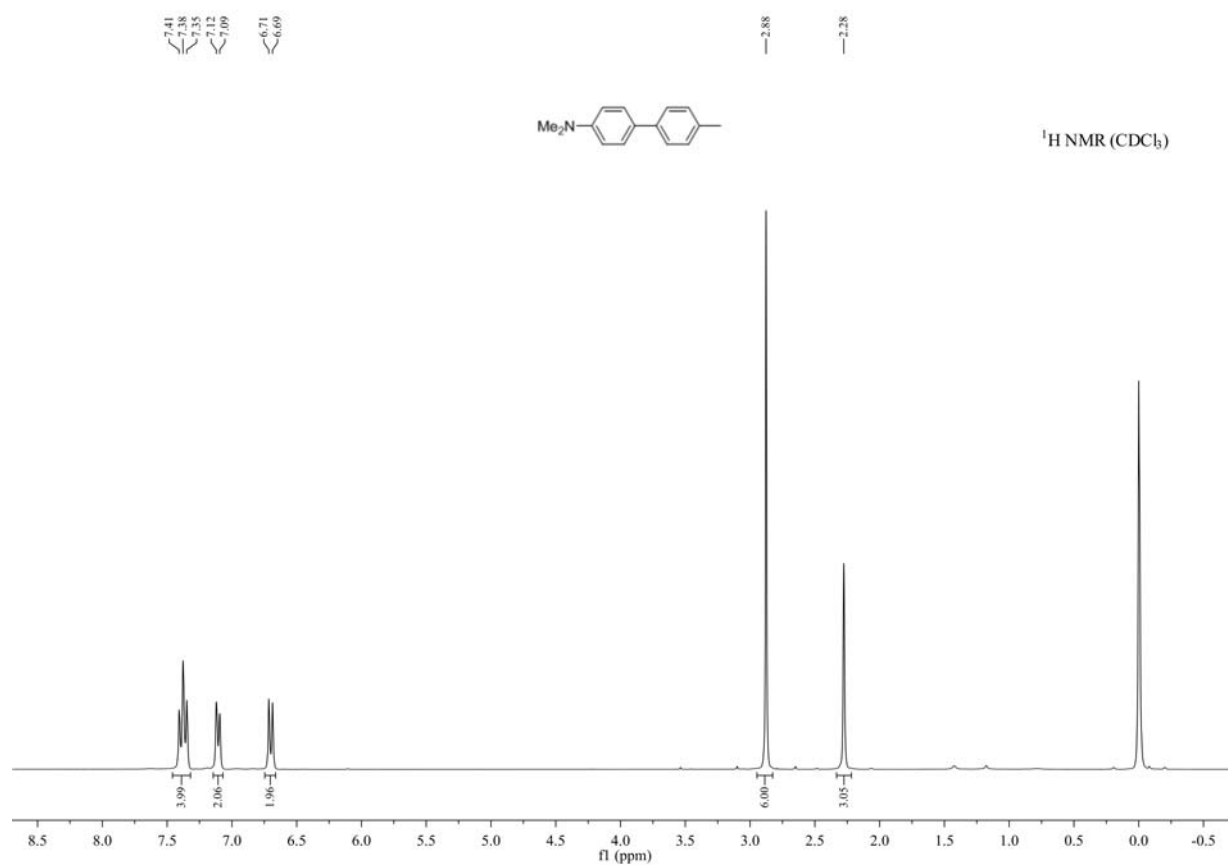
(3) 1-*p*-Tolynaphthalene (Table 2, entry 2)



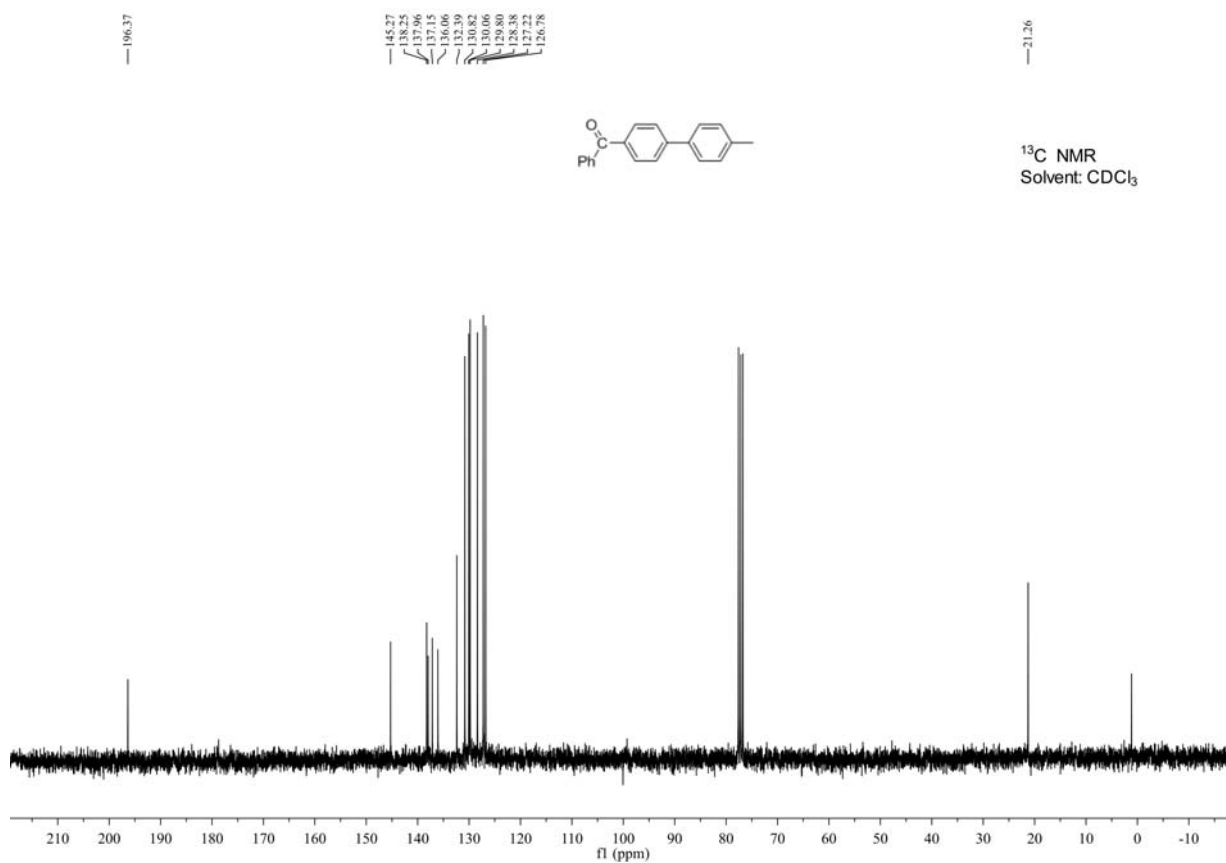
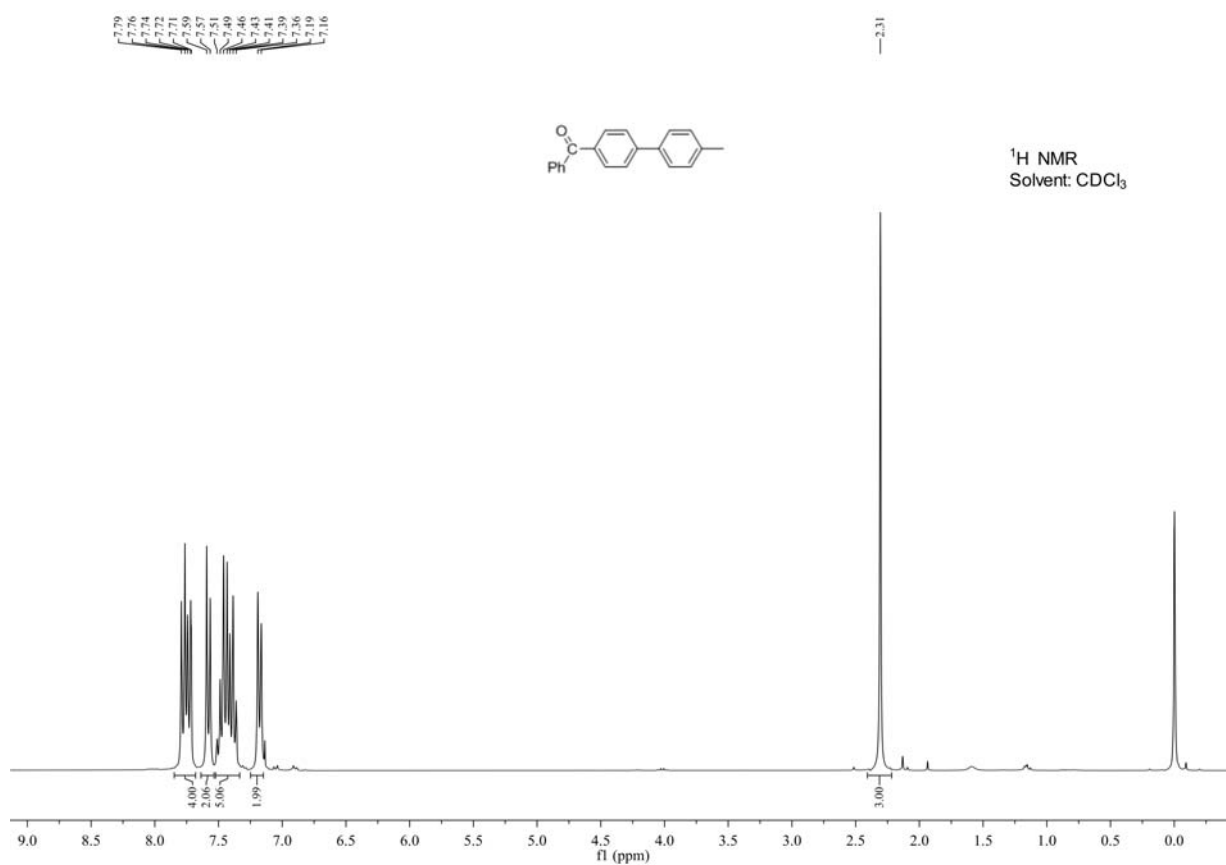
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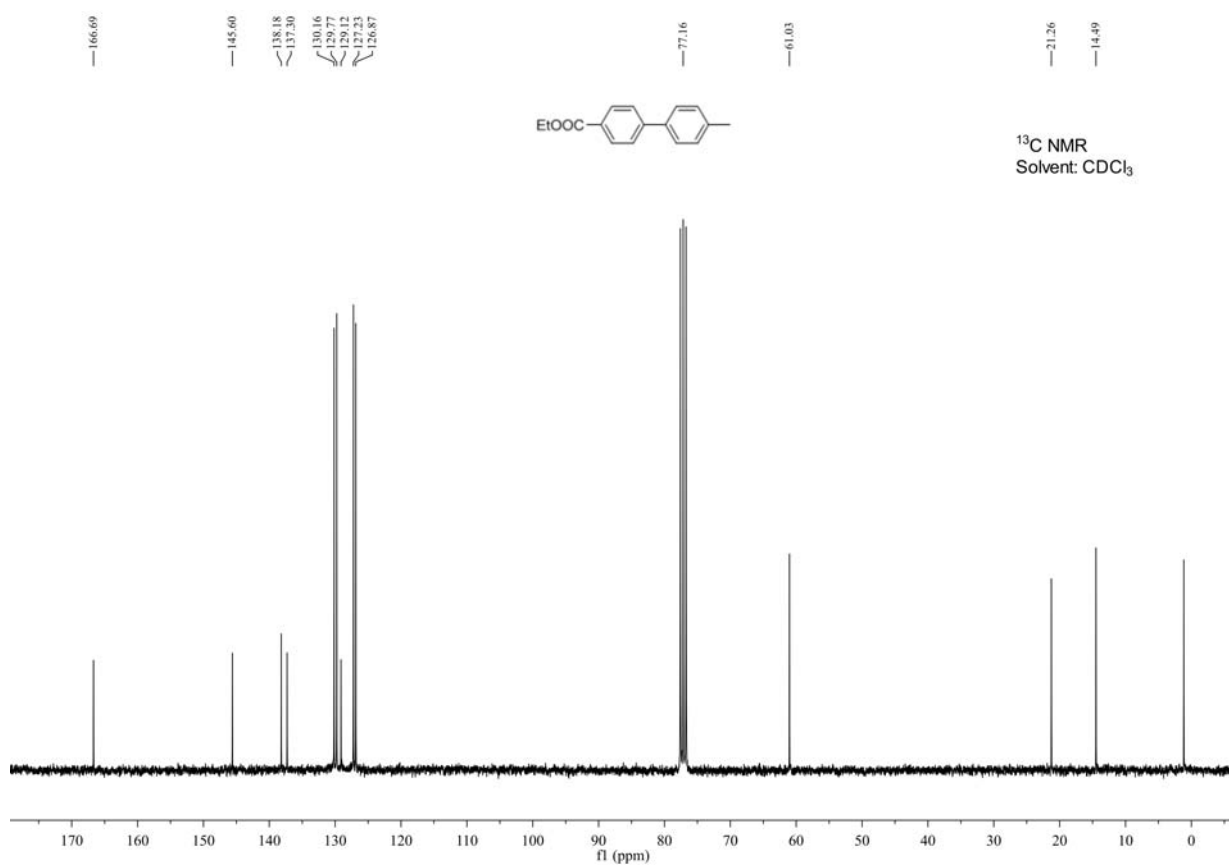
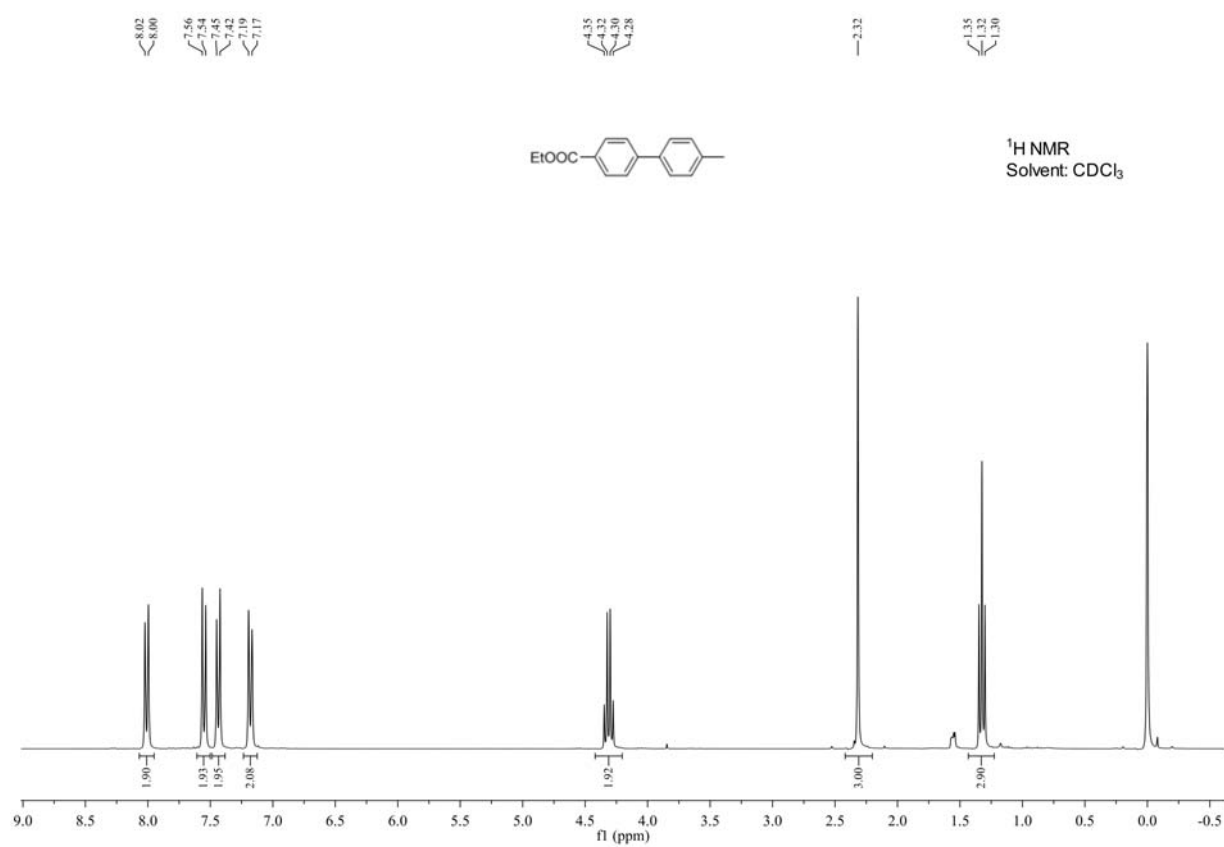
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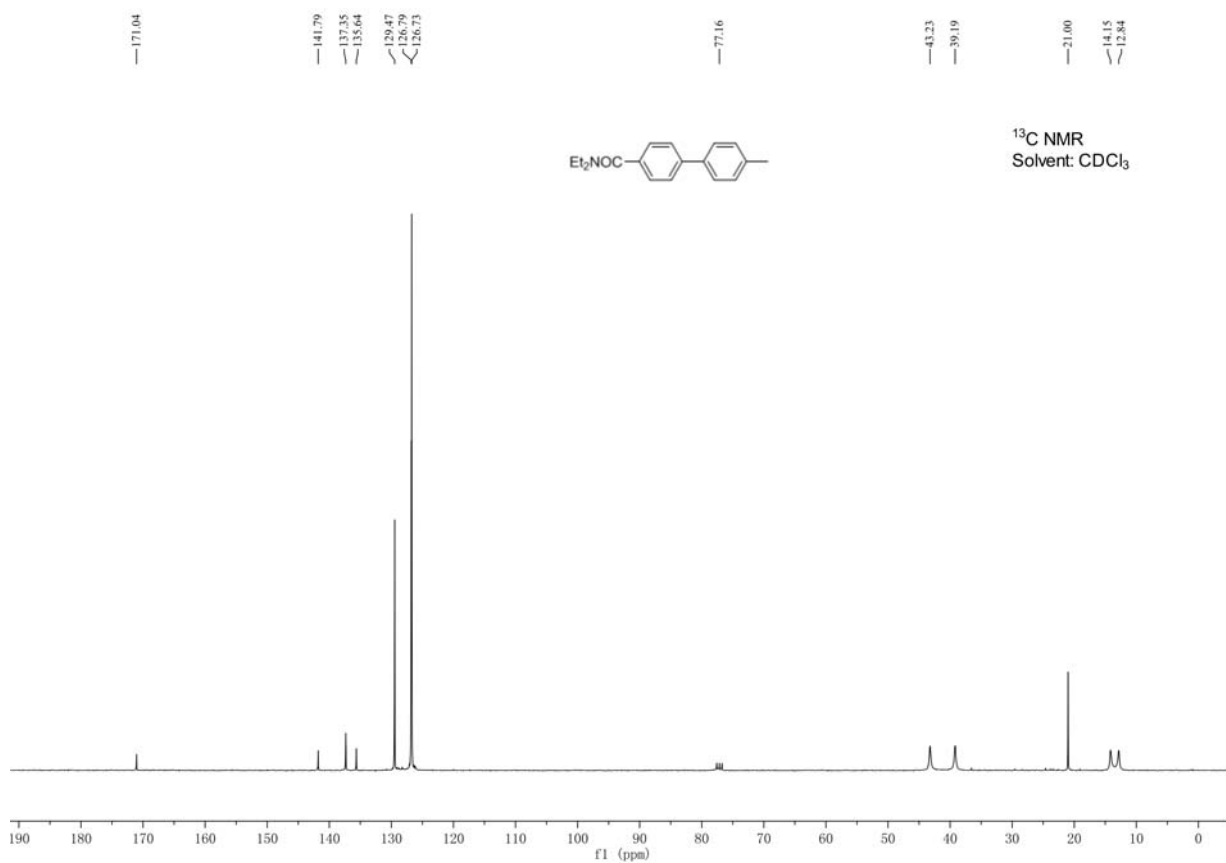
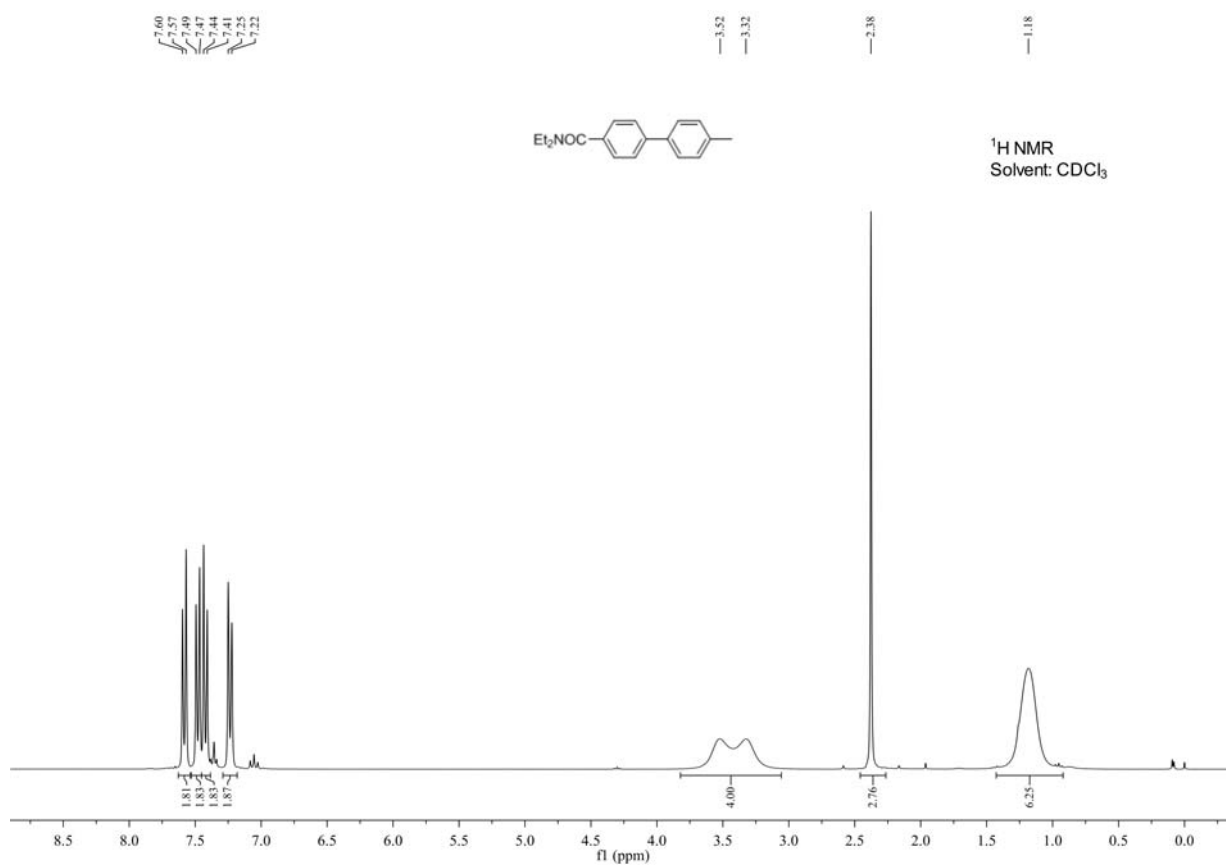
(6) (4'-Methylbiphenyl-4-yl)(phenyl)methanone (Table 2, entry 5)



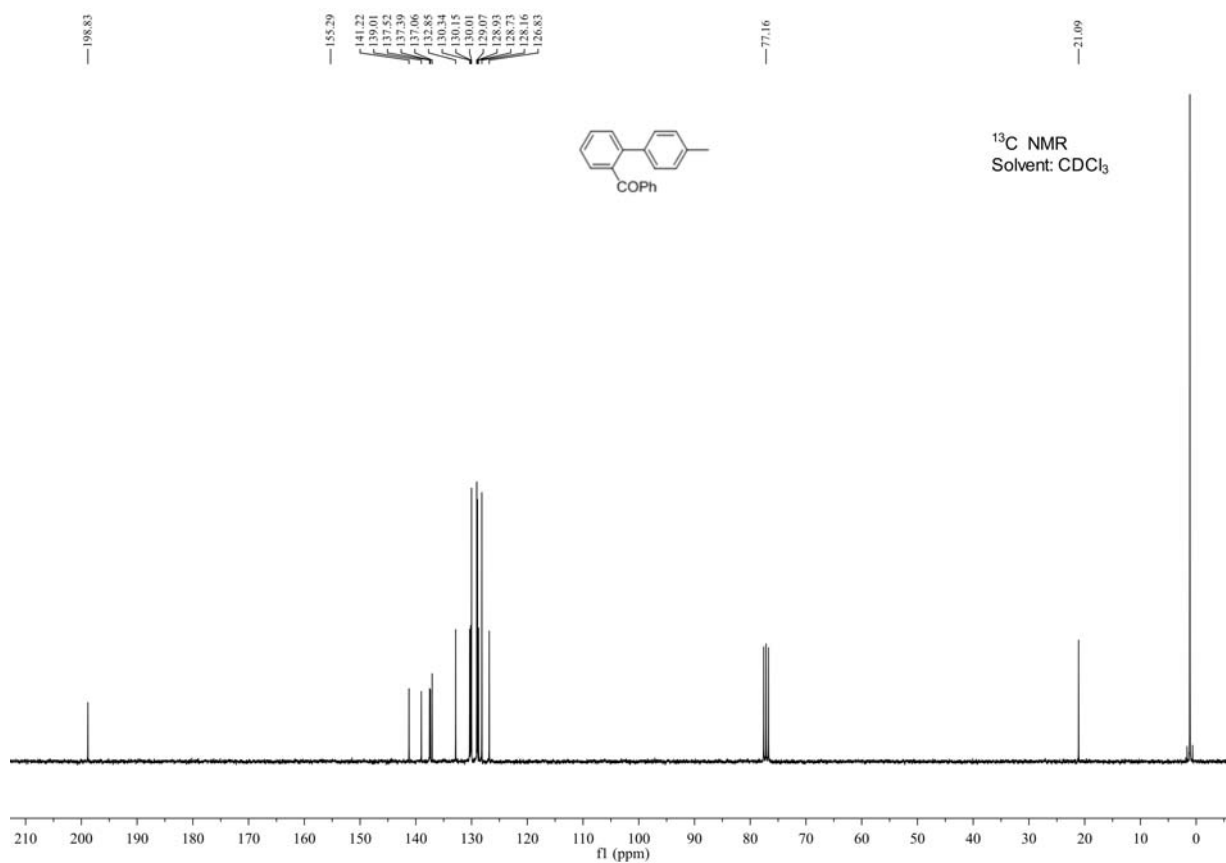
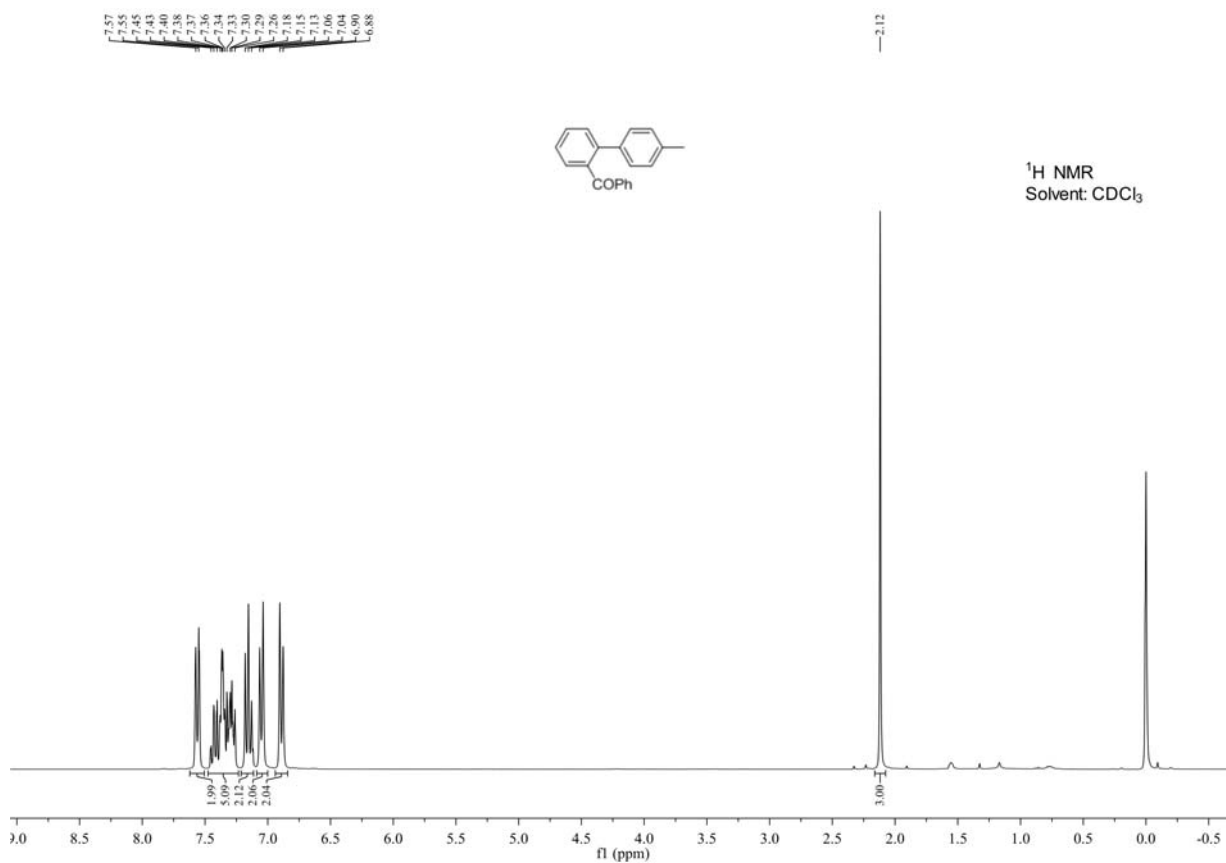
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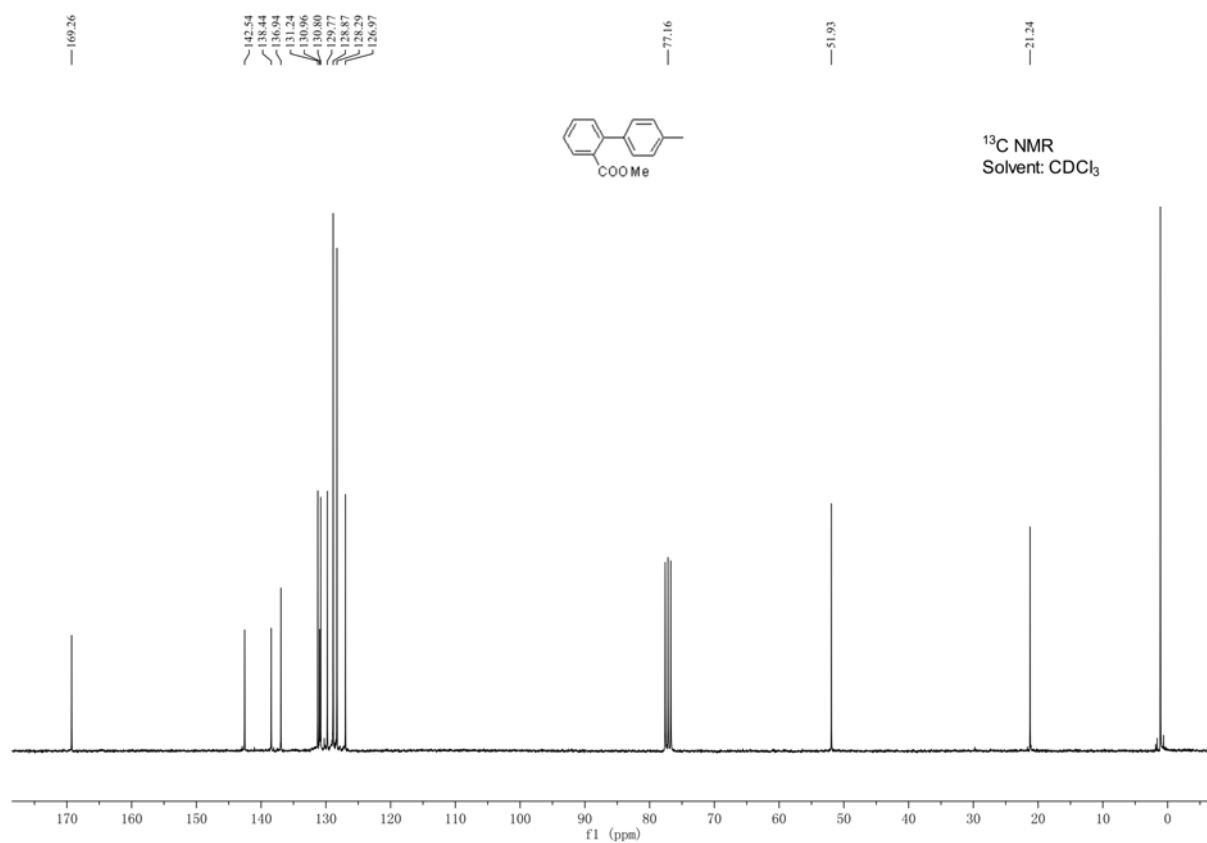
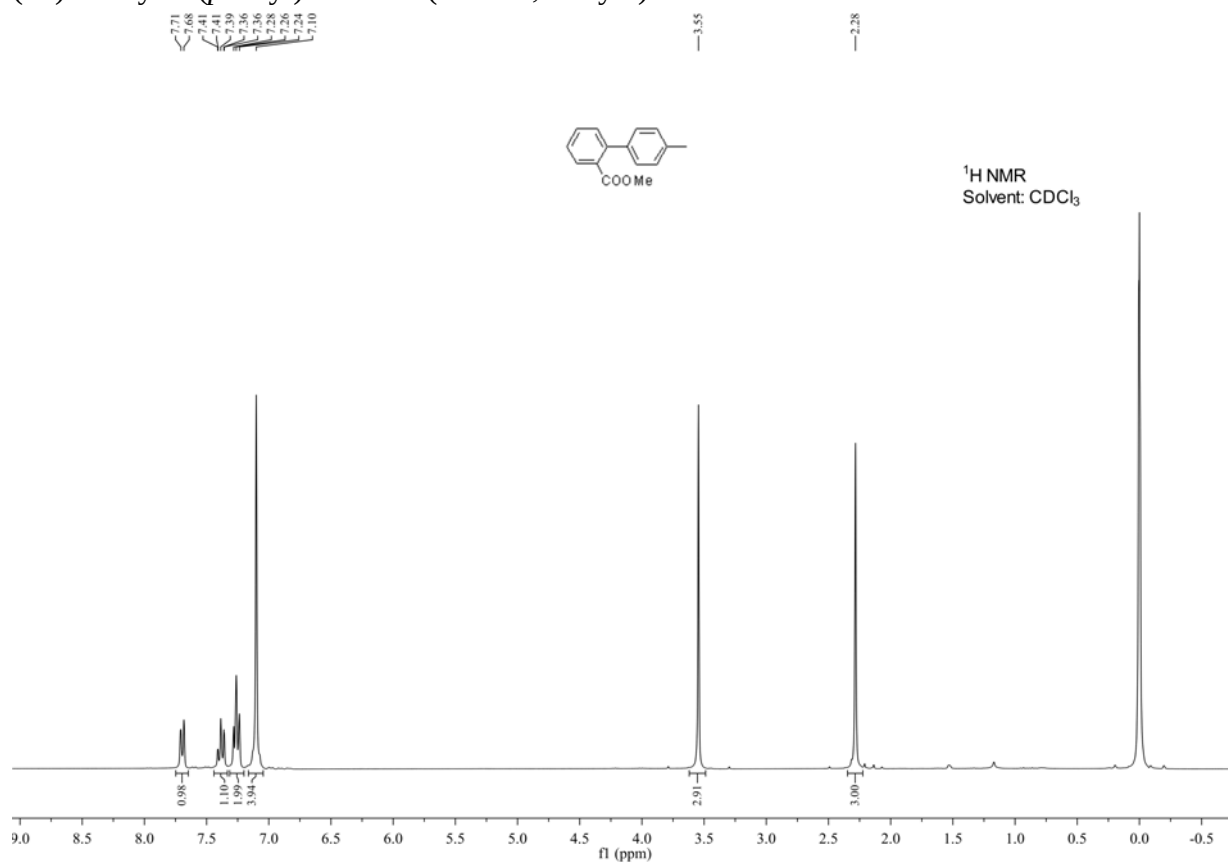
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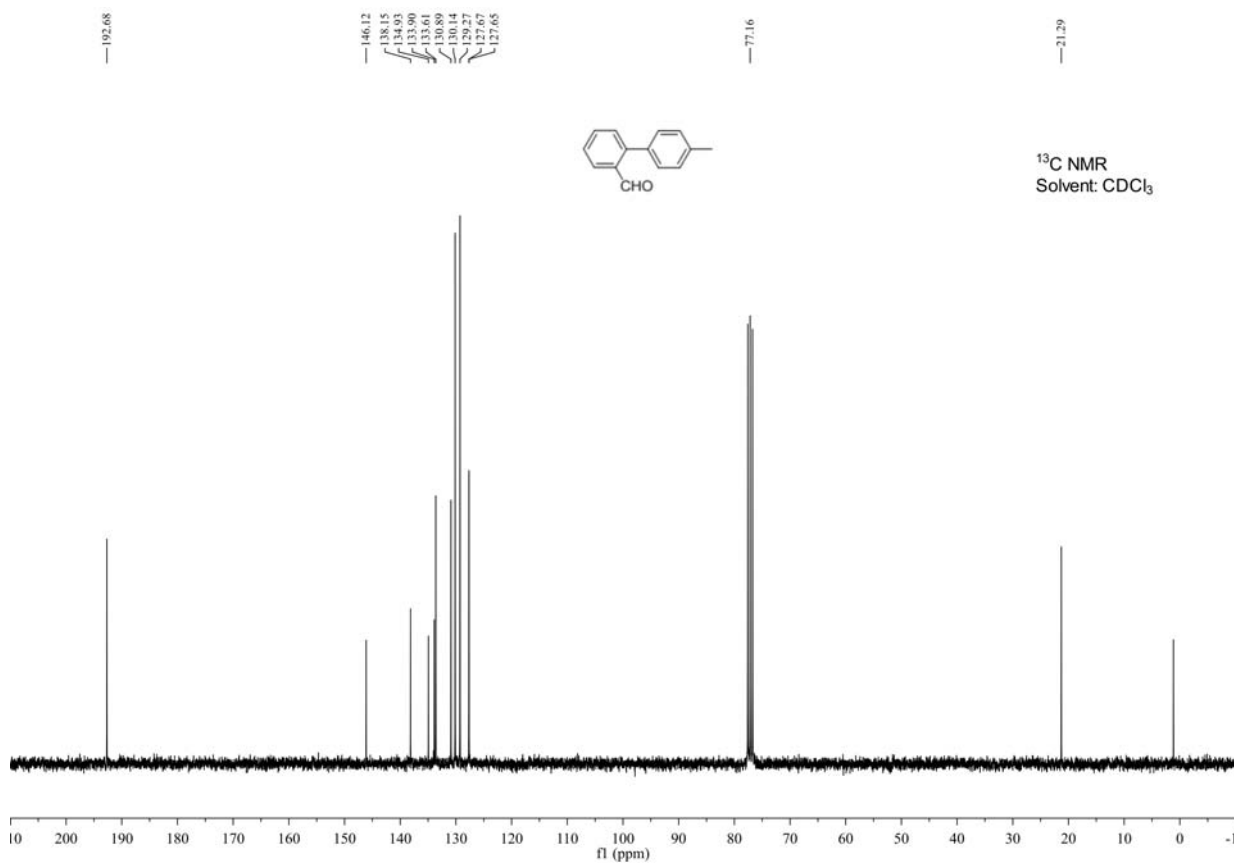
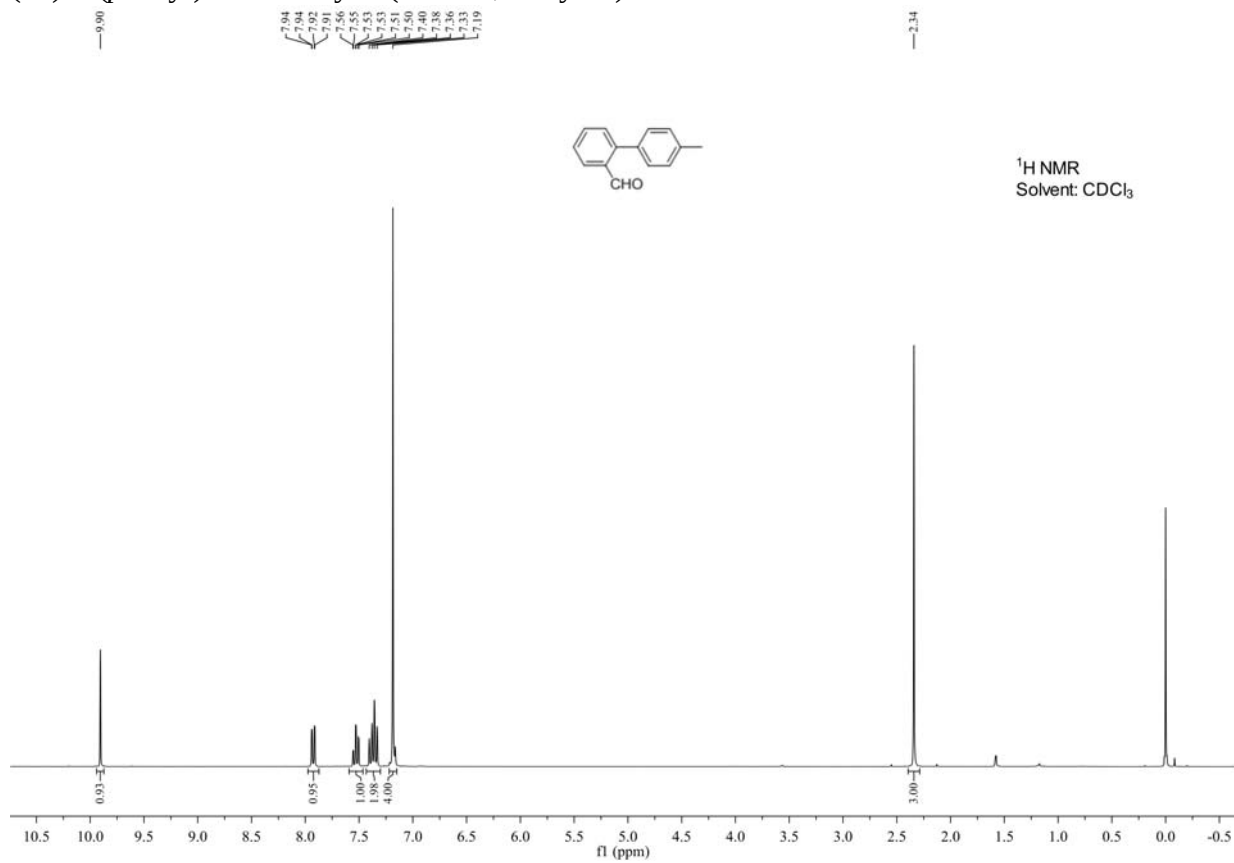
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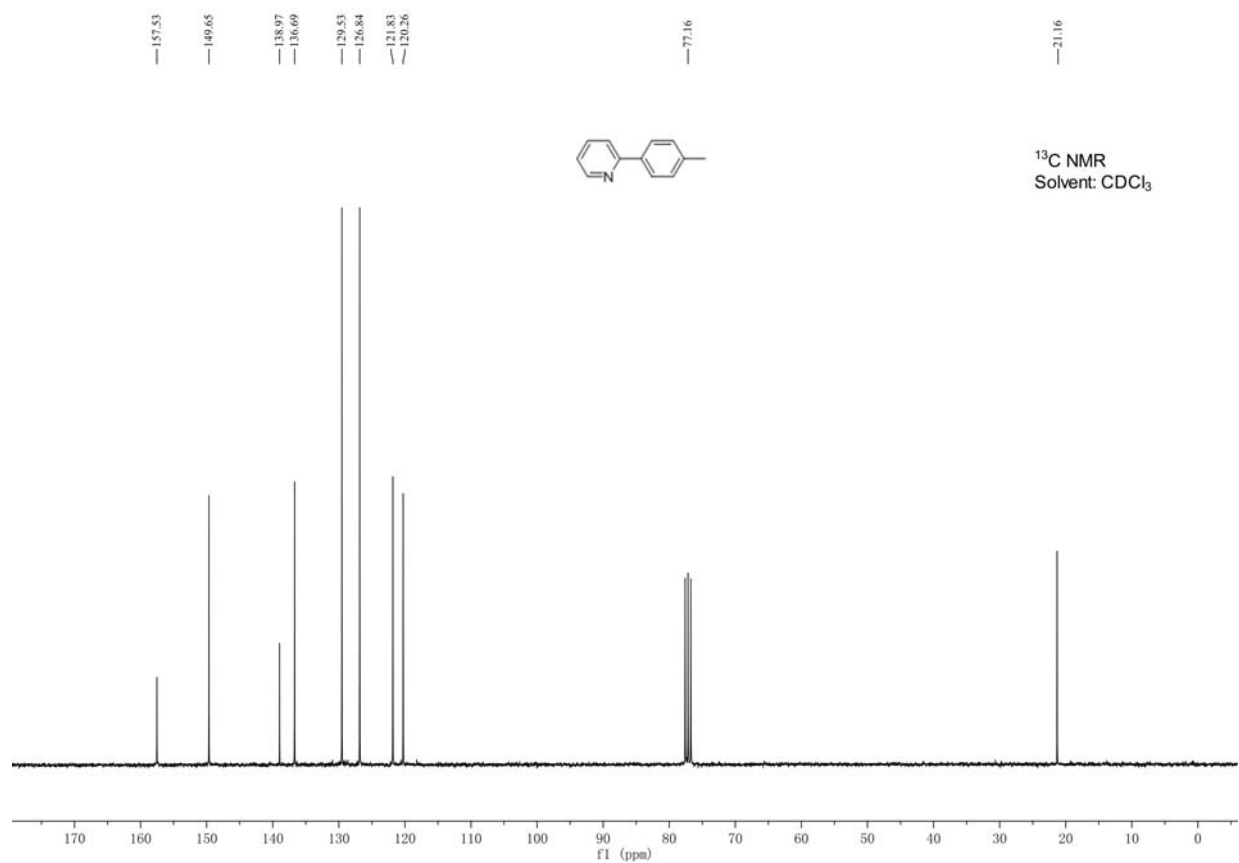
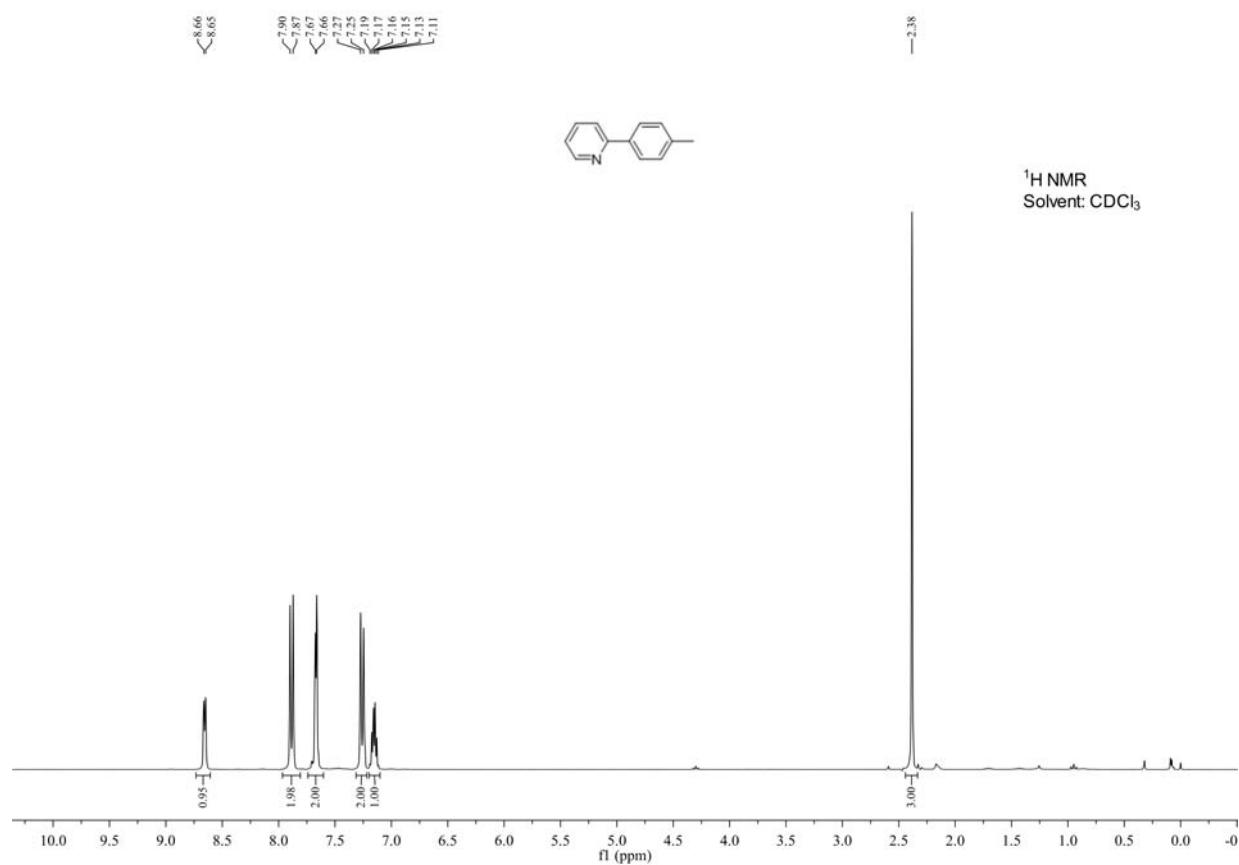
(10) methyl 2-(*p*-tolyl)benzoate (Table 2, entry 9)



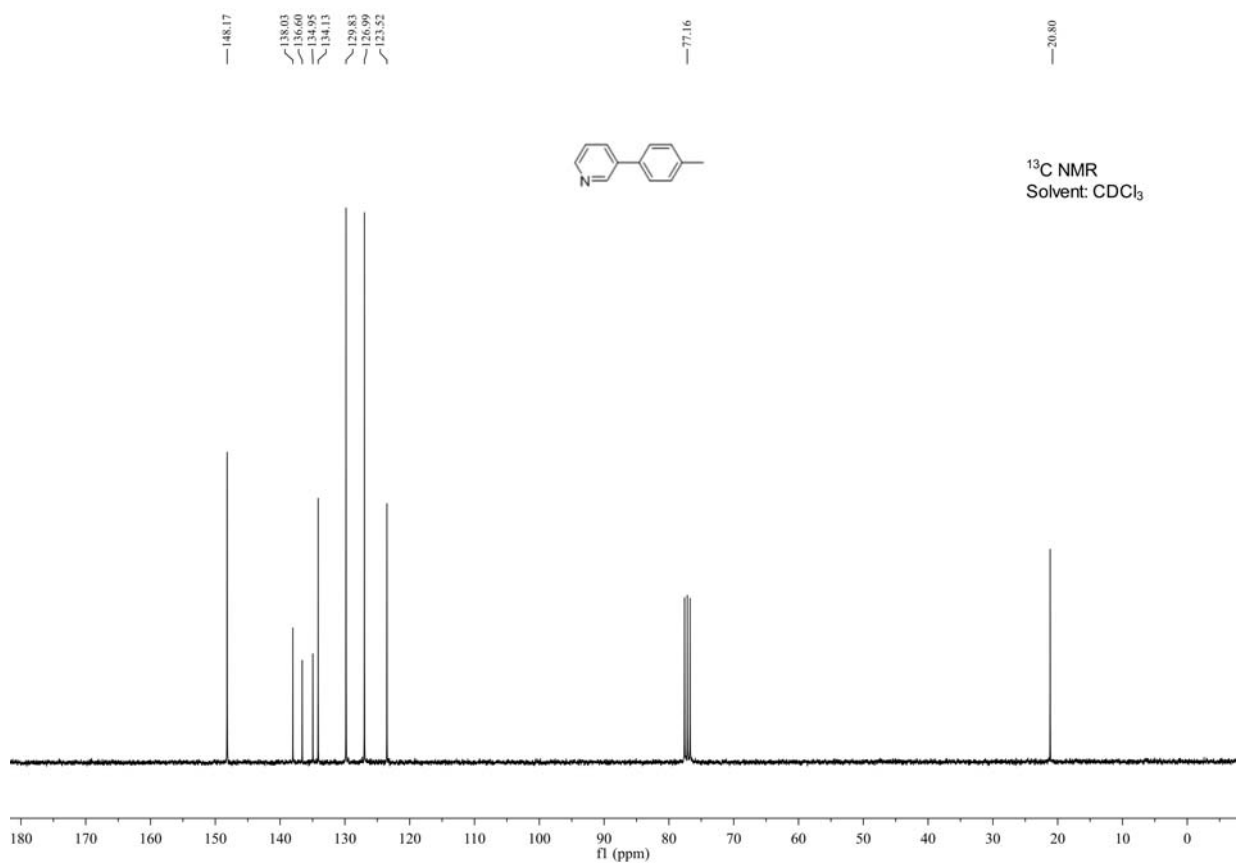
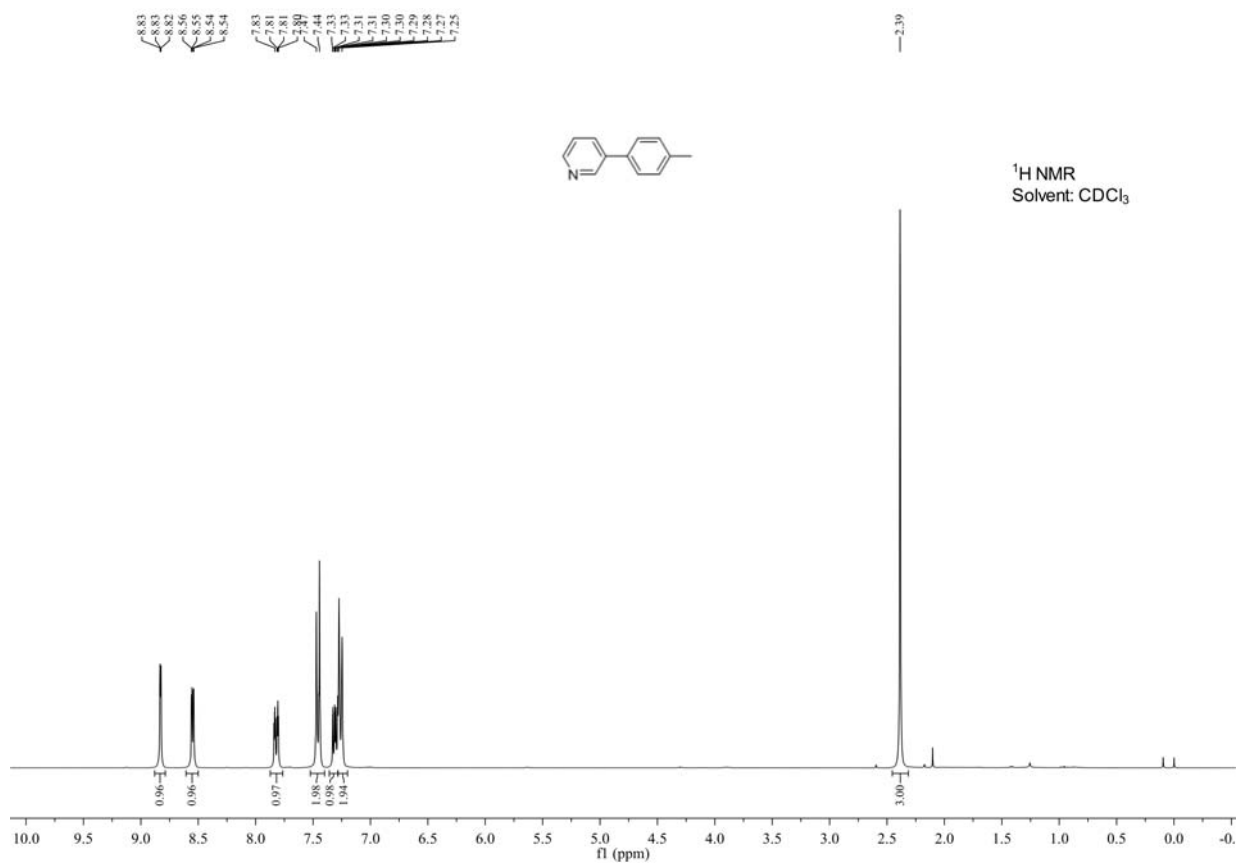
(11) 2-(*p*-tolyl)benzaldehyde (Table 2, entry 10)



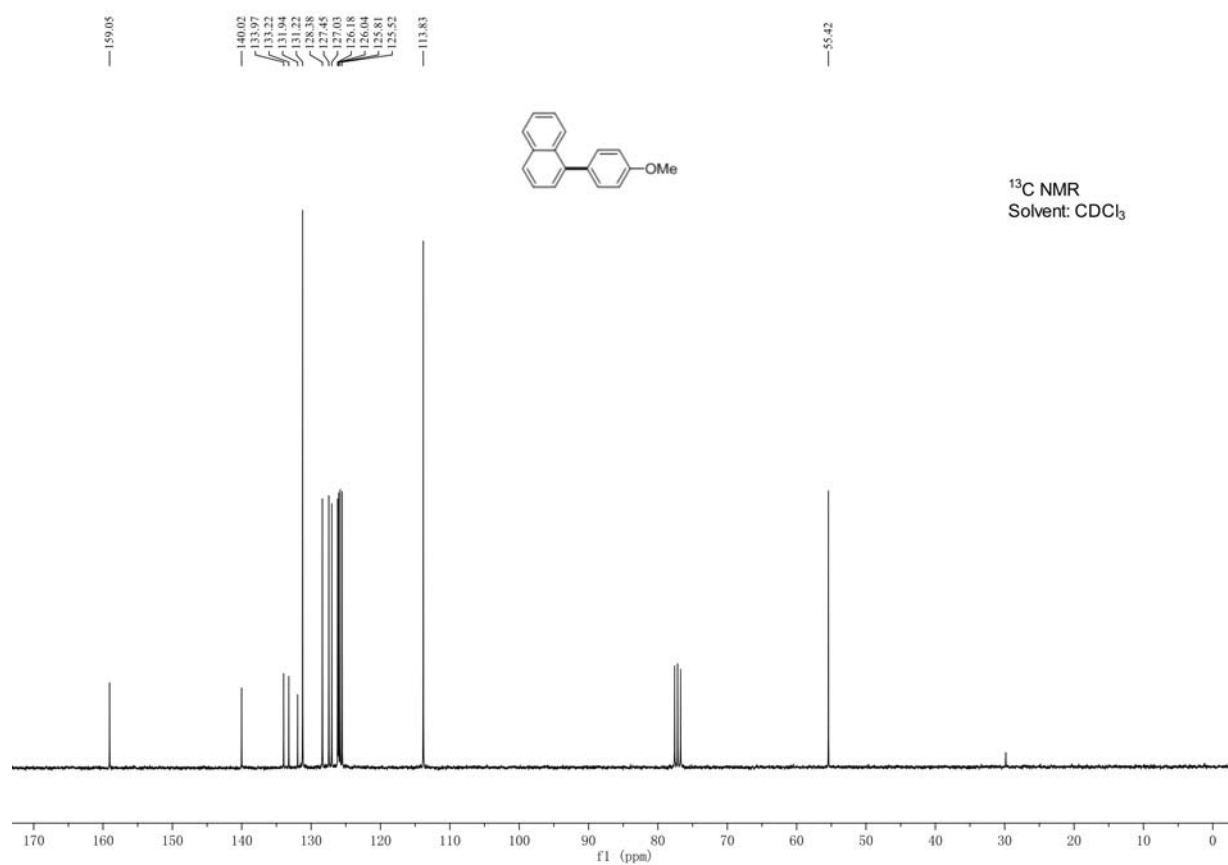
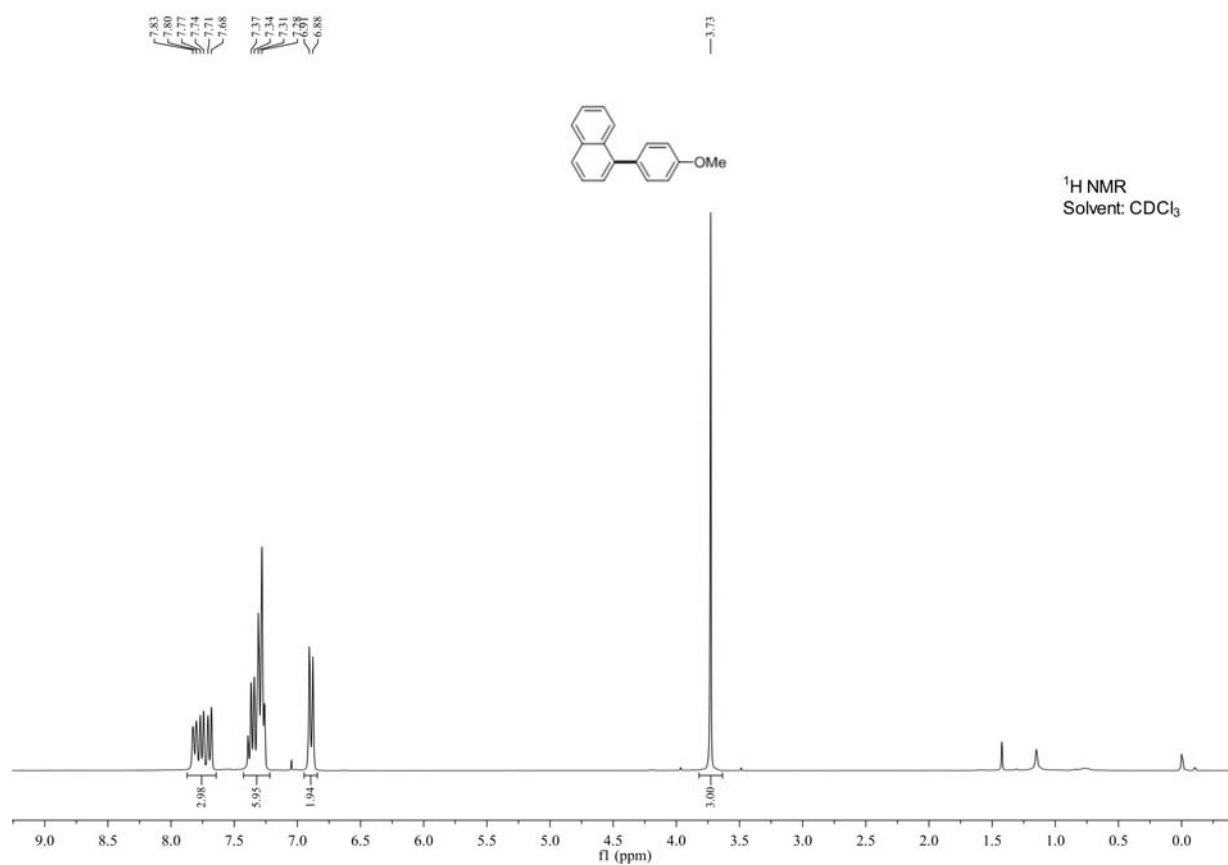
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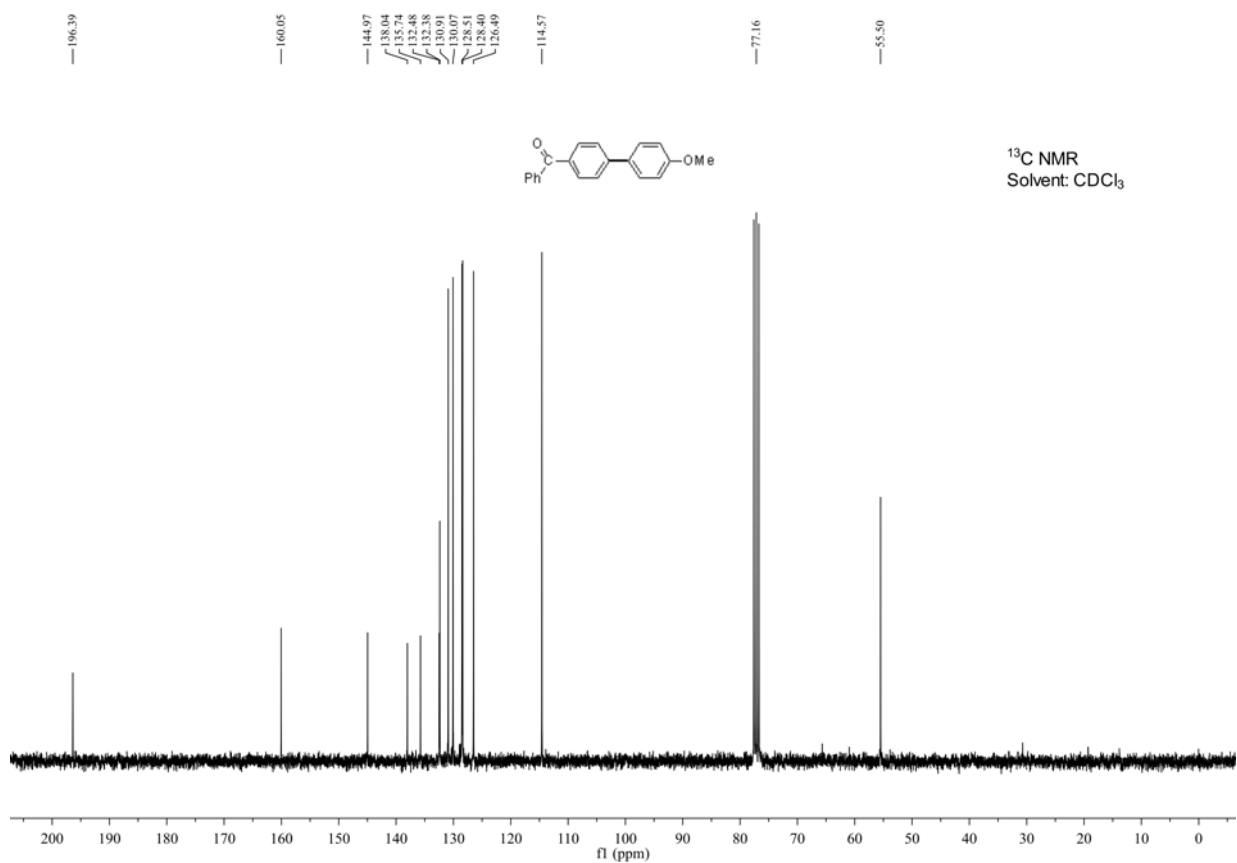
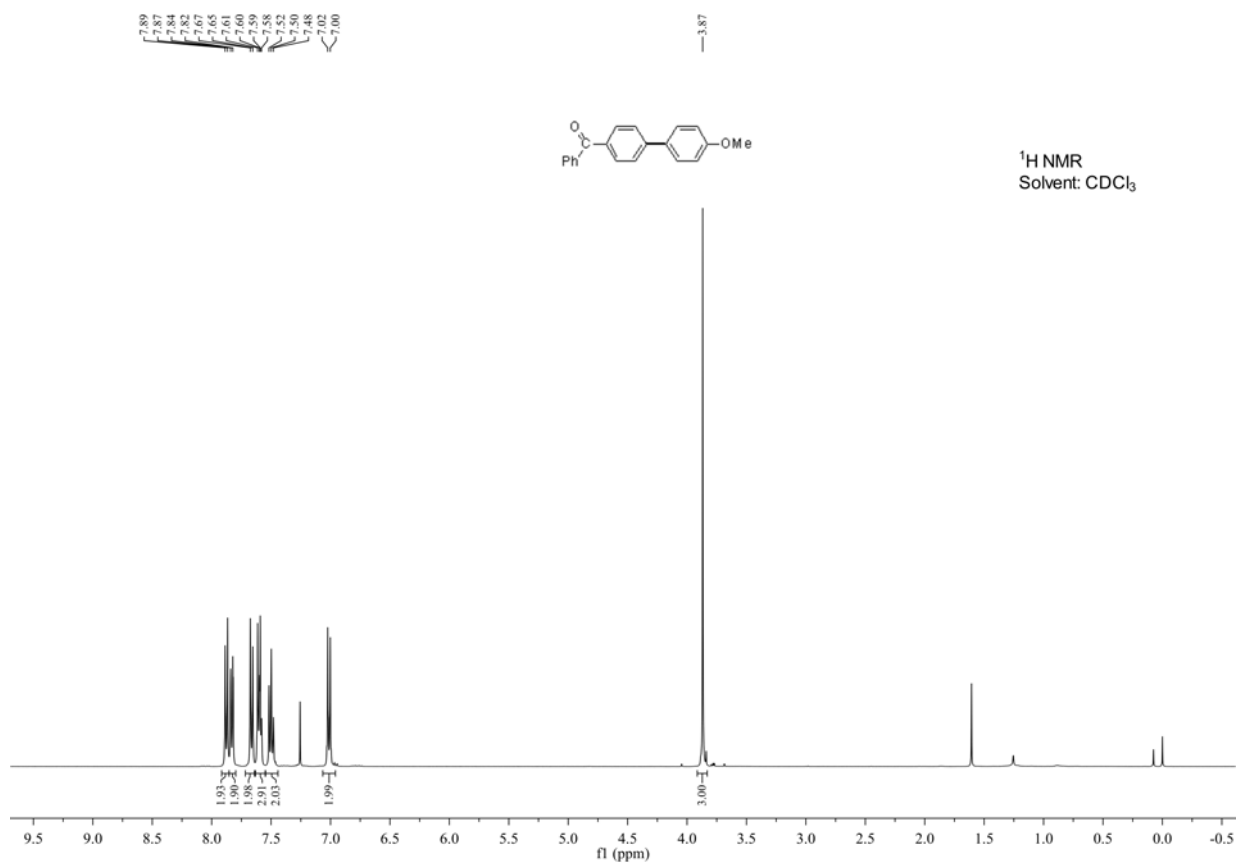
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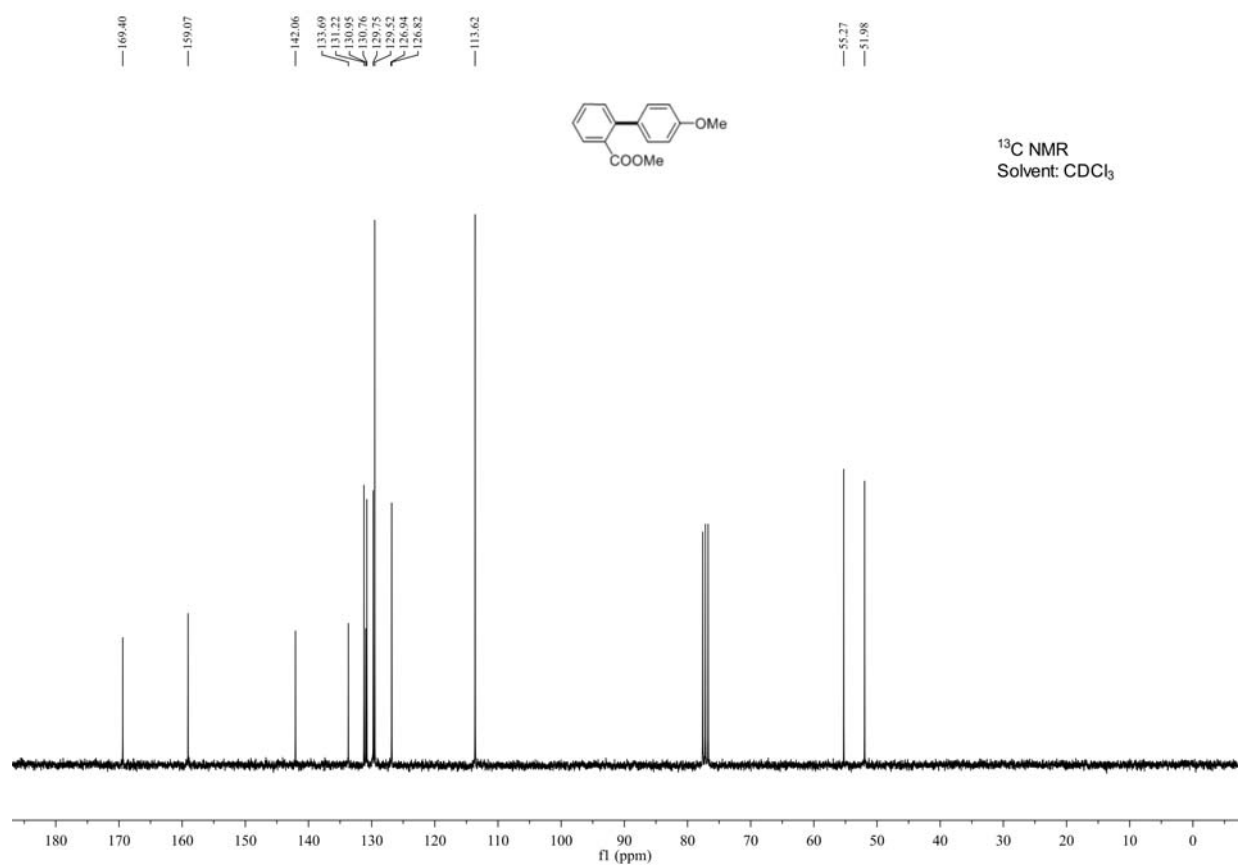
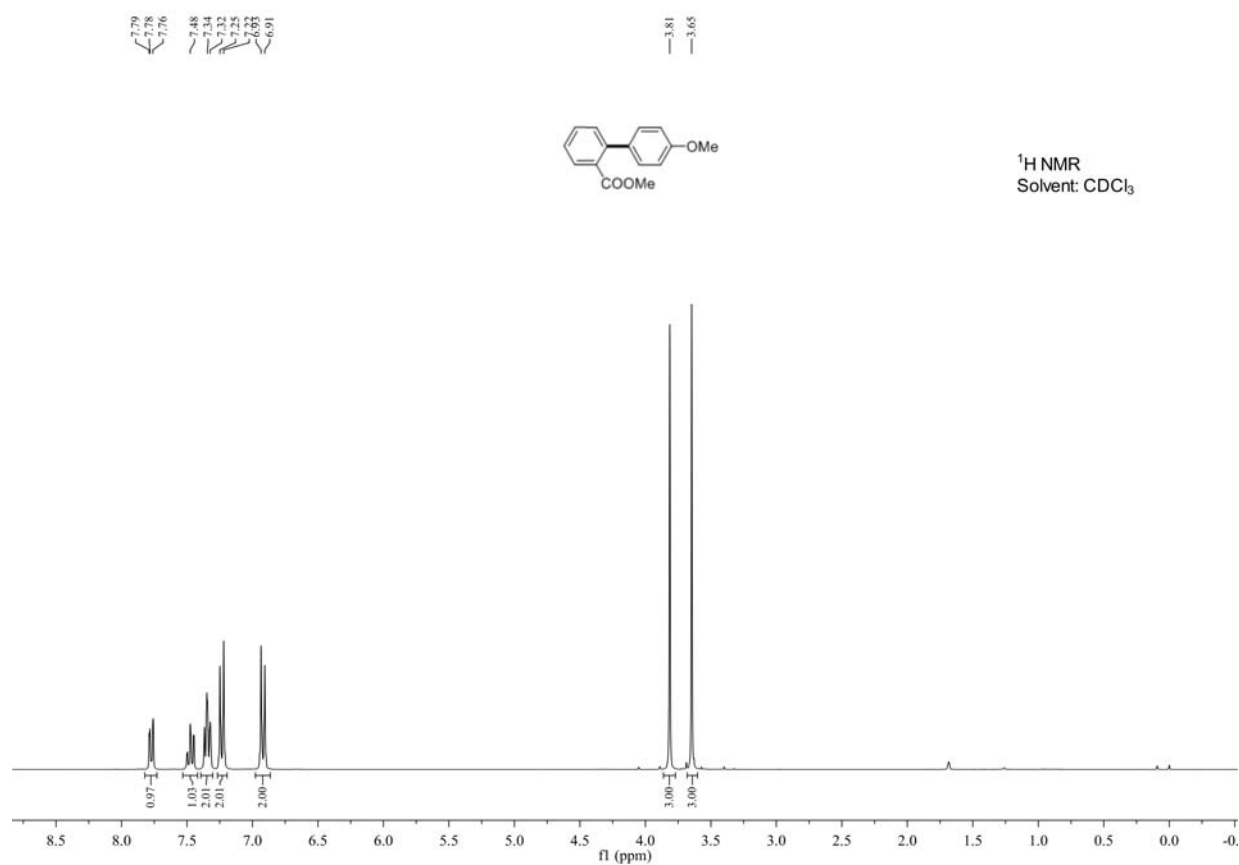
(14) 1-(4-Methoxyphenyl)naphthalene (Table 3, entry 1)



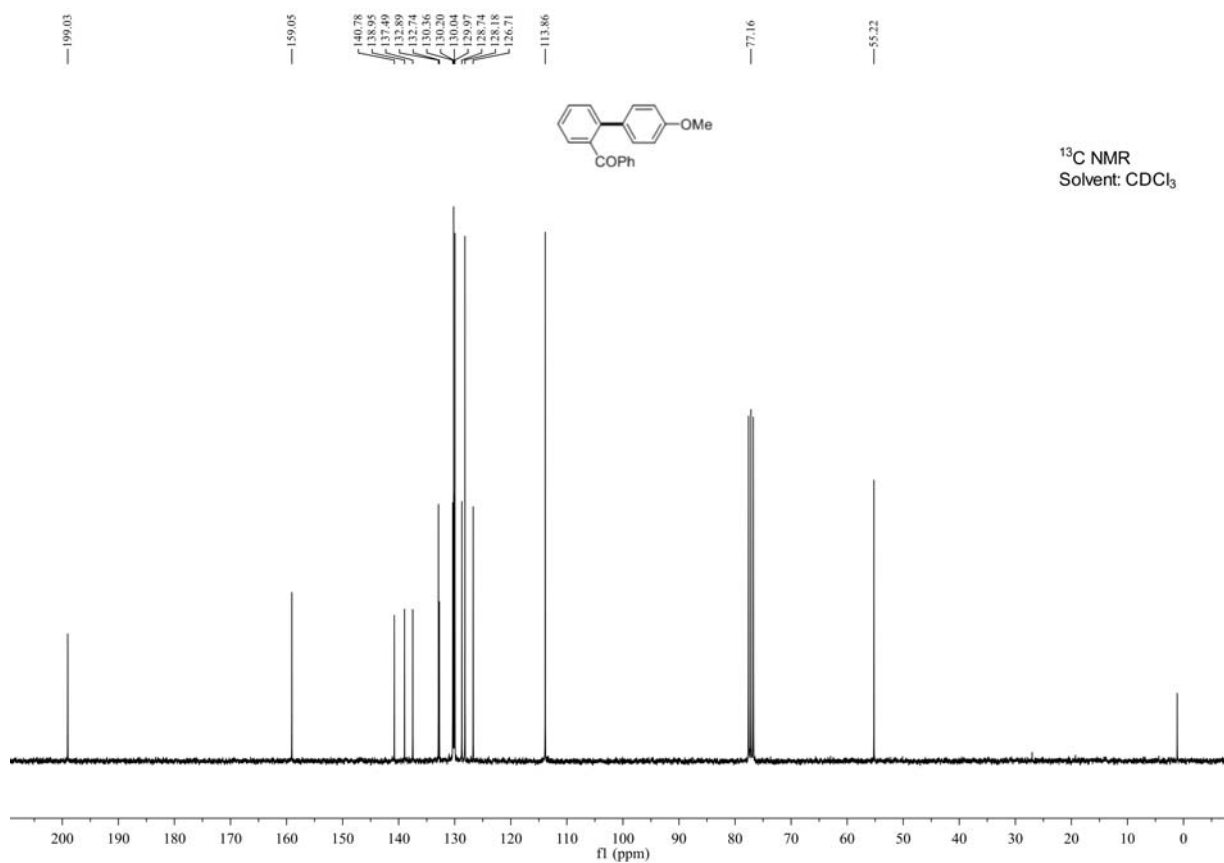
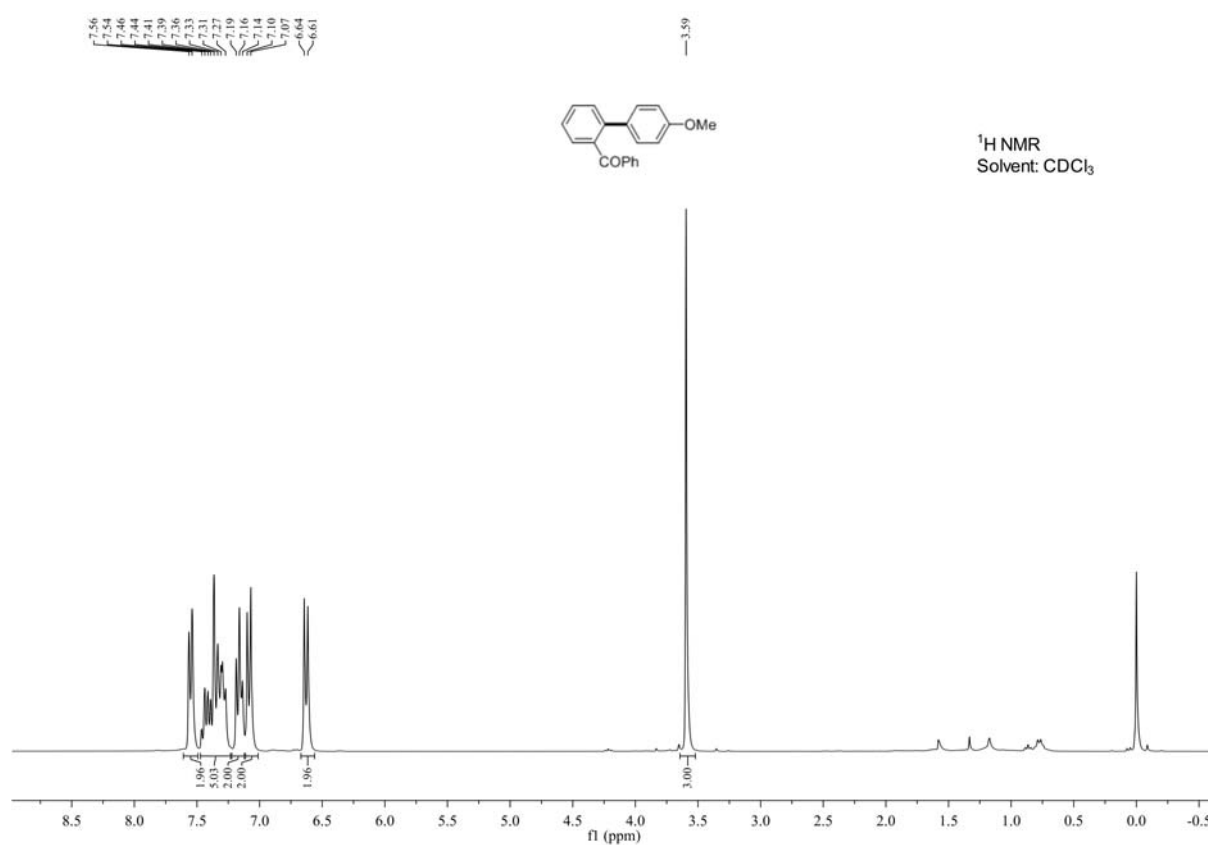
(15) (4'-Methoxybiphenyl-4-yl)(phenyl)methanone (Table 3, entry 2)



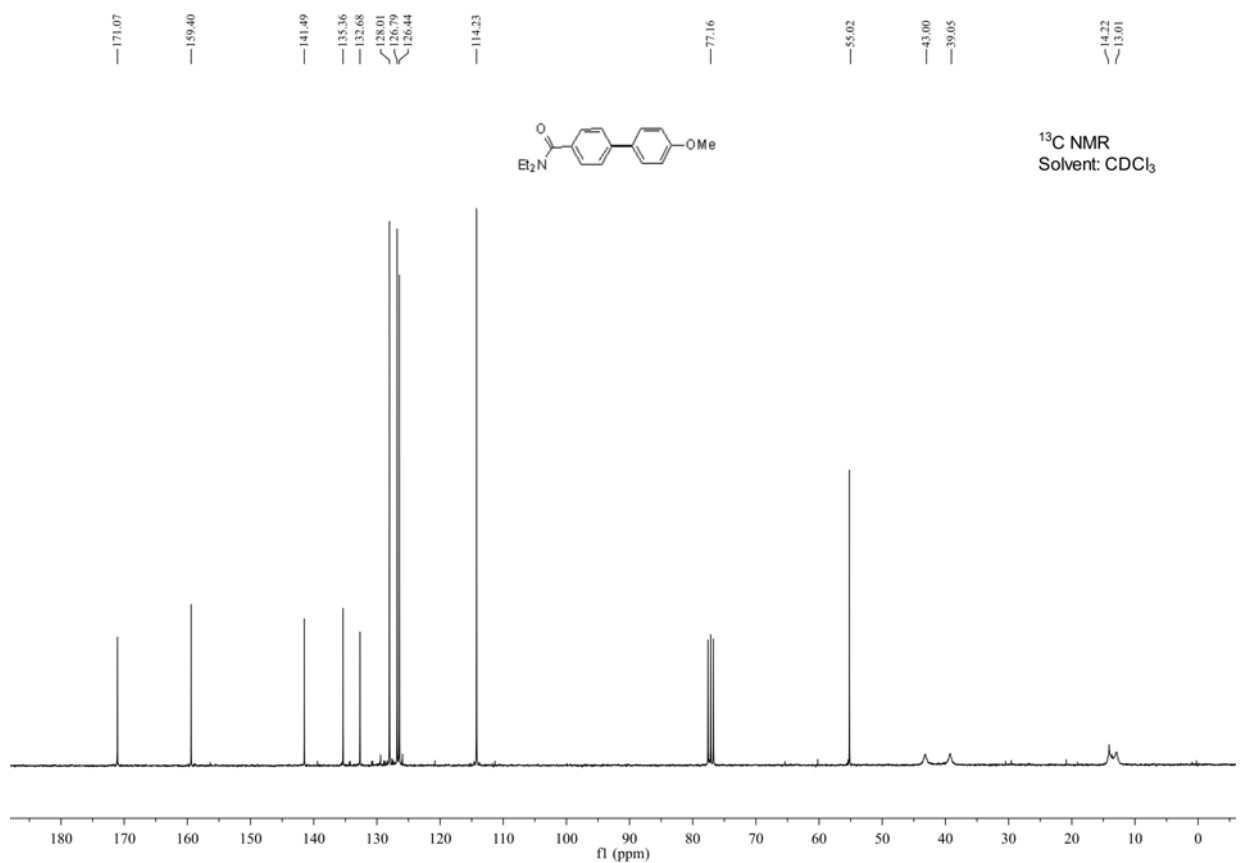
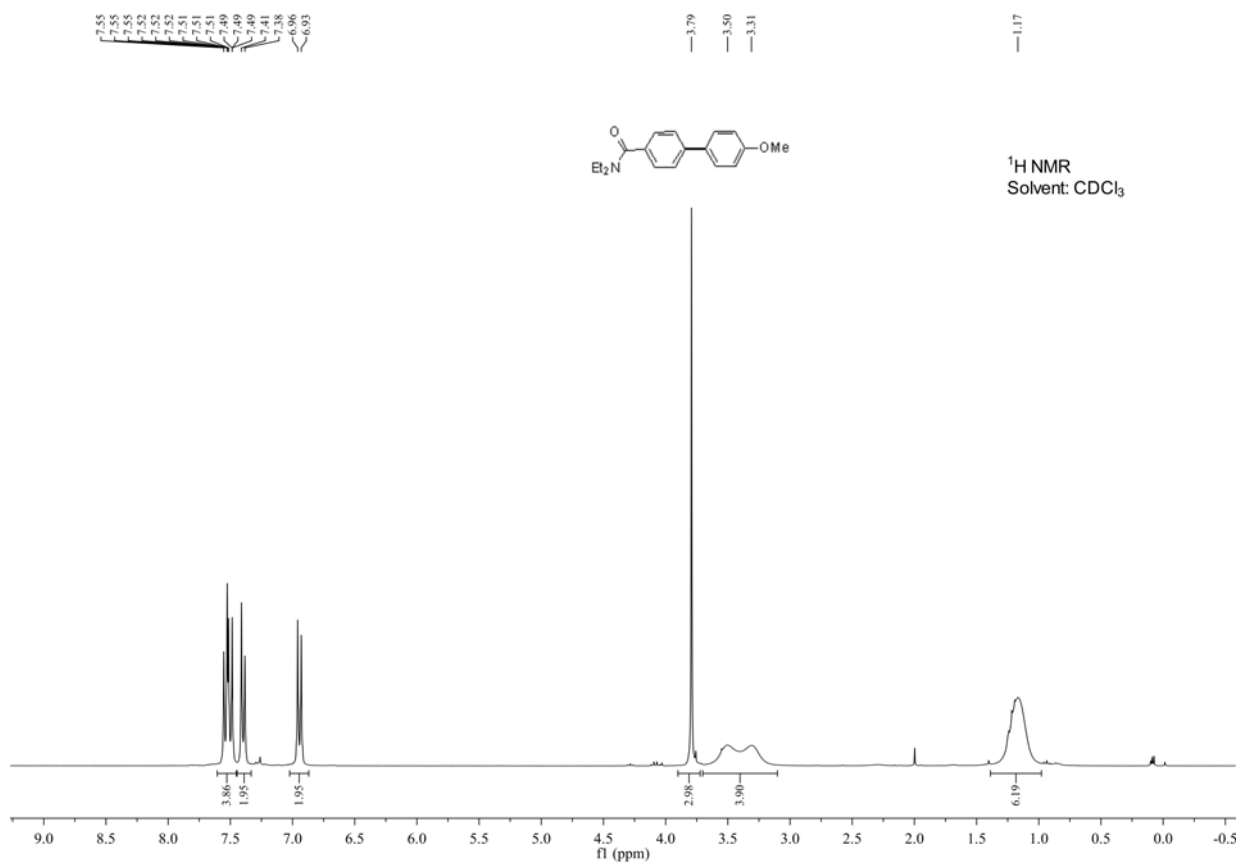
(16) Methyl 4'-methoxybiphenyl-2-carboxylate (Table 3, entry 3)



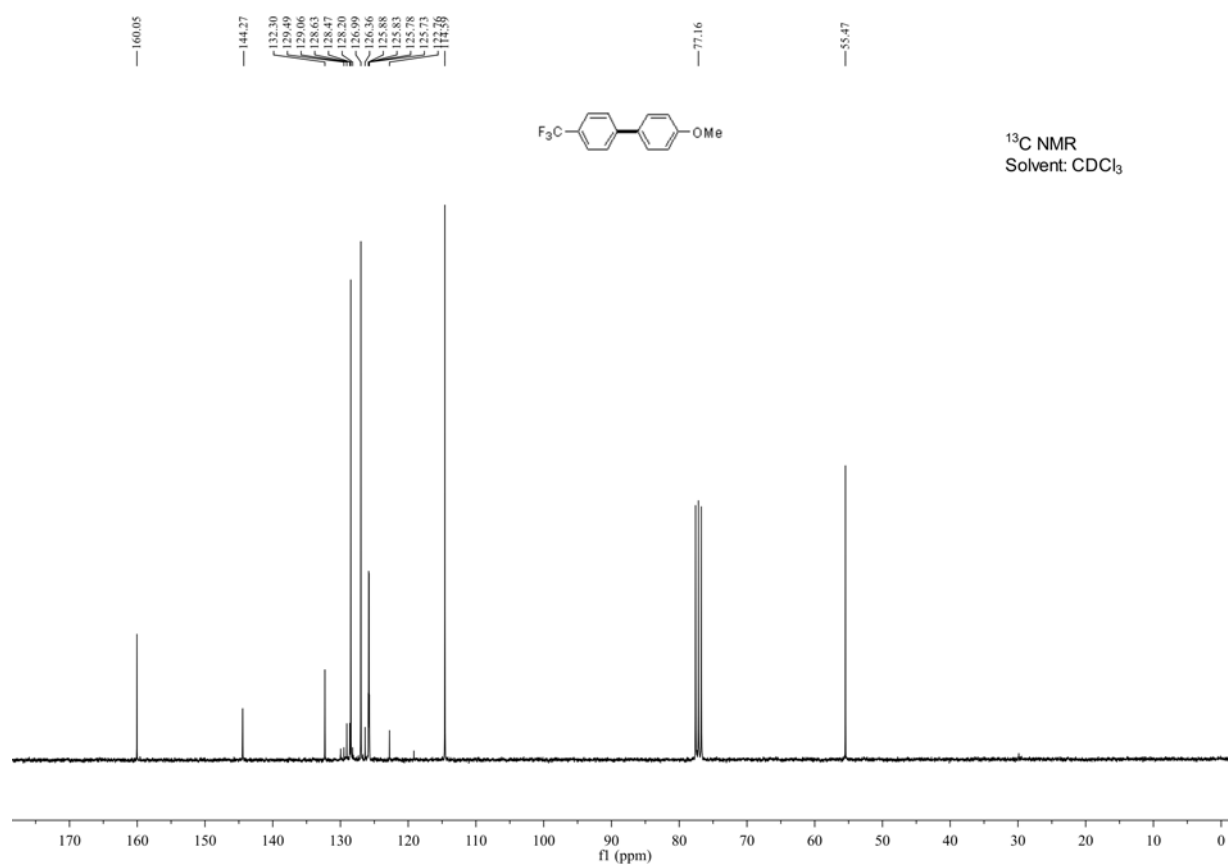
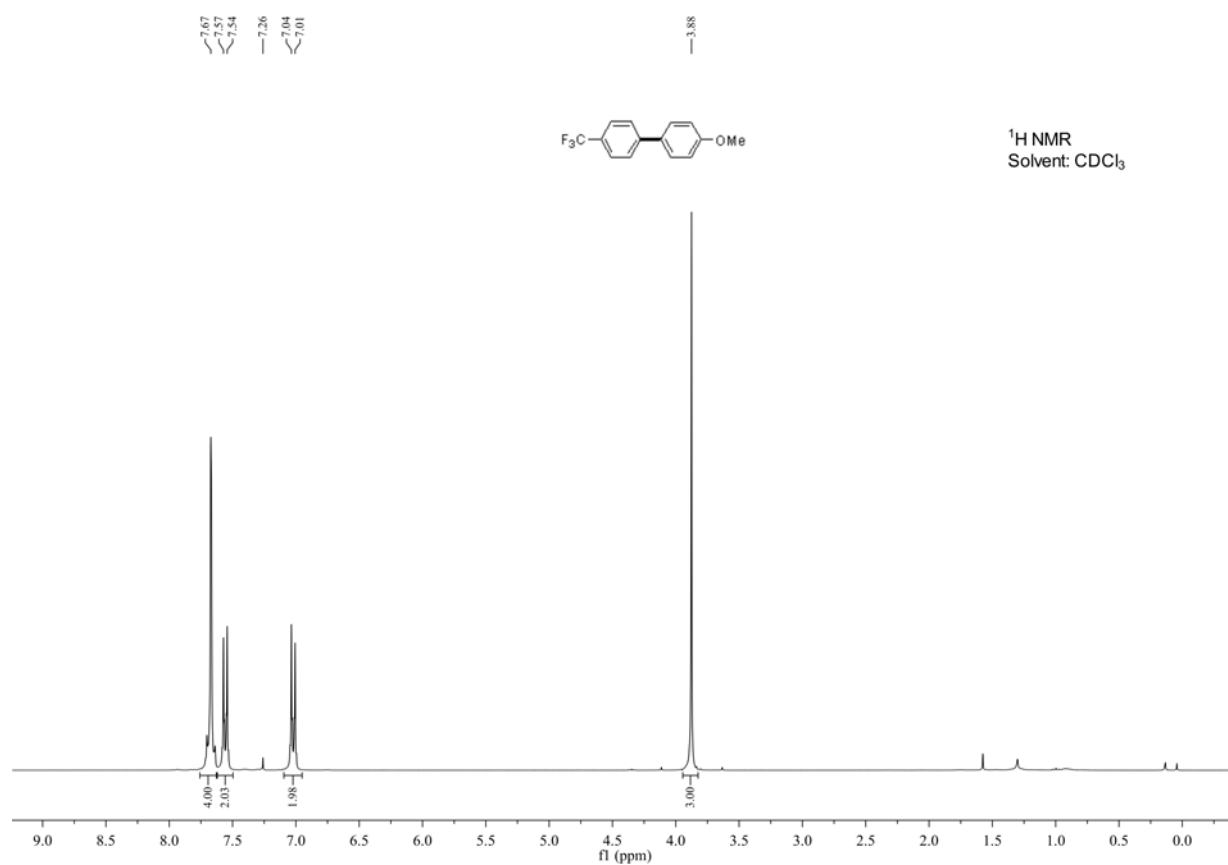
(17) (4'-Methoxybiphenyl-2-yl)(phenyl)methanone (Table 3, entry 4)



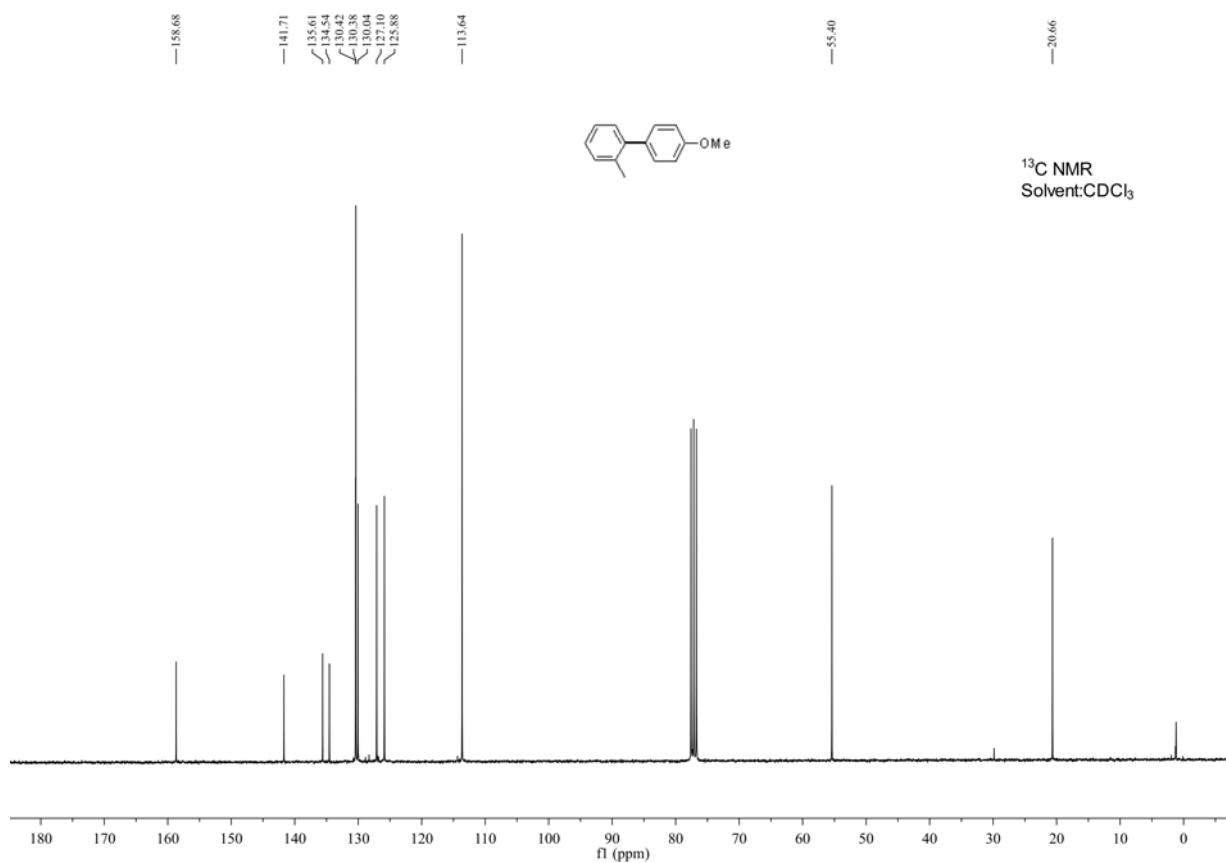
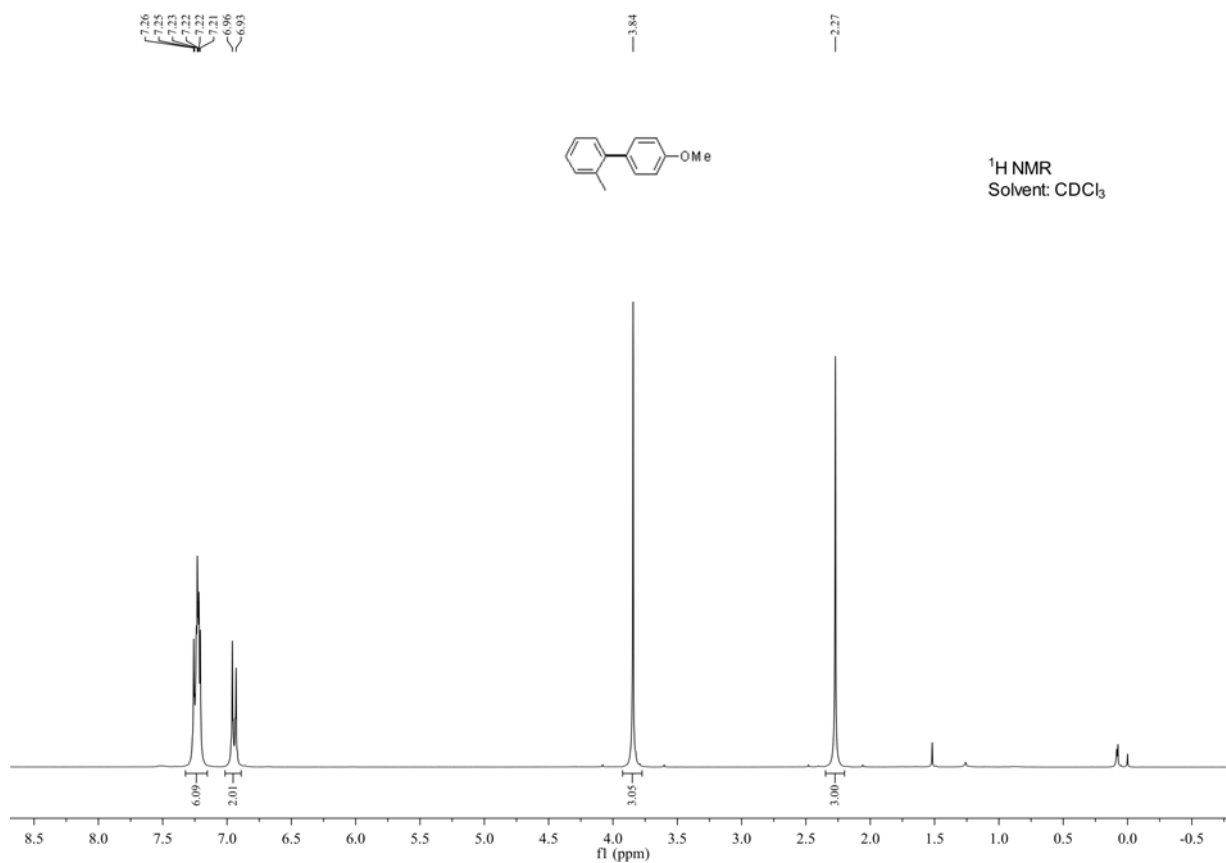
(18) N,N-diethyl-4'-methoxybiphenyl-4-carboxamide (Table 3, entry 5)



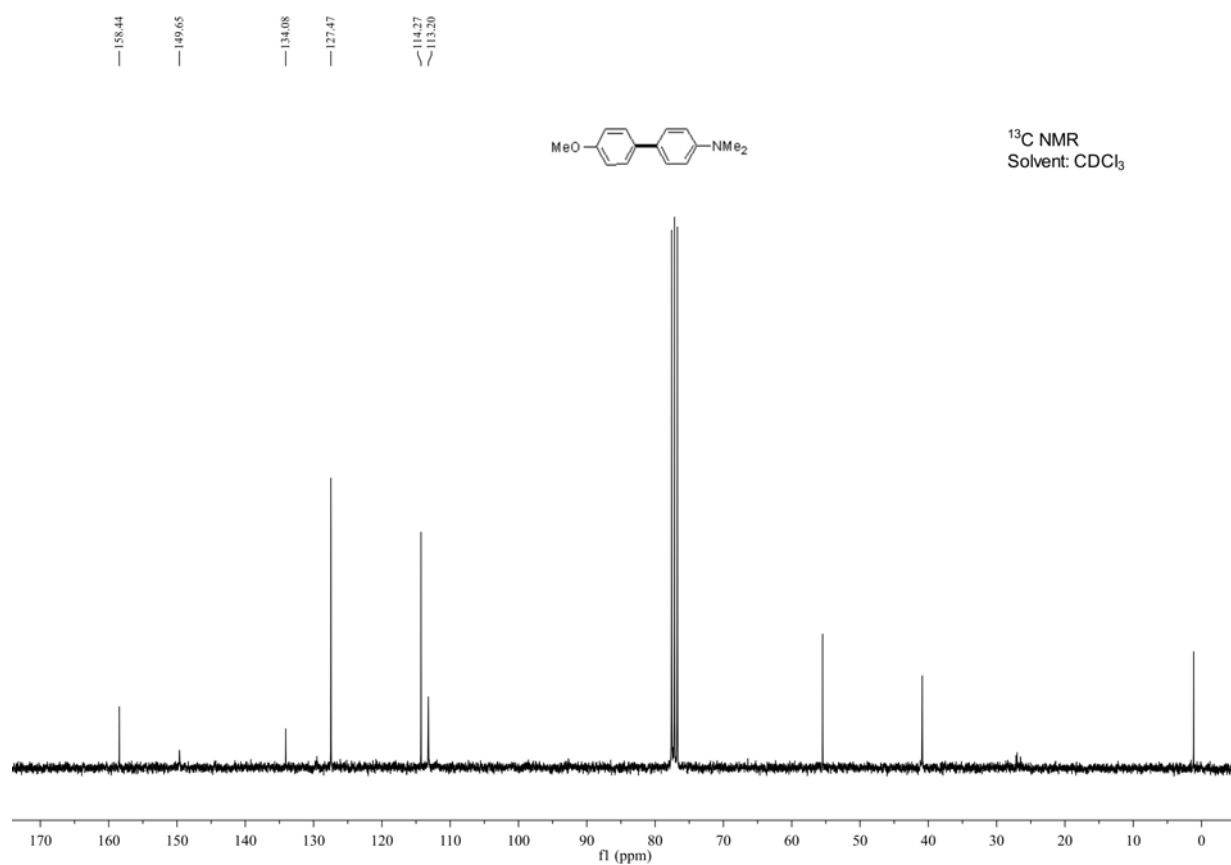
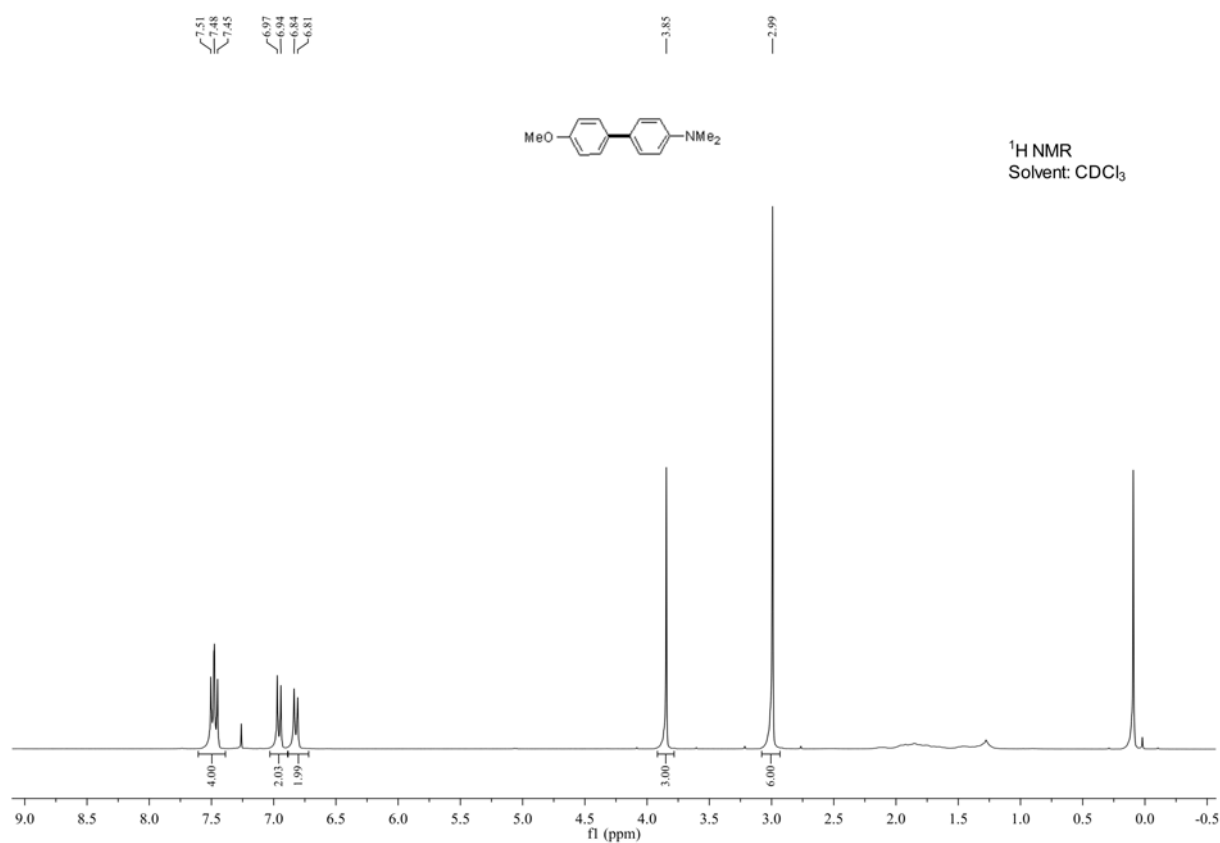
(19) 4-Trifluoromethyl-4'-methoxybiphenyl (Table 3, entry 6)



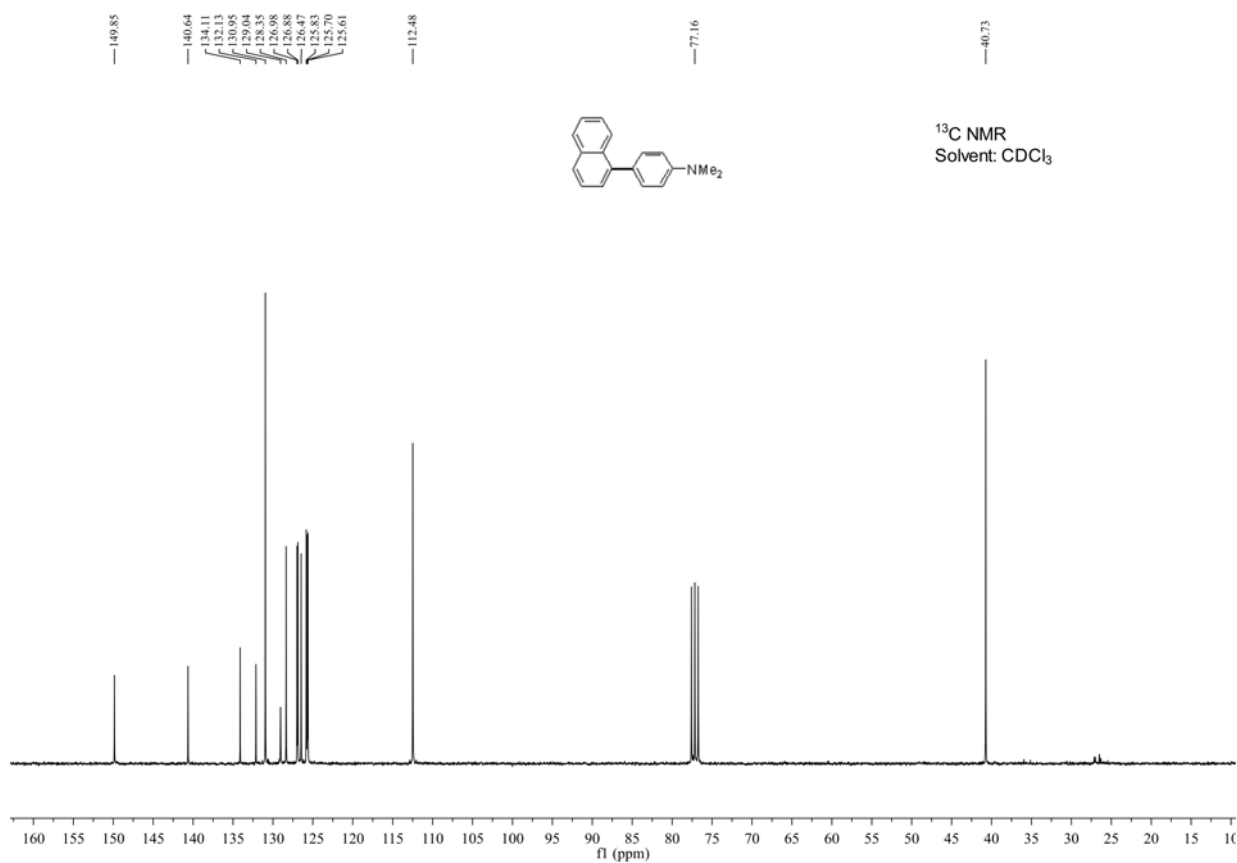
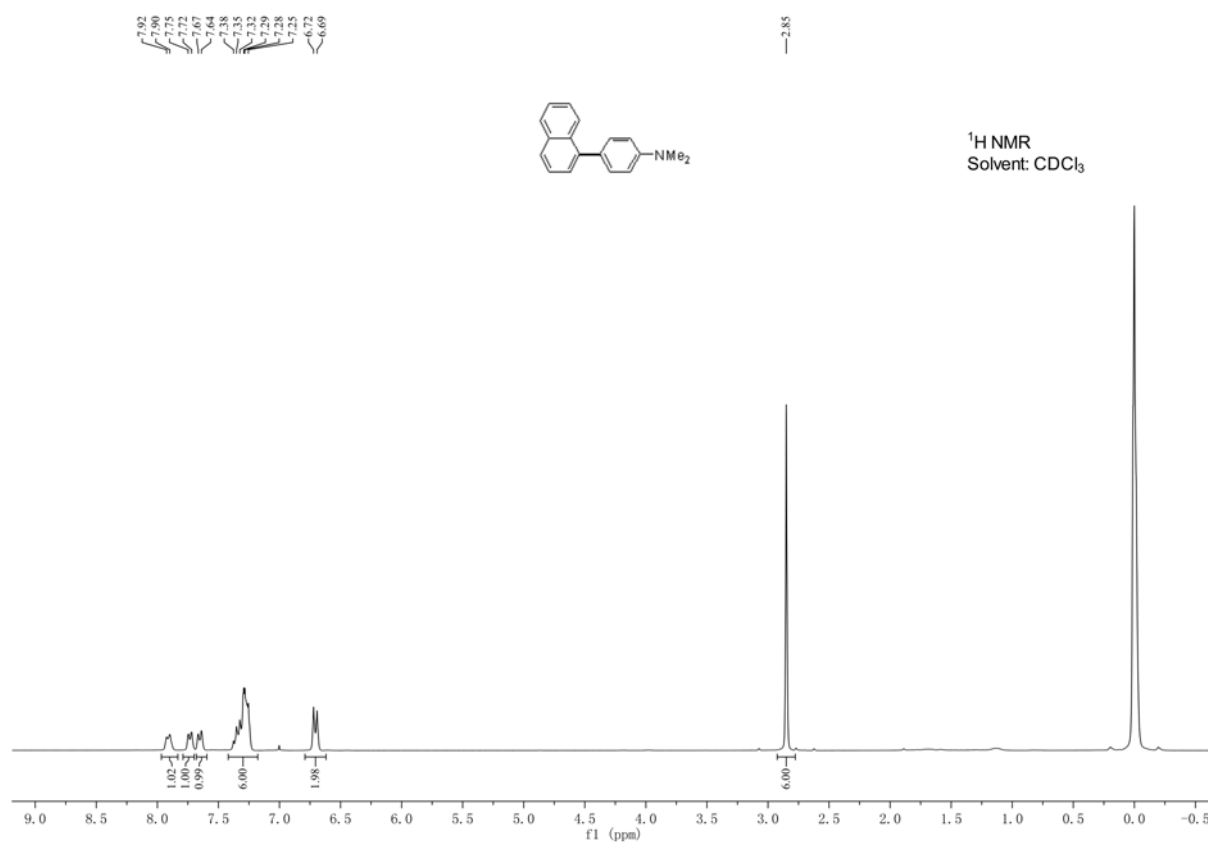
(20) 4-Methoxy-2'-methylbiphenyl (Table 3, entry 7)



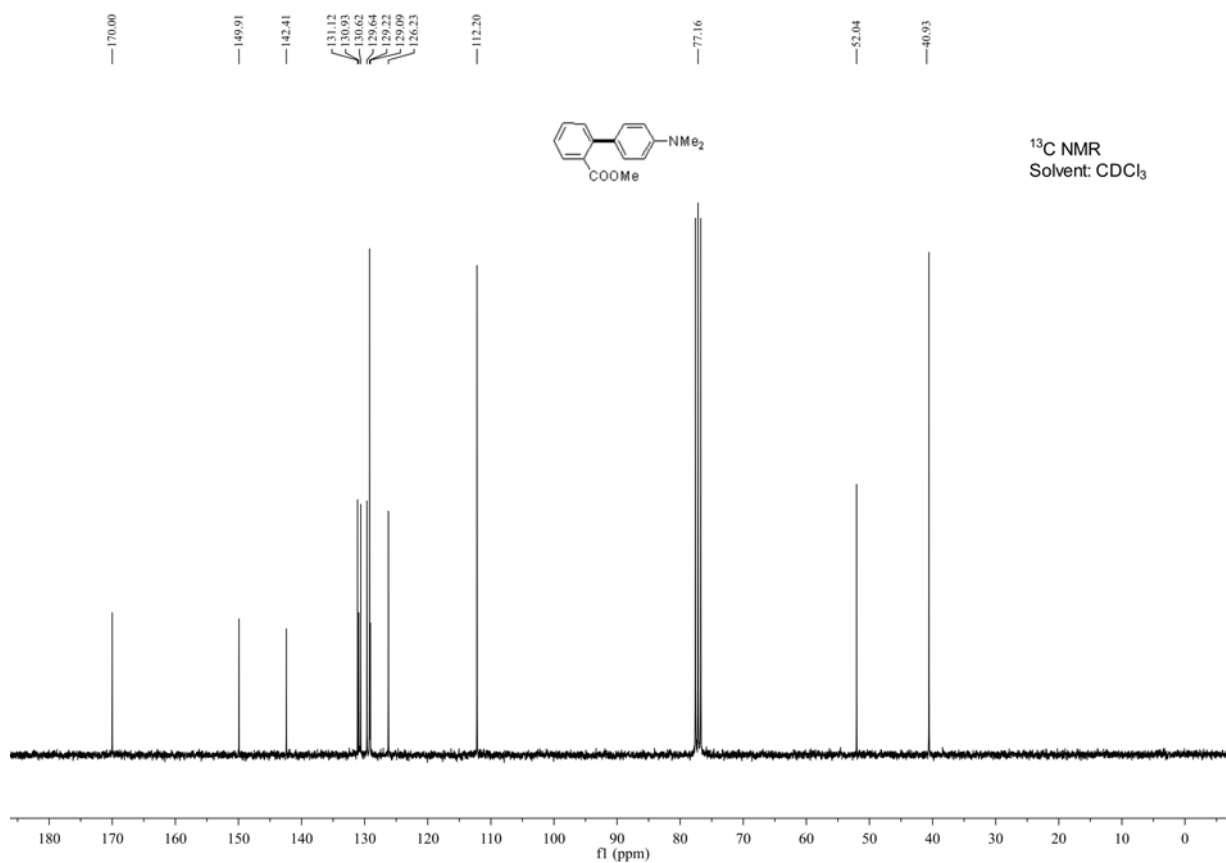
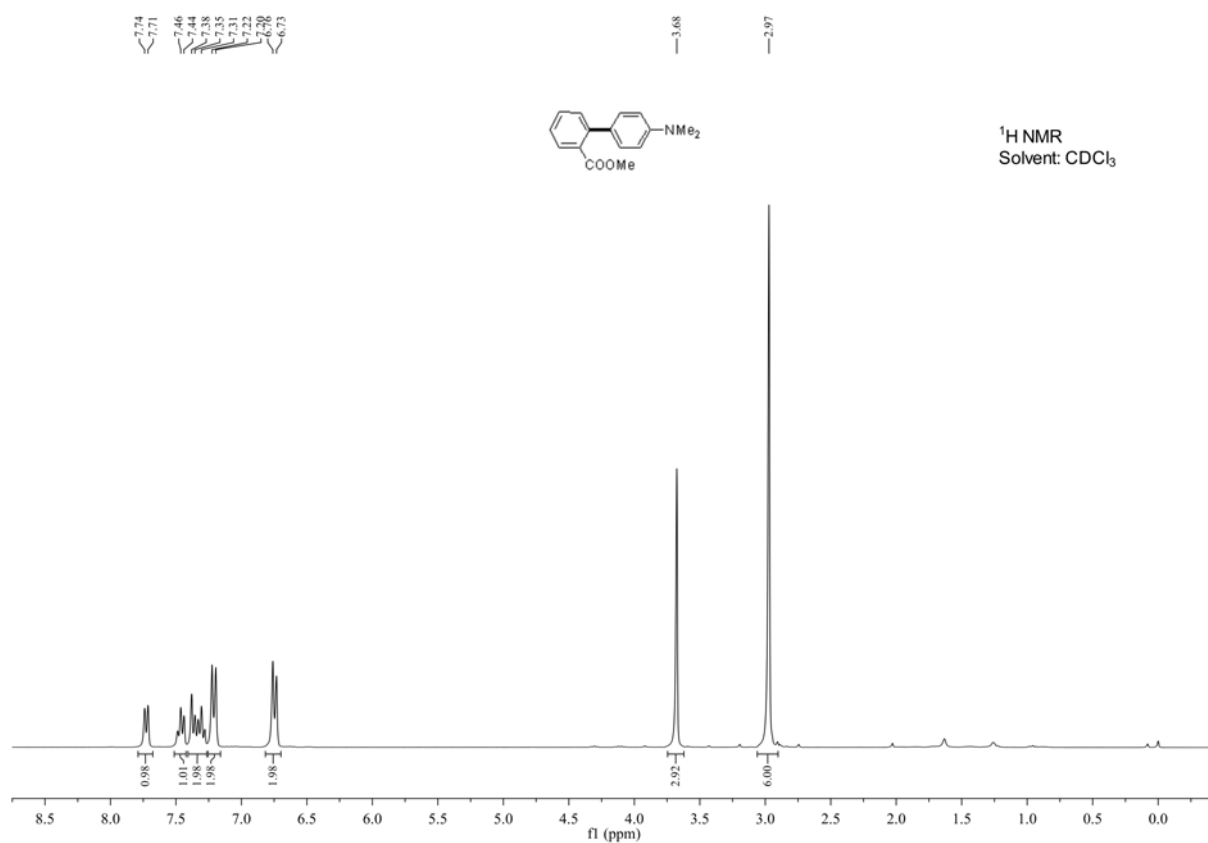
(21) 4'-Methoxy-*N,N*-dimethylbiphenyl-4-amine (Table 3, entry 8)



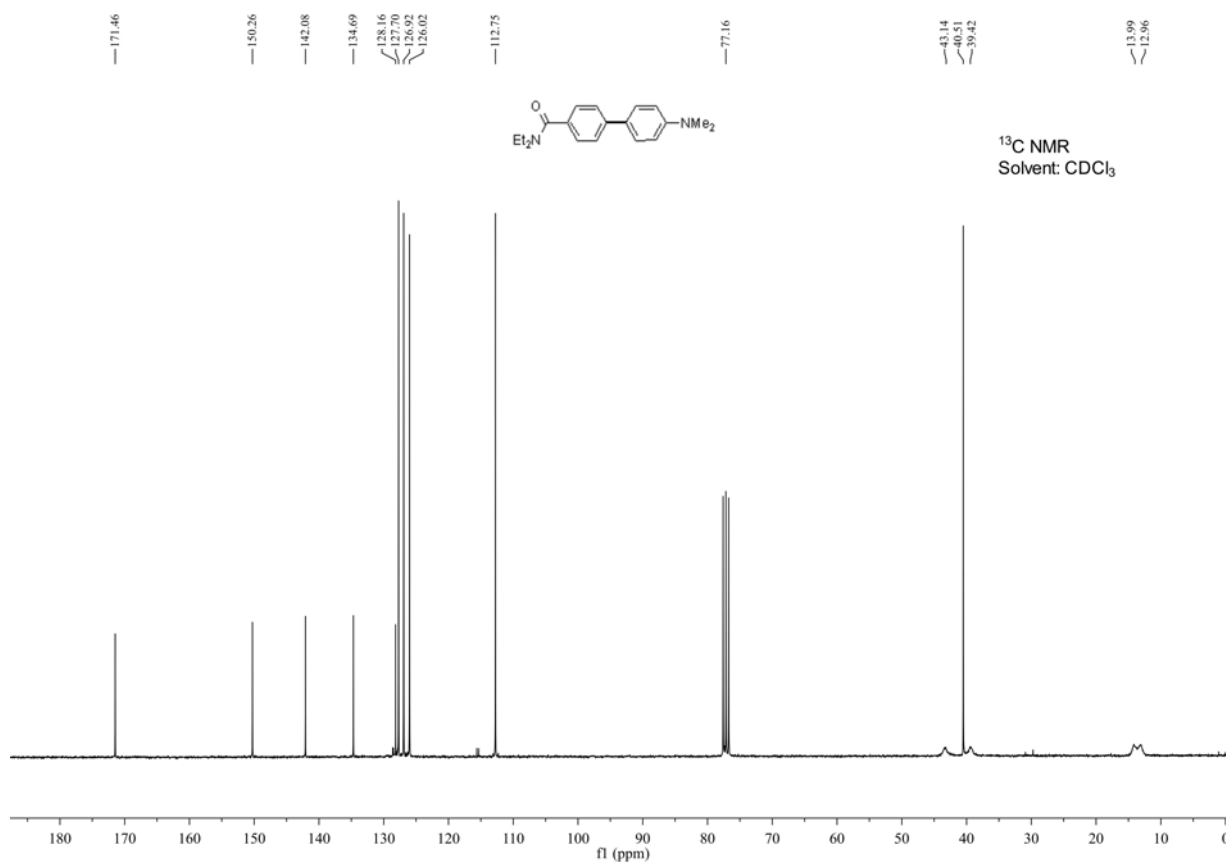
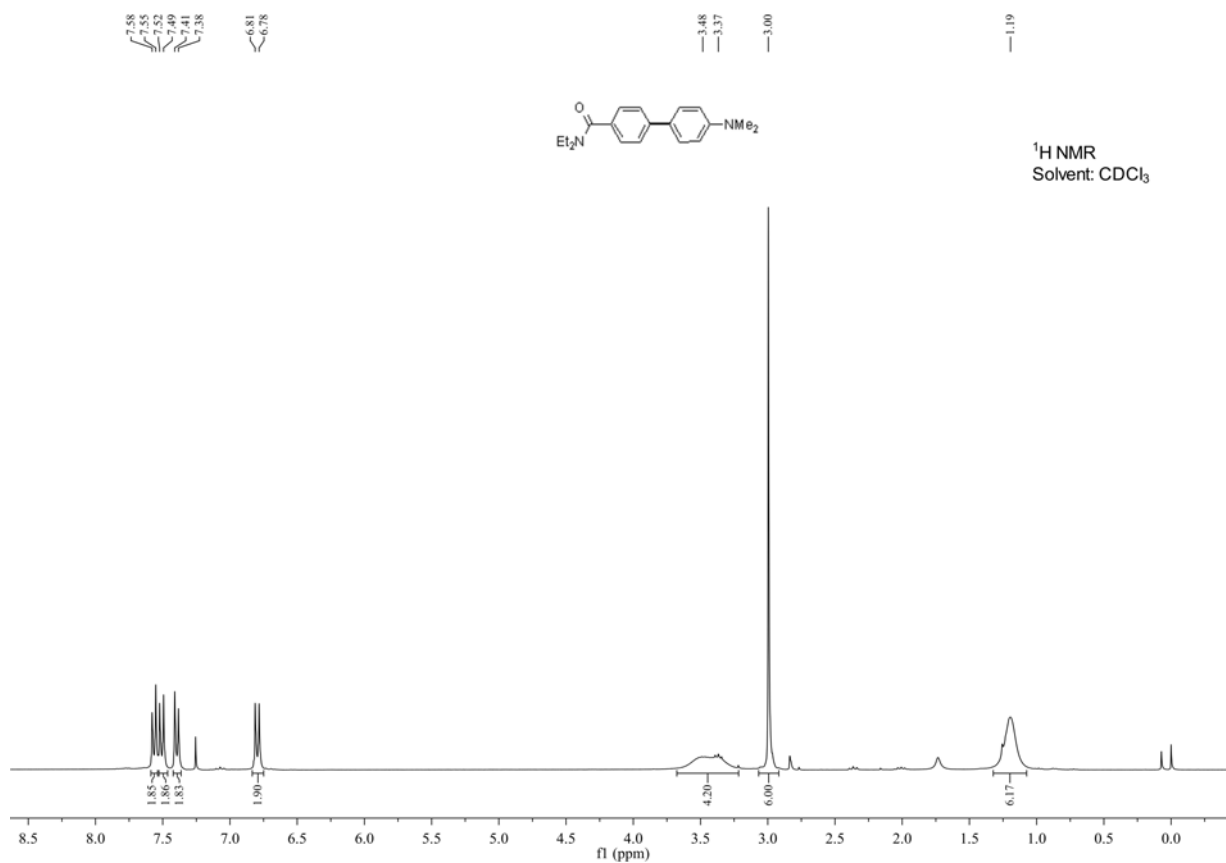
(22) *N,N*-Dimethyl-4-(naphthalen-1-yl)aniline (Table 3, entry 9)



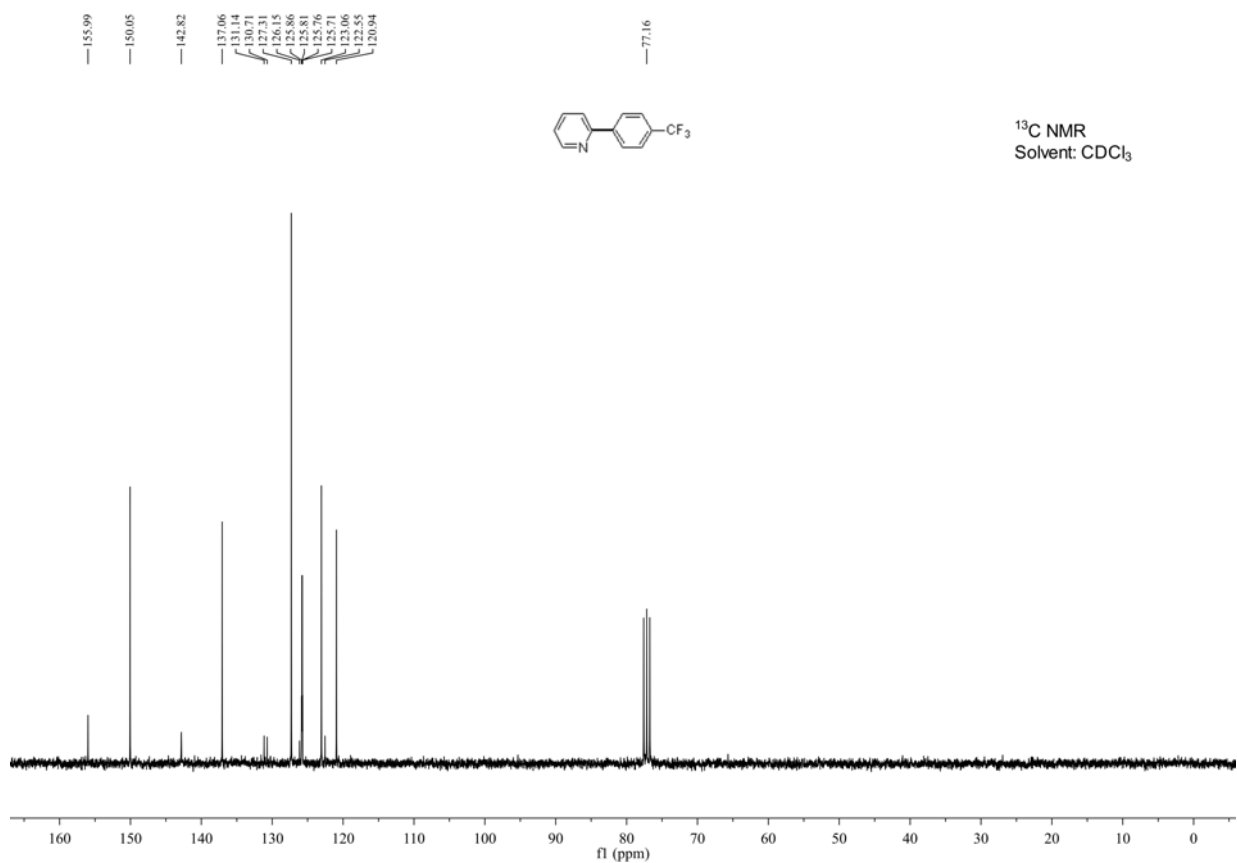
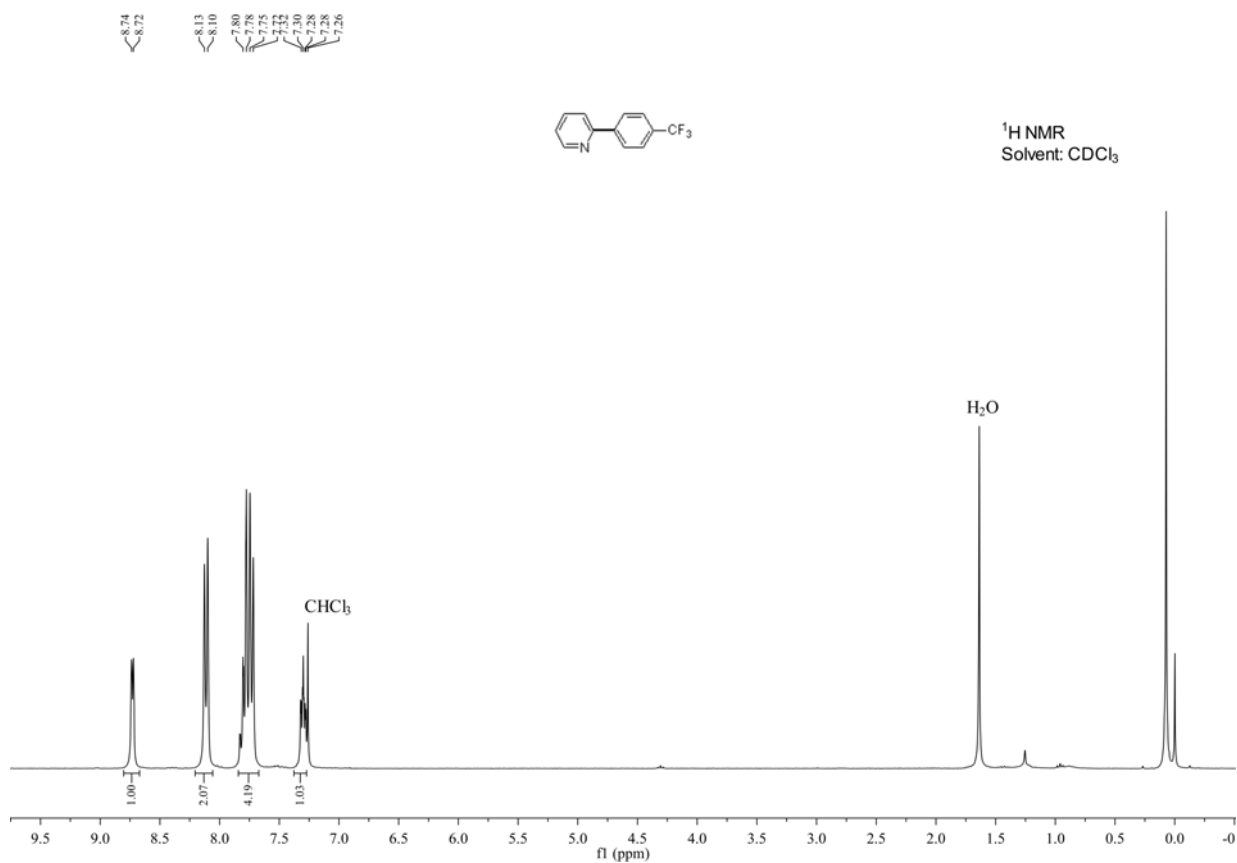
(23) Methyl 4'-(dimethylamino)biphenyl-2-carboxylate (Table 3, entry 10)



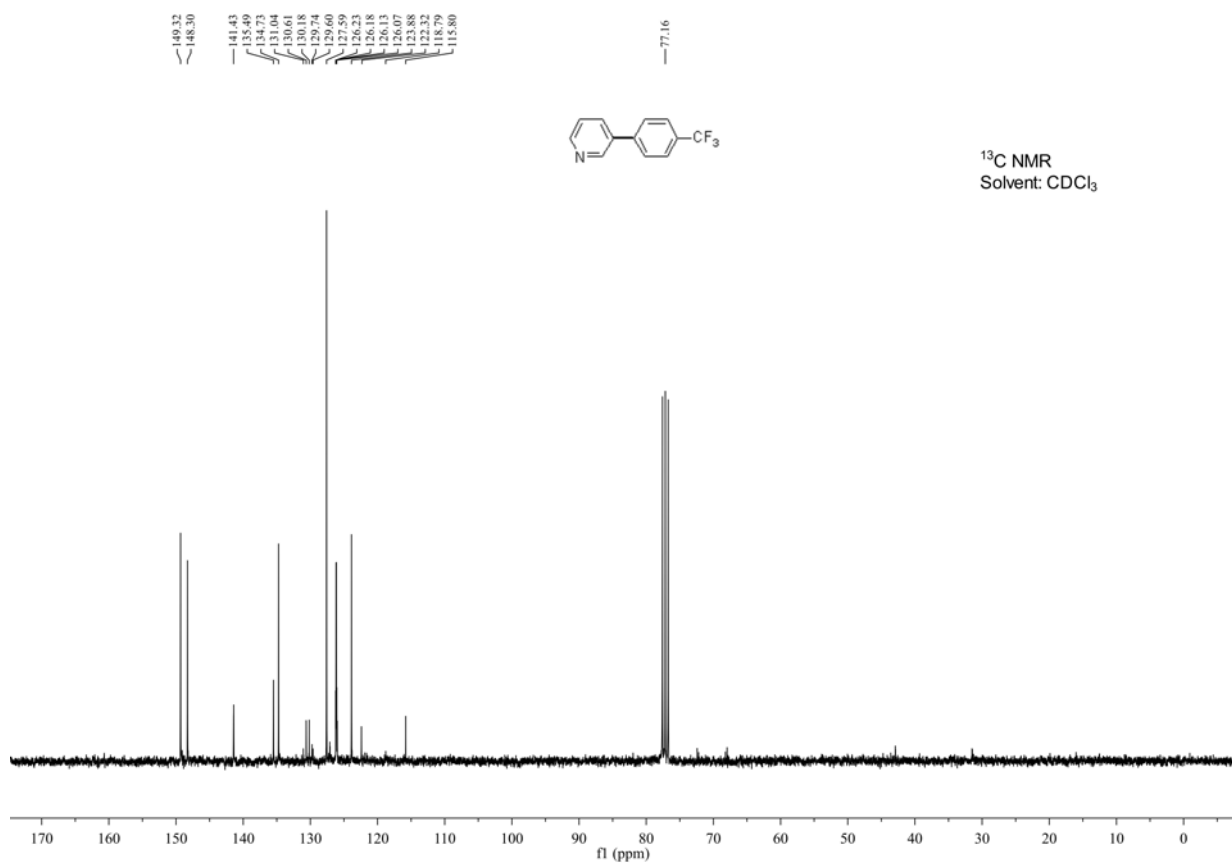
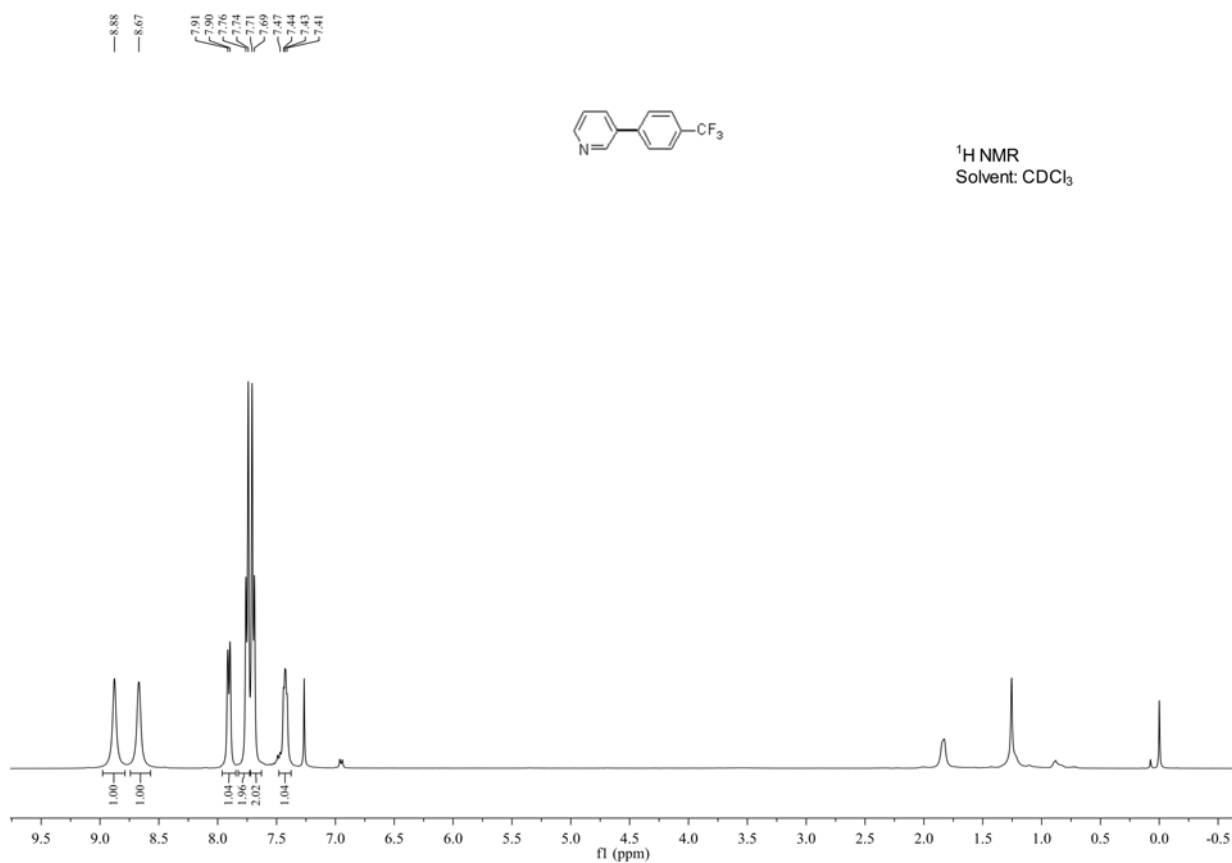
(24) 4'-(Dimethylamino)-*N,N*-diethylbiphenyl-4-carboxamide (Table 3, entry 11)



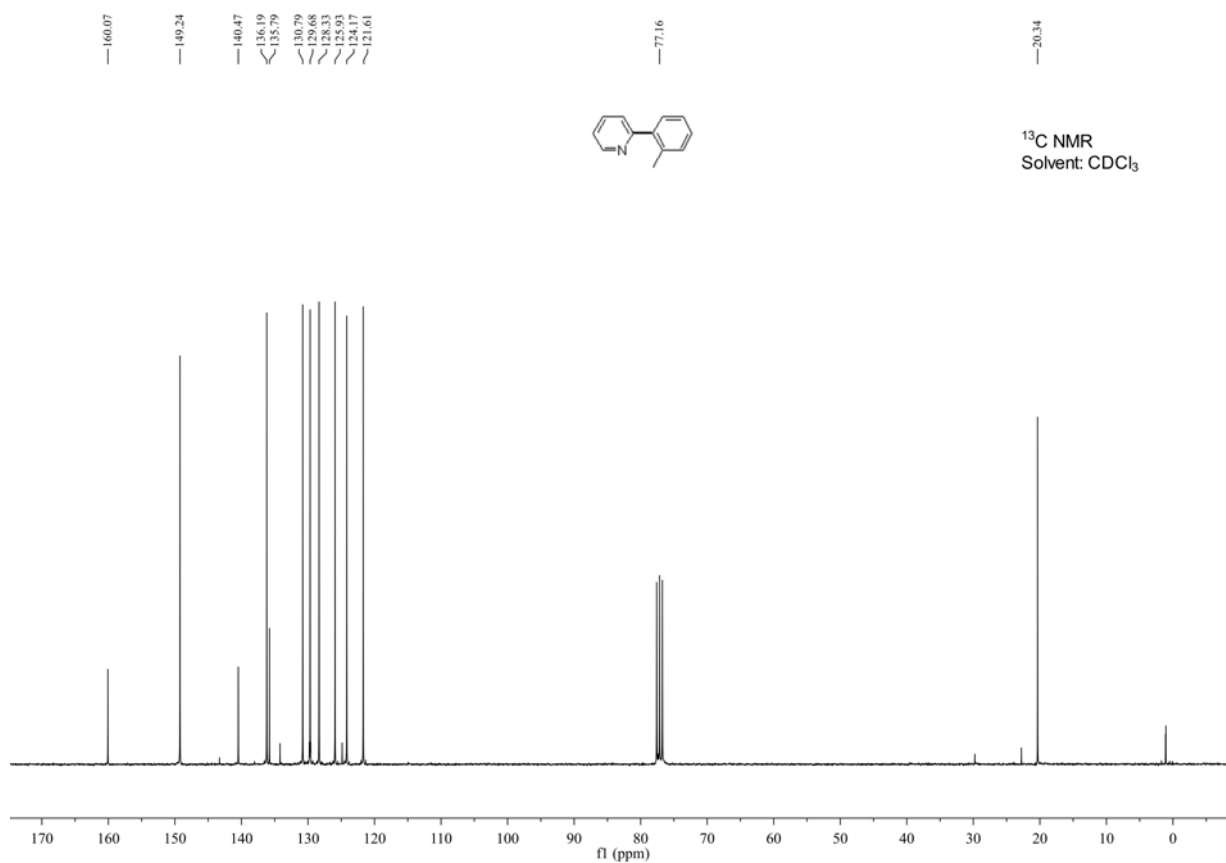
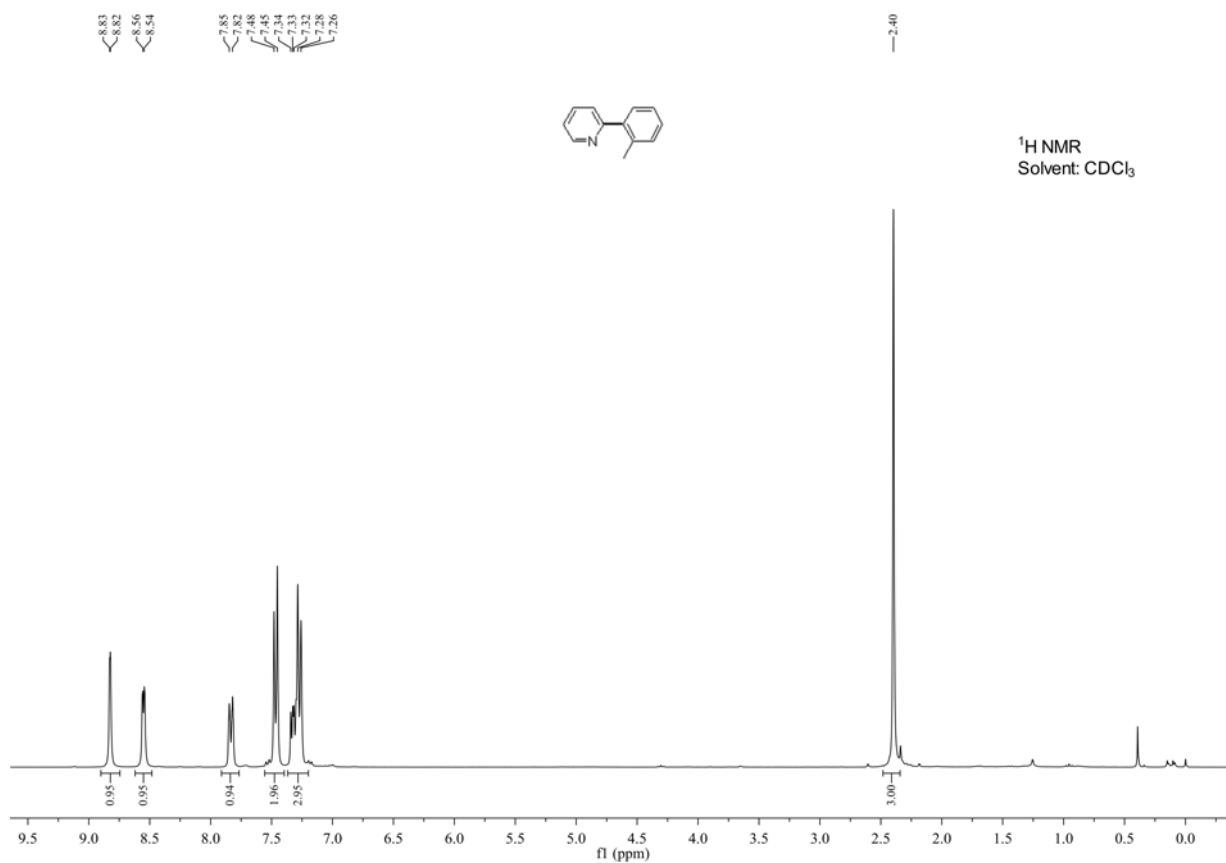
(25) 2-(4-(Trifluoromethyl)phenyl)pyridine (Table 3, entry 12)



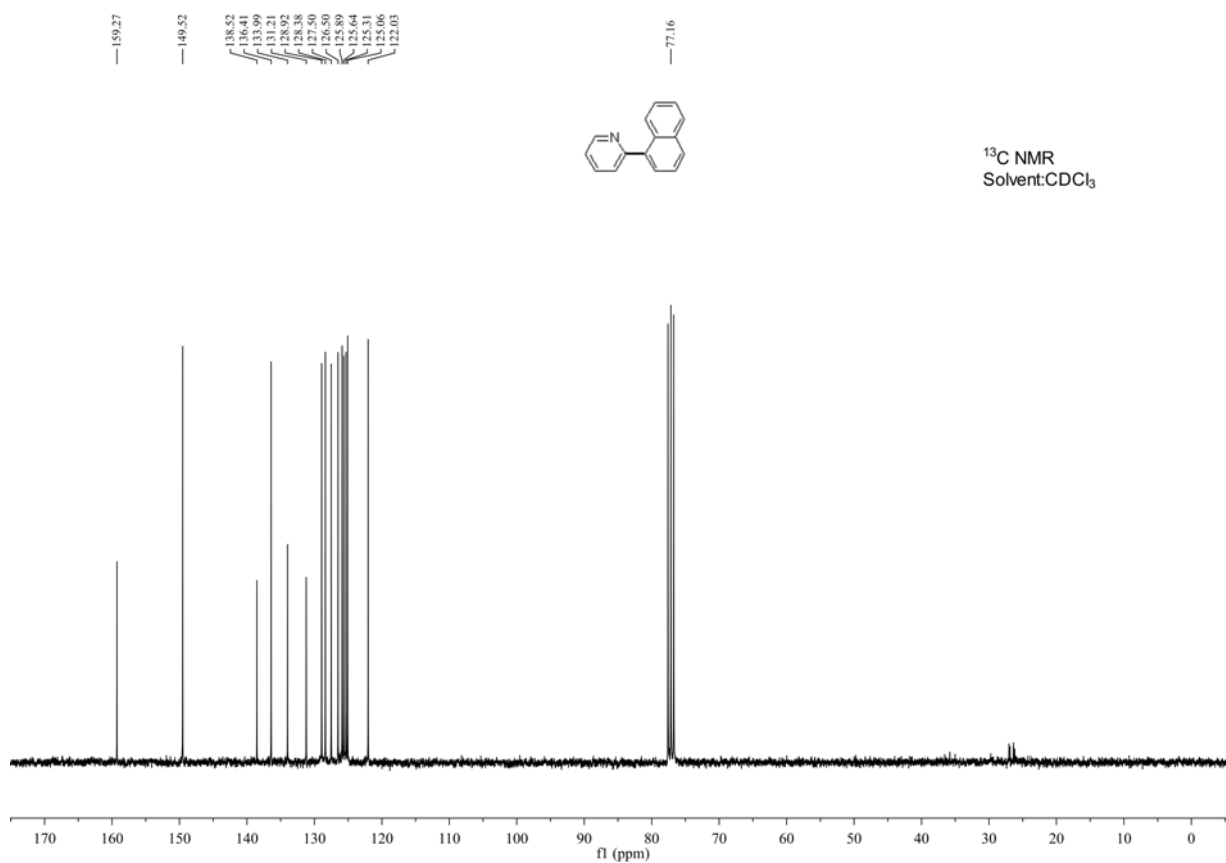
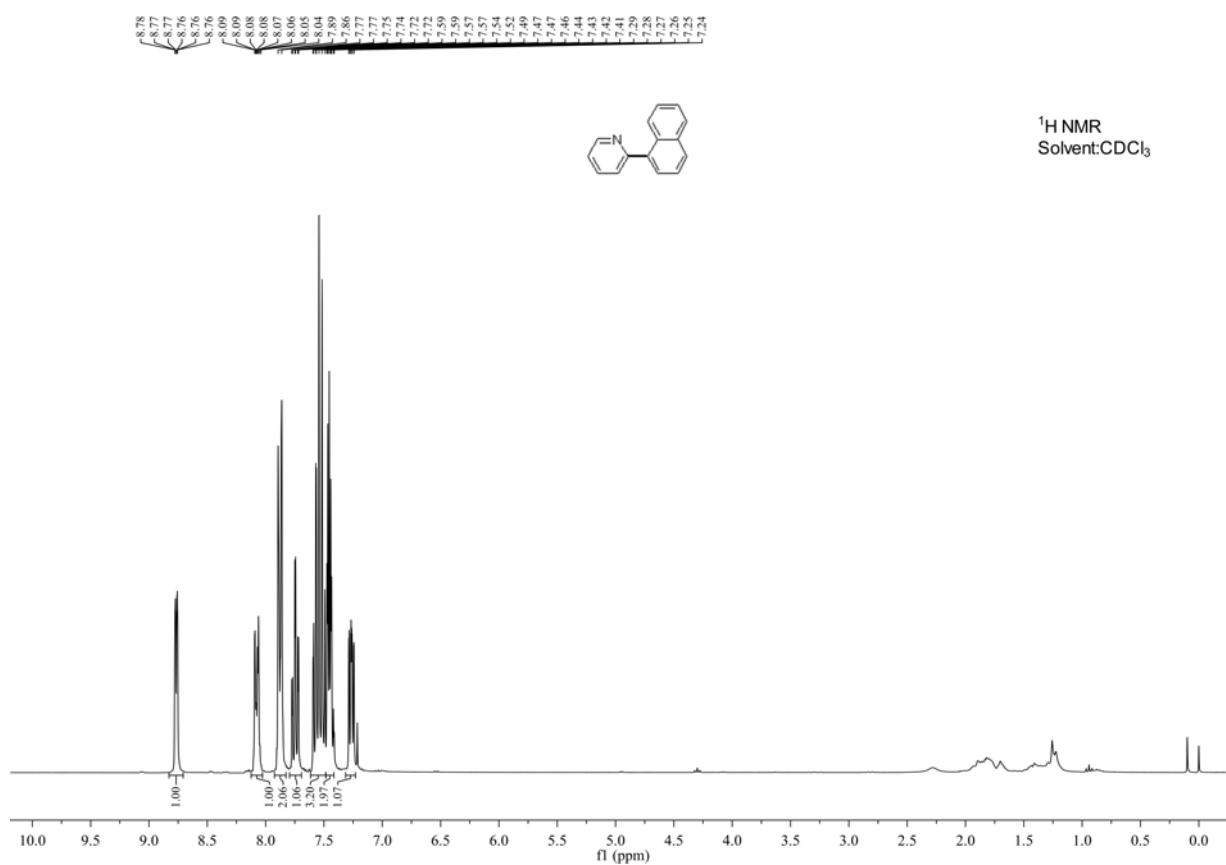
(26) 3-(4-(Trifluoromethyl)phenyl)pyridine (Table 3, entry 13)



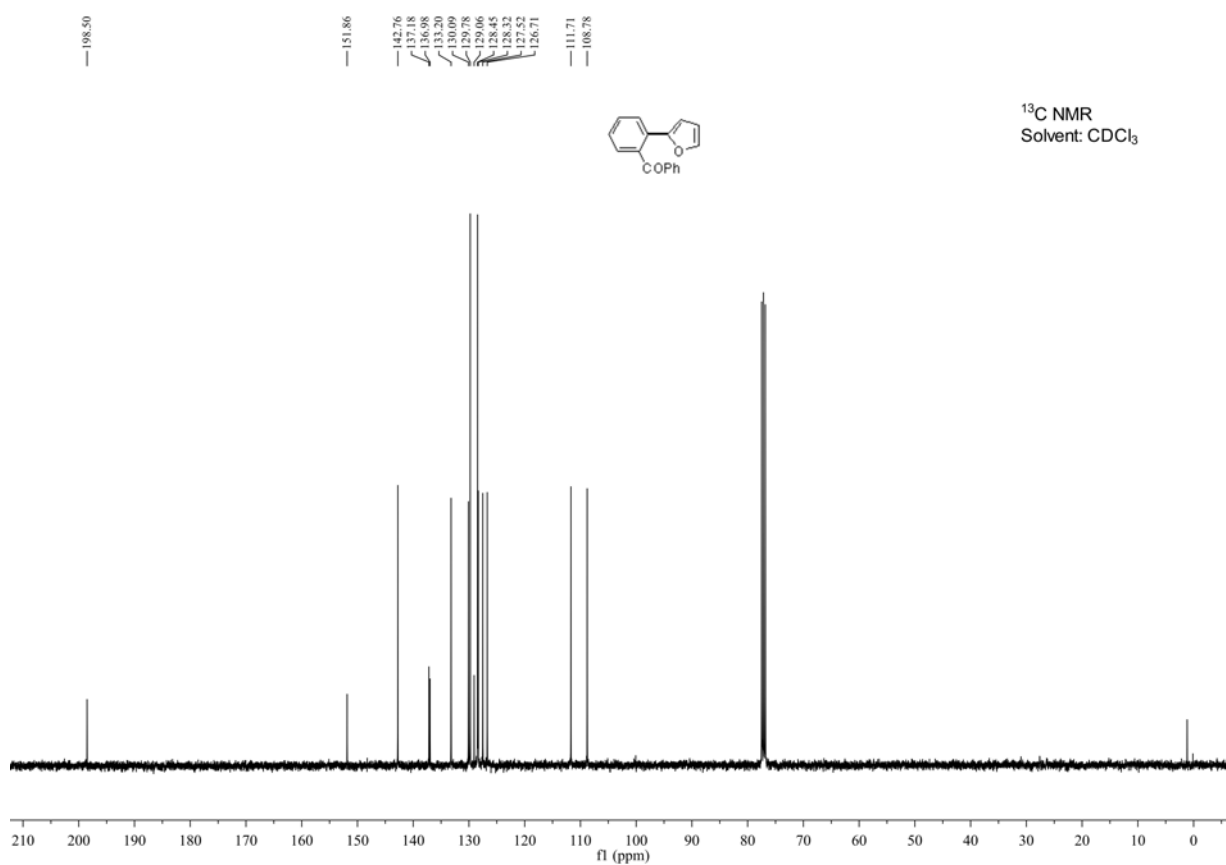
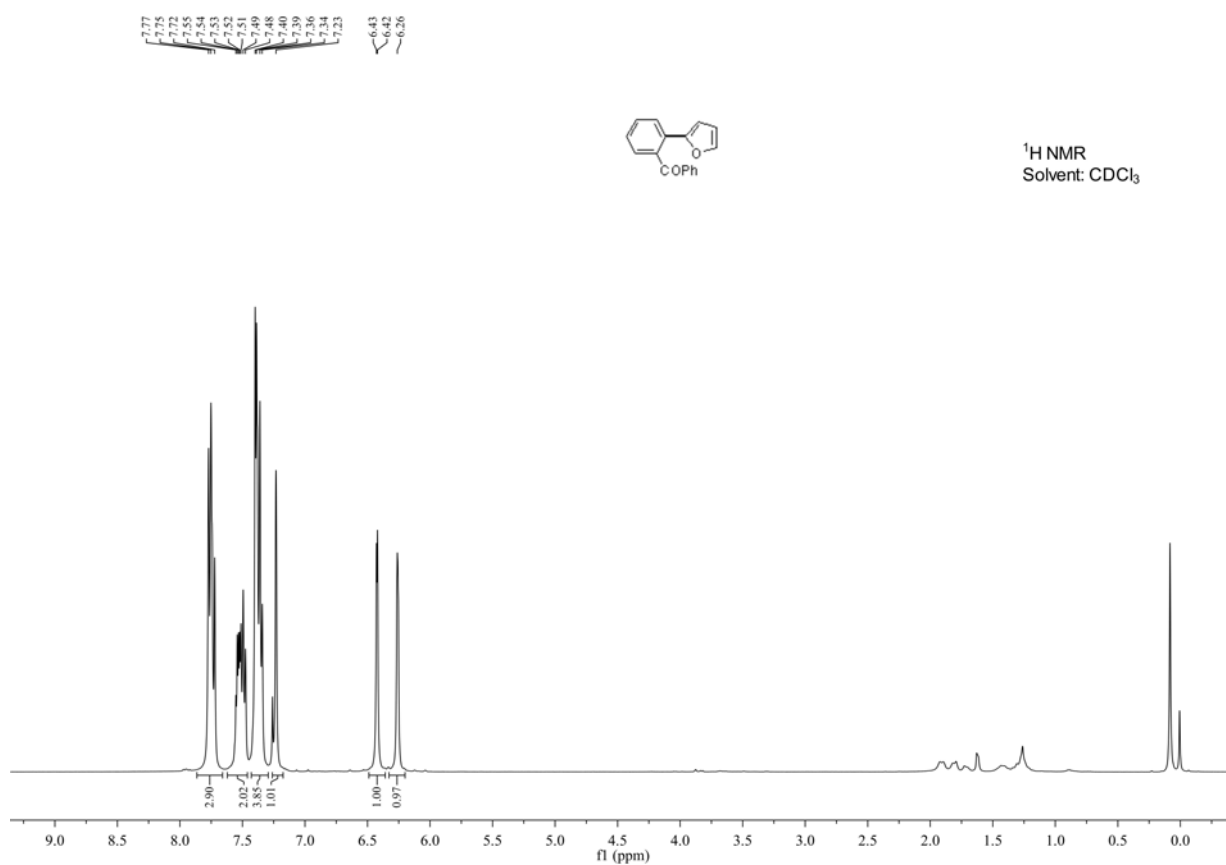
(27) 2-*o*-Tolylpyridine (Table 3, entry 15)



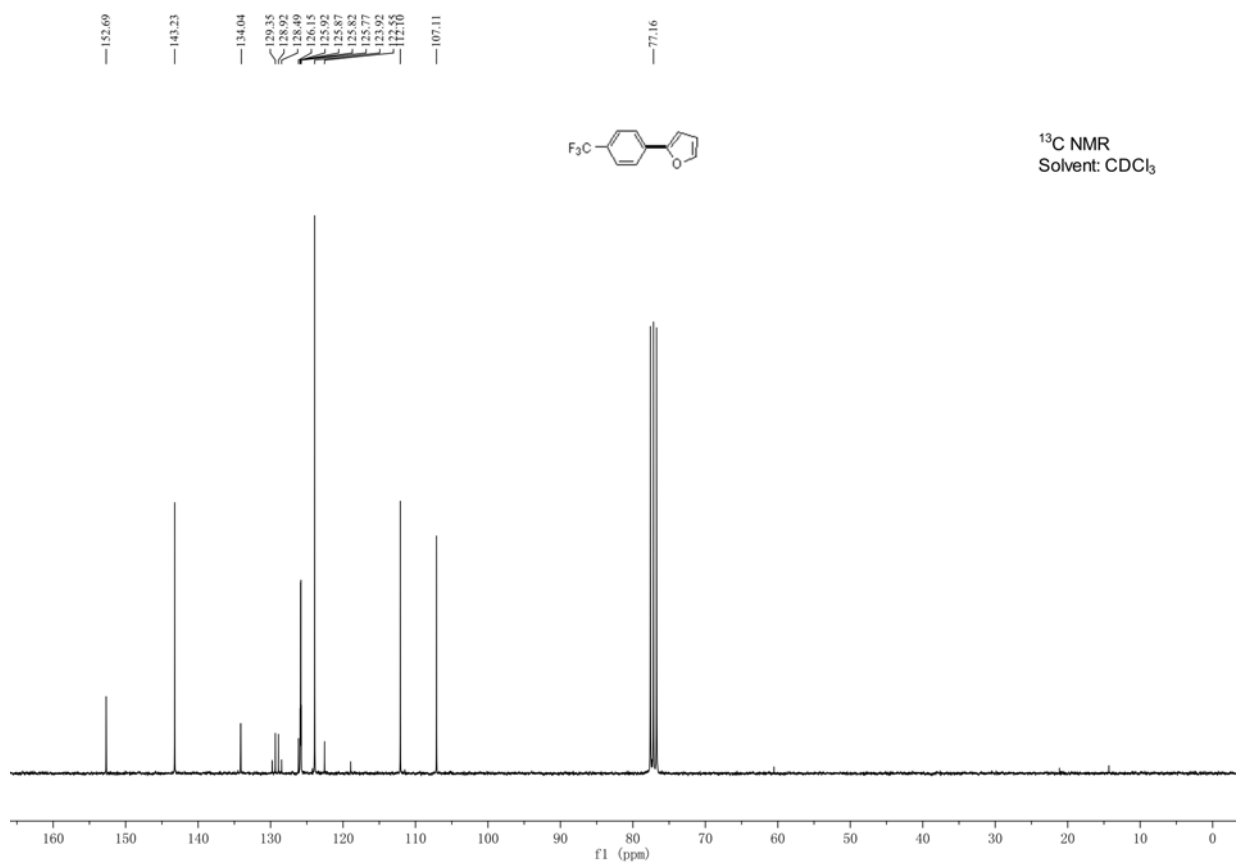
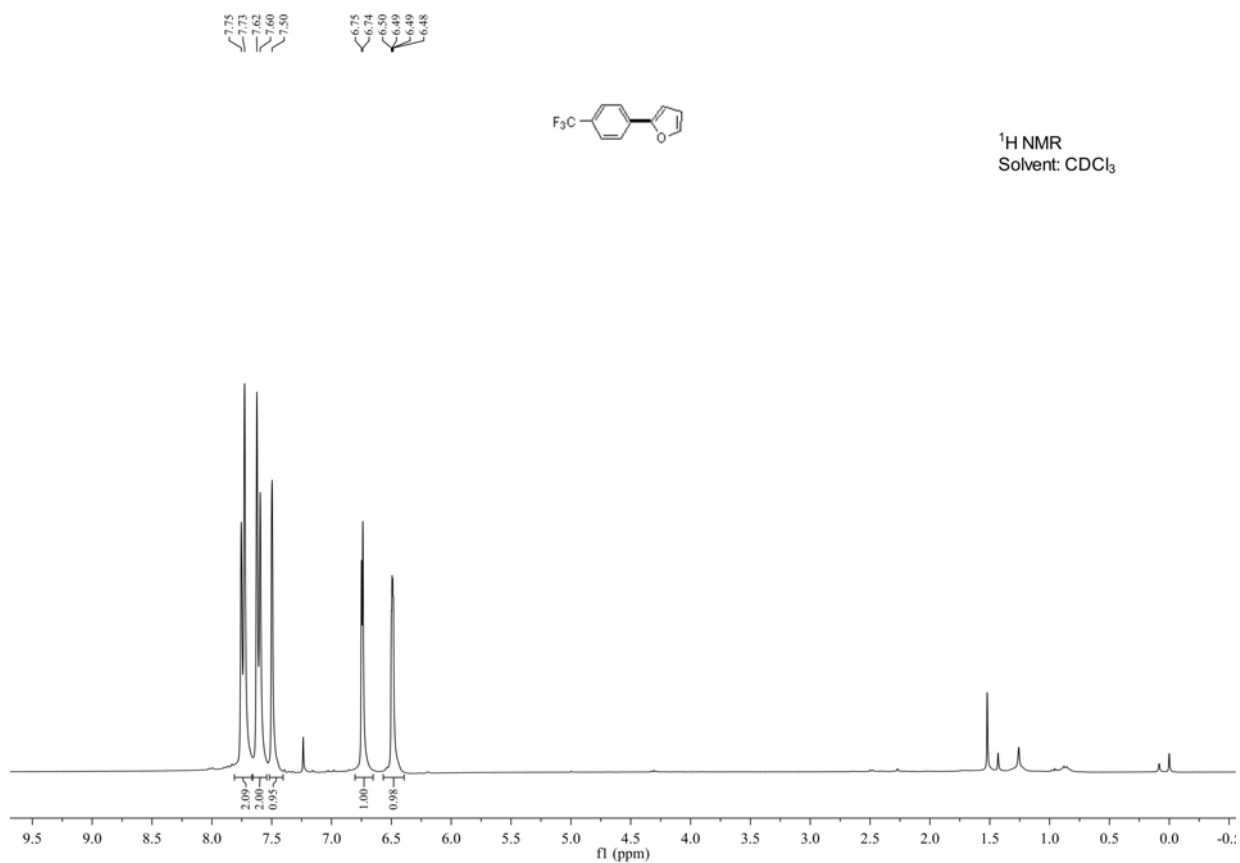
(28) 2-(Naphthalen-1-yl)pyridine (Table 3, entry 17)



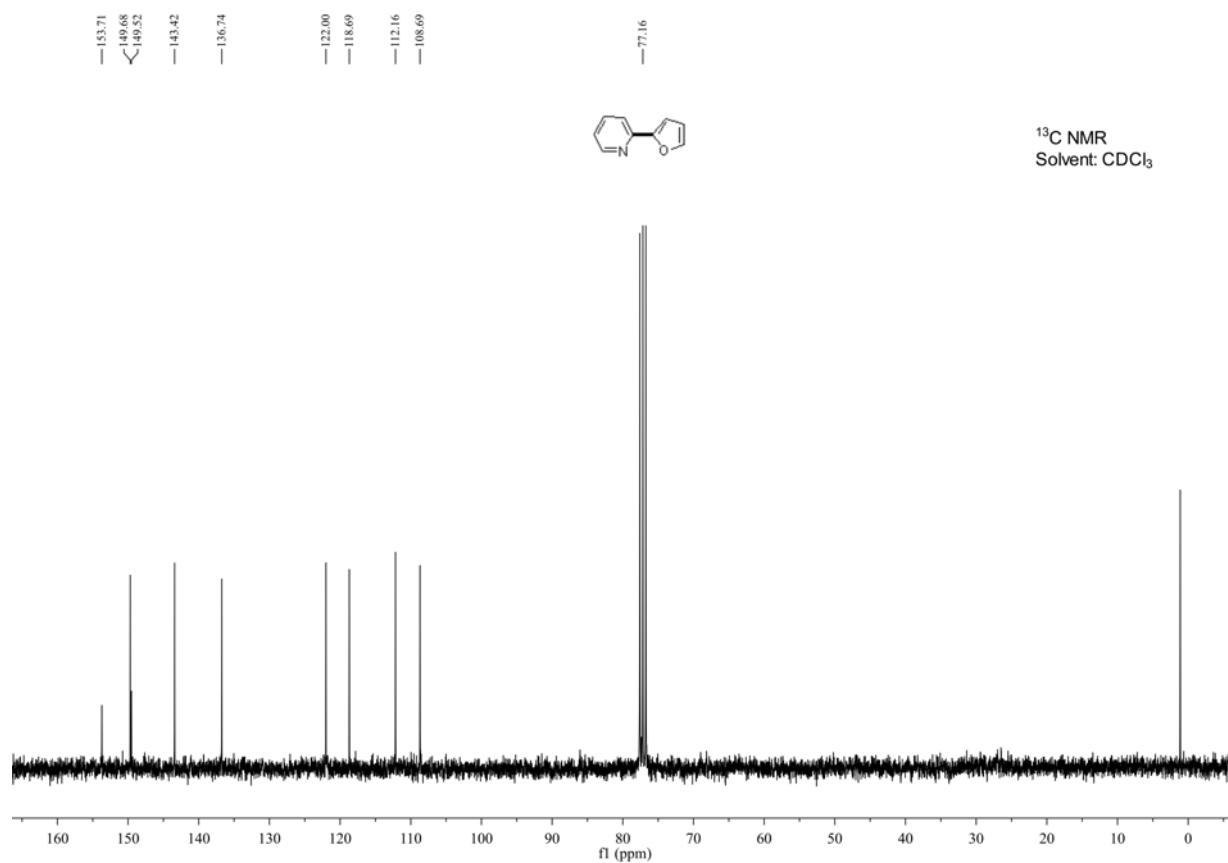
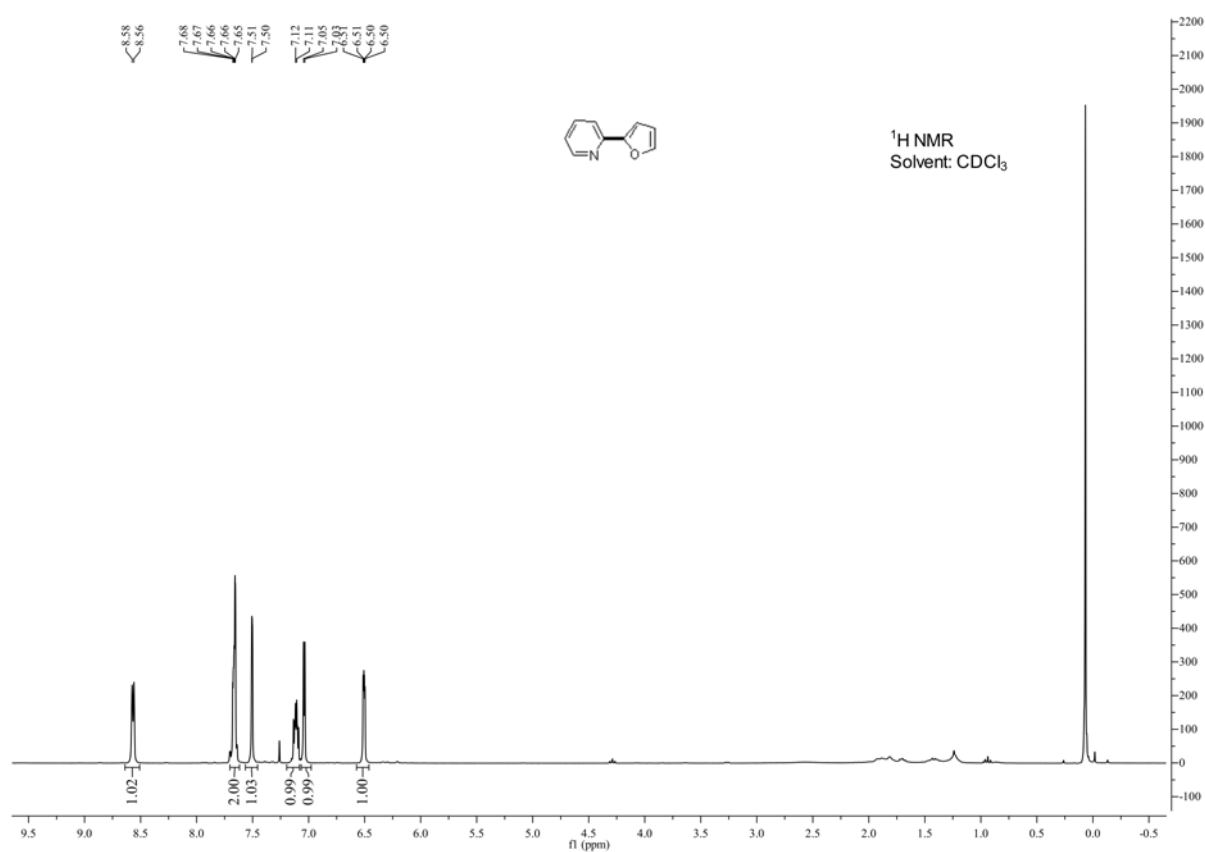
(29) (2-(Furan-2-yl)phenyl)(phenyl)methanone (Table 3, entry 18)



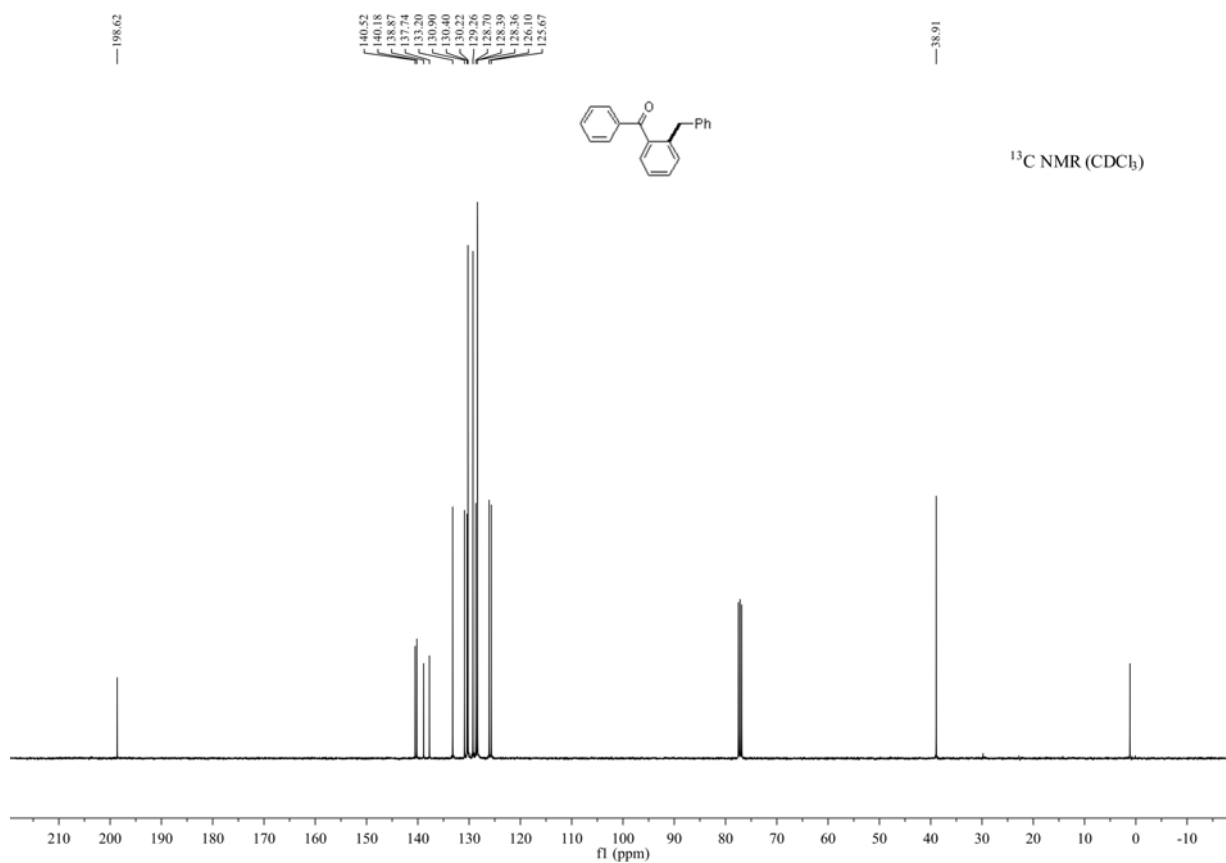
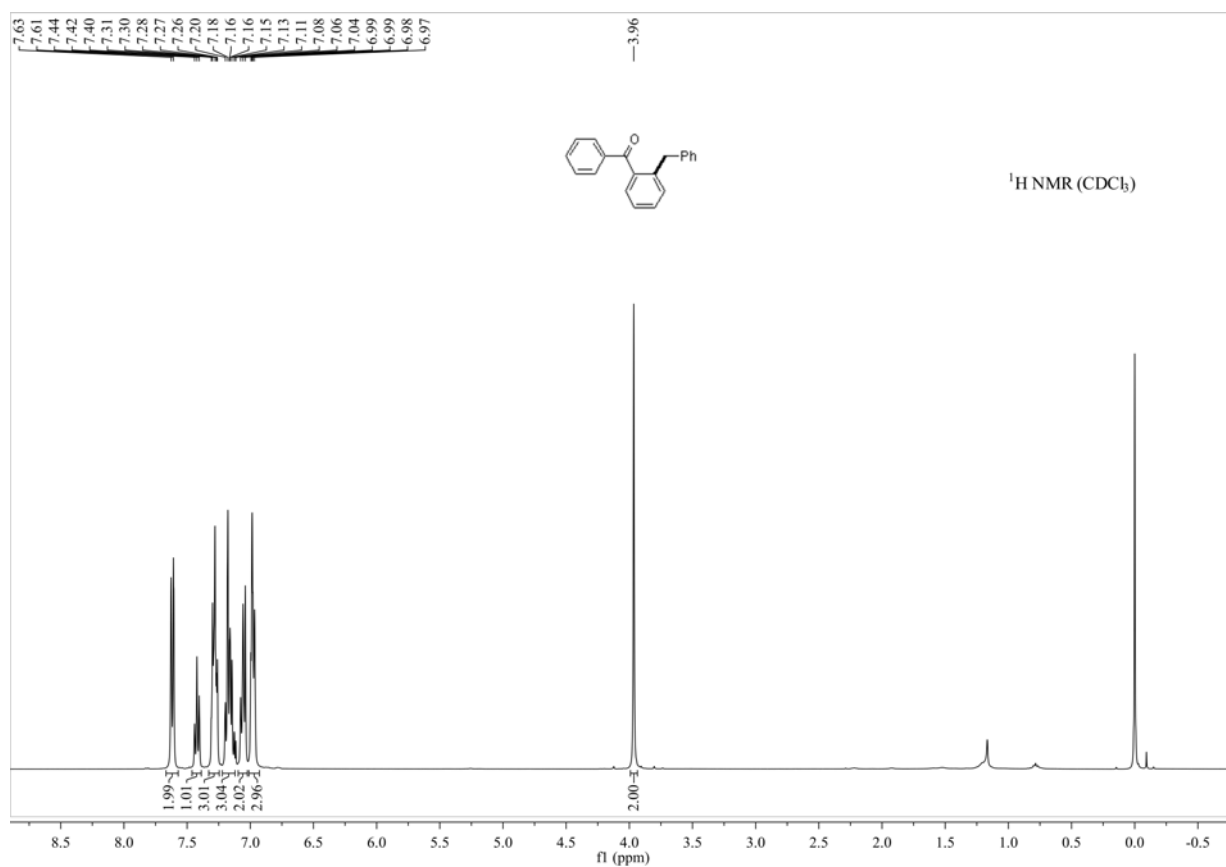
(30) 2-(4-(Trifluoromethyl)phenyl)furan (Table 3, entry 19)



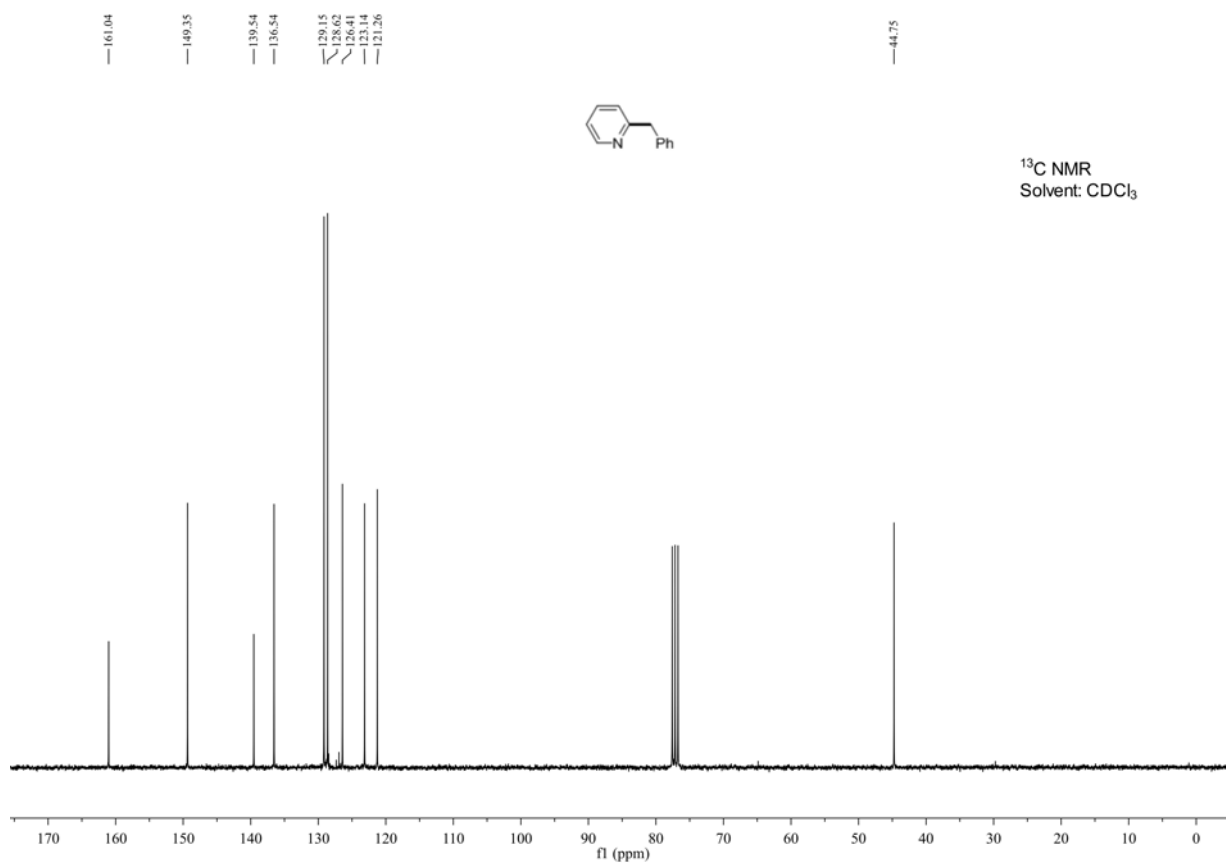
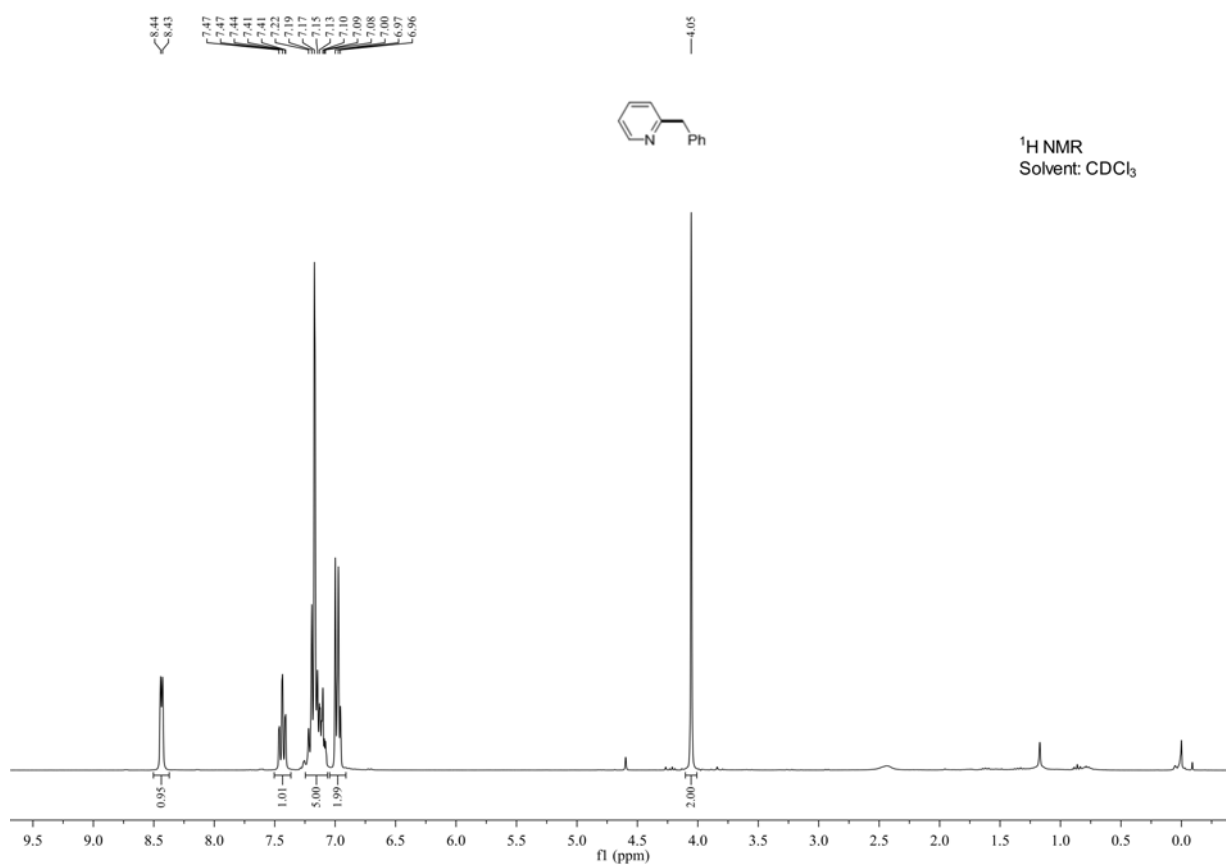
(31) 2-(Furan-2-yl)pyridine (Table 3, entry 20)



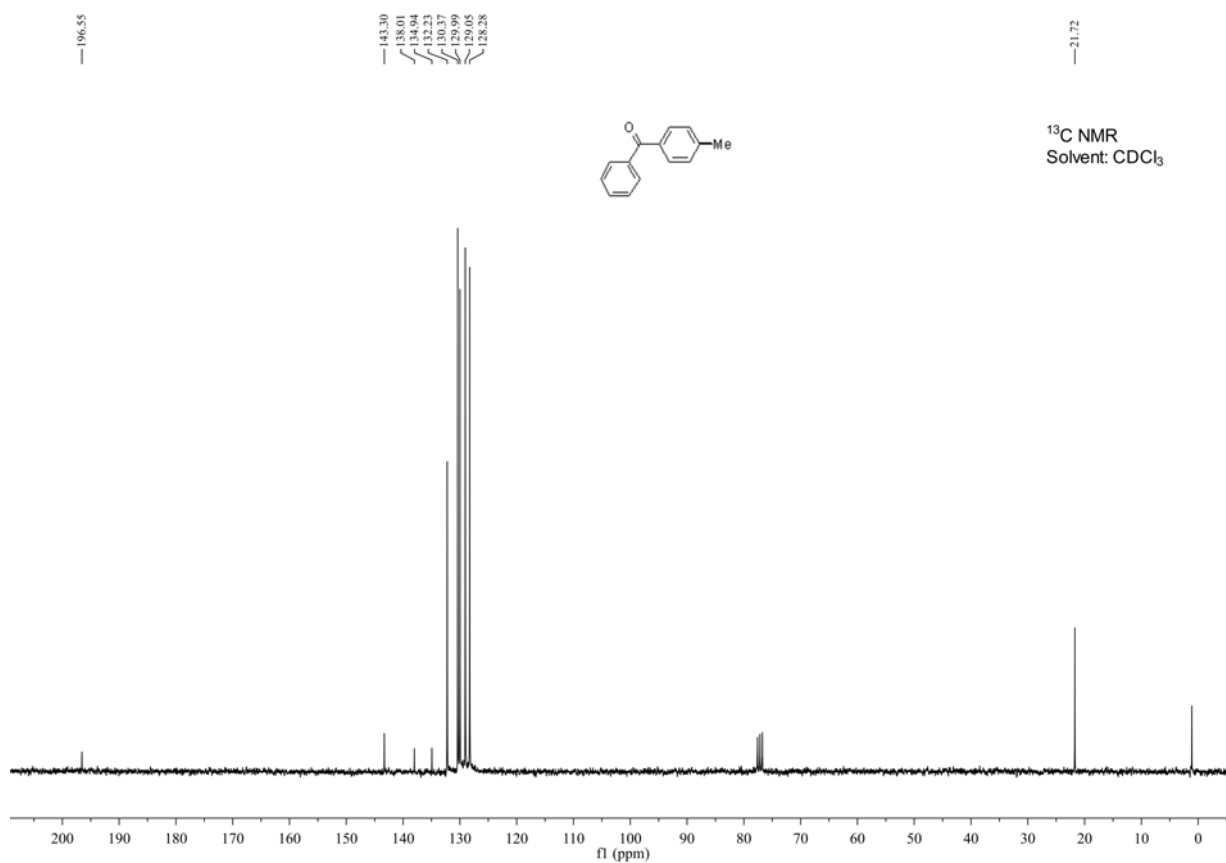
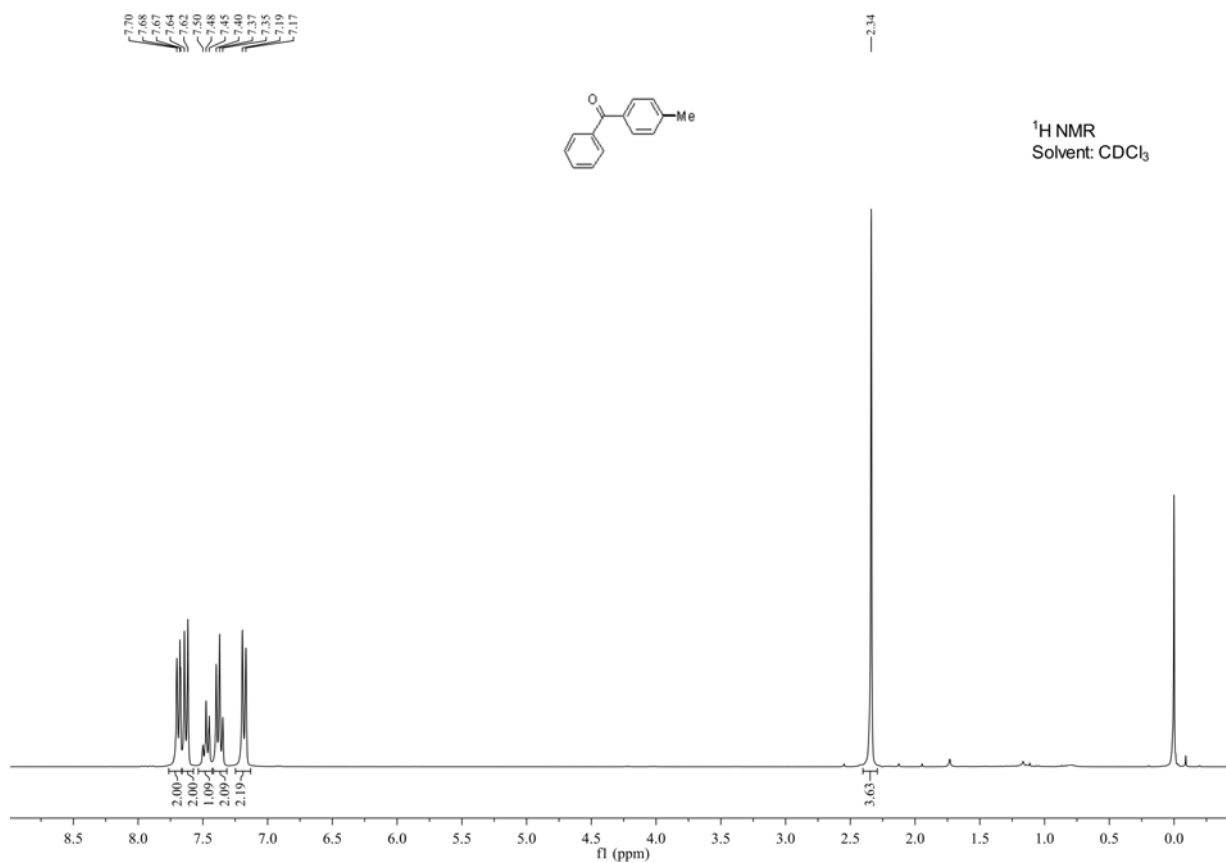
(32) (2-Benzylphenyl)(phenyl)methanone (Table 3, entry 21)



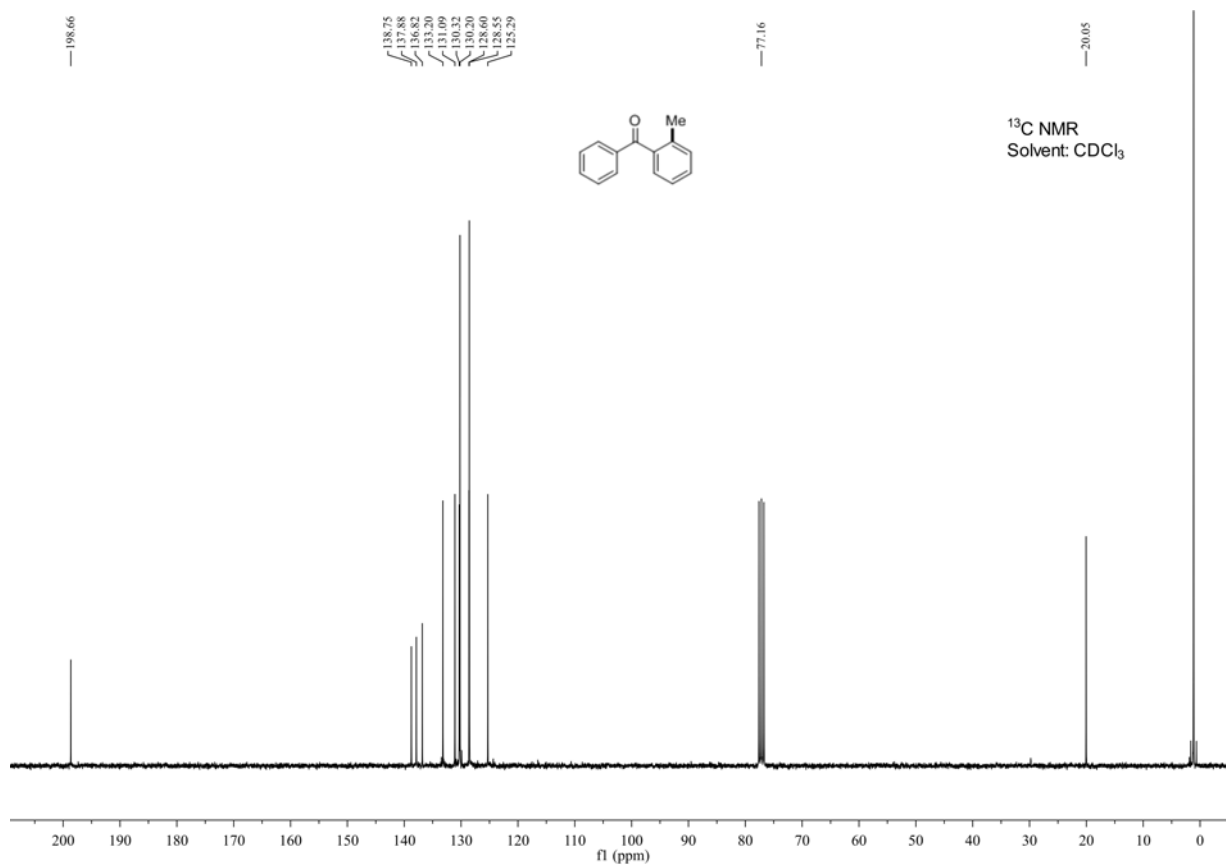
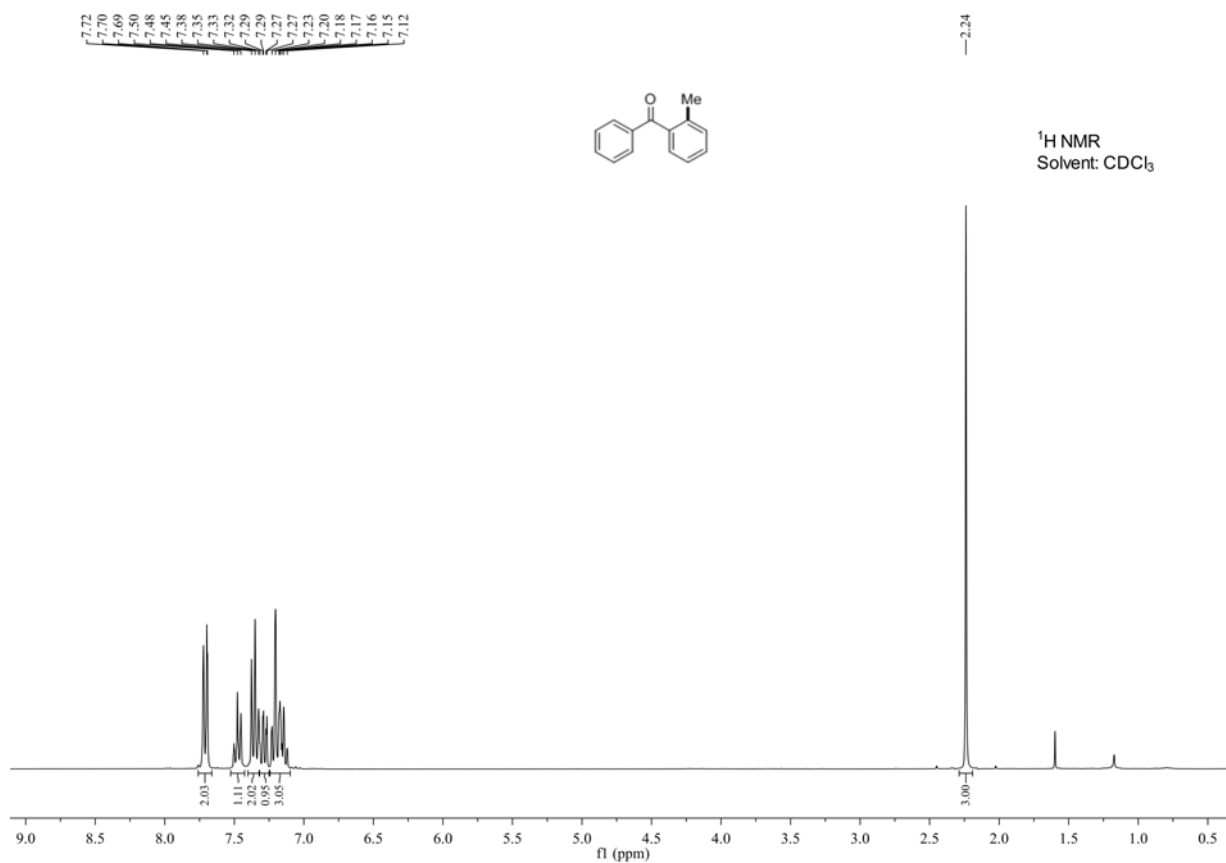
(33) 2-Benzylpyridine (Table 3, entry 22)



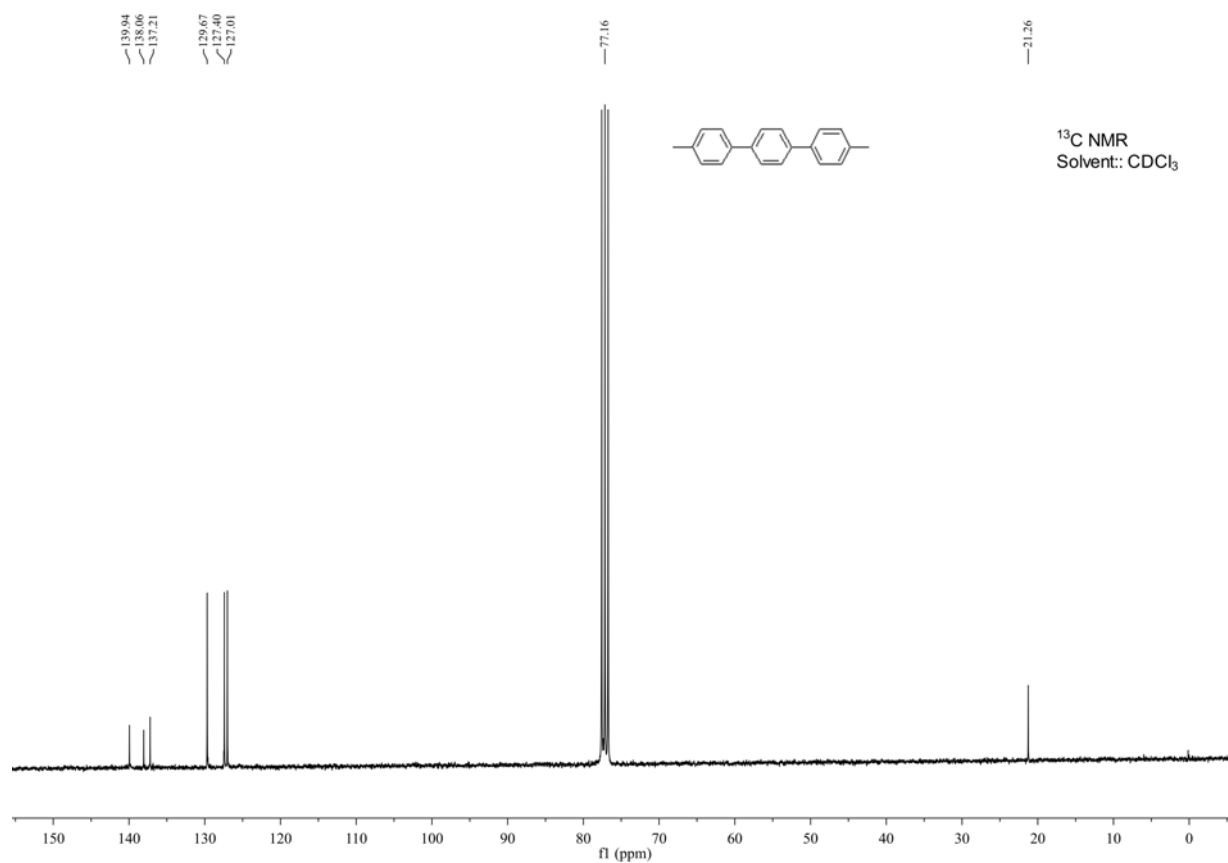
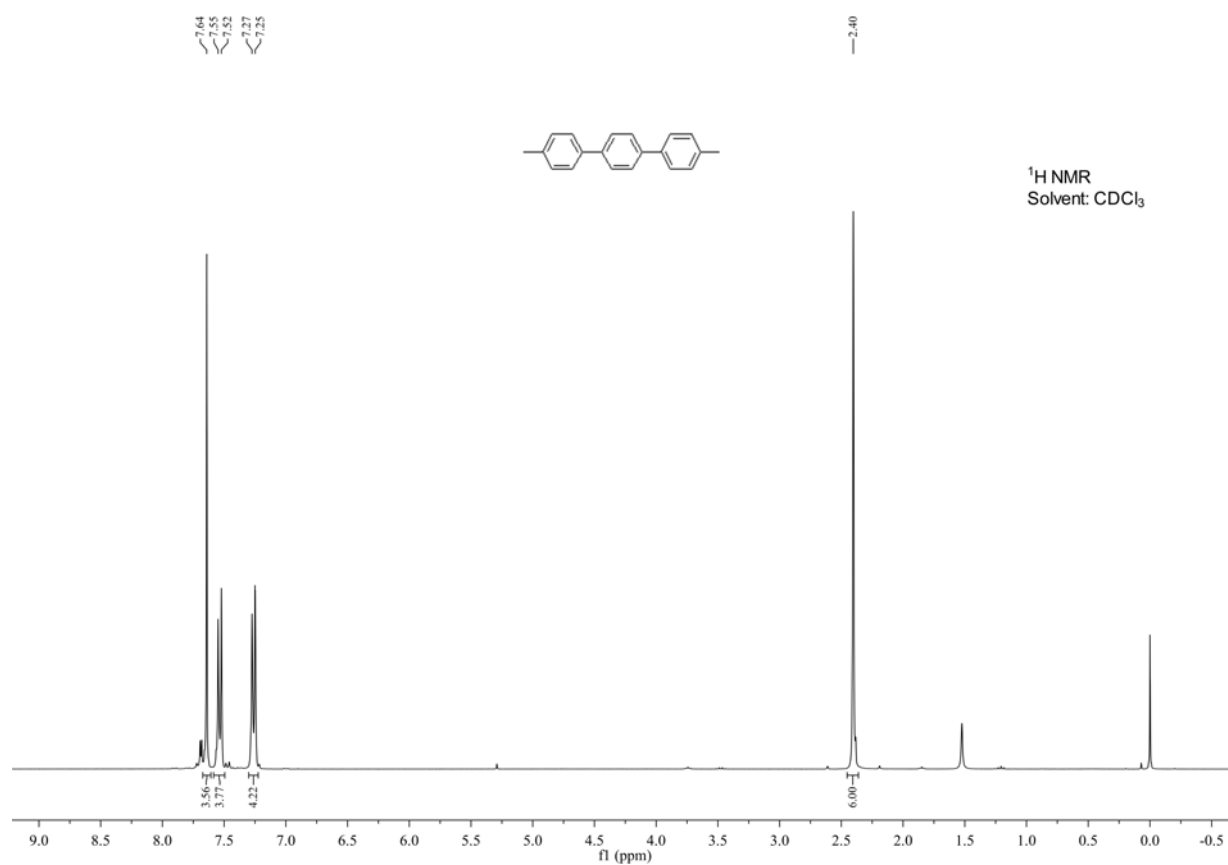
(34) Phenyl(*p*-tolyl)methanone (Table 3, entry 23)



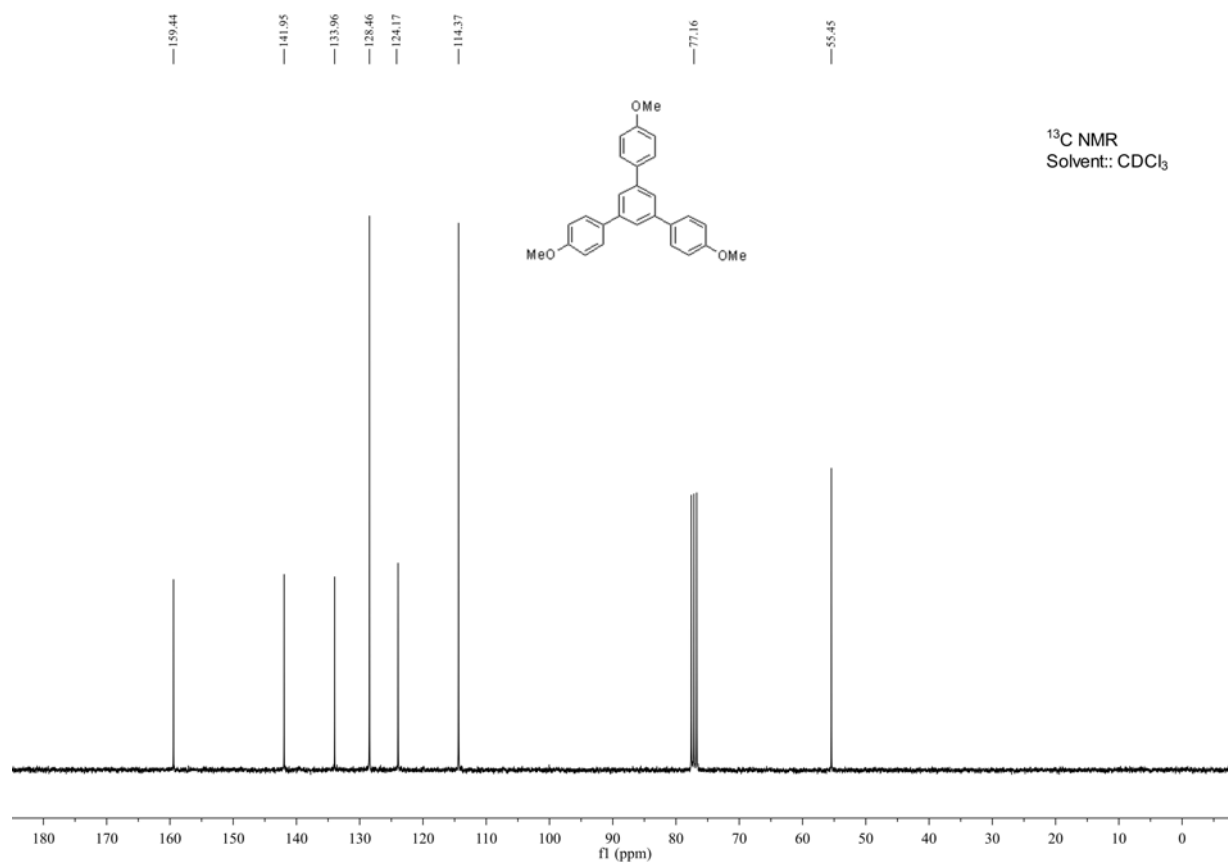
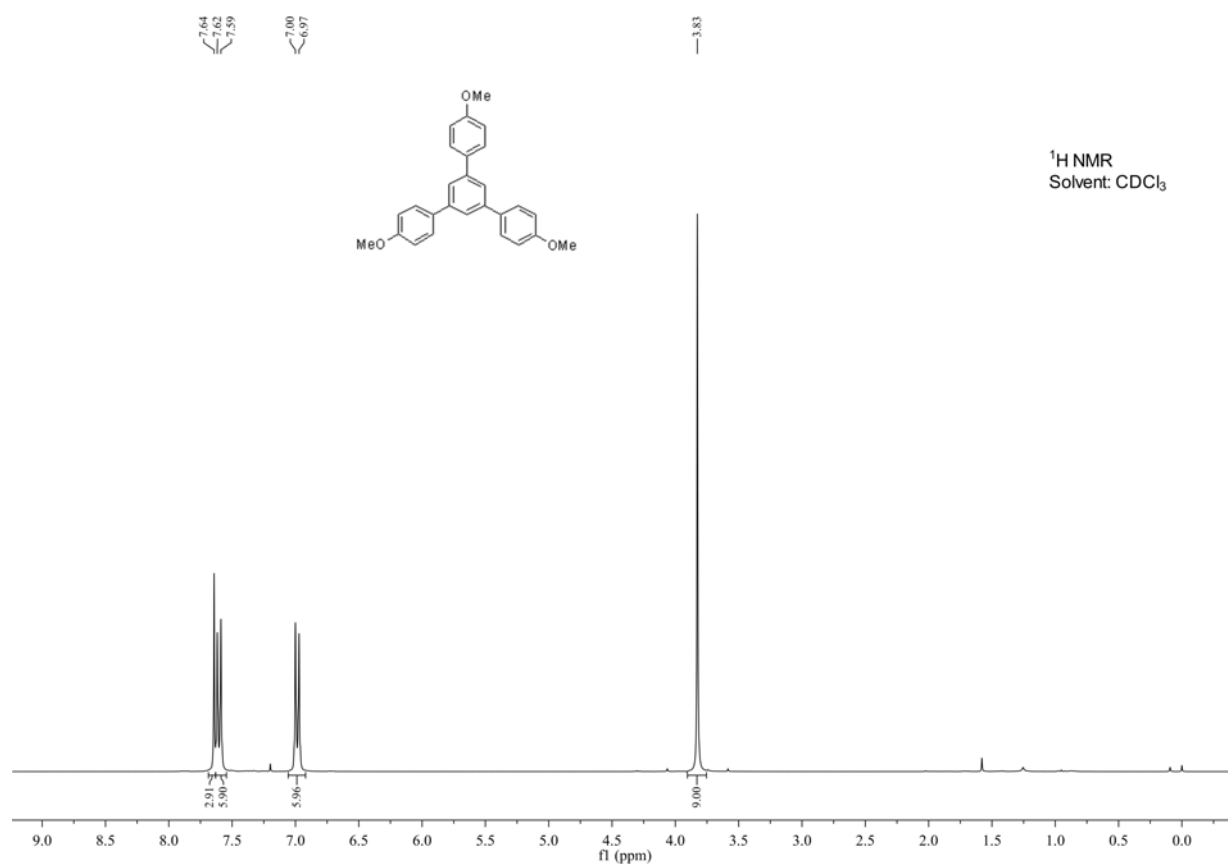
(35) Phenyl(*o*-tolyl)methanone (Table 3, entry 24)



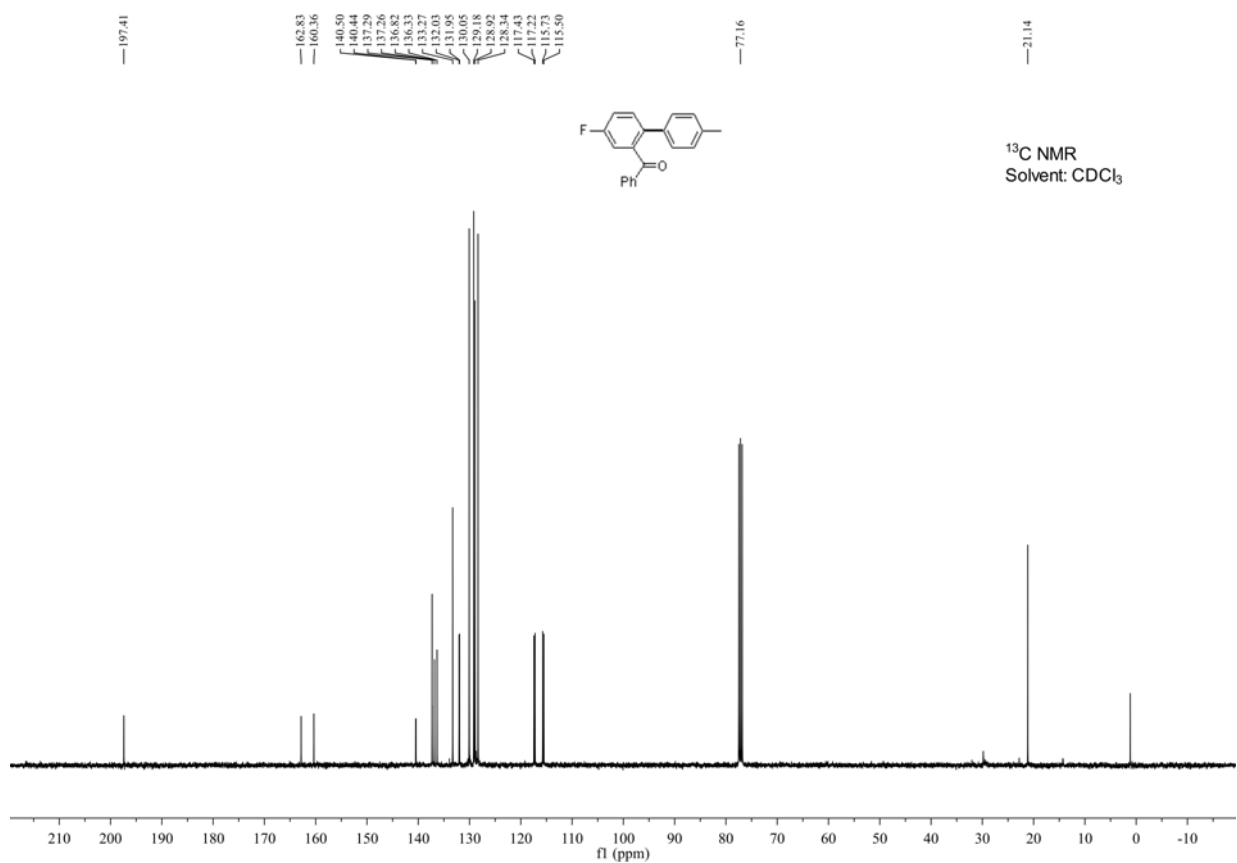
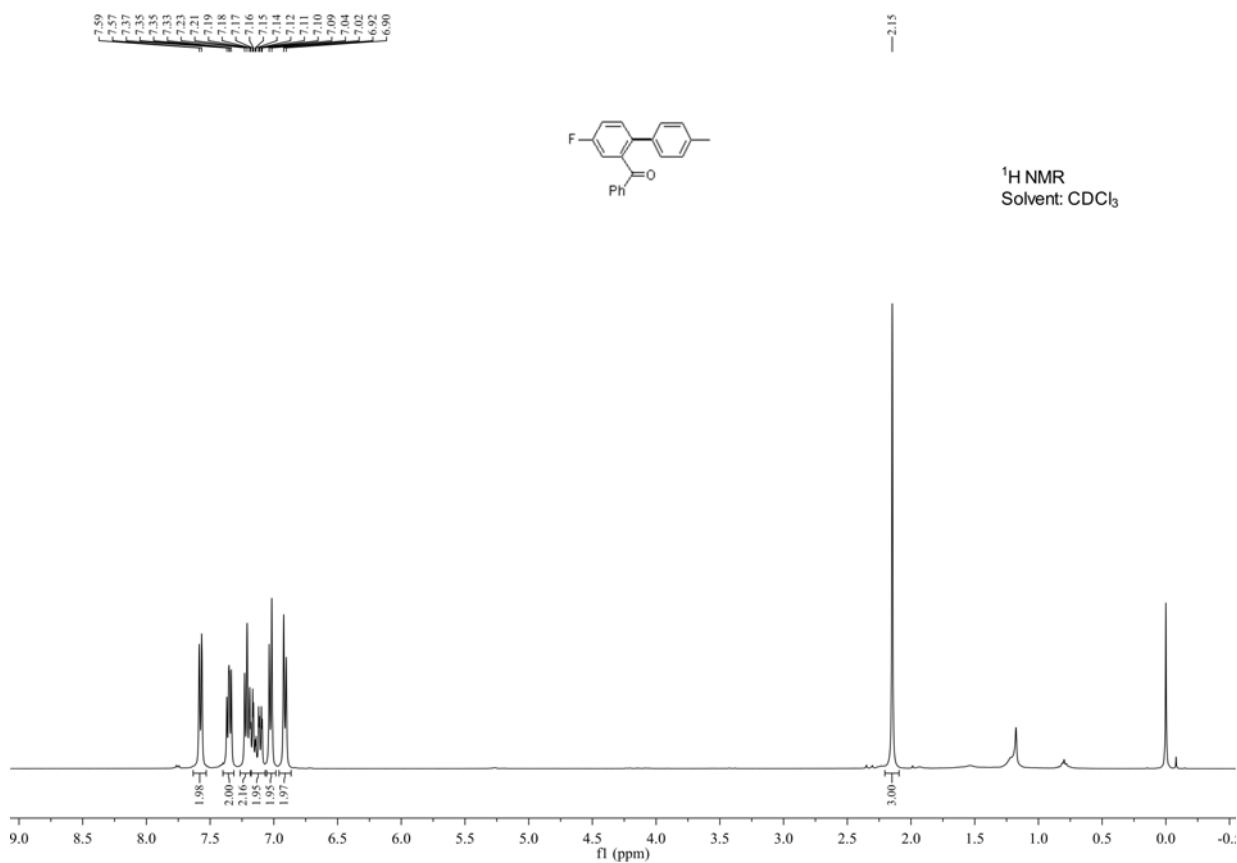
(36) 1,4-bis(*p*-tolyl)benzene (Scheme 1, No. 1)

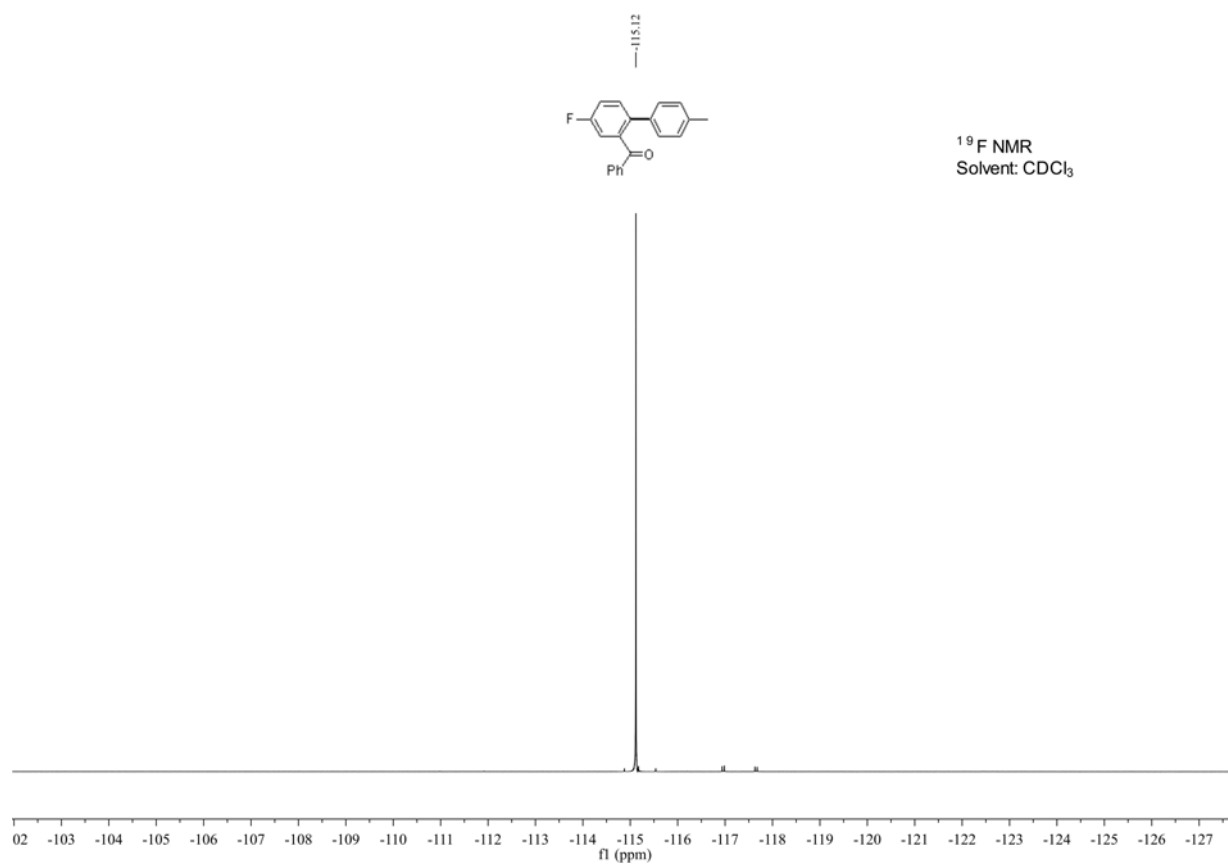


(37) 1,3,5-Tris(4'-methoxyphenyl)benzene (Scheme 1, No. 2)

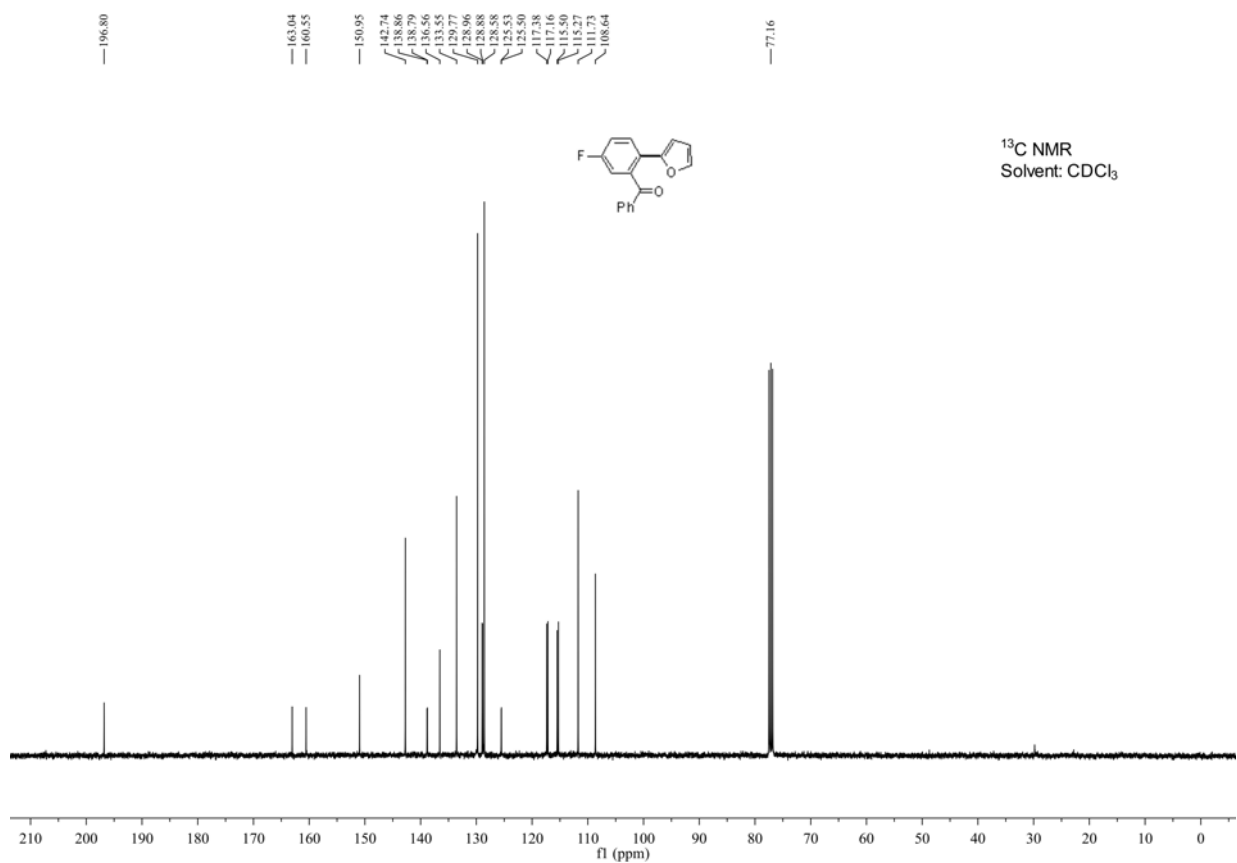
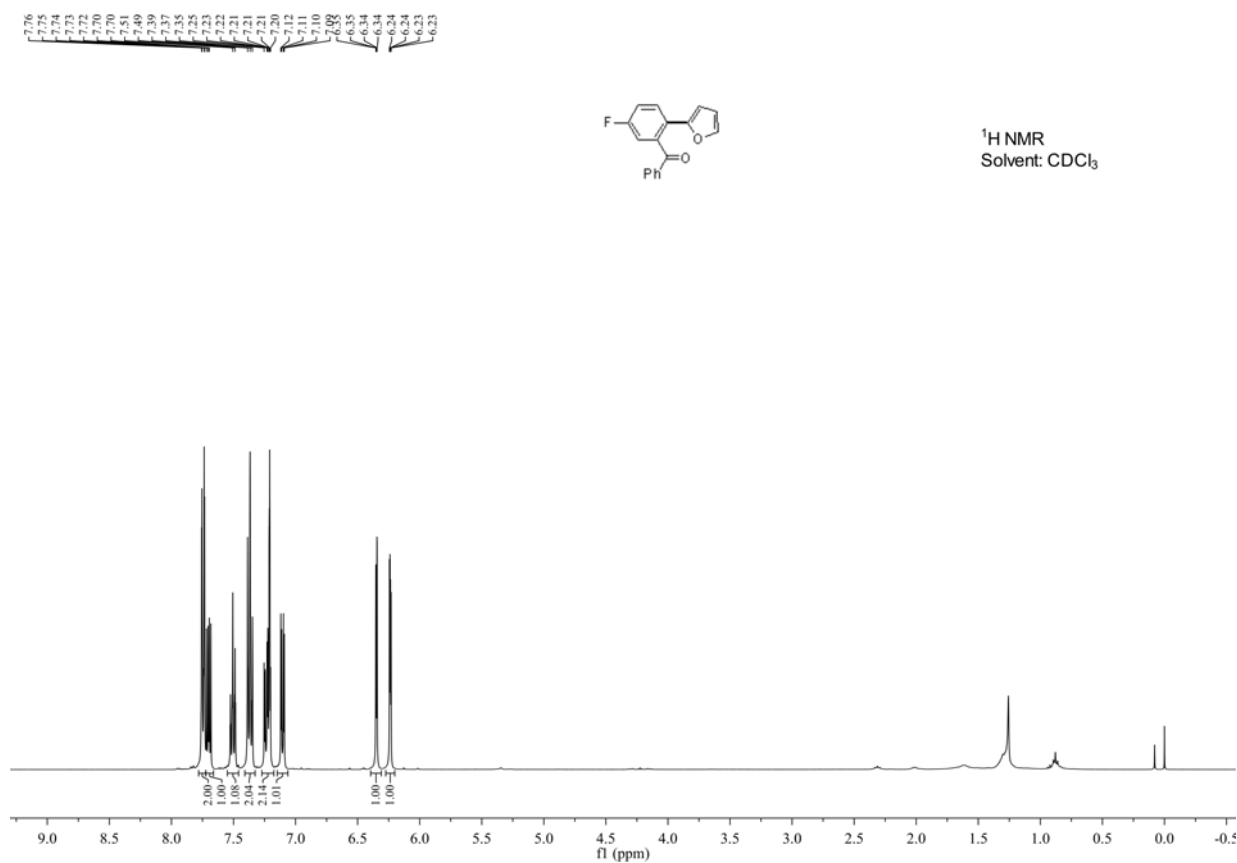


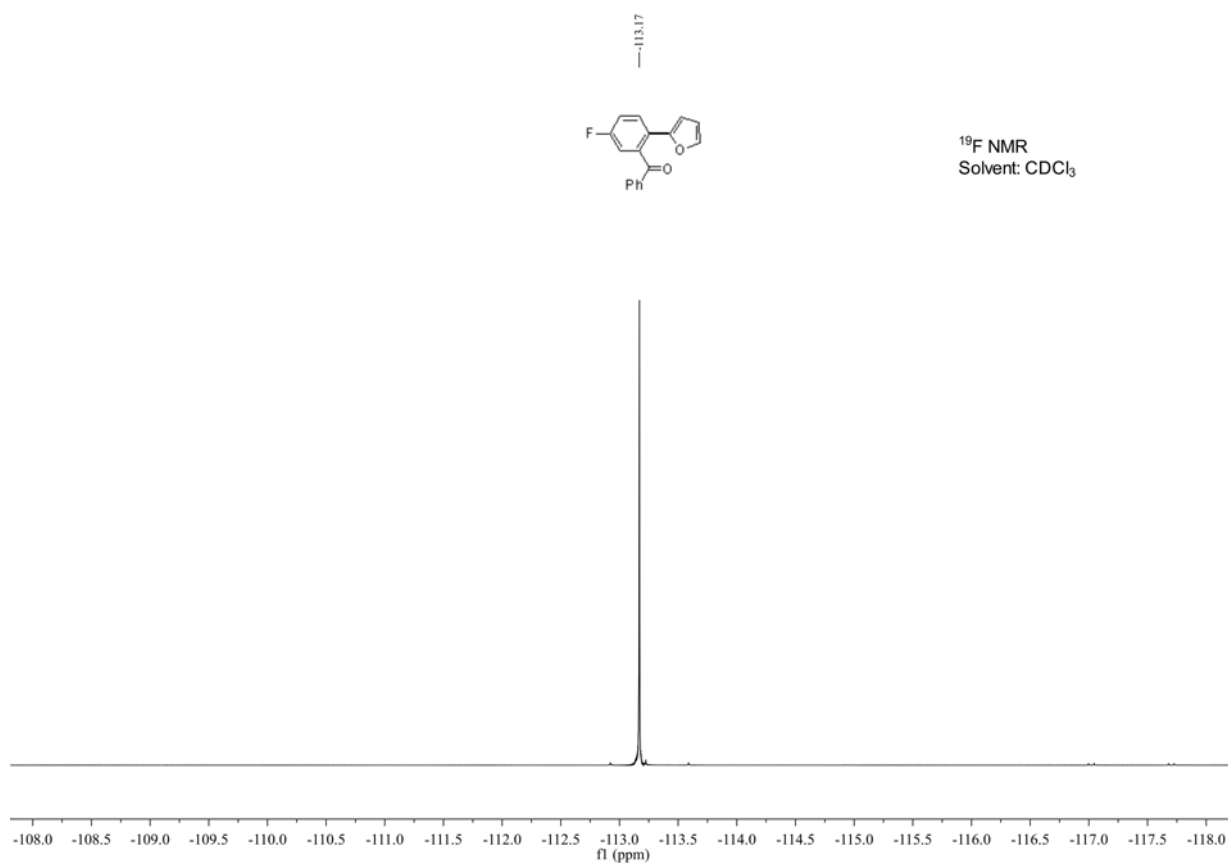
(38) (4-Fluoro-4'-methylbiphenyl-2-yl)(phenyl)methanone (Table 4, entry 1)



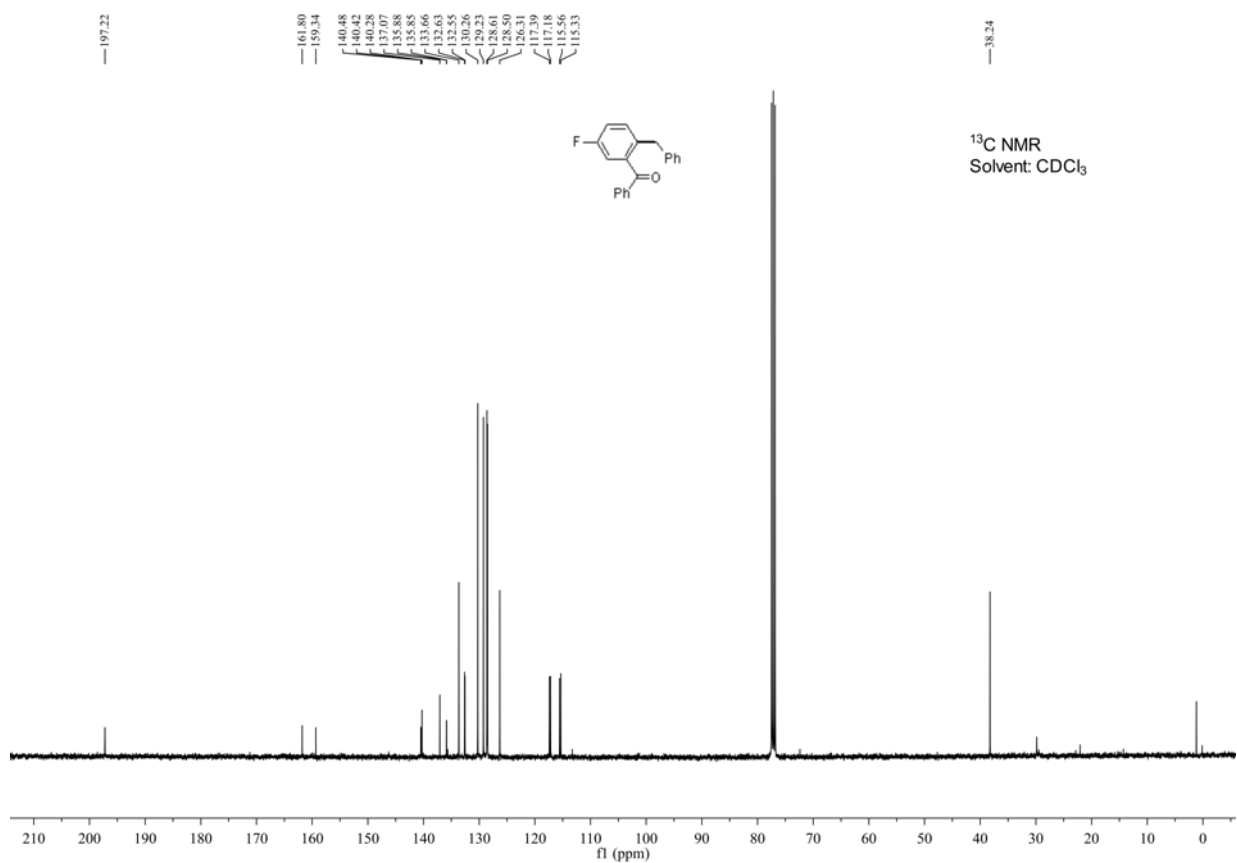
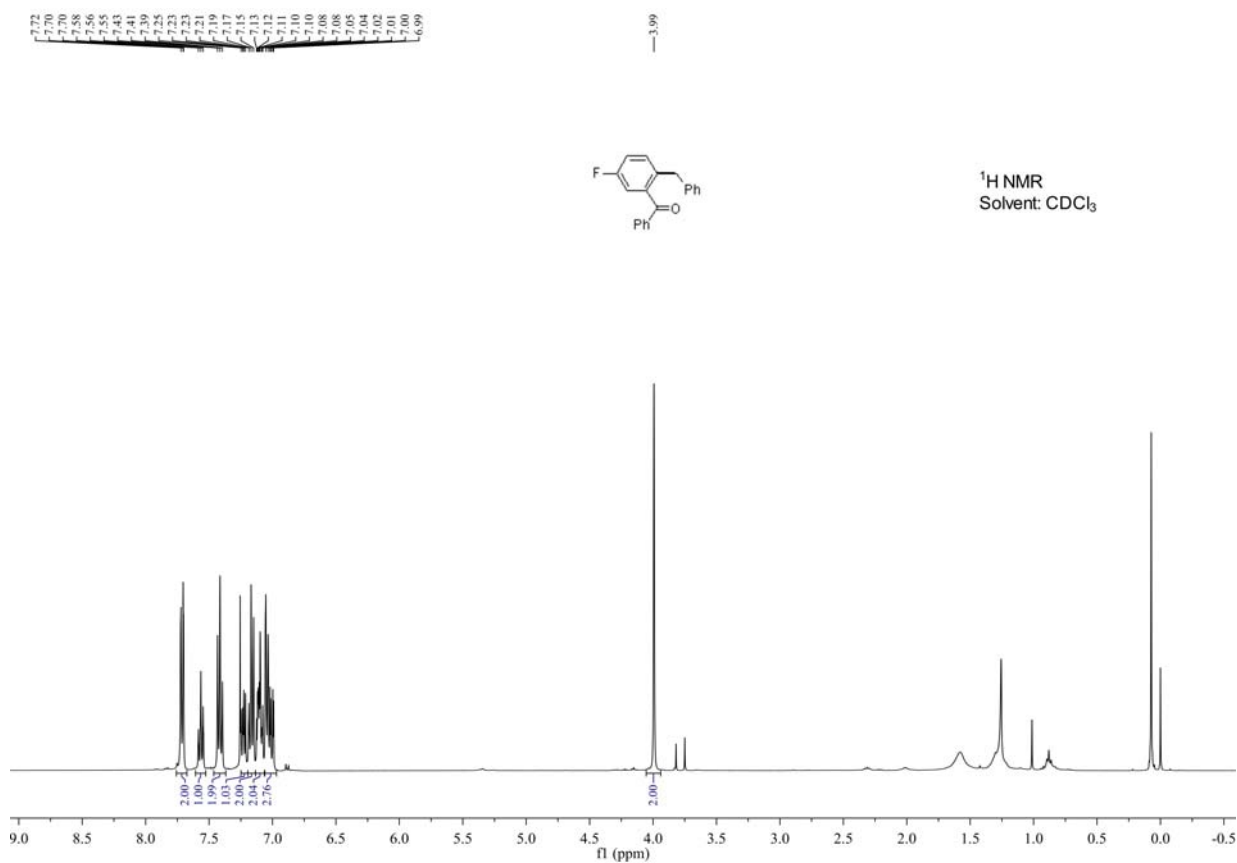


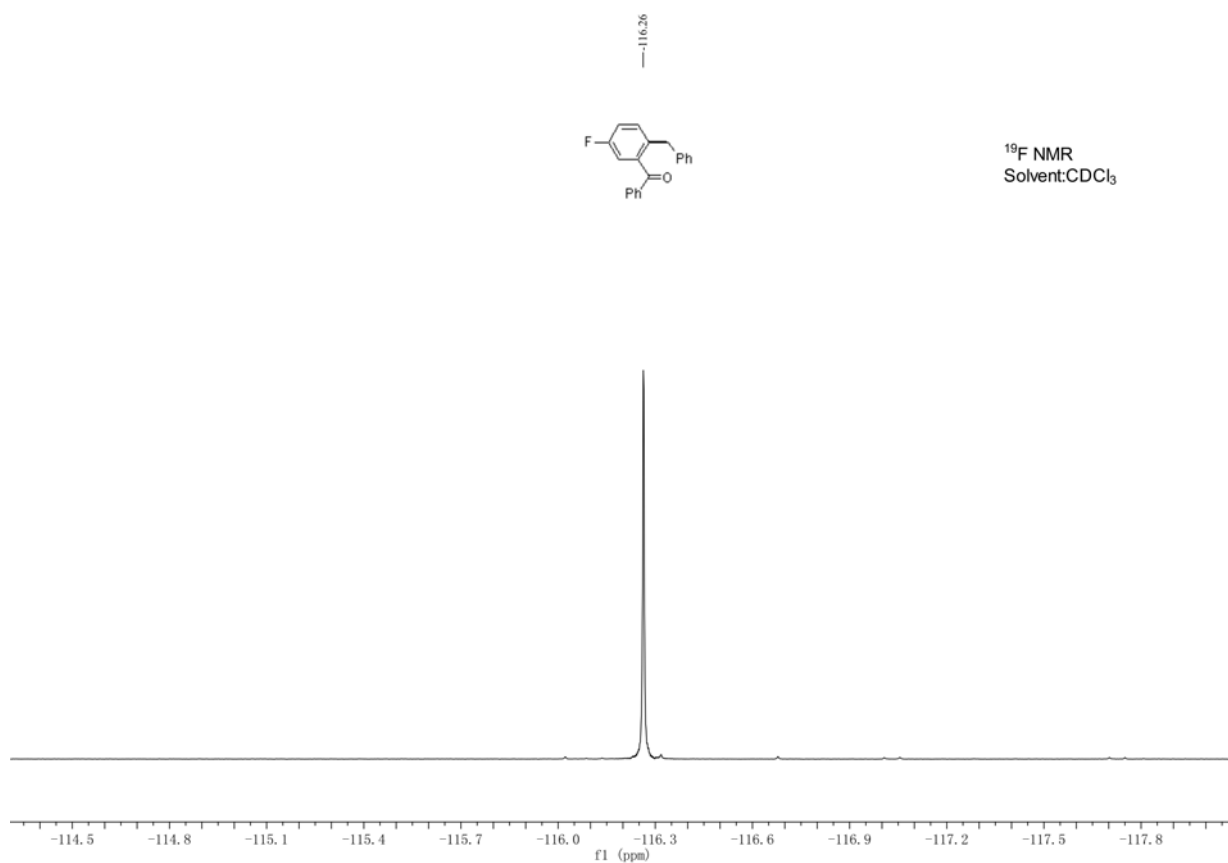
(39) (5-Fluoro-2-(furan-2-yl)phenyl)(phenyl)methanone (Table 4, entry 2)





(40) (2-Benzyl-5-fluorophenyl)(phenyl)methanone (Table 4, entry 4)





(41) *N,N*-Dimethyl-[1,1':4',1''-terphenyl]-4-amine (Scheme 2)

