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Supporting Information

Gold-Catalyzed Cyanosilylation Reaction: Homogeneous and Heterogeneous Pathways

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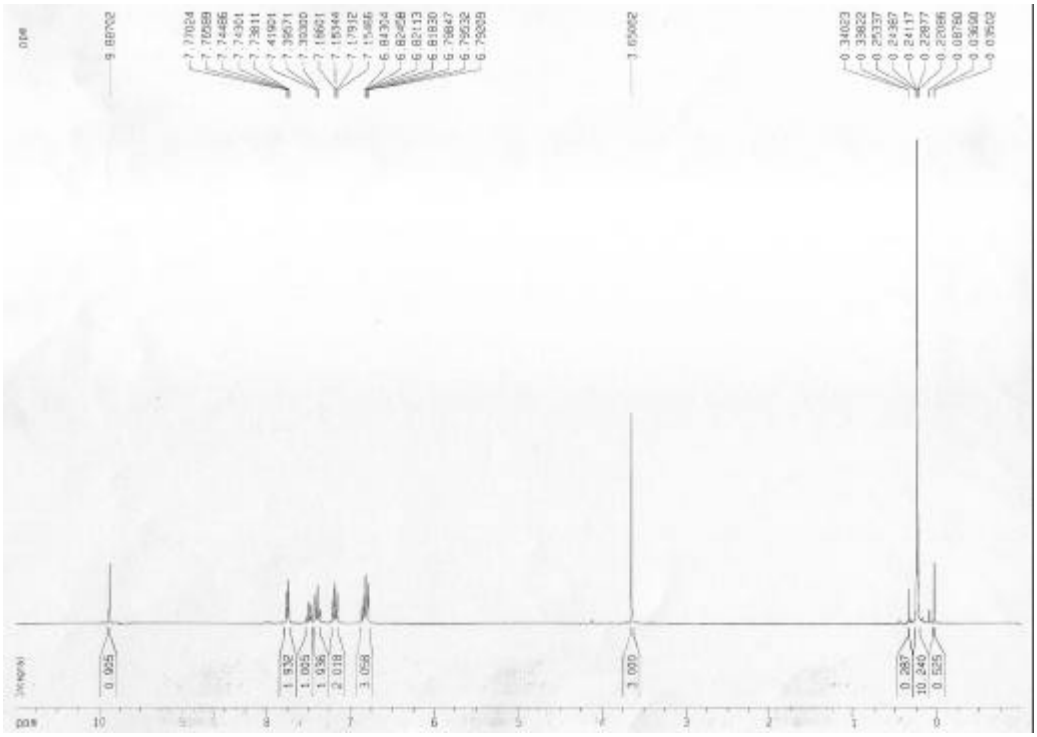
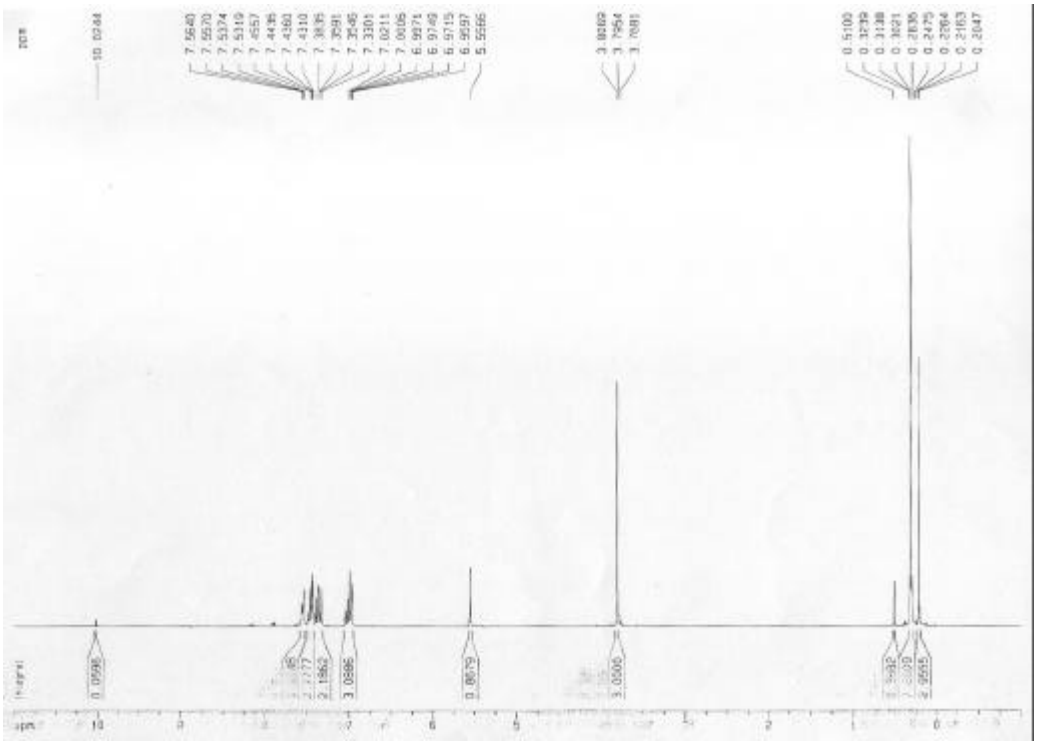
Contents of Supporting Information

- **^{1}H NMR Spectra of the Reactions: All ^{1}H NMR spectra contain the peaks of anisole used as an internal standard.**
- **^{13}C and ^{29}Si NMR Spectra of the AuNP/TMSCN Complex**

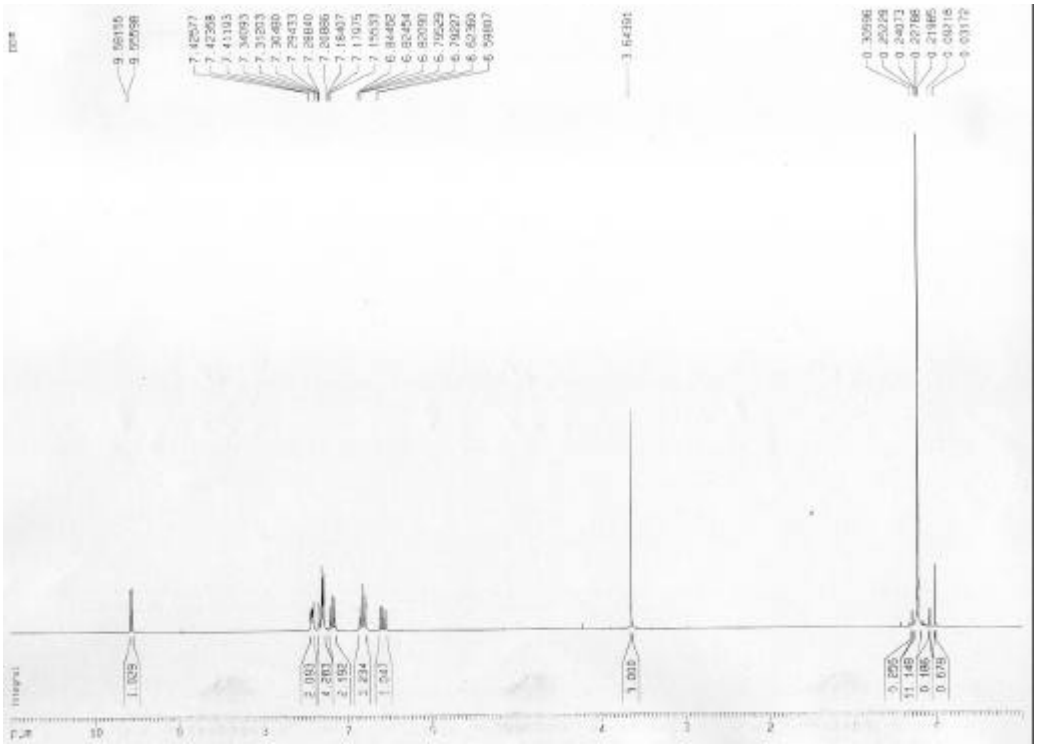
^{1}H NMR spectrum of the mixture of benzaldehyde and TMSCN



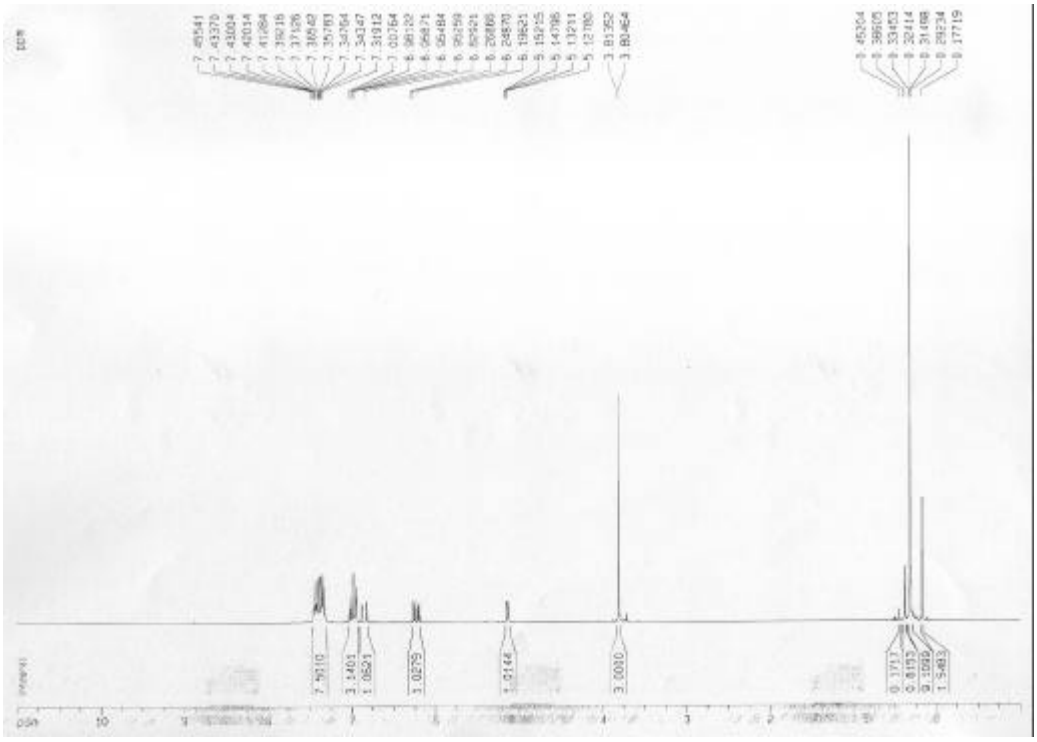
^{1}H NMR spectrum after 4-h reaction (Table 1, Entry 1)



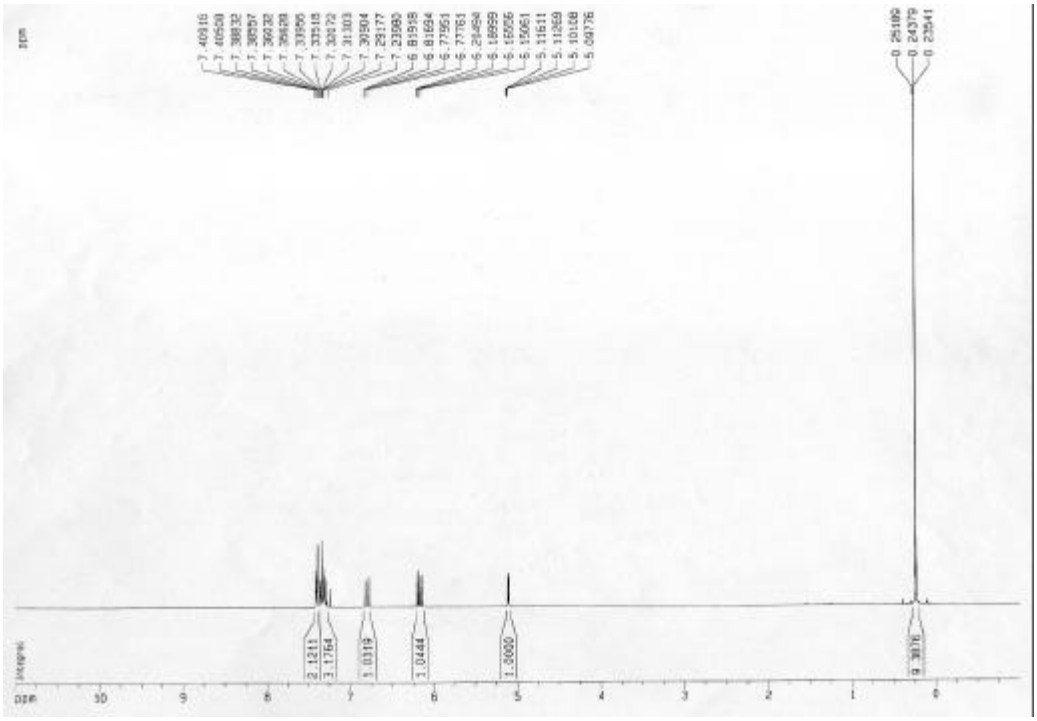
^{1}H NMR spectrum of the mixture of *trans*-cinnamaldehyde and TMSCN



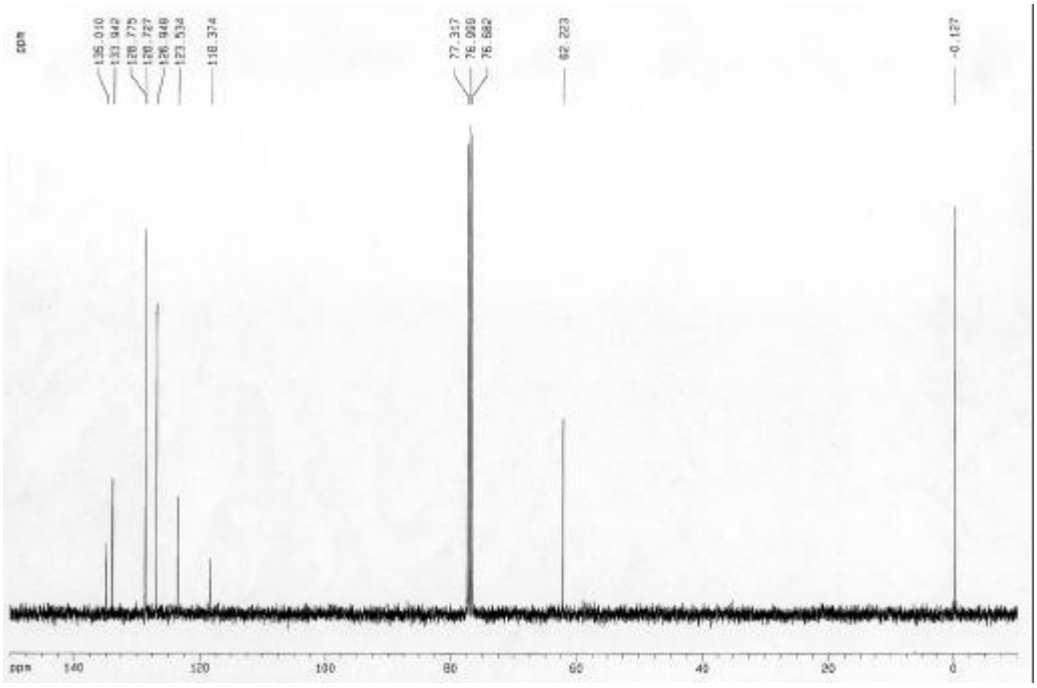
^{1}H NMR spectrum after 1-h reaction (Table 1, Entry 2)



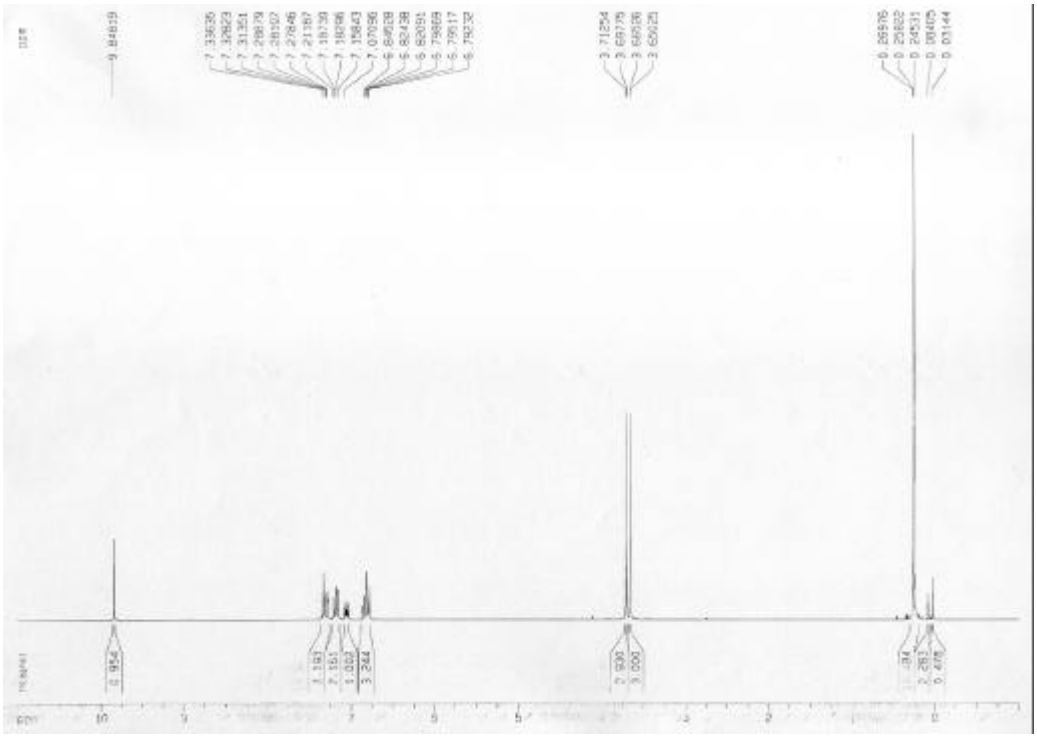
^{1}H NMR spectrum of isolated (*E*)-2-trimethylsilyloxy-4-phenyl-3-butenenitrile (Table 1, Entry 2)



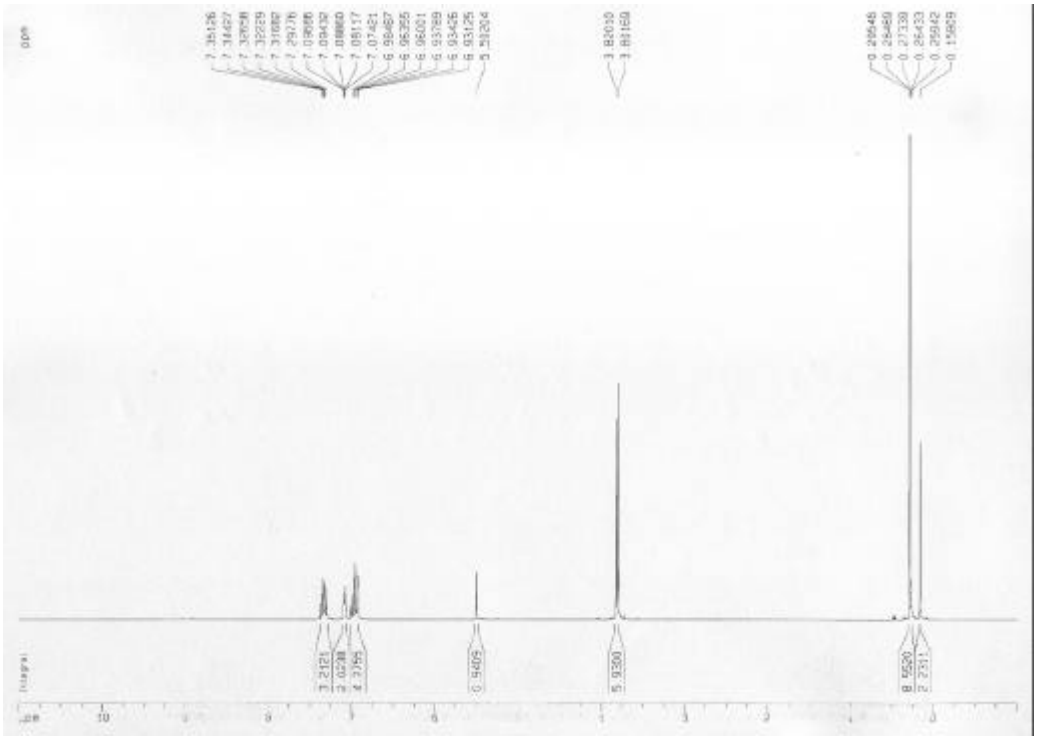
^{13}C NMR spectrum of isolated (*E*)-2-trimethylsilyloxy-4-phenyl-3-butenenitrile (Table 1, Entry 2)



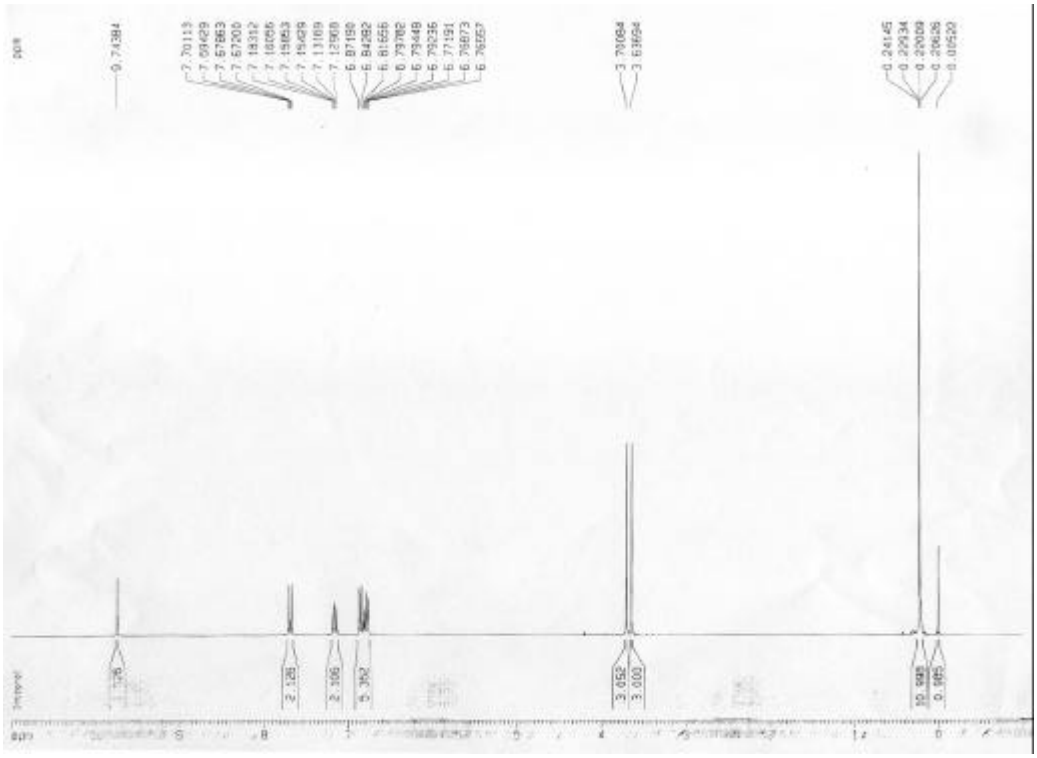
^{1}H NMR spectrum of the mixture of *m*-anisaldehyde and TMSCN



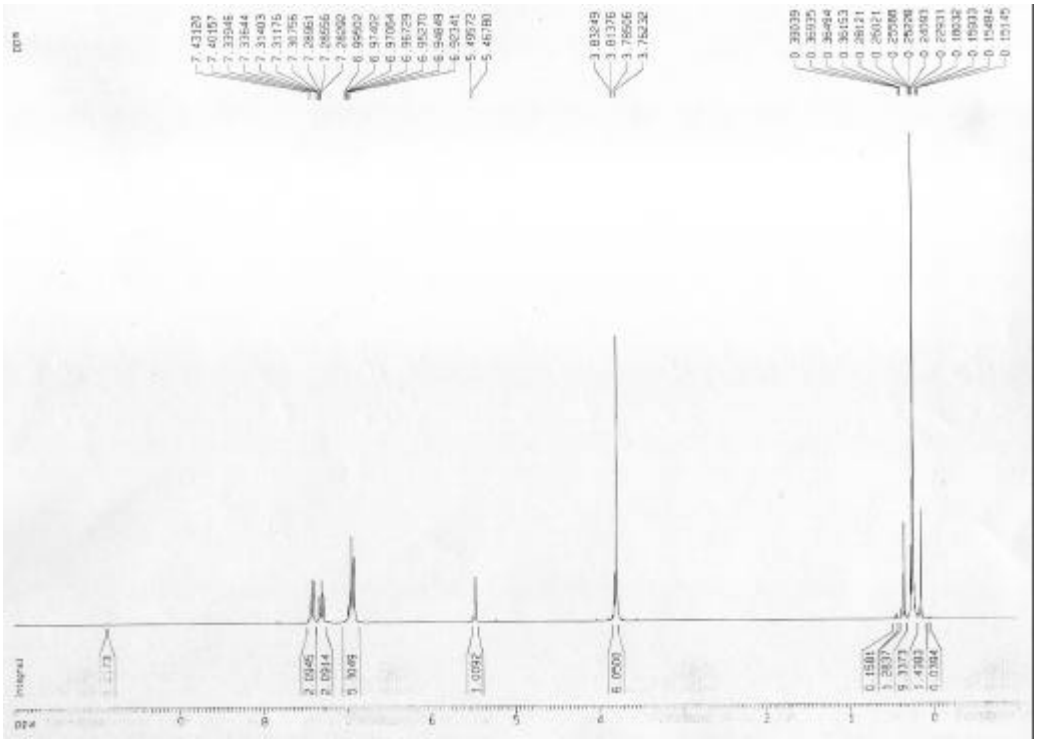
^{1}H NMR spectrum after 12-h reaction (Table 1, Entry 3)



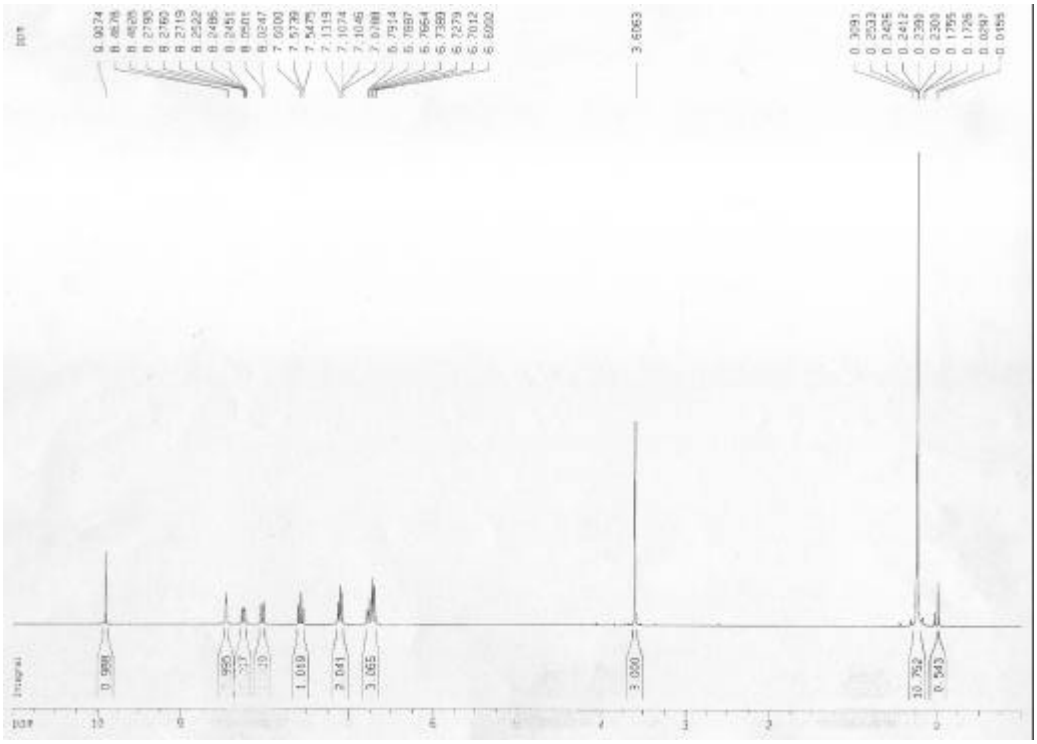
^{1}H NMR spectrum of the mixture of *p*-anisaldehyde and TMSCN



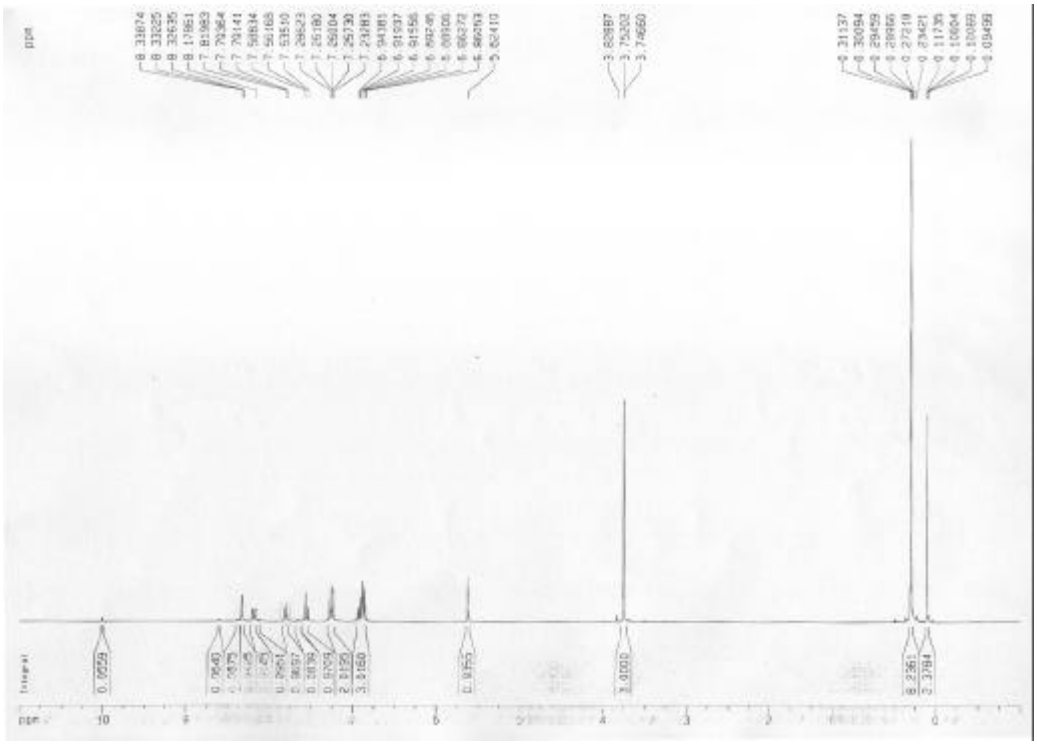
^{1}H NMR spectrum after 4-h reaction (Table 1, Entry 4)



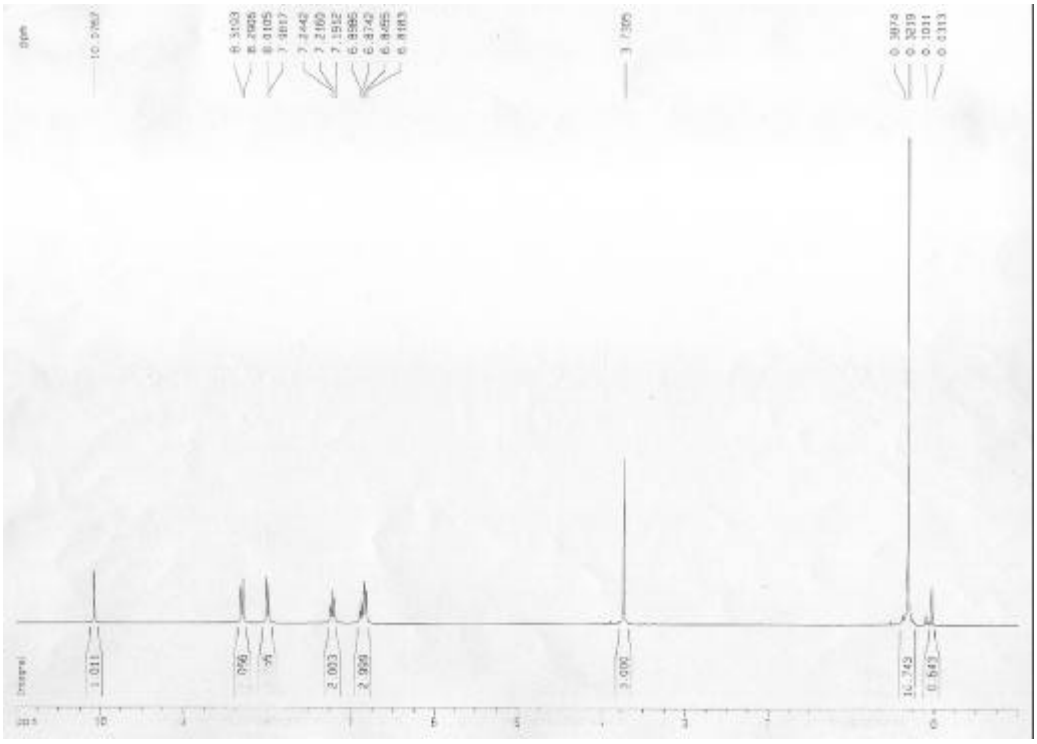
^{1}H NMR spectrum of the mixture of *m*-nitrobenzaldehyde and TMSCN



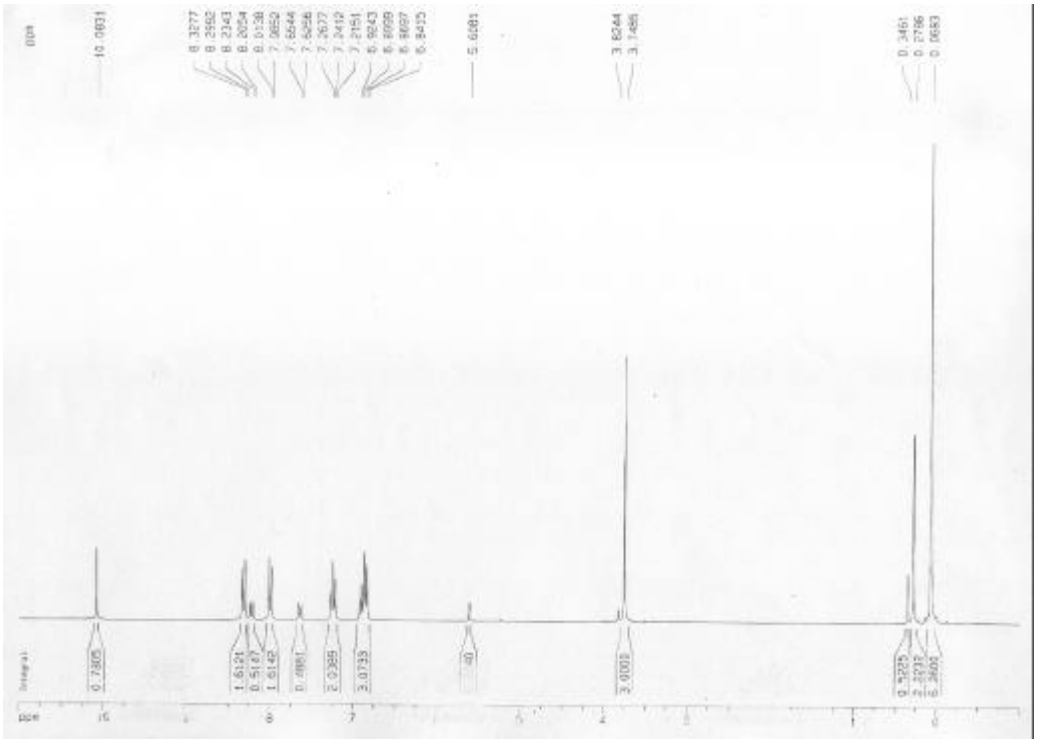
^{1}H NMR spectrum after 48-h reaction (Table 1, Entry 5)



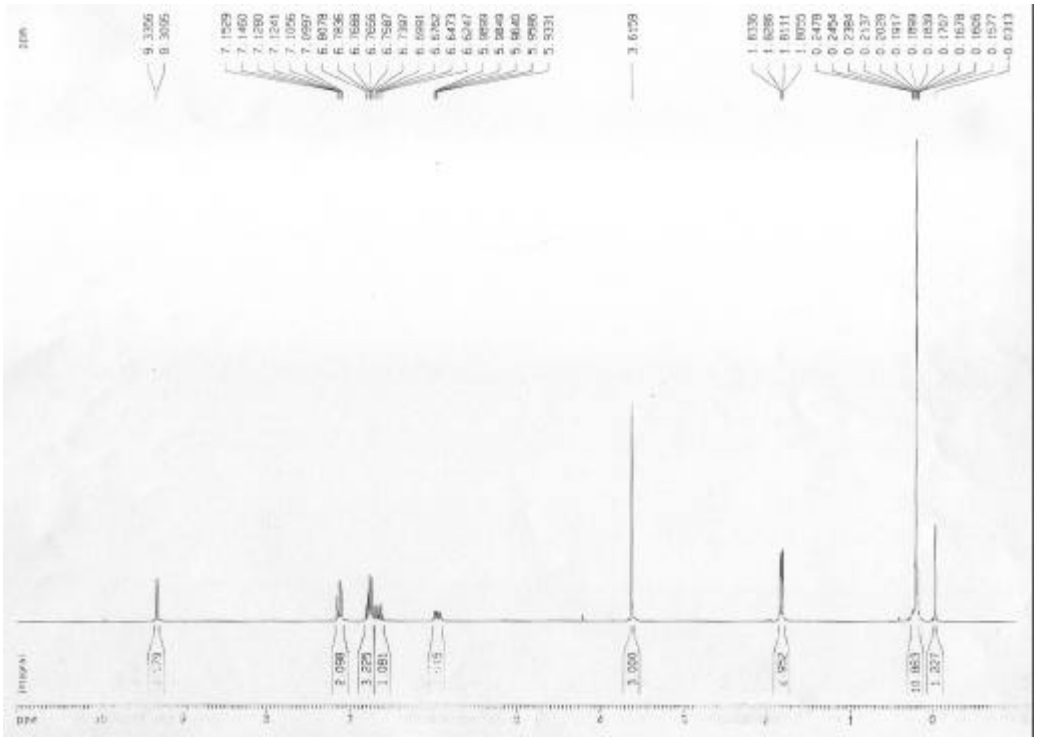
^{1}H NMR spectrum of the mixture of *p*-nitrobenzaldehyde and TMSCN



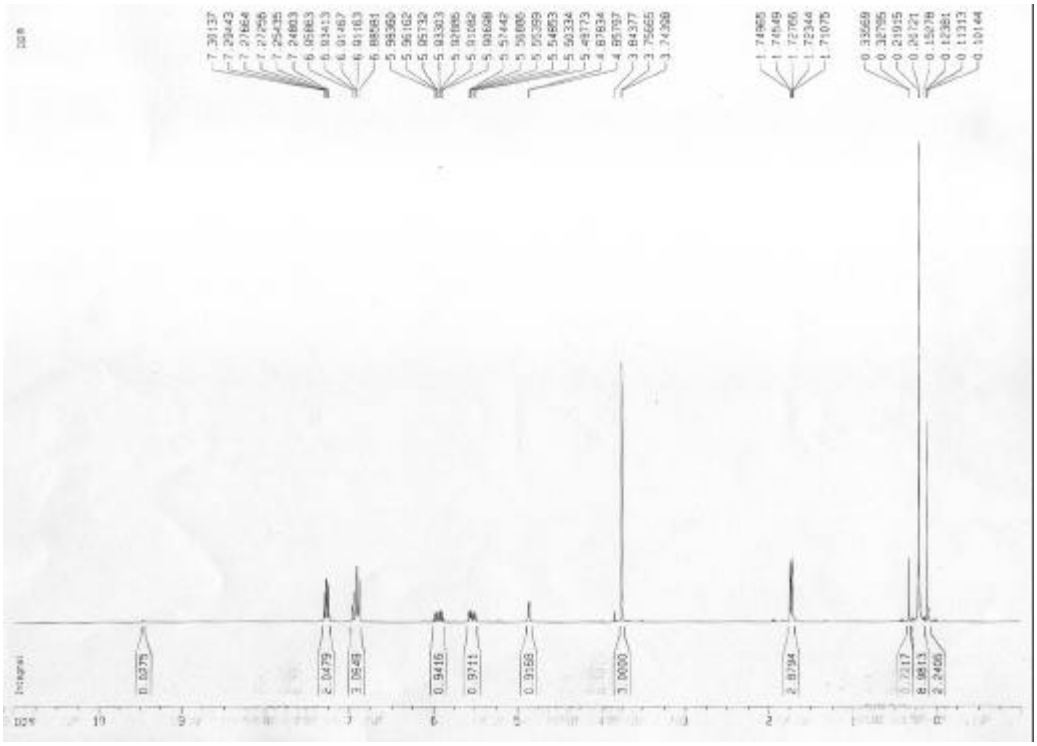
^{1}H NMR spectrum after 72-h reaction (Table 1, Entry 6)



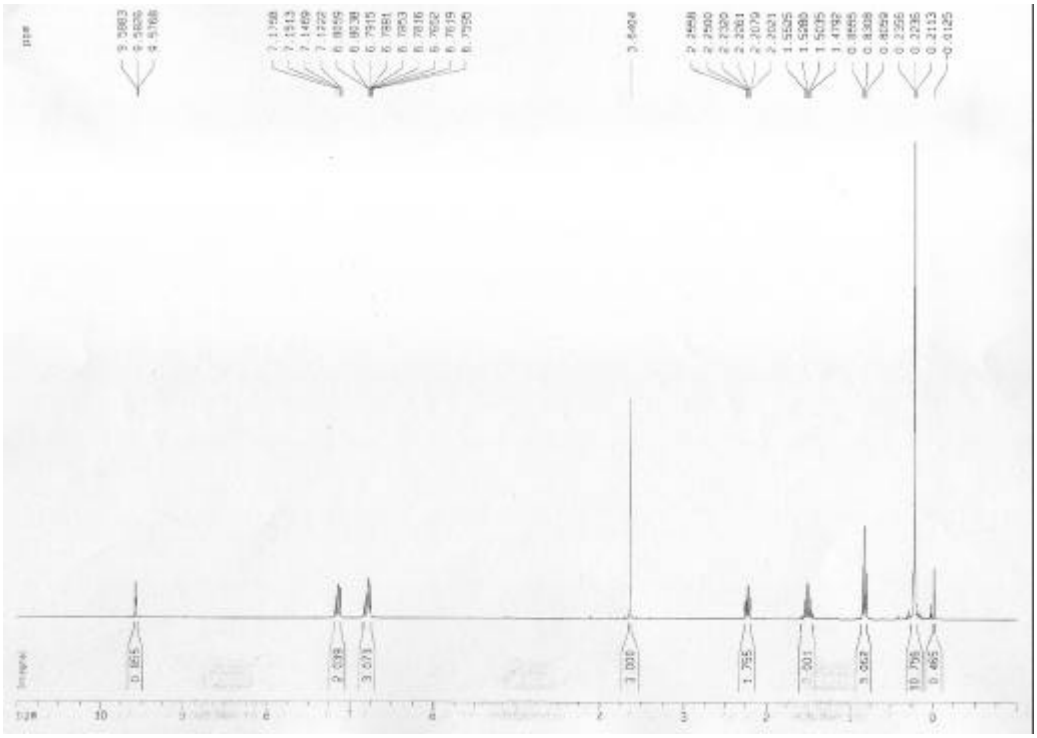
^{1}H NMR spectrum of the mixture of *trans*-crotonaldehyde and TMSCN



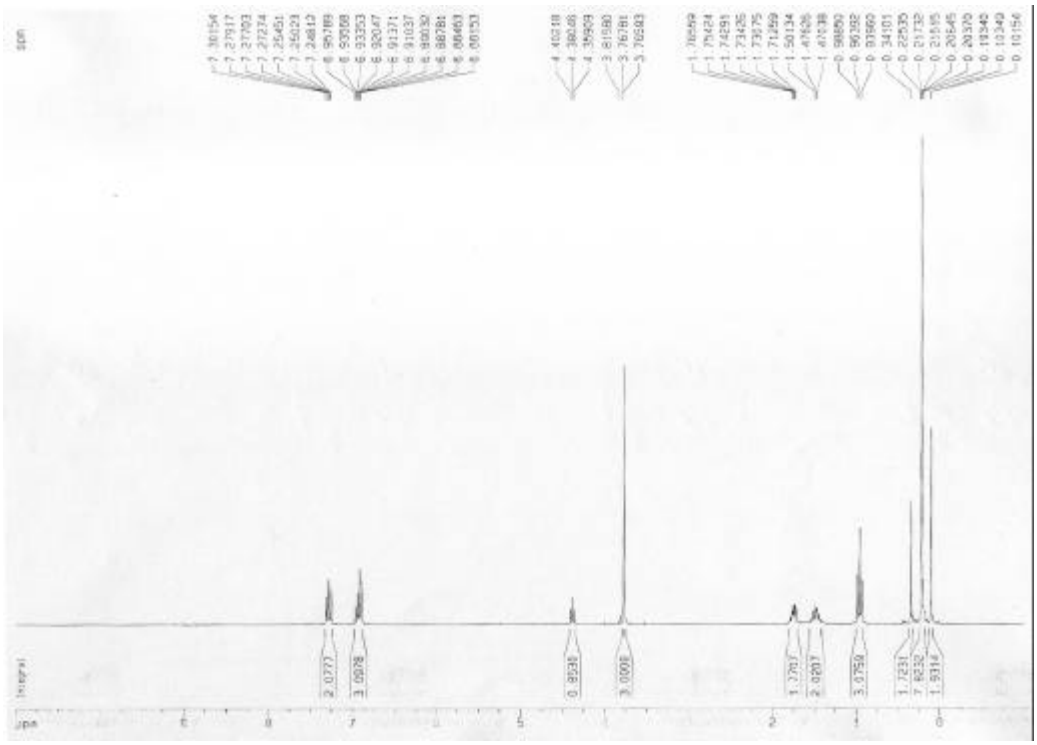
^{1}H NMR spectrum after 3-h reaction (Table 1, Entry 7)



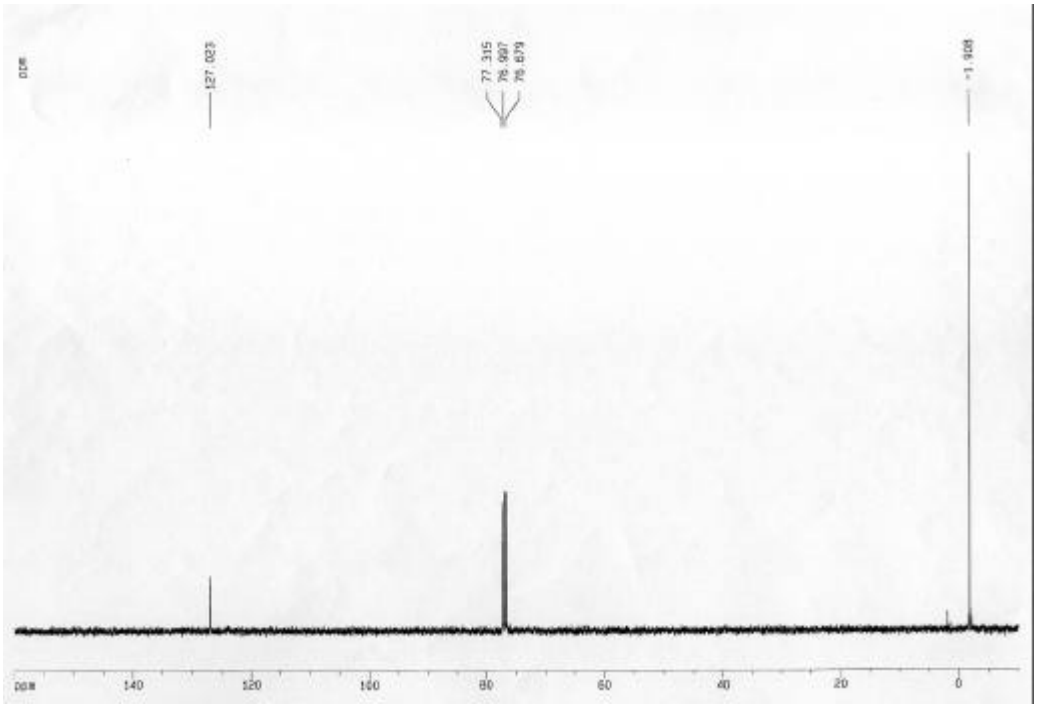
^{1}H NMR spectrum of the mixture of butyraldehyde and TMSCN



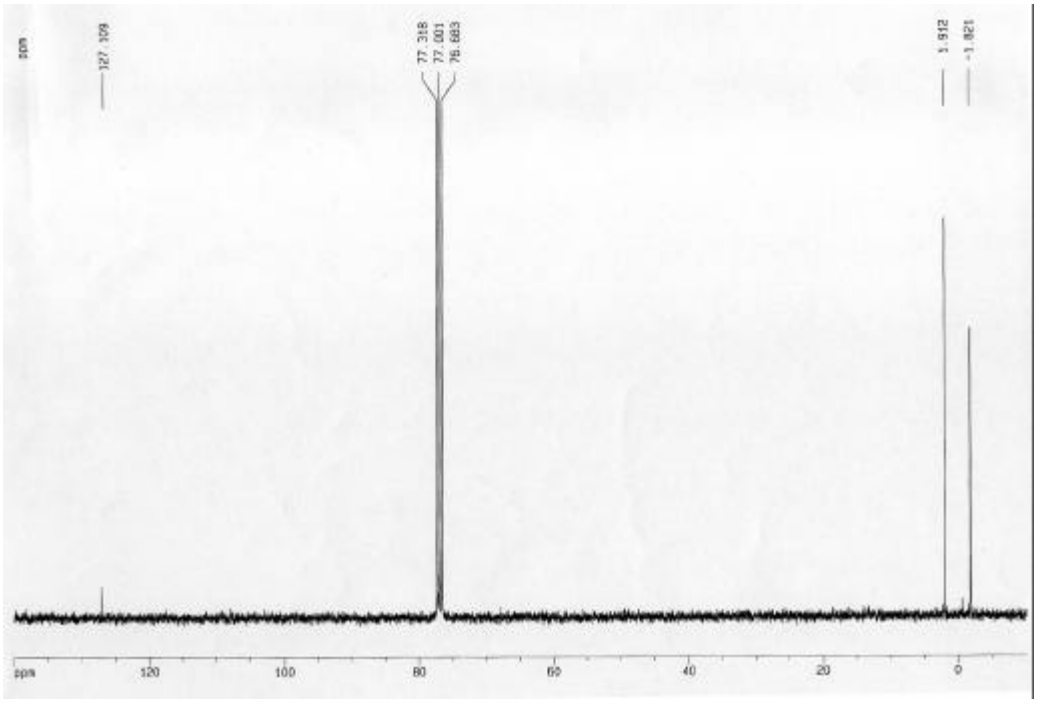
^{1}H NMR spectrum after 4-h reaction (Table 1, Entry 8)



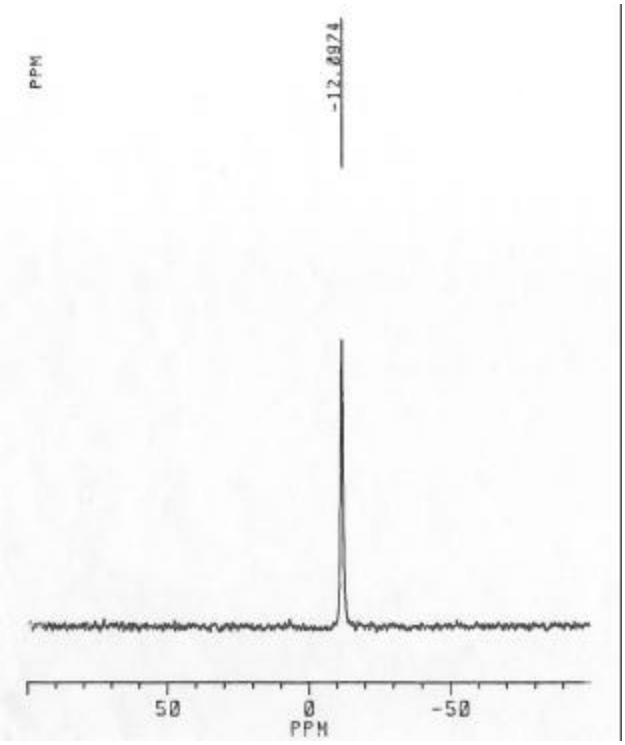
^{13}C NMR spectrum of TMSCN



^{13}C NMR spectrum of AuNP/TMSCN complex



^{29}Si NMR spectrum of TMSCN



^{29}Si NMR spectrum of AuNP/TMSCN complex