

Supporting Information for

**Iodine-Catalyzed Thiolation of Electron-Rich Aromatics Using
Sulfonyl Hydrazides as Sulfenylation Reagents**

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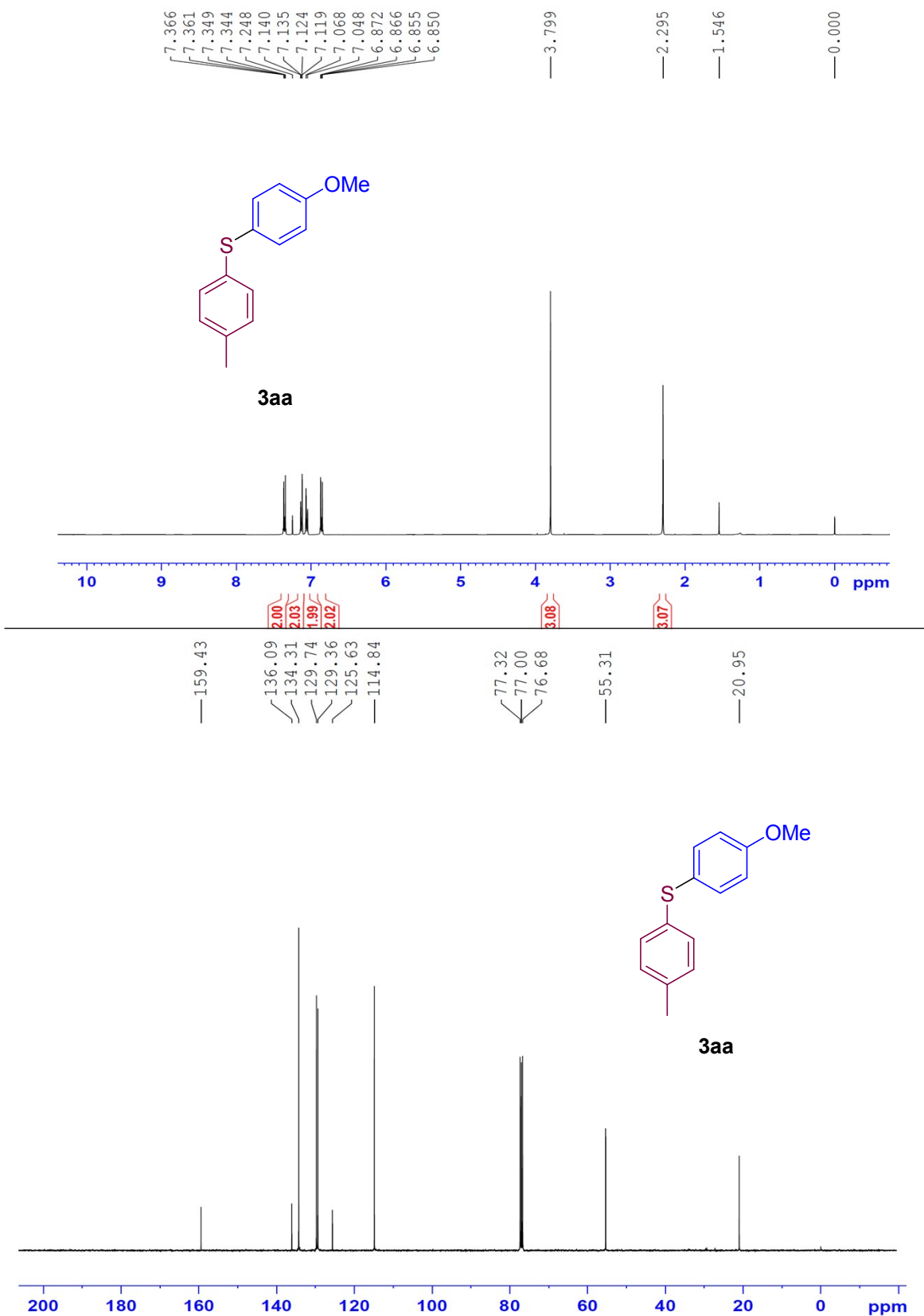
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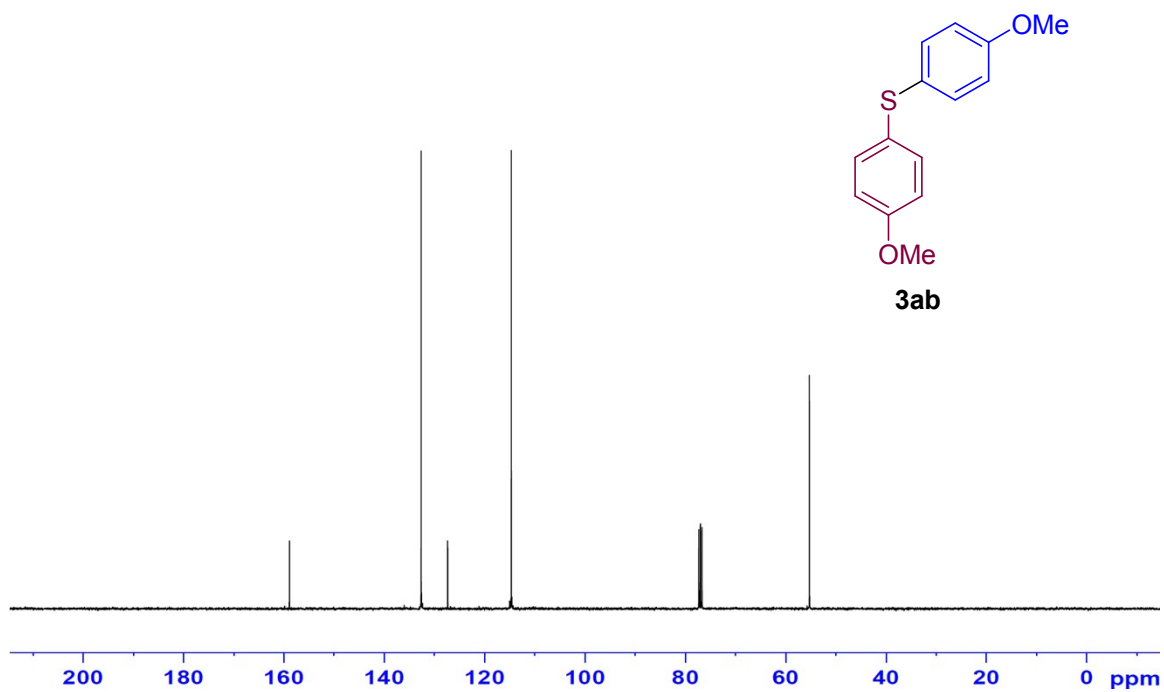
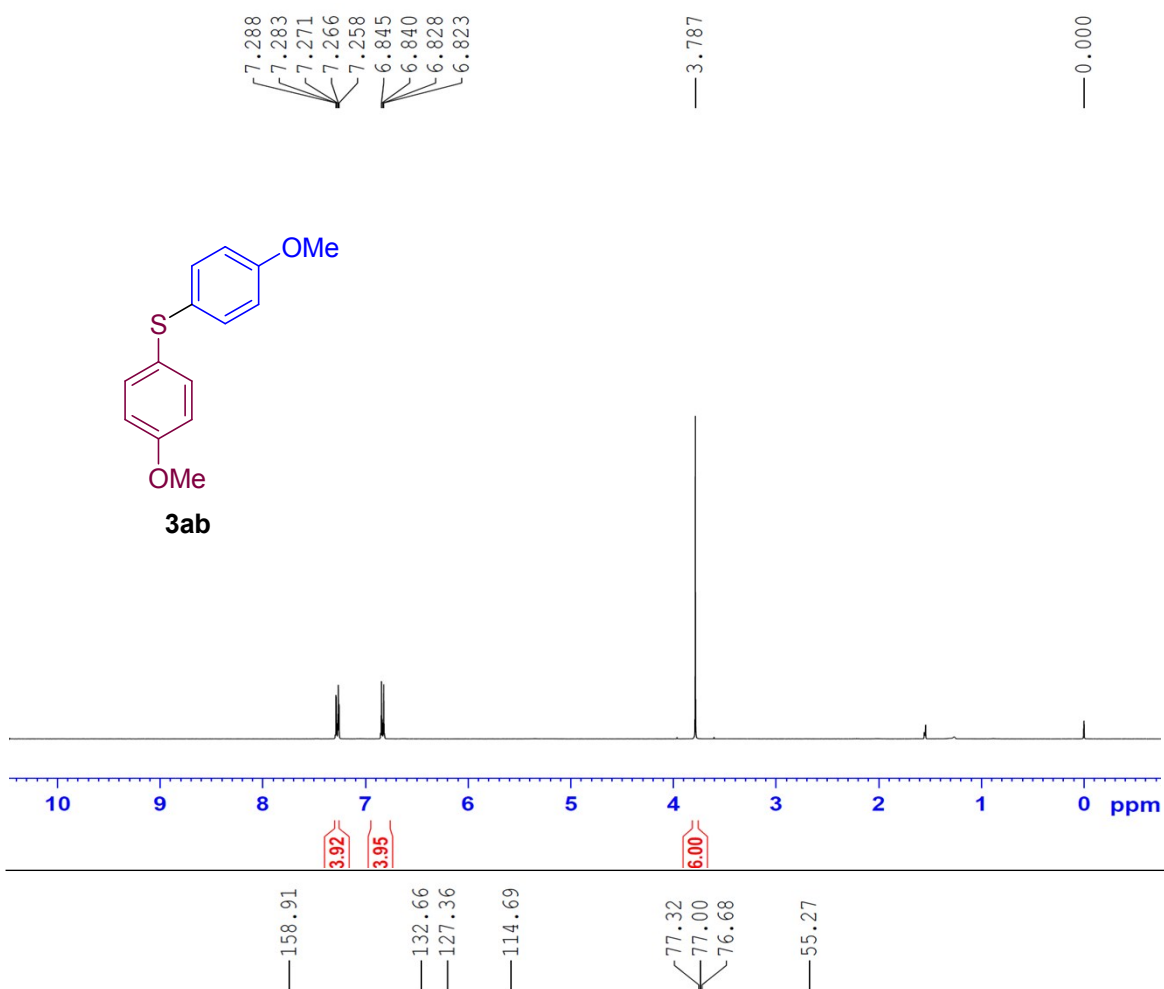
^{*}E-mail: hxyzhx@mail.tjnu.edu.cn; lukui@tust.edu.cn

The spectrum of thioethers

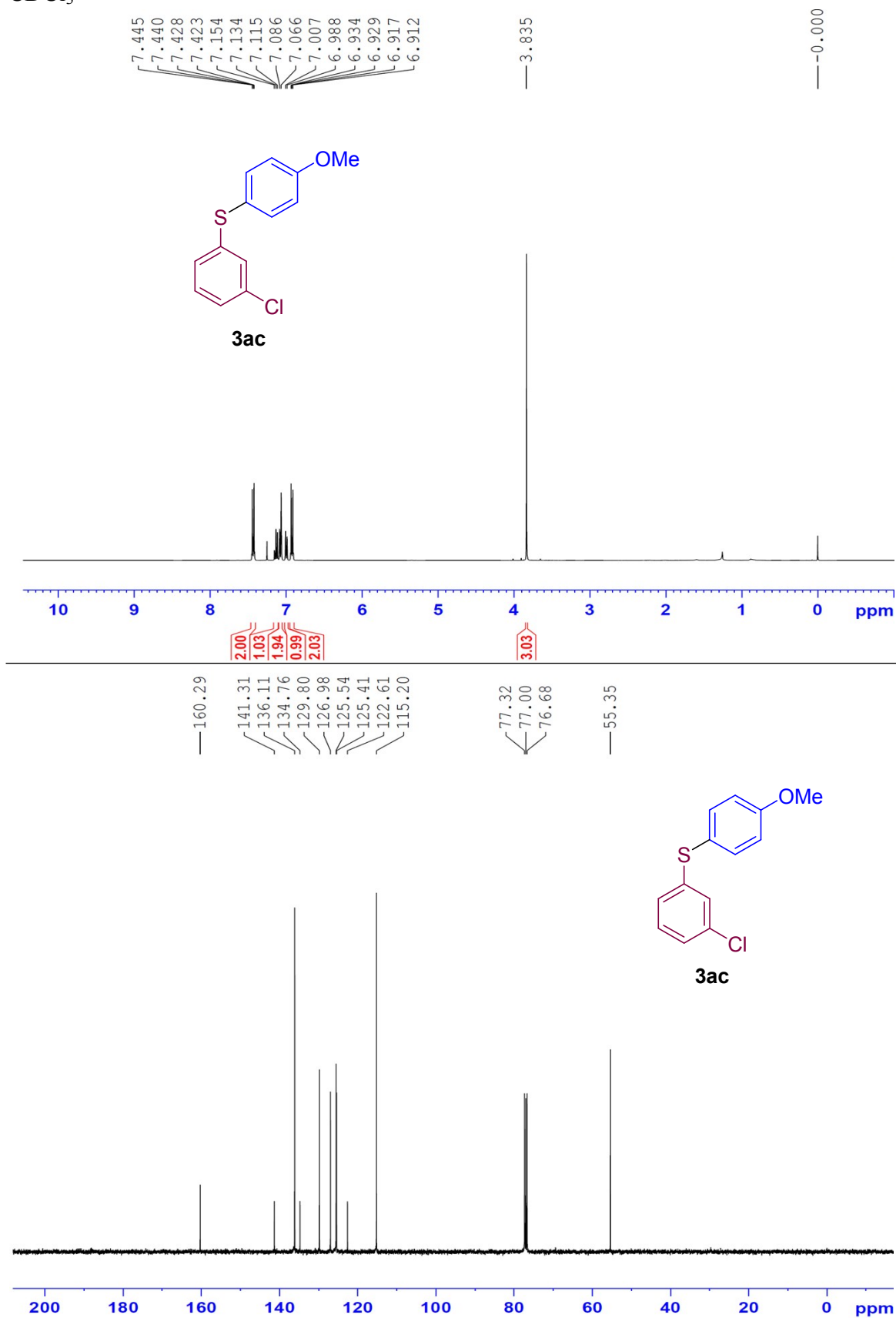
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (4-methoxyphenyl)(p-tolyl)sulfane (3aa) in CDCl_3



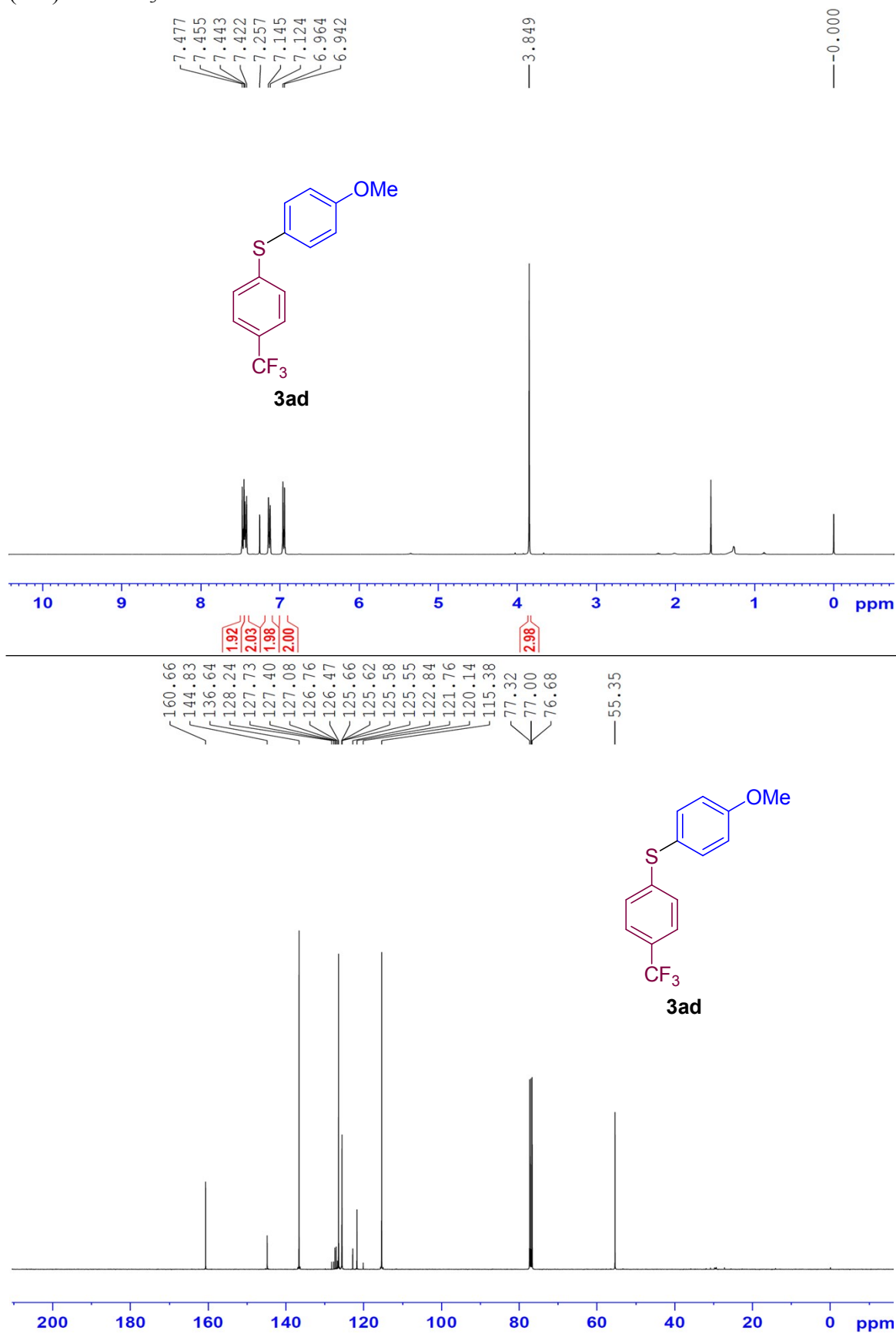
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of bis(4-methoxyphenyl)sulfane (3ab) in CDCl_3



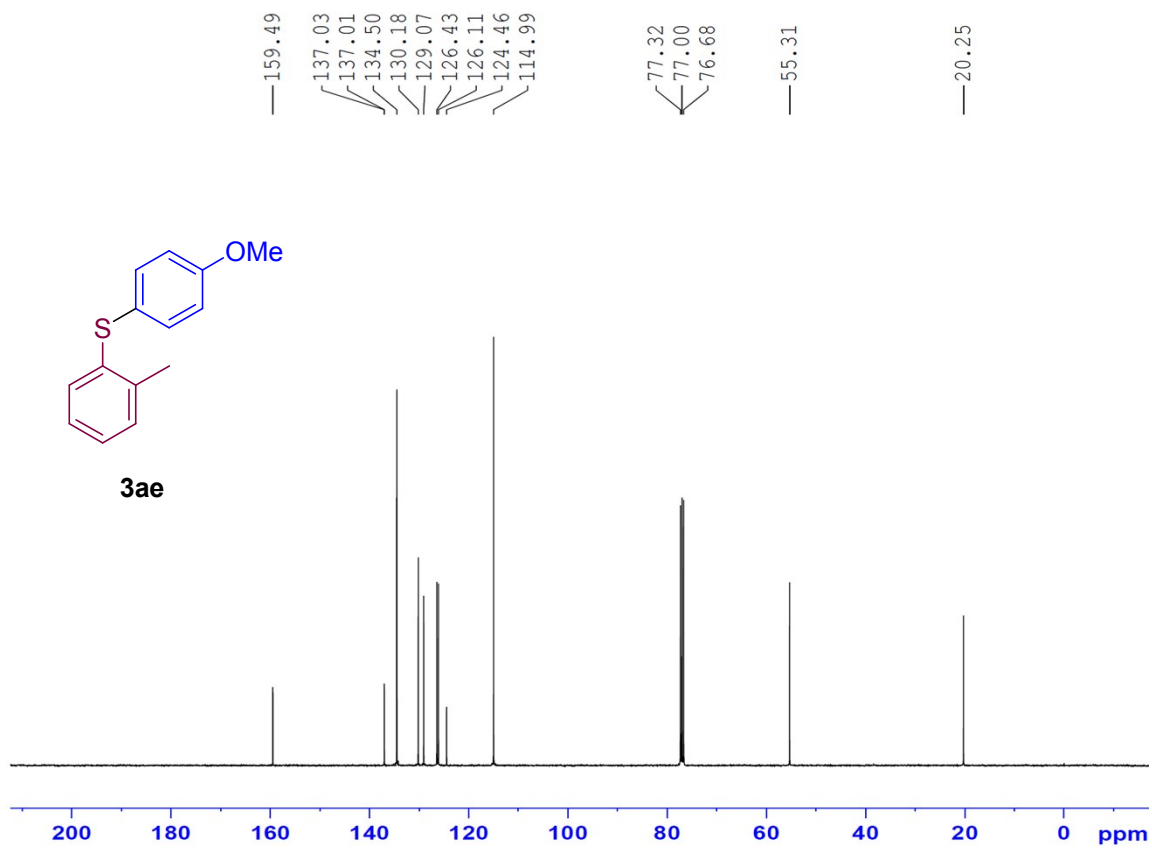
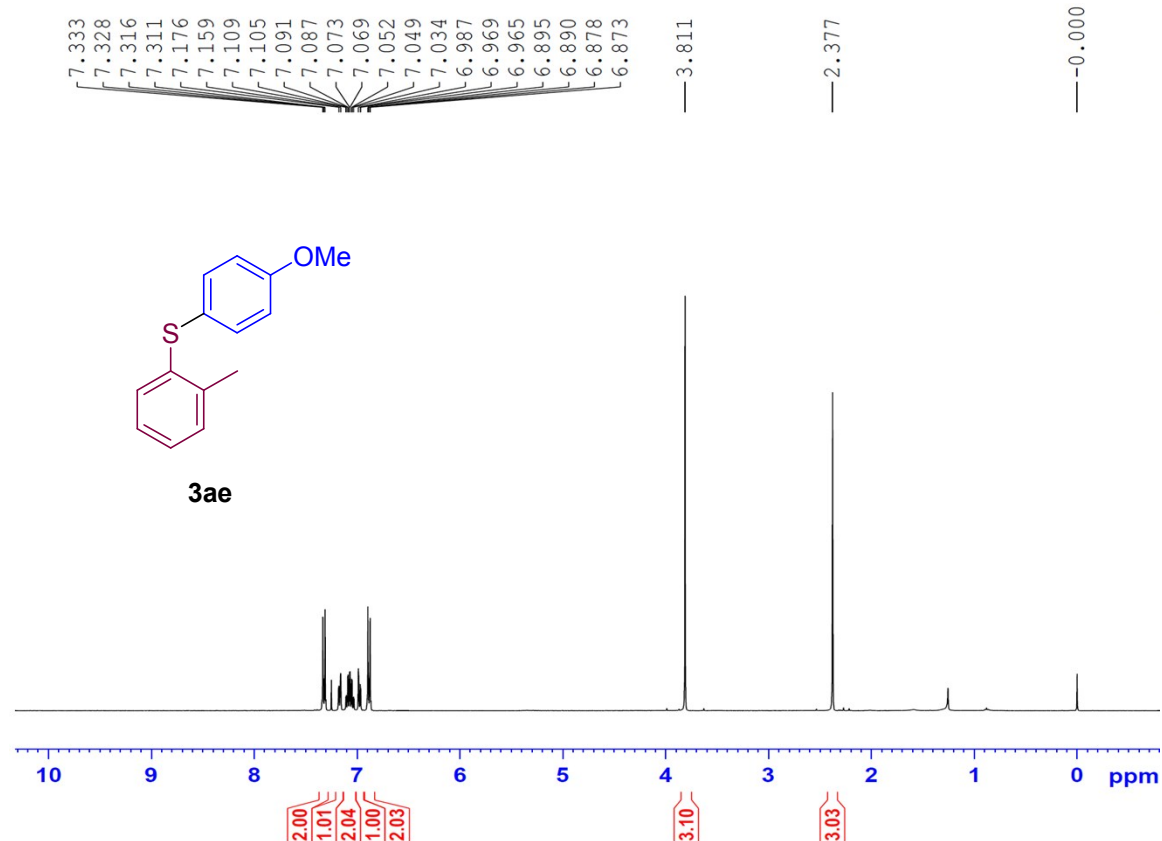
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (3-chlorophenyl)(4-methoxyphenyl)sulfane (**3ac**) in CDCl_3



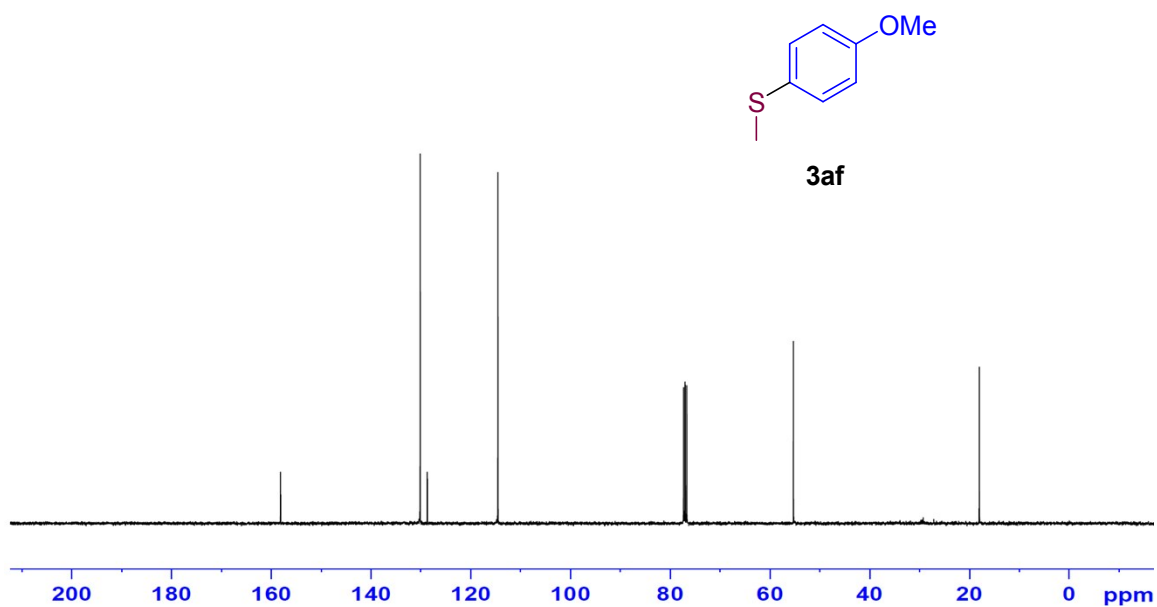
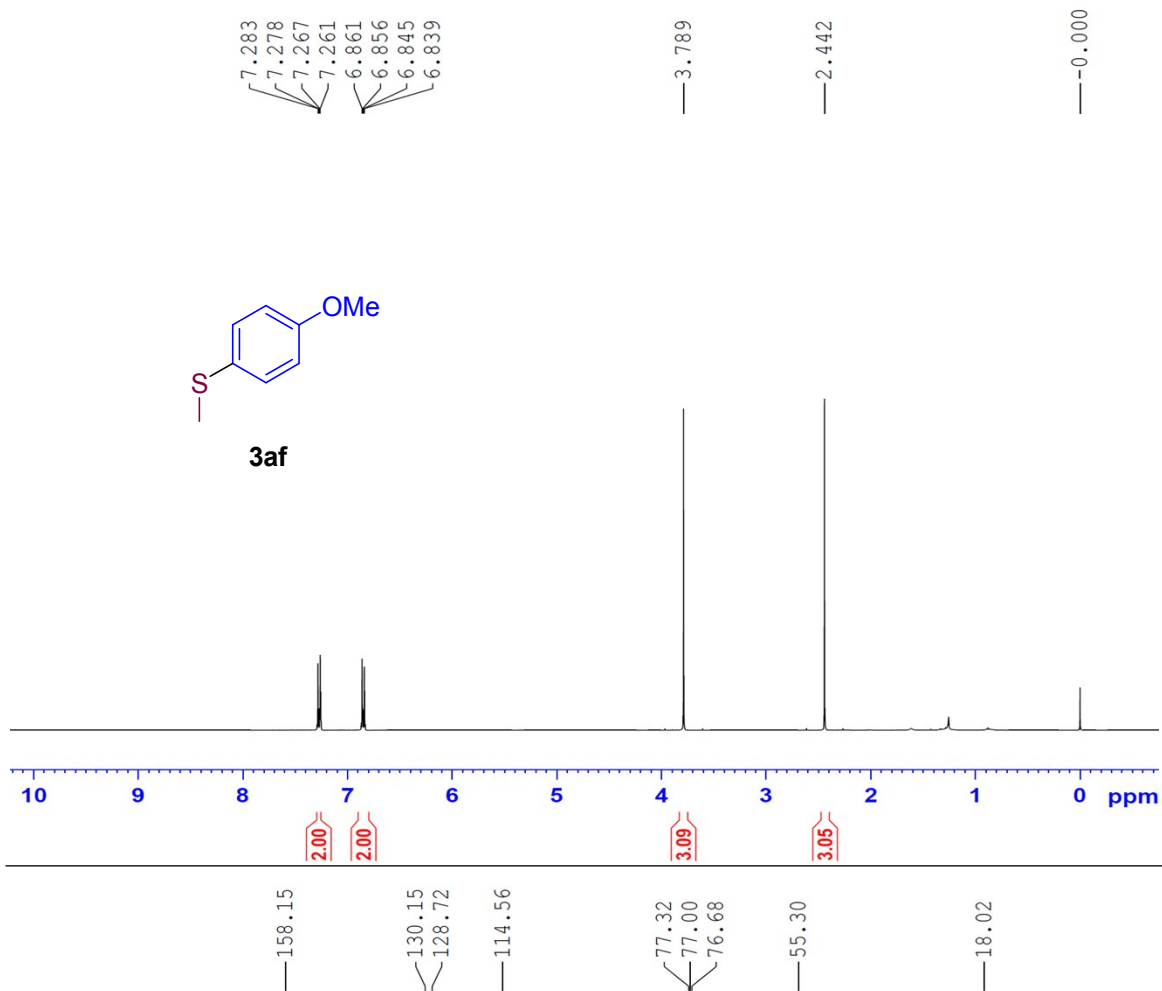
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (4-methoxyphenyl)(4-(trifluoromethyl)phenyl)sulfane (3ad) in CDCl_3



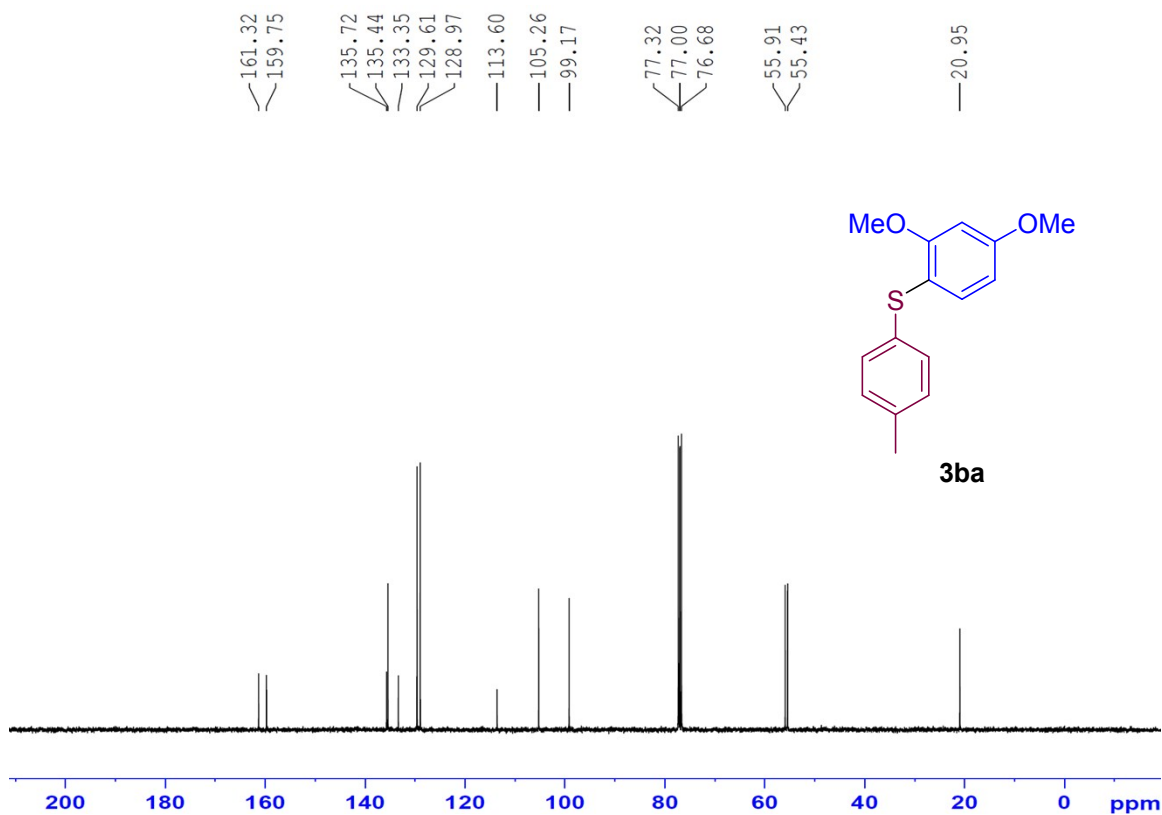
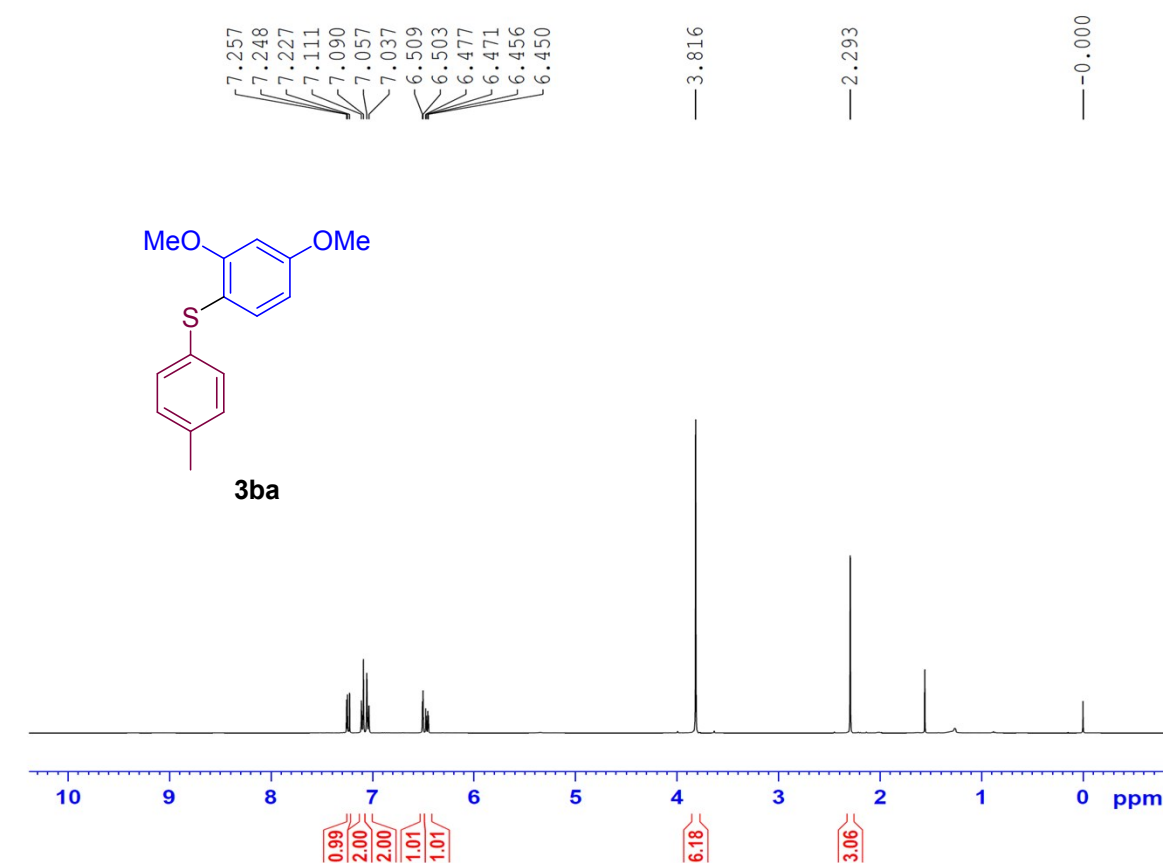
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (4-methoxyphenyl)(o-tolyl)sulfane (3ae) in CDCl_3



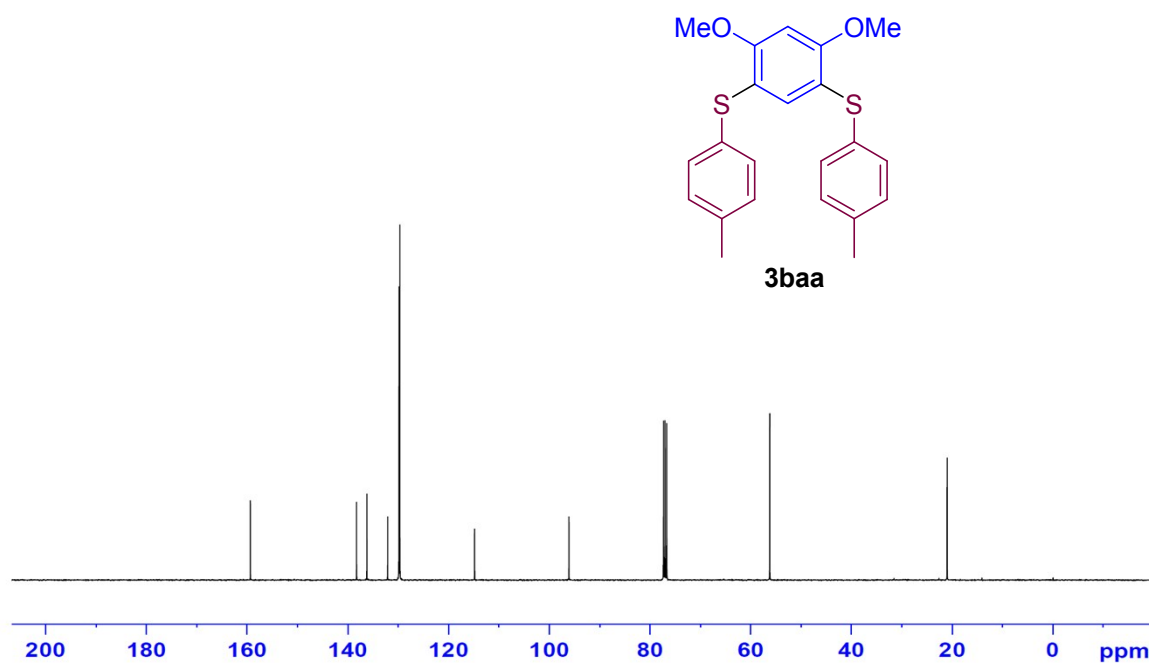
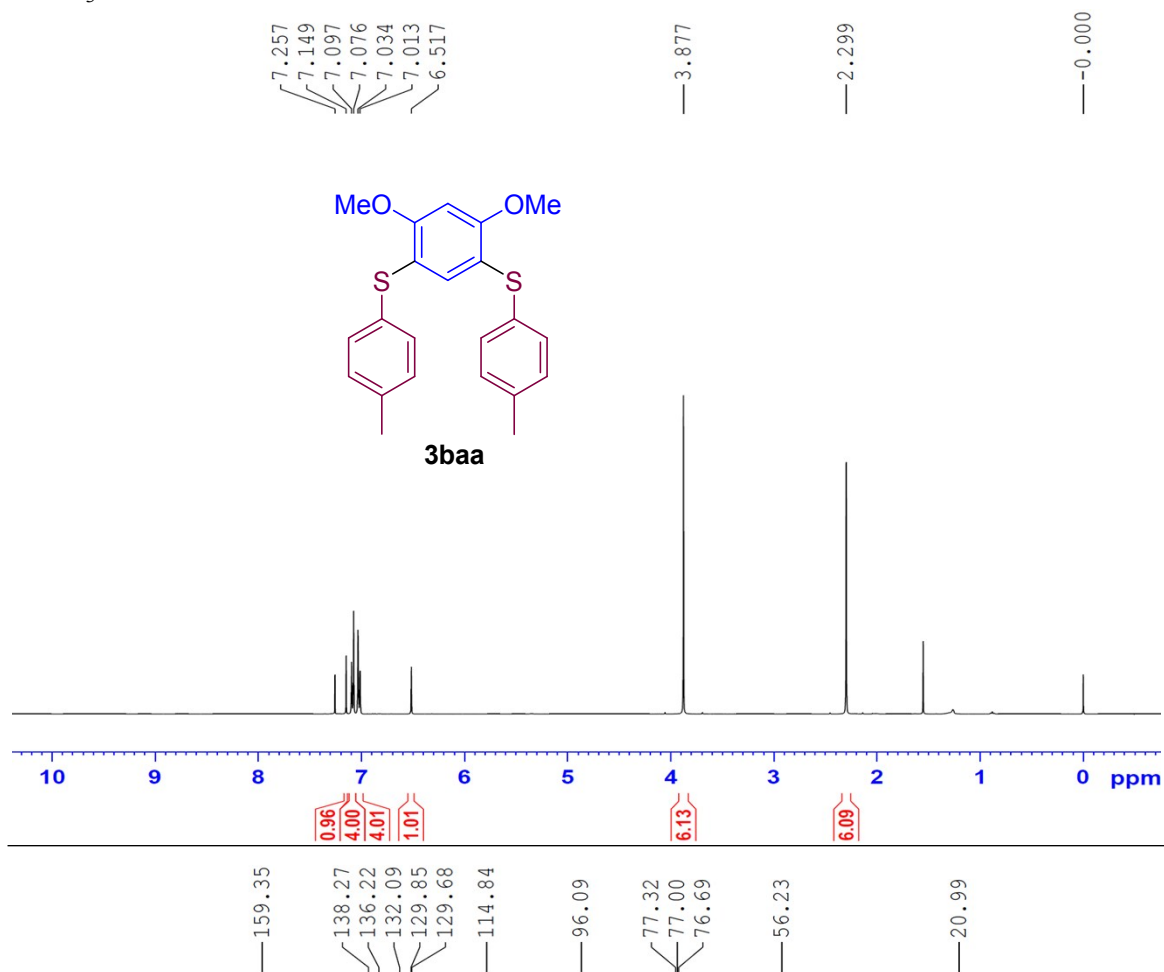
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (4-methoxyphenyl)(methyl)sulfane (3af) in CDCl_3



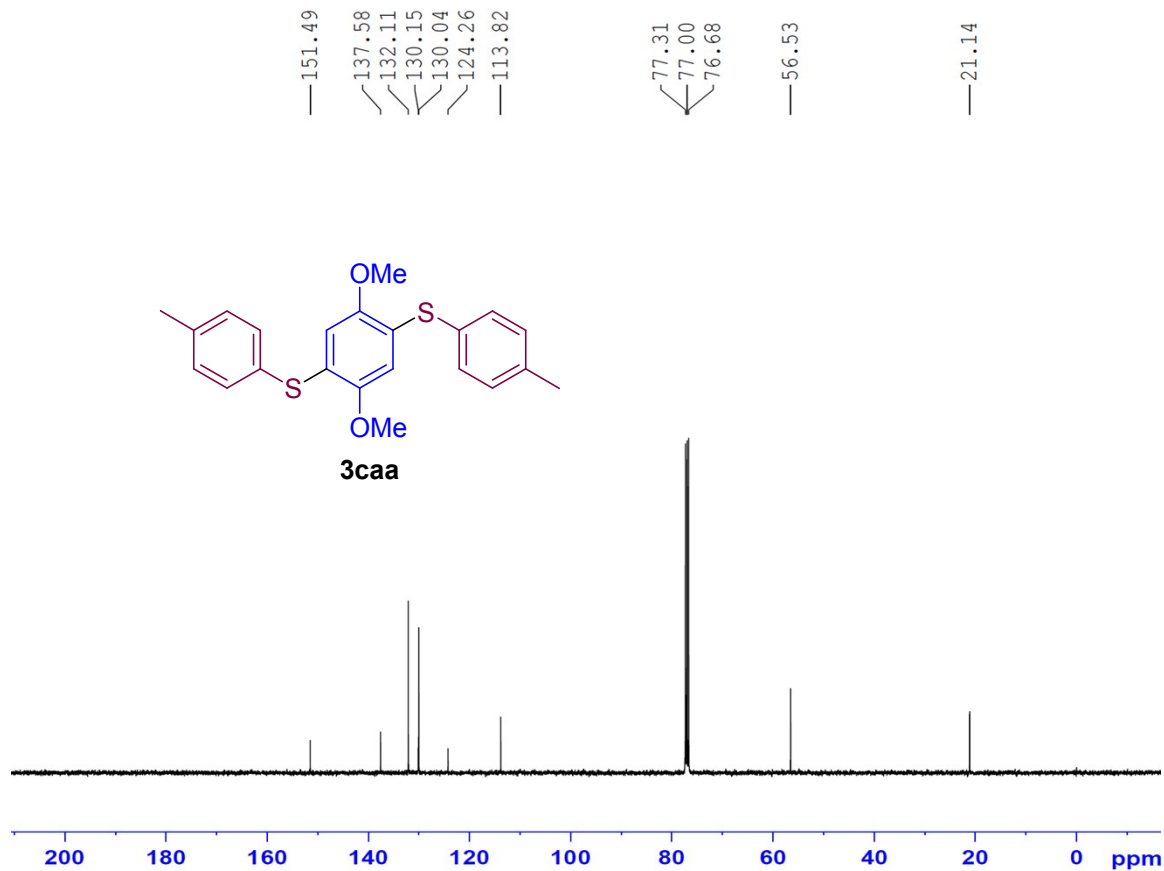
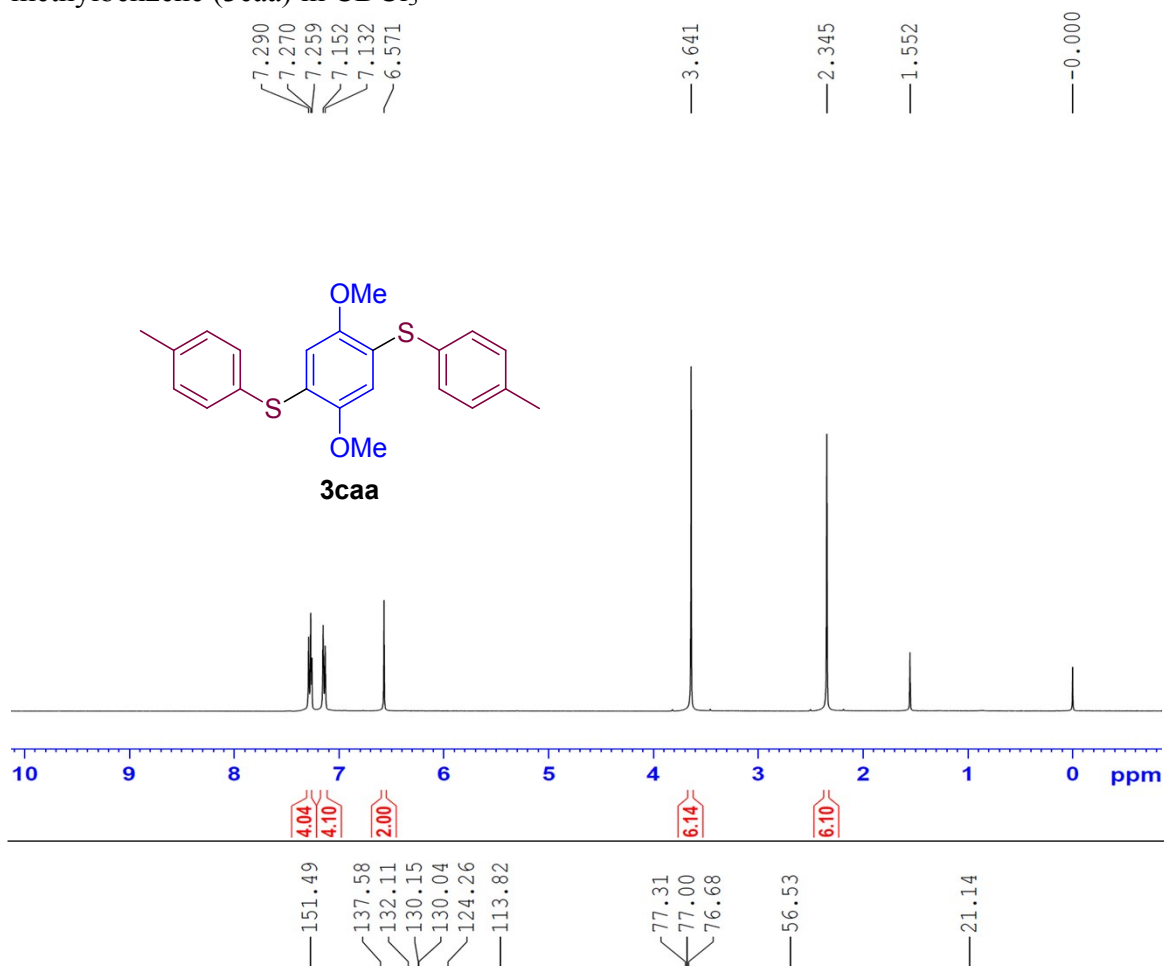
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (2,4-dimethoxyphenyl)(p-tolyl)sulfane (3ba) in CDCl_3



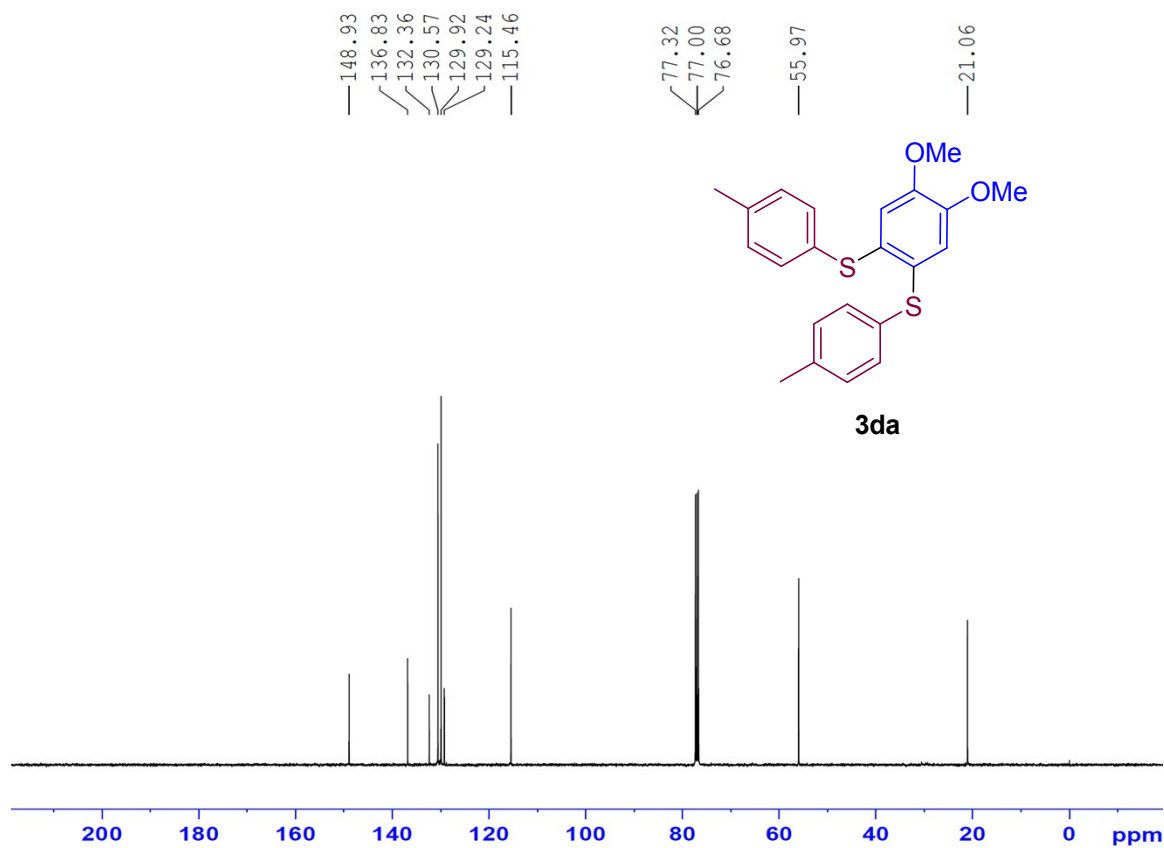
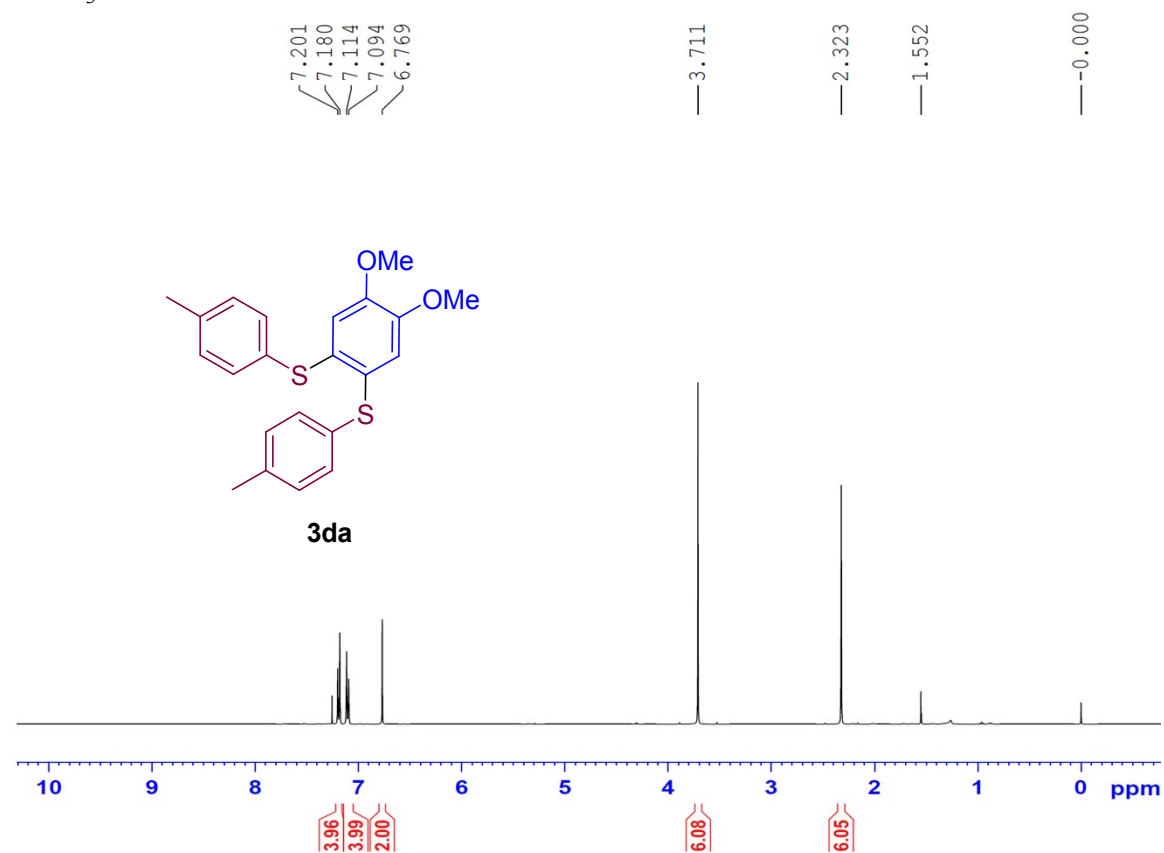
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,5-dimethoxy-2,4-bis(p-tolylthio)benzene (**3baa**) in CDCl_3



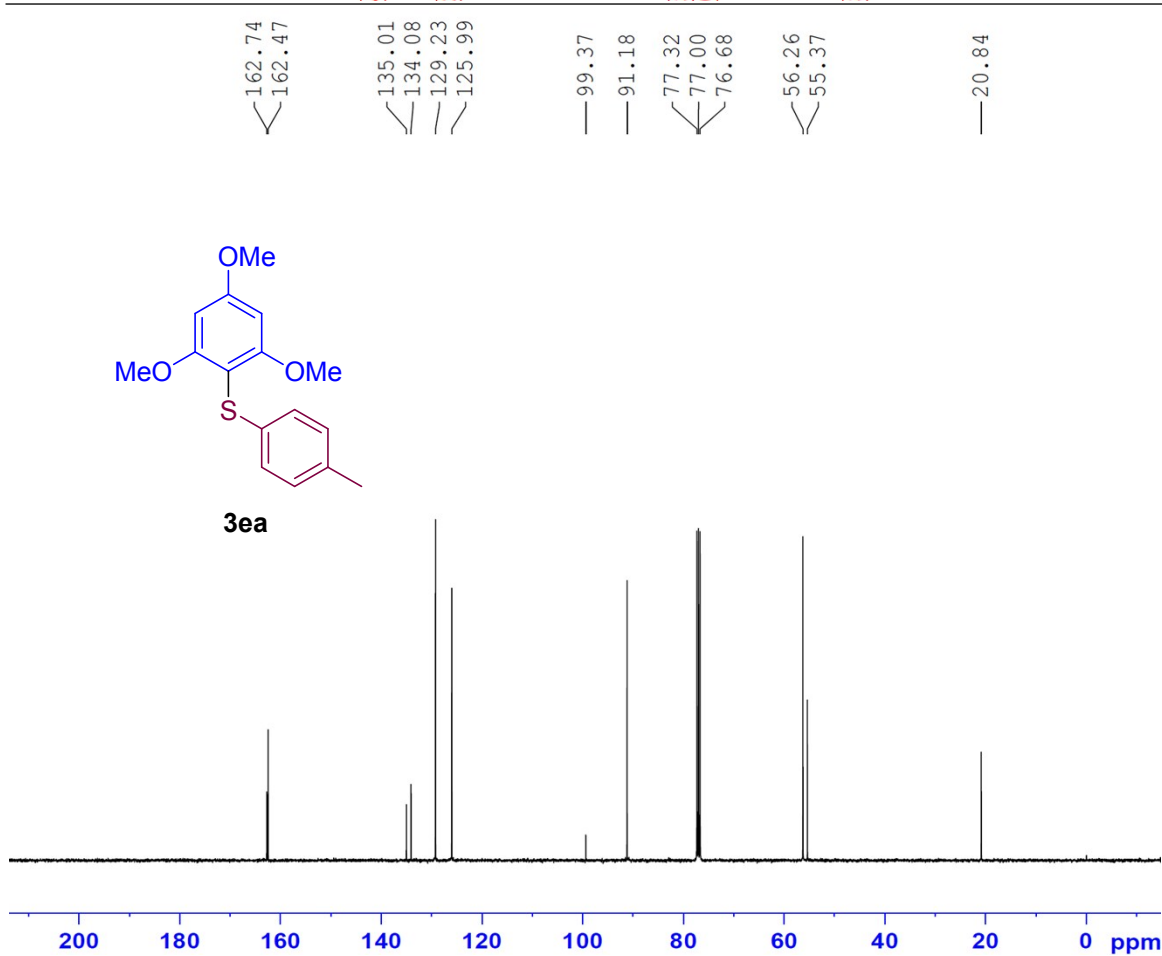
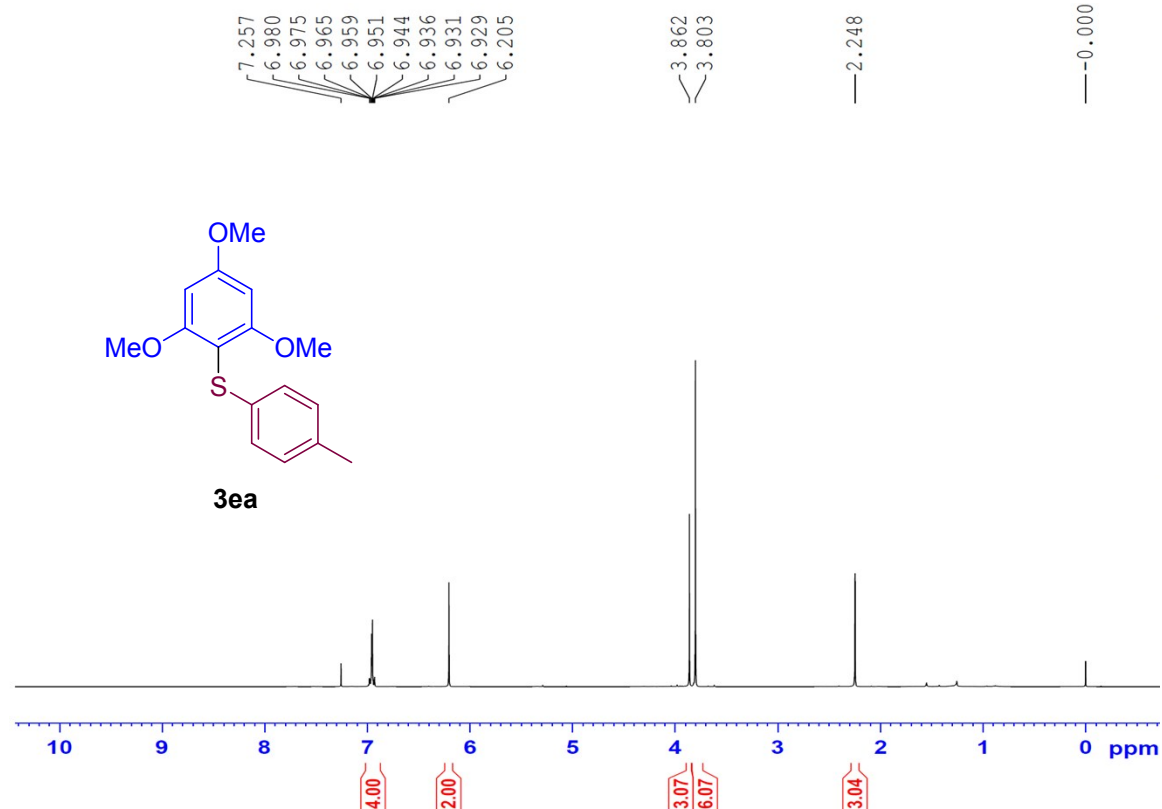
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1-(2,5-dimethoxy-4-(p-tolylthio)phenylthio)-4-methylbenzene (3caa) in CDCl_3



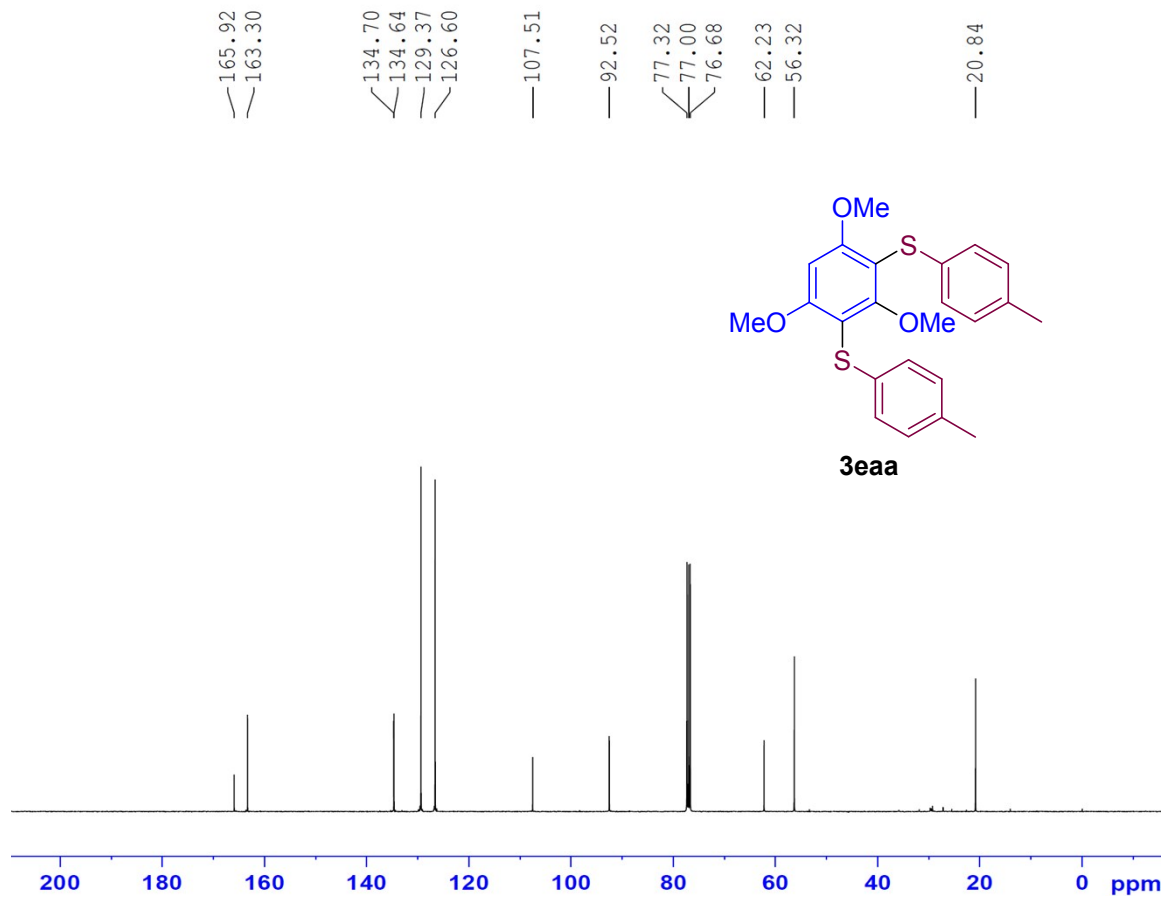
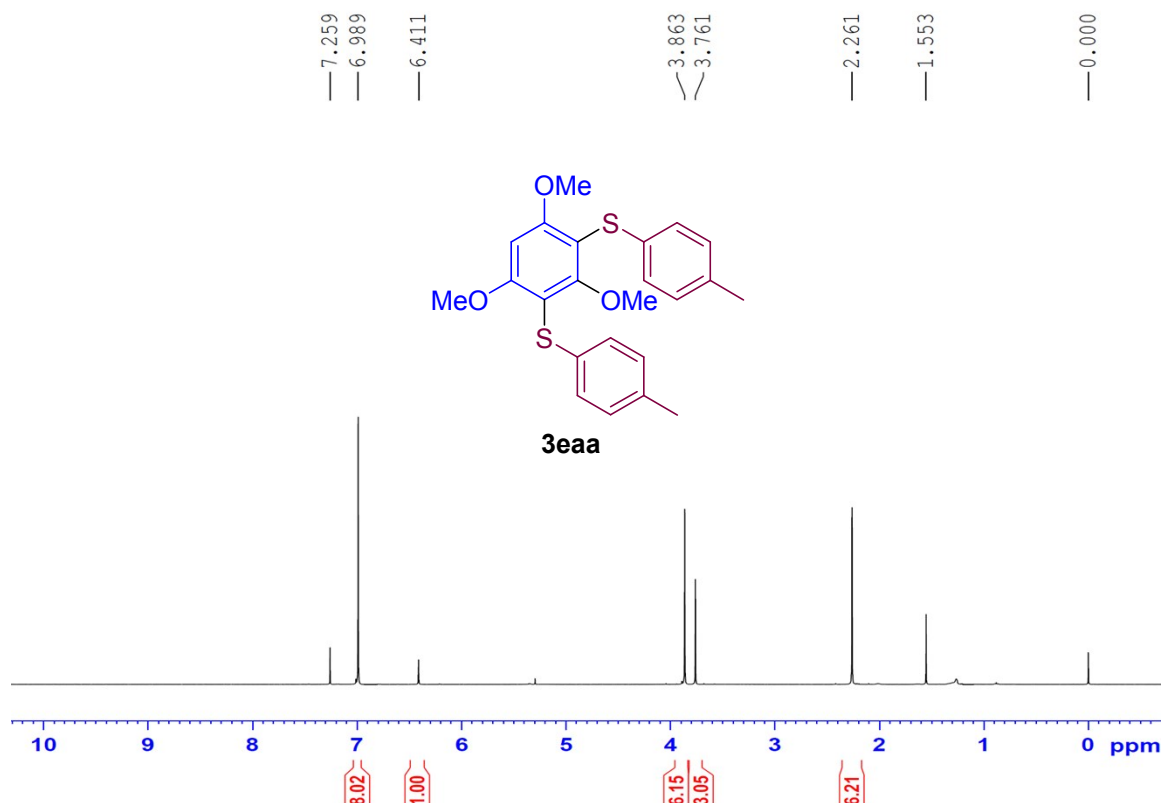
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,2-dimethoxy-4,5-bis(p-tolylthio)benzene (3da) in CDCl_3



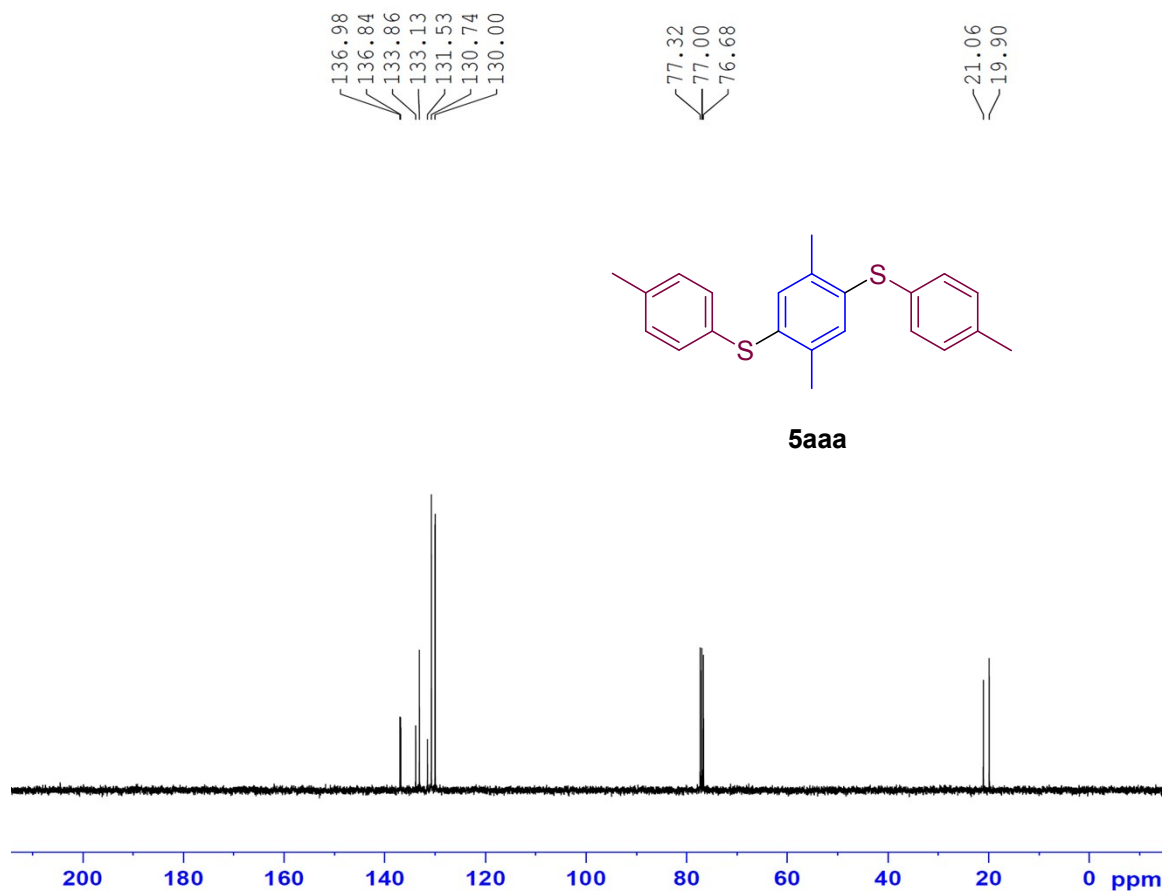
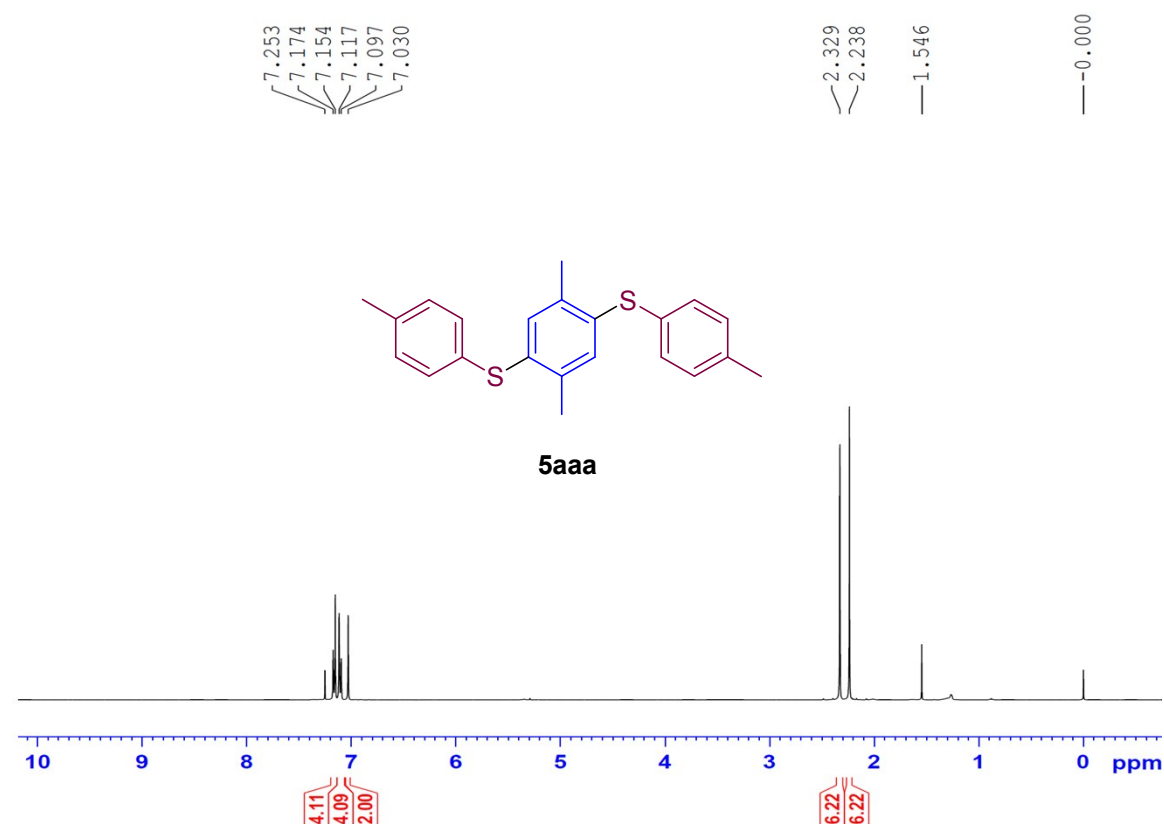
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of p-tolyl(2,4,6-trimethoxyphenyl)sulfane (3ea) in CDCl_3



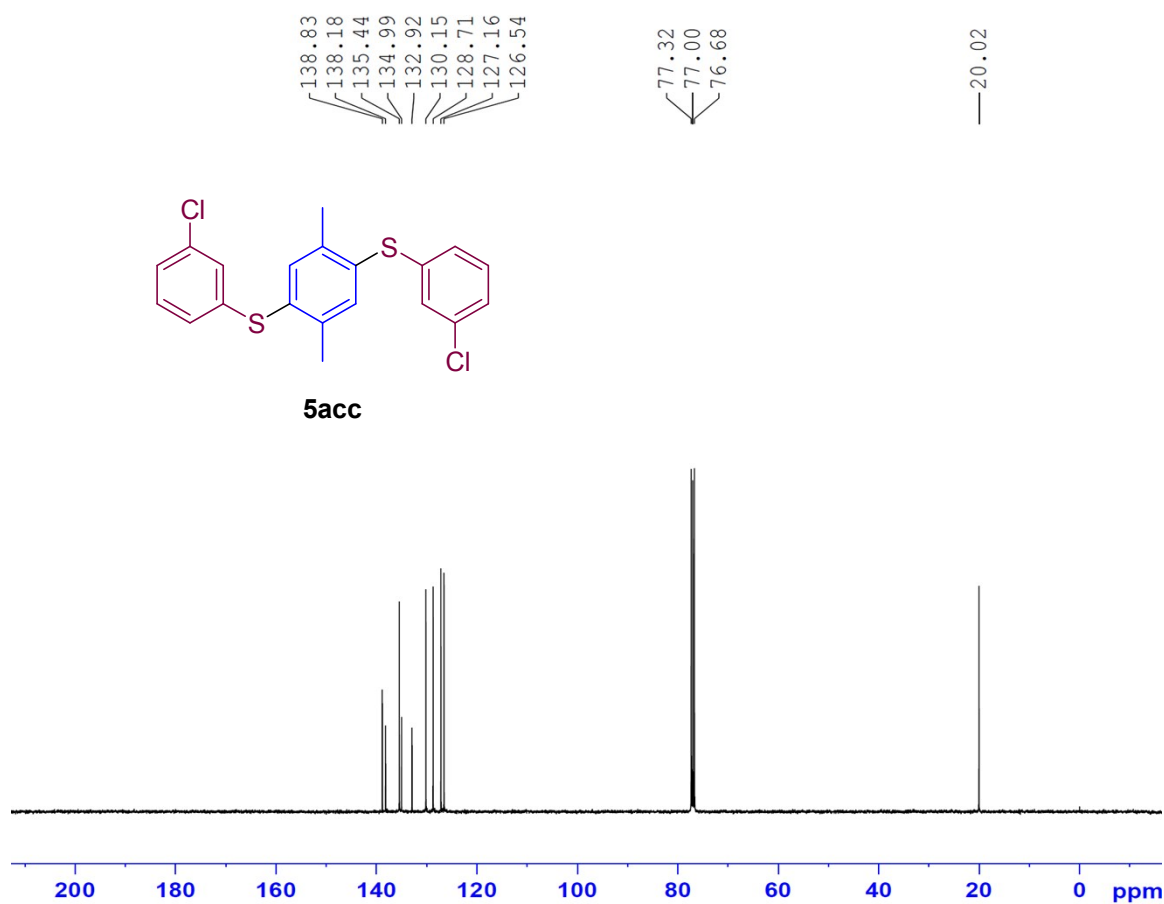
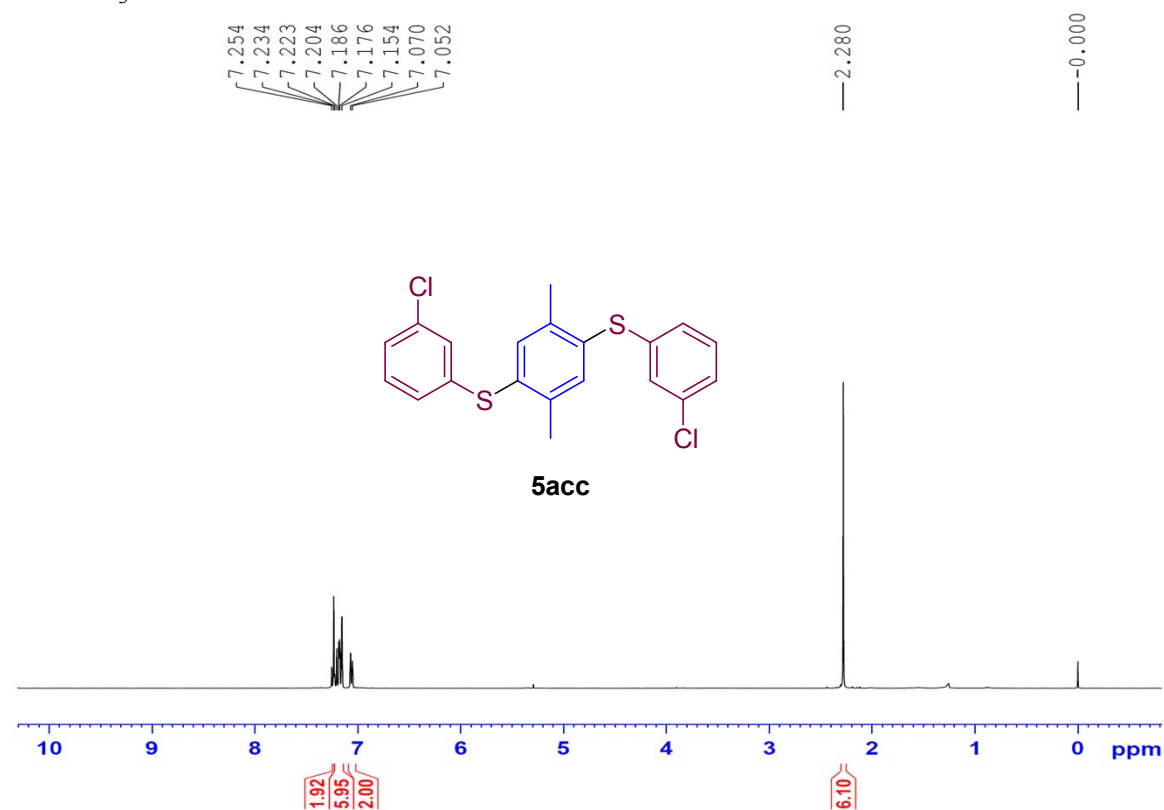
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,3,5-trimethoxy-2,4-bis(p-tolylthio)benzene (**3eaa**) in CDCl_3



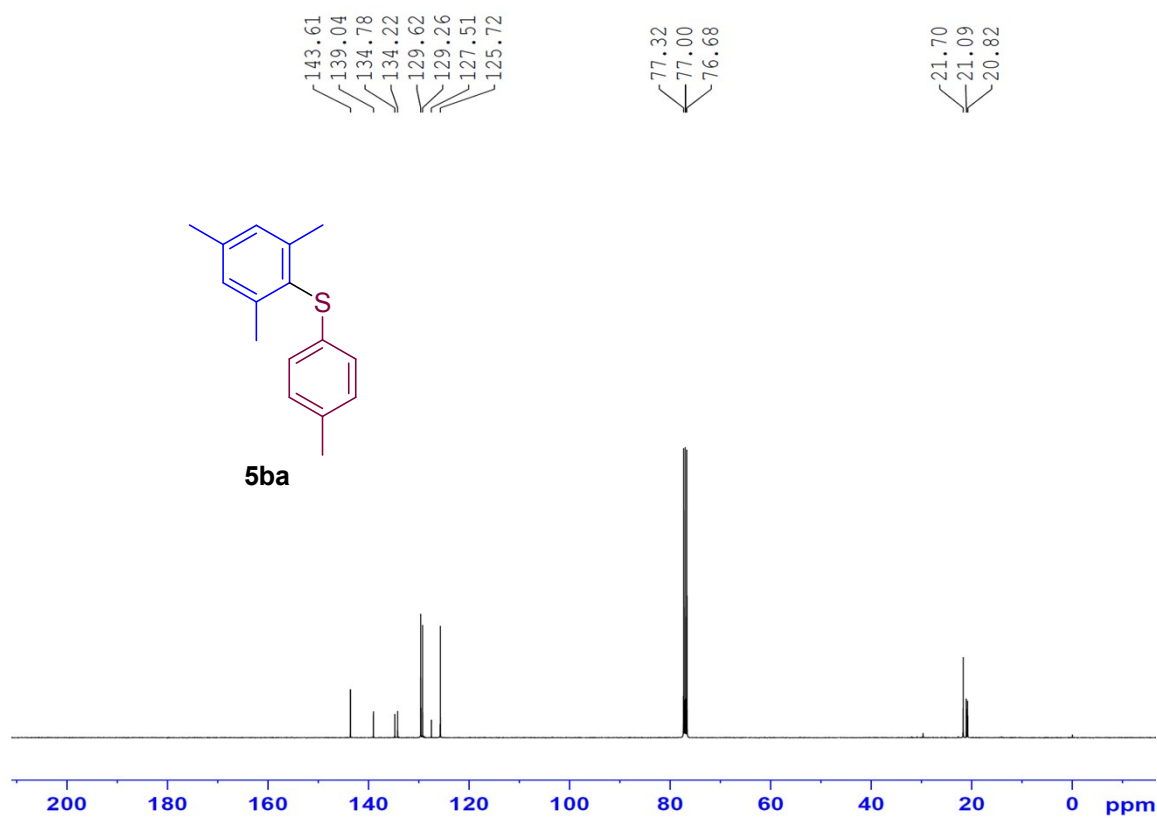
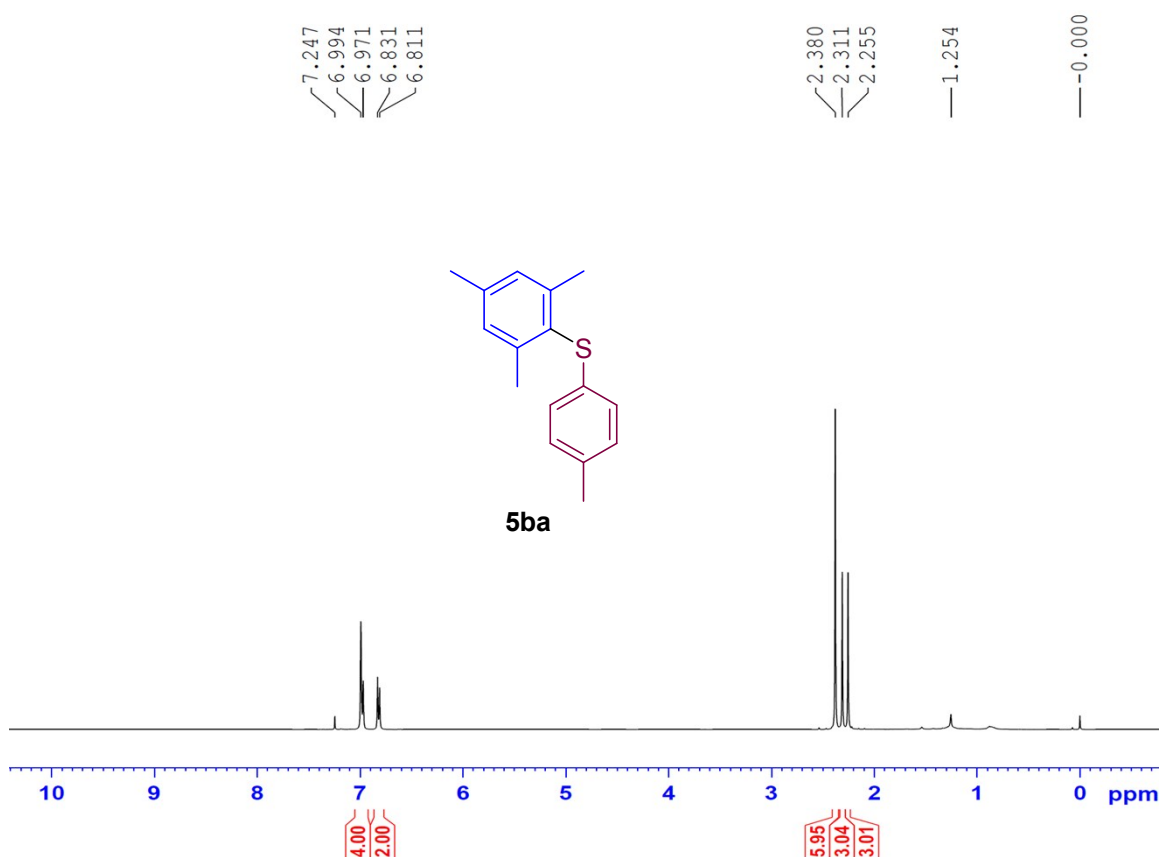
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,4-dimethyl-2,5-bis(p-tolylthio)benzene (5aaa) in CDCl_3



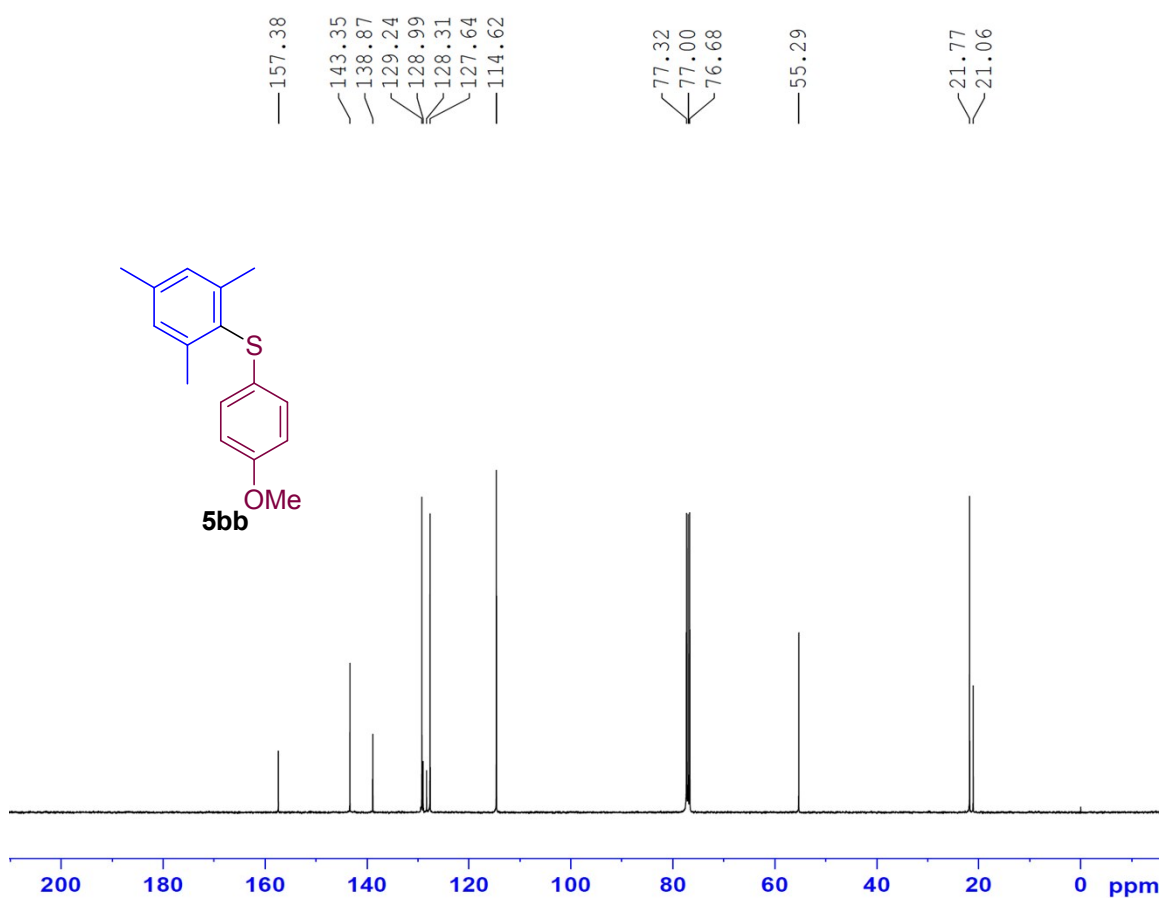
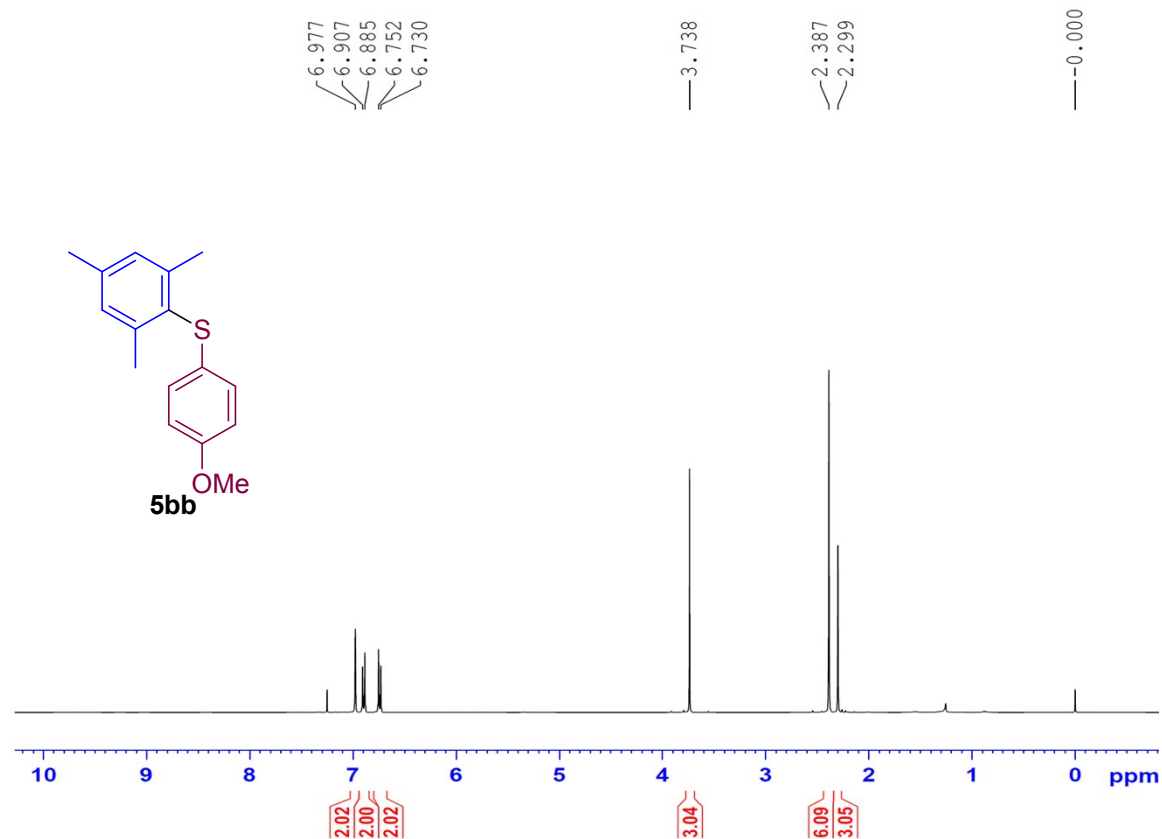
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,4-bis(3-chlorophenylthio)-2,5-dimethylbenzene (5acc) in CDCl_3



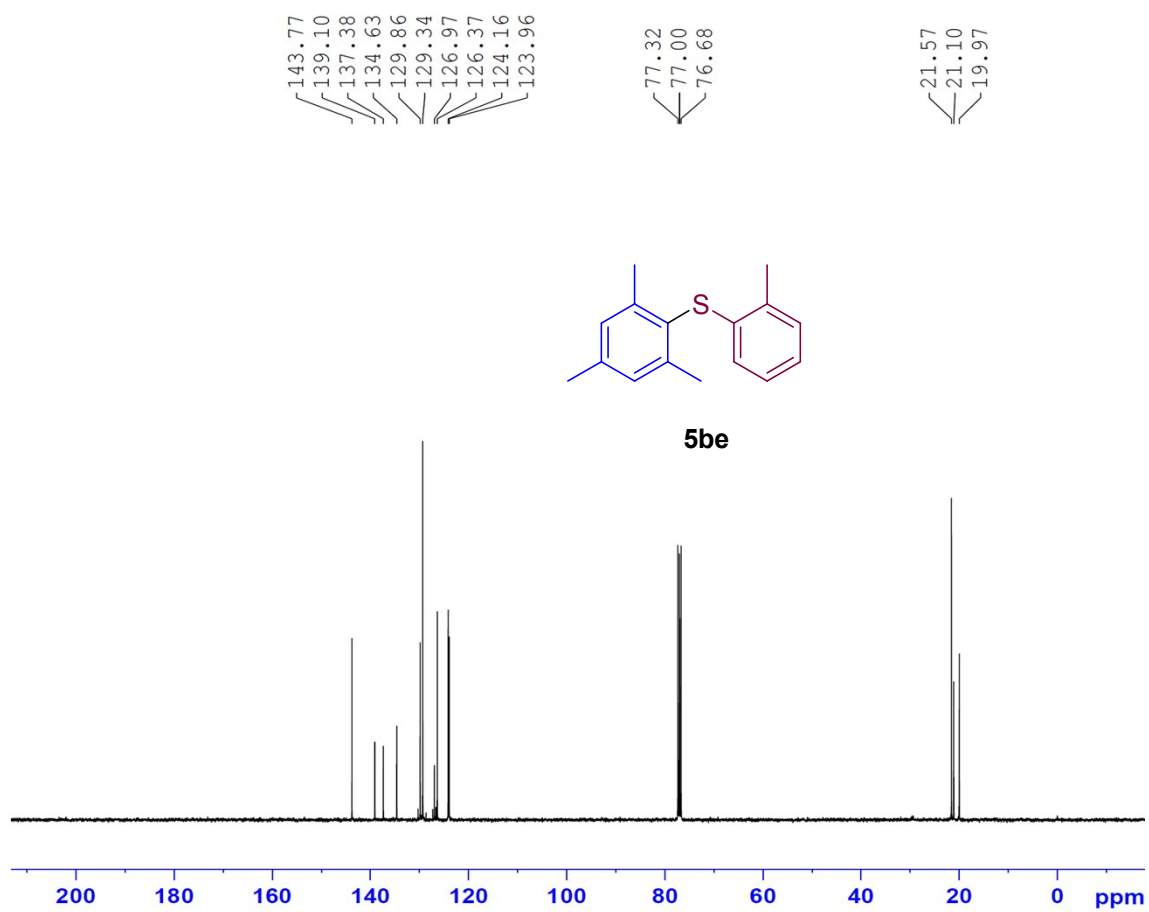
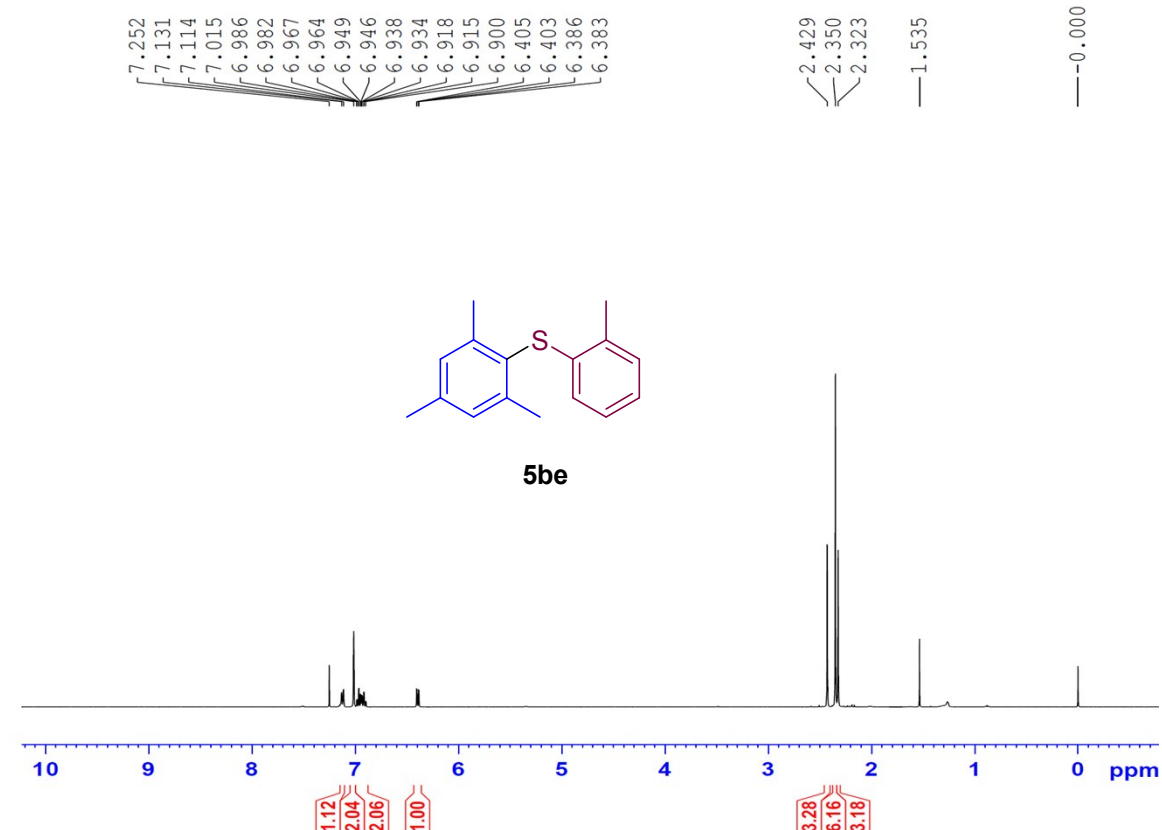
^1H and ^{13}C NMR spectra of mesityl(p-tolyl)sulfane (5ba) in CDCl_3



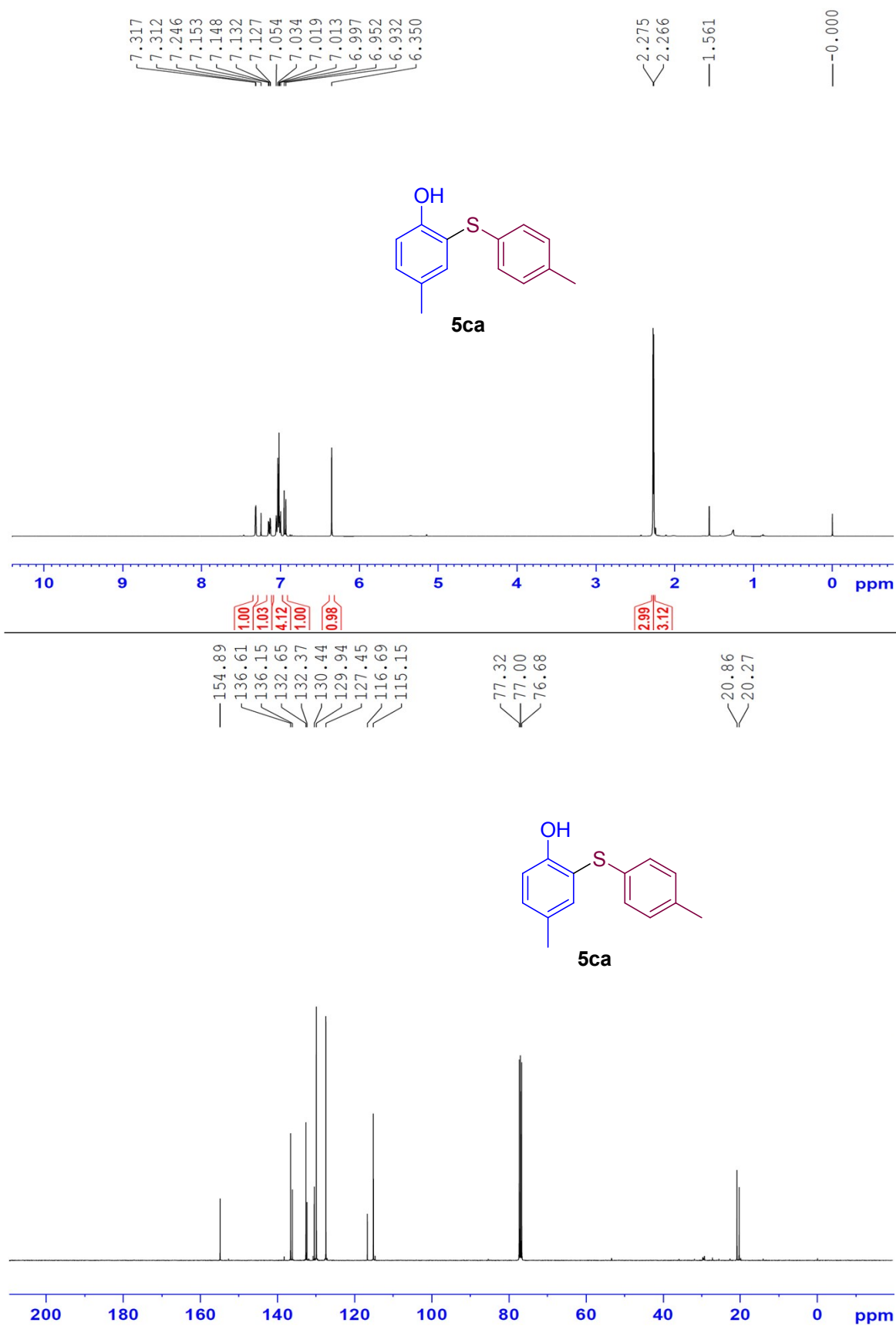
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of mesityl(4-methoxyphenyl)sulfane (5bb) in CDCl_3



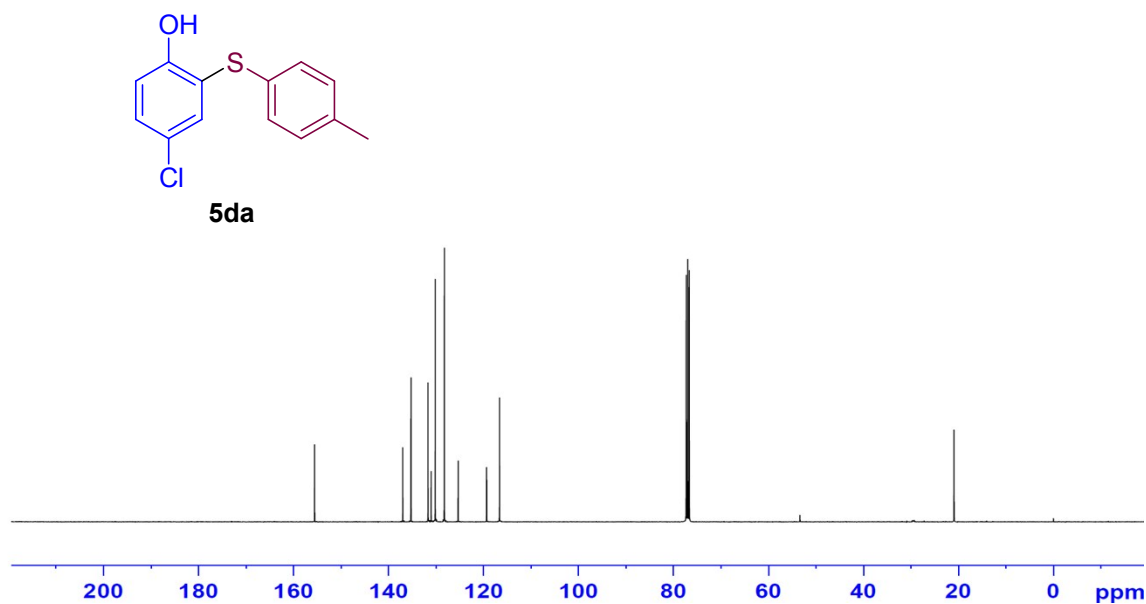
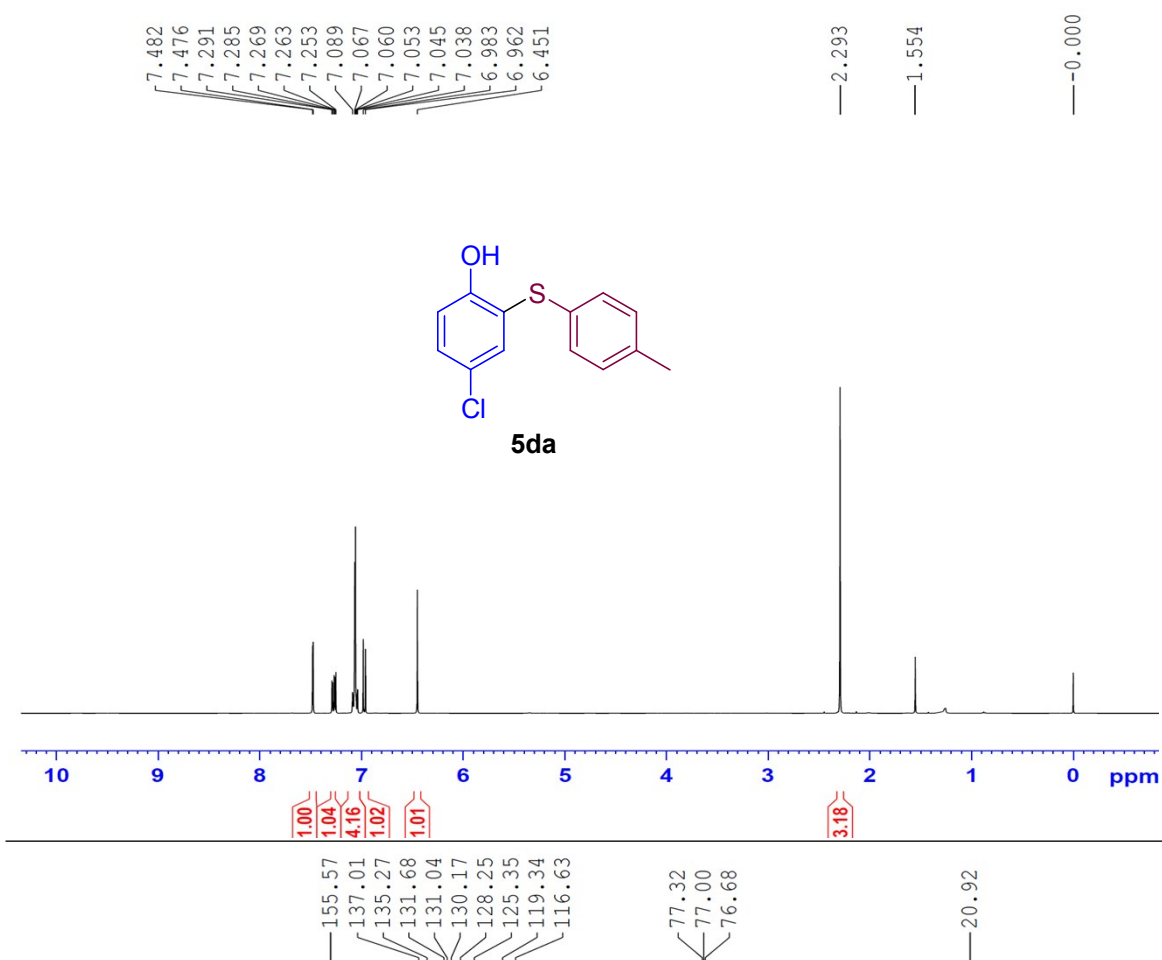
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of mesityl(o-tolyl)sulfane (5be) in CDCl_3



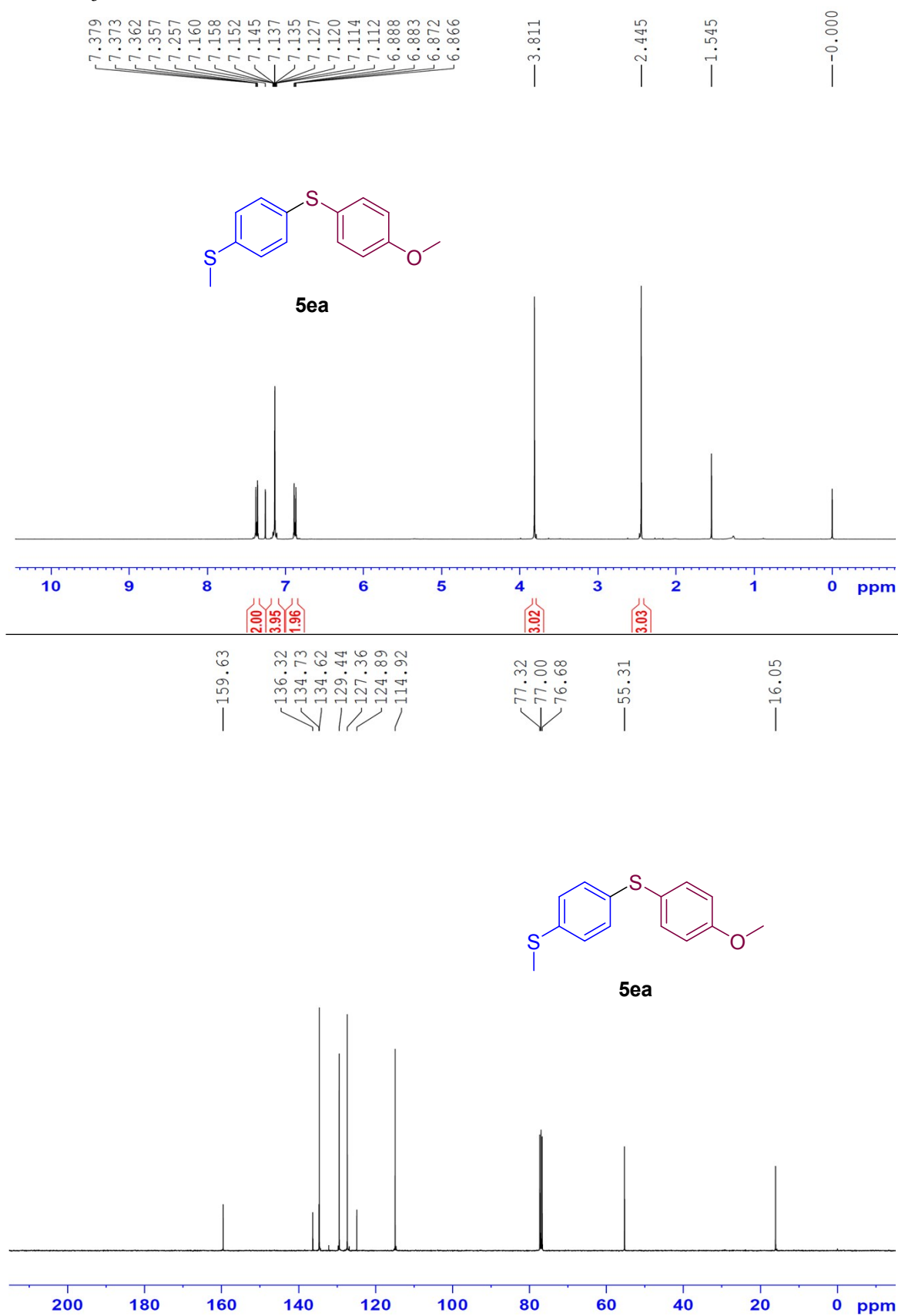
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 4-methyl-2-(p-tolylthio)phenol (5ca) in CDCl_3



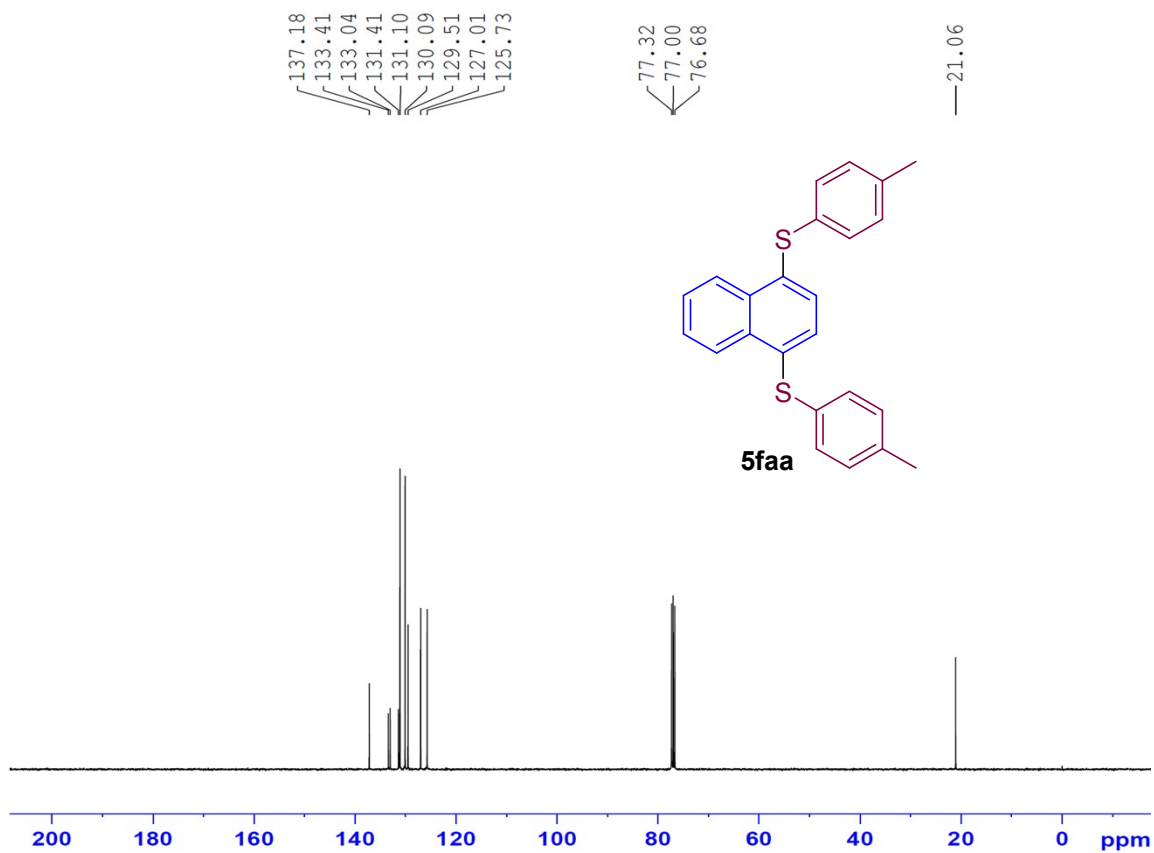
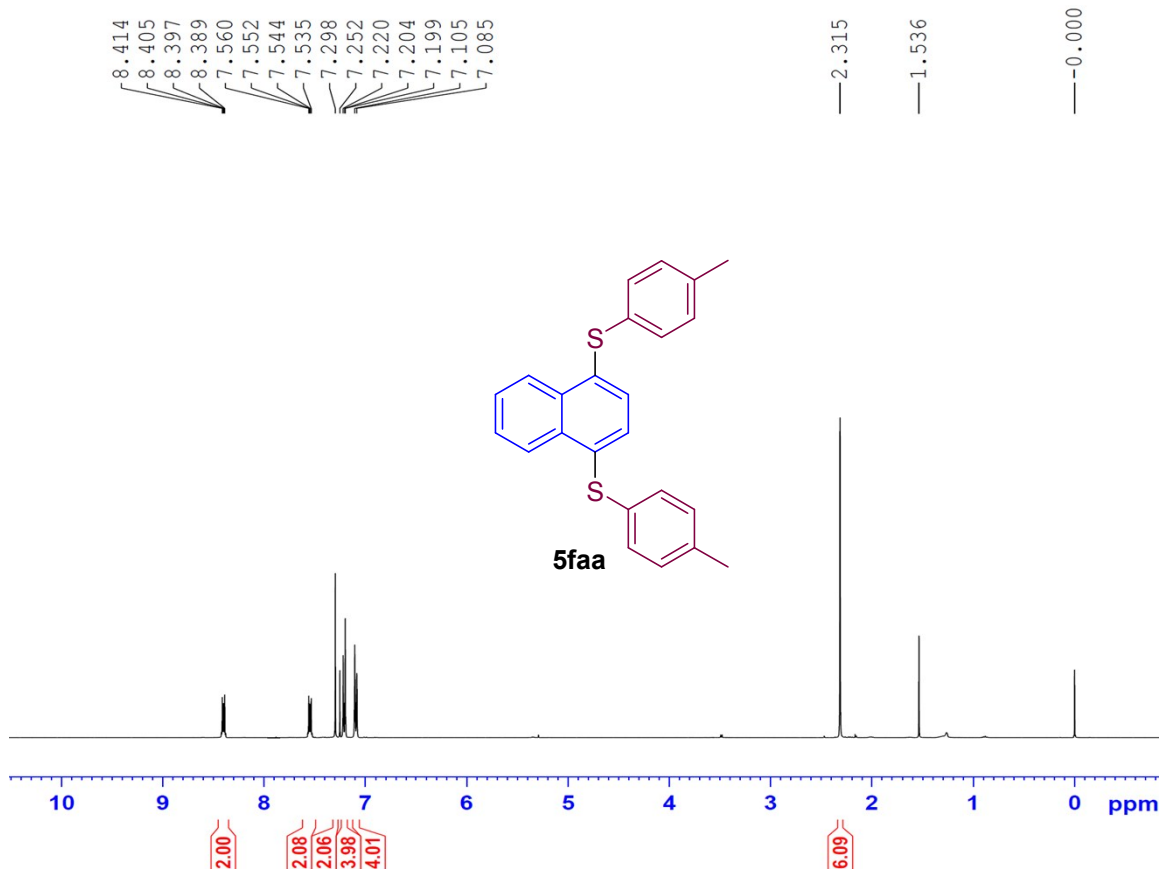
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 4-chloro-2-(p-tolylthio)phenol (5da) in CDCl_3



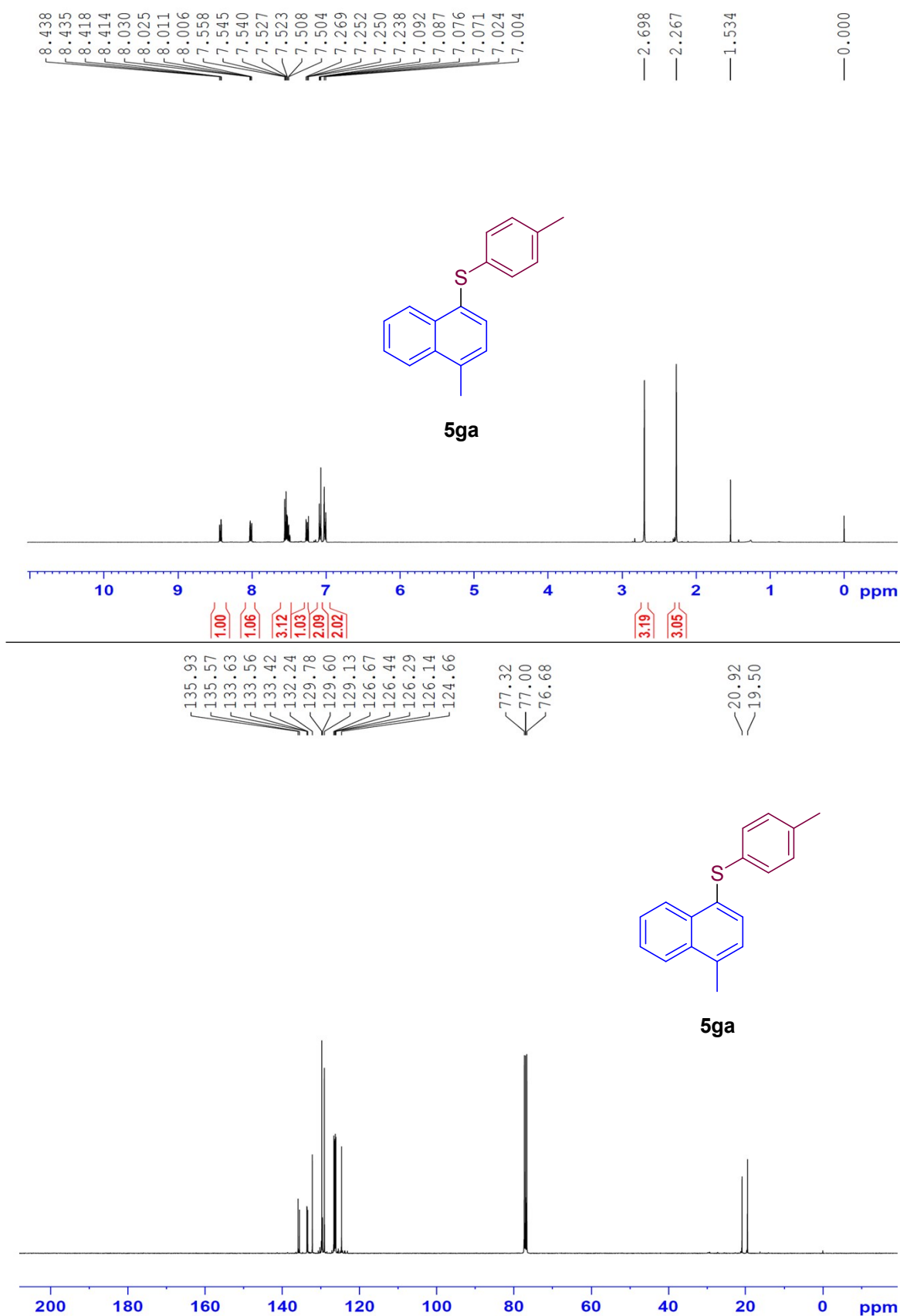
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1-methoxy-4-(4-(methylthio)phenylthio)benzene (**5ea**) in CDCl_3



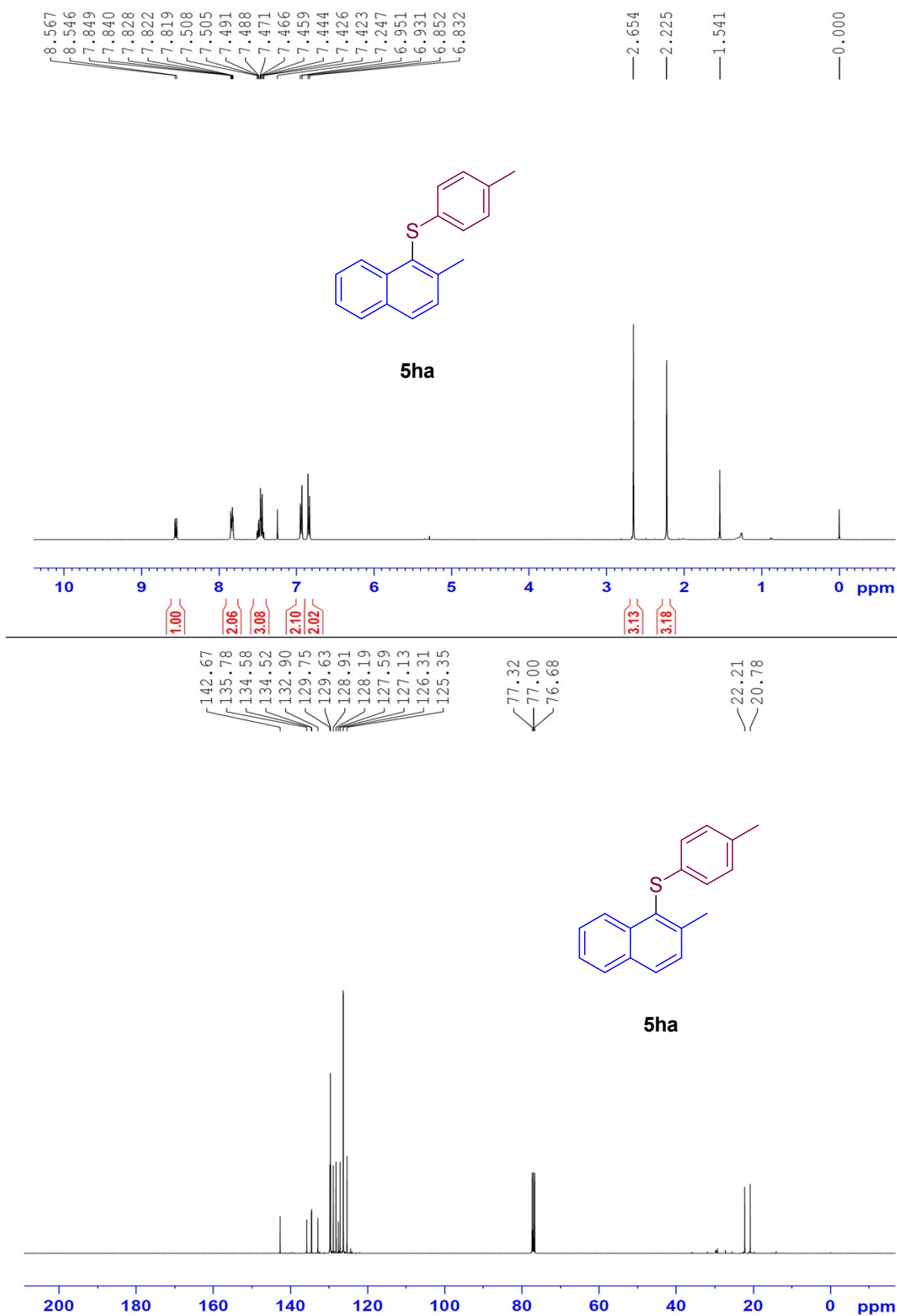
^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 1,4-bis(p-tolylthio)naphthalene (5faa) in CDCl_3



^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (4-methylnaphthalen-1-yl)(p-tolyl)sulfane (5ga) in CDCl_3



^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of (2-methylnaphthalen-1-yl)(p-tolyl)sulfane (5ha) in CDCl_3



^1H and $^{13}\text{C}\{^1\text{H}\}$ NMR spectra of 6-bromo-1,4-bis(p-tolylthio)naphthalene (**5iaa**) in CDCl_3

