

SUPPLEMENTARY DATA

Ethyl 2-benzoyl-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate was obtained from the reaction of ethyl 3-(4-chlorophenyl)-2-cyanoprop-2-ene carboxylate **1a** (176 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 95 % yield as a diastereomeric mixture of **3a** & **4a** (3:4 = 3:1).

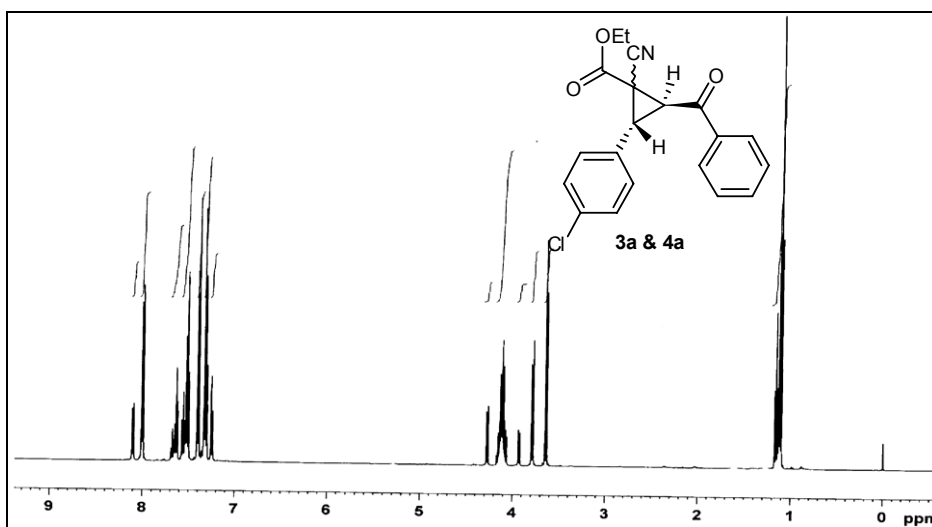


Fig-1 ¹H NMR (500 MHz) spectrum of ethyl 2-benzoyl-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate

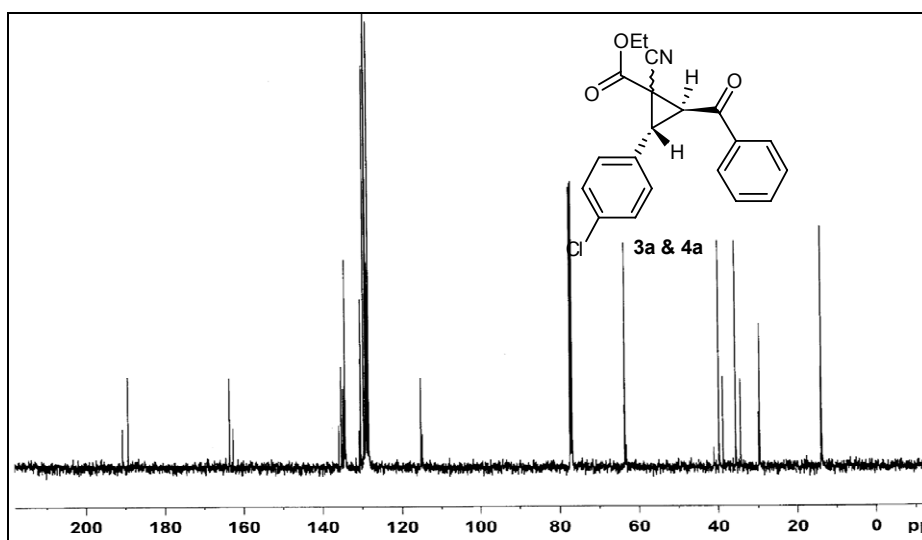


Fig-2 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate

Ethyl 2-benzoyl-1-cyano-3-(4-methoxyphenyl)-cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(4-methoxyphenyl)-prop-2-ene carboxylate **1b** (175 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 72 % yield as a diastereomeric mixture of **3b** & **4b** (3:4 = 3:1).

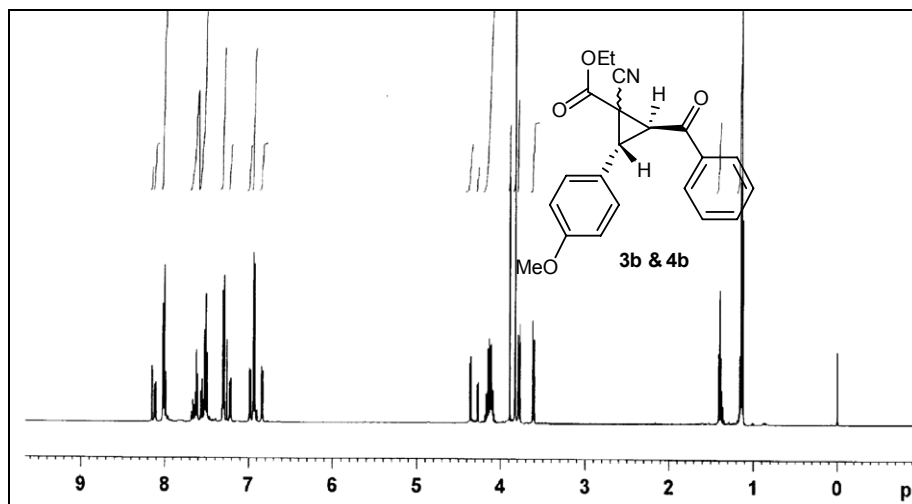


Fig-3 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-3-(4-methoxyphenyl)-1-cyanocyclopropane carboxylate

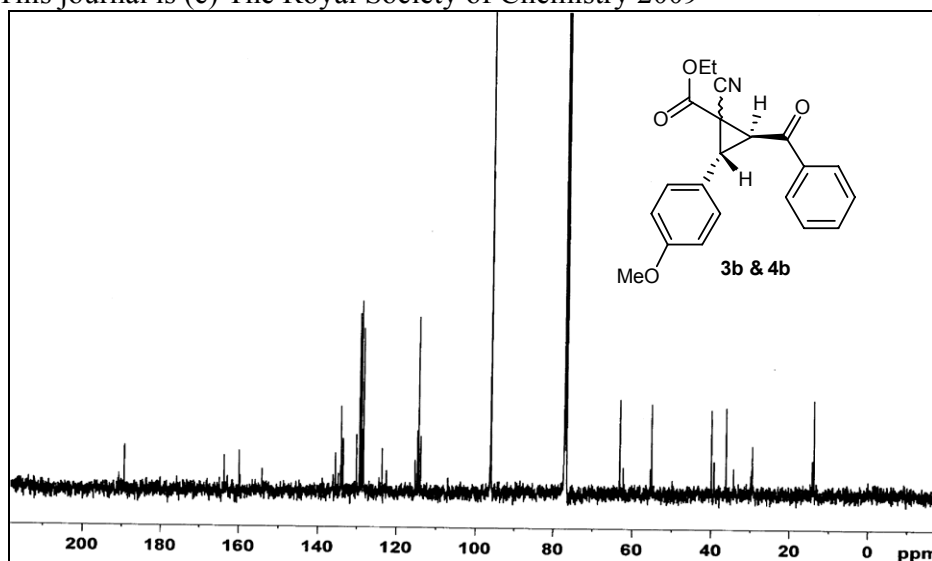


Fig-4 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-3-(4-methoxyphenyl)-1-cyanocyclopropane carboxylate

Ethyl 2-benzoyl-1-cyano-3-(4-methylphenyl)-cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(4-methylphenyl)-prop-2-ene carboxylate **1c** (167 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 92 % yield as a diastereomeric mixture of **3c** & **4c** (3:4 = 4:1).

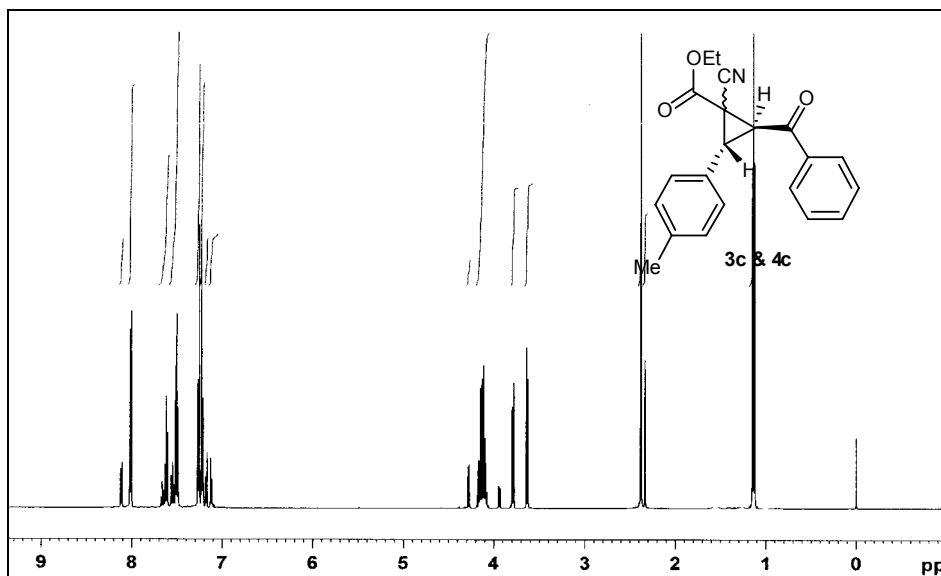


Fig-5 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(4-methylphenyl)-cyclopropane carboxylate

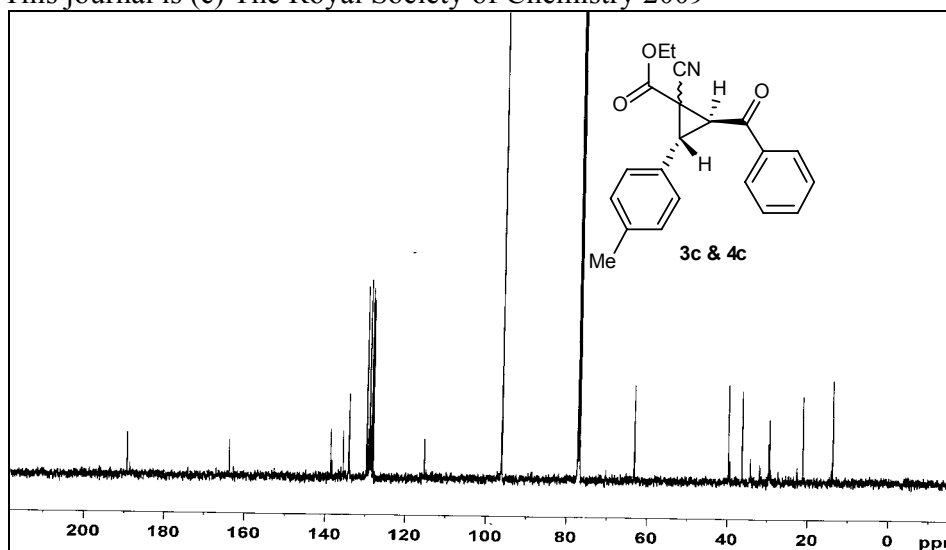


Fig-6 ^{13}C NMR (125 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(4-methylphenyl)-cyclopropane carboxylate

Ethyl 2-benzoyl-1-cyano-3-(3,4-dichlorophenyl)-cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(3,4-dichlorophenyl)-prop-2-ene carboxylate **1d** (194 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as yellow colored viscous oil in 62 % yield as a diastereomeric mixture of **3d** & **4d** (3:4 = 1.25:1).

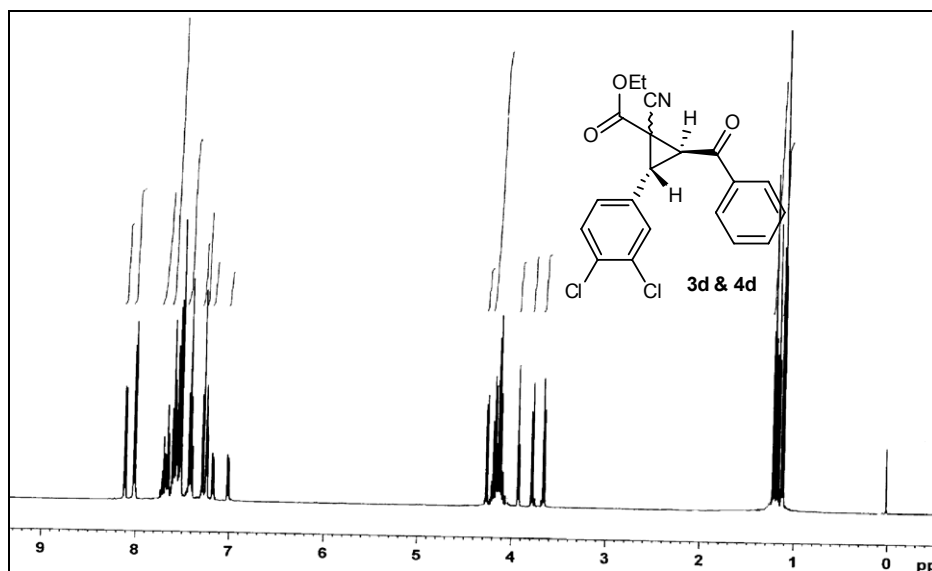


Fig-7 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(3,4-dichlorophenyl)-cyclopropane carboxylate

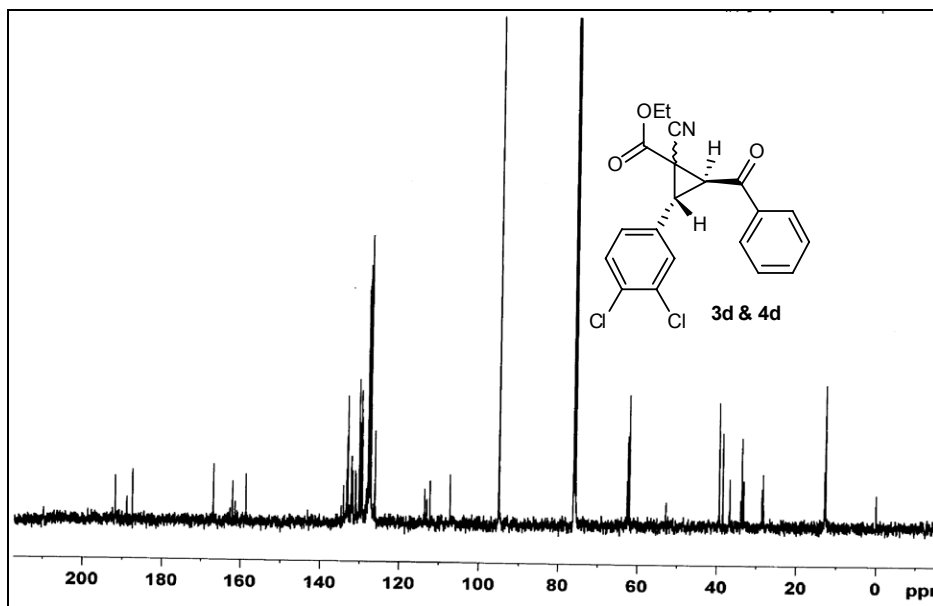


Fig-8 ¹³C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(3,4-dichlorophenyl)-cyclopropane carboxylate

Ethyl 2-benzoyl-1-cyano-3-phenylcyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-phenylprop-2-ene carboxylate **1e** (160 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 93 % yield as a diastereomeric mixture of **3e** & **4e** (3:4 = 4:1).

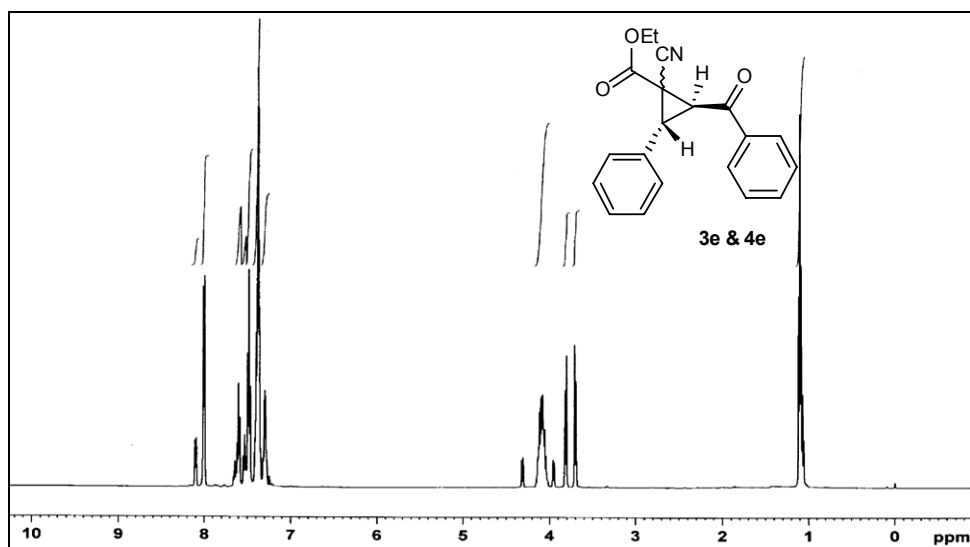


Fig-9 ¹H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-phenylcyclopropane carboxylate

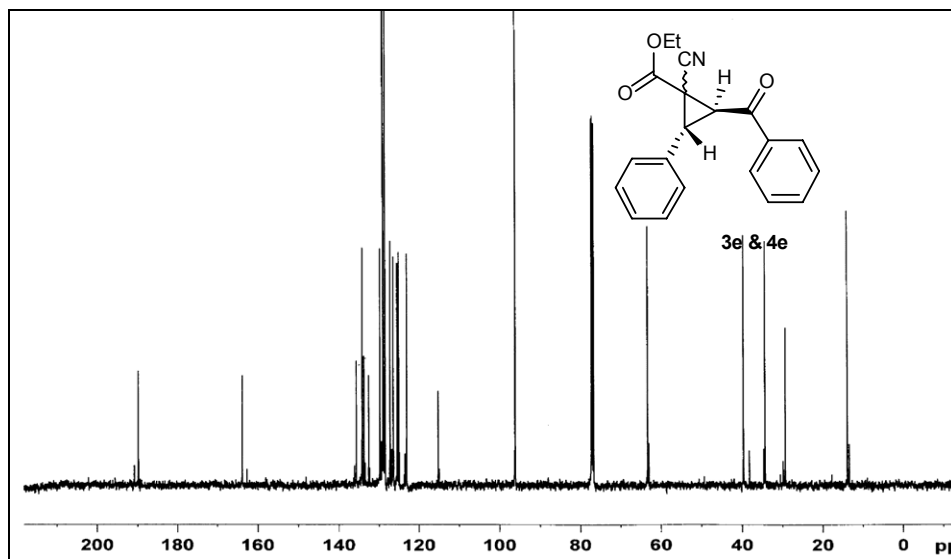


Fig-10 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-phenylcyclopropane carboxylate

Ethyl 2-benzoyl-1-cyano-3-(4-fluorophenyl)cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(4-fluorophenyl)prop-2-ene carboxylate **1f** (169 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 89 % yield as a diastereomeric mixture of **3f** & **4f** (3:4 = 3:1).

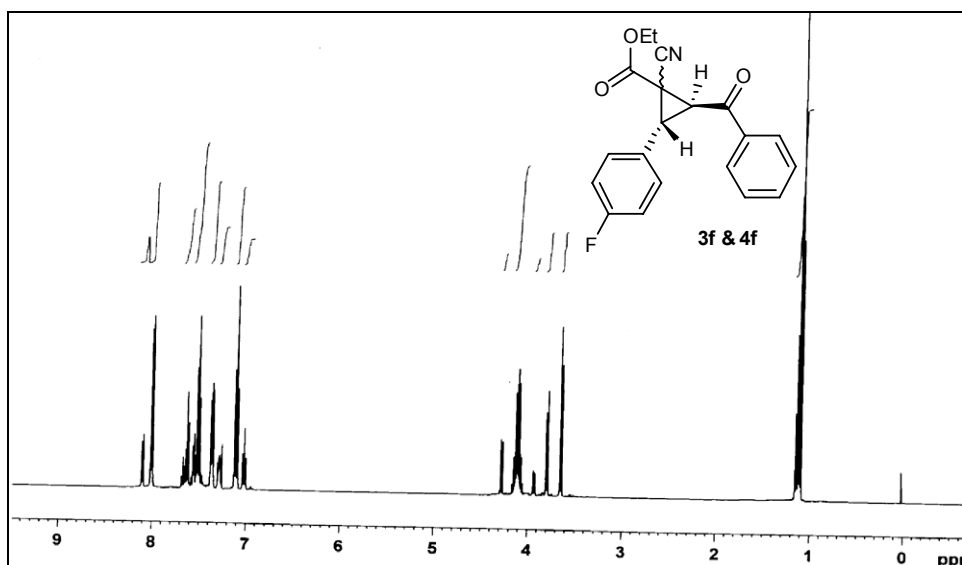


Fig-11 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(4-

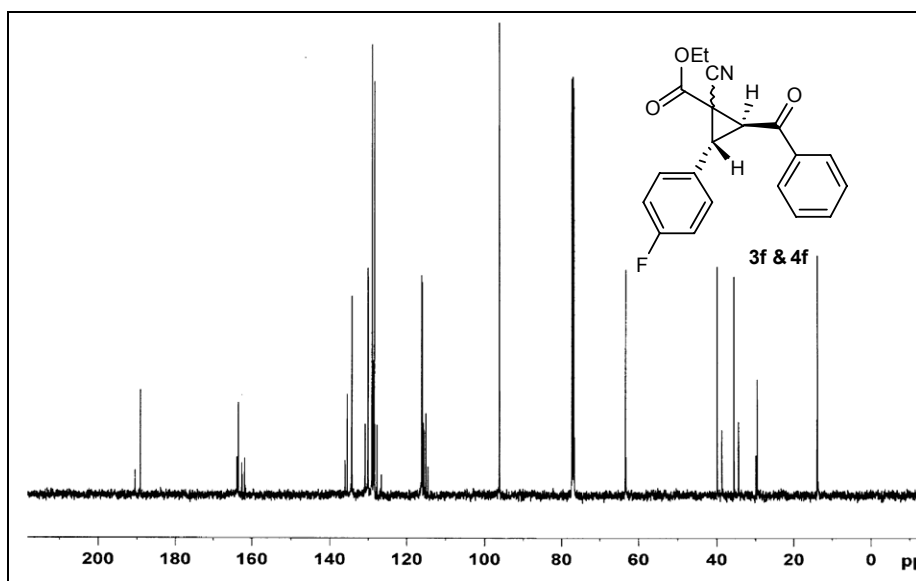


Fig-12 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(4-fluorophenyl)cyclopropanecarboxylate

Ethyl 2-benzoyl-1-cyano-3-(3-nitrophenyl)cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(3-nitrophenyl)prop-2-ene carboxylate **1g** (182 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as pale yellow colored viscous oil in 76 % yield as a diastereomeric mixture of **3g** & **4g** (3:4 = 1.7:1).

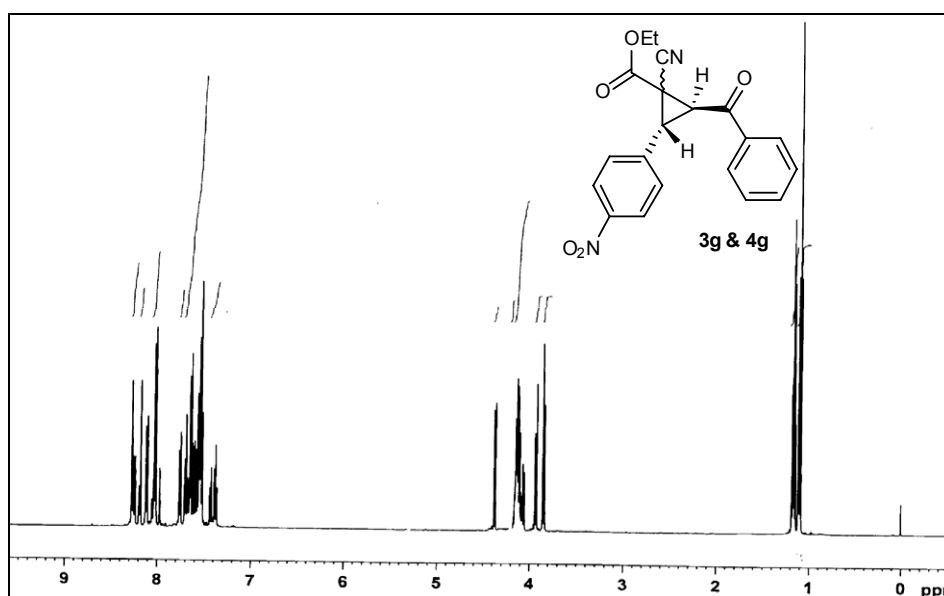


Fig-13 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(3-nitrophenyl)cyclopropanecarboxylate (**3g** and **4g**)

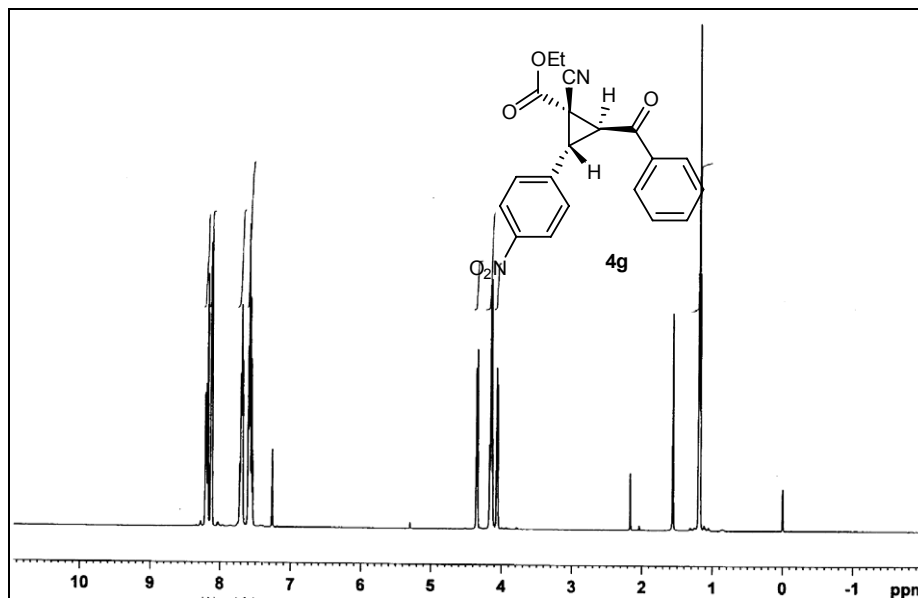


Fig-14 ^1H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(3-nitrophenyl)cyclopropanecarboxylate (**4g**)

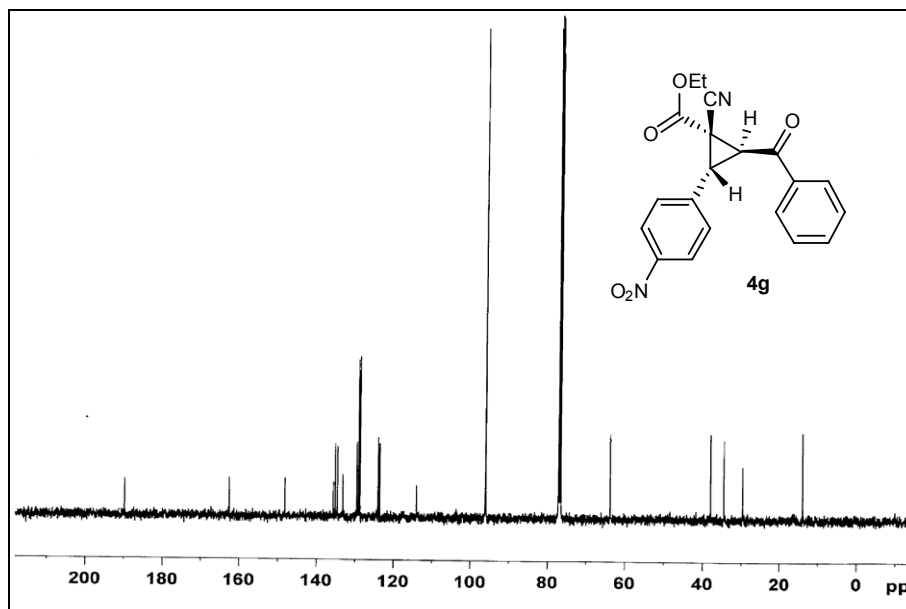


Fig-15 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(3-nitrophenyl)cyclopropanecarboxylate (**4g**)

Ethyl 2-benzoyl-1-cyano-3-(1-naphthyl)cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(1-naphthyl)prop-2-ene carboxylate **1h** (185 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 89 % yield as a diastereomeric mixture of **3h** & **4h** (**3:4** = 9:1)

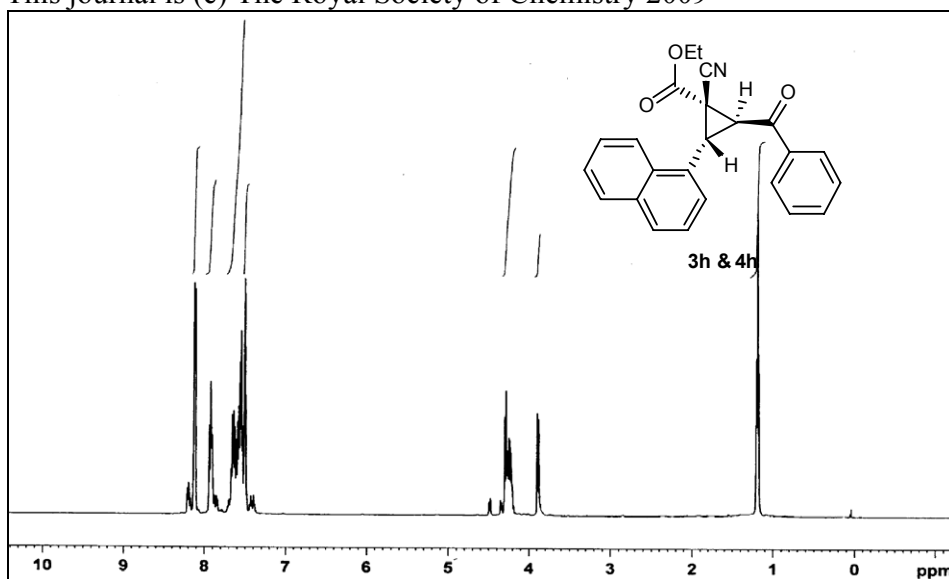


Fig-16 ¹H NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(1-naphthyl)cyclopropane carboxylate (**3h** and **4h**)

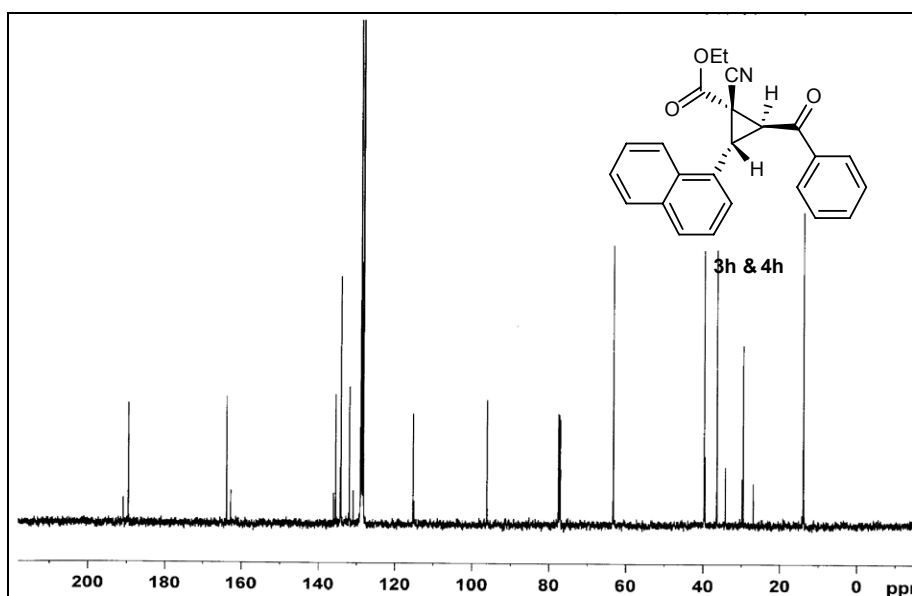


Fig-17 ¹³C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(1-naphthyl)cyclopropane carboxylate (**3h** and **4h**)

Ethyl 2-benzoyl-1-cyano-3-(2-thienyl)cyclopropane carboxylate was obtained from the reaction of ethyl 2-cyano-3-(2-thienyl)prop-2-ene carboxylate **1i** (163 mg, 0.5 mmol) with phenacyl bromide **2** (150 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless viscous oil in 89 % yield as a diastereomeric mixture of **3i** & **4i** (3:4 =

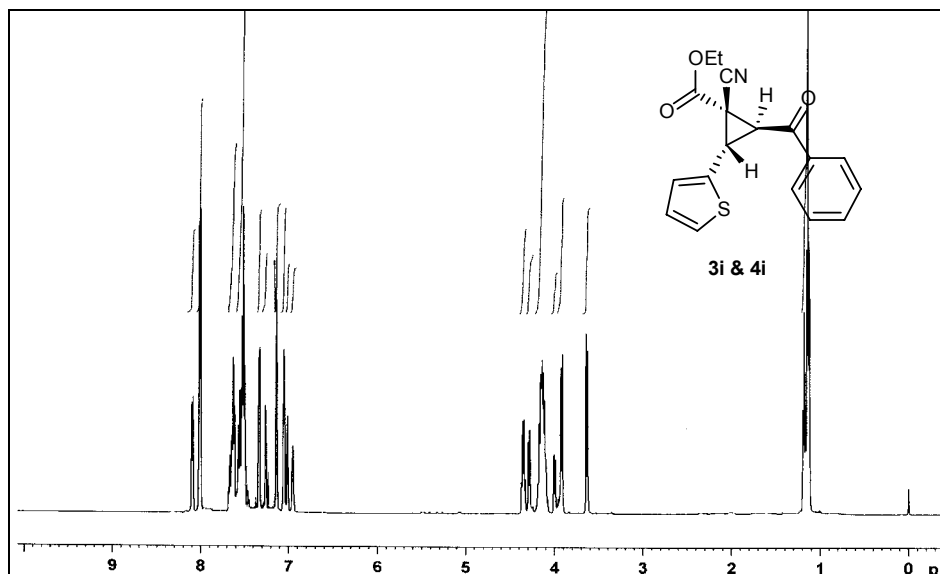


Fig-18 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(2-thienyl)cyclopropanecarboxylate (**3i** and **4i**)

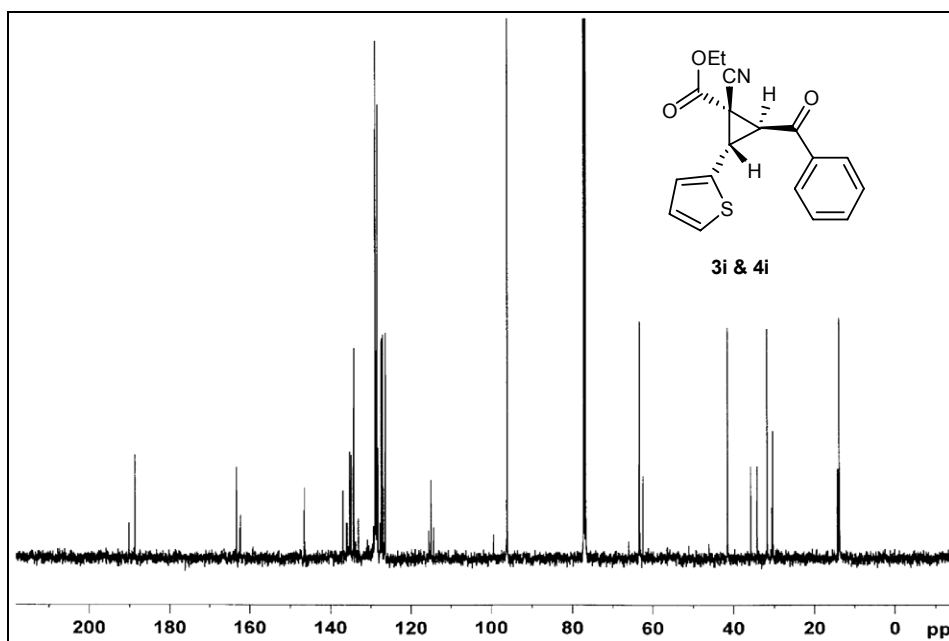


Fig-19 ^{13}C NMR (500 MHz) spectrum of ethyl 2-benzoyl-1-cyano-3-(2-thienyl)cyclopropanecarboxylate (**3i** and **4i**)

Ethyl 3-(4-chlorophenyl)-1-cyano-2-(4-methoxybenzoyl)cyclopropanecarboxylate was obtained from the reaction of ethyl 3-(4-chlorophenyl)-2-cyanoprop-2-ene carboxylate **1a** (176 mg, 0.5 mmol) with 2-bromo-1-(4-methoxyphenyl)-1-ethanone **2b** (170 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as viscous oil in 63 % yield

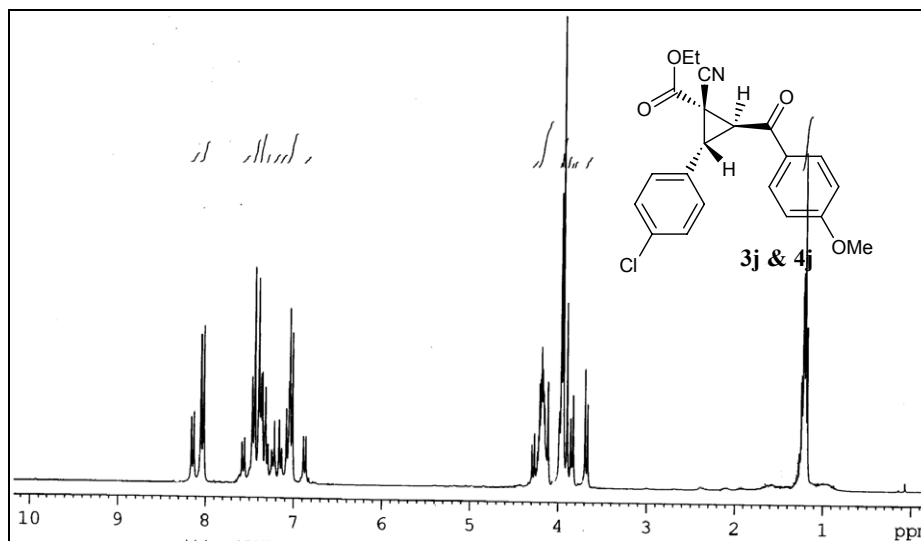


Fig-20 ¹H NMR (300 MHz) spectrum of ethyl 3-(4-chlorophenyl)-1-cyano-2-(4-methoxybenzoyl)cyclopropane carboxylate (**3j** and **4j**)

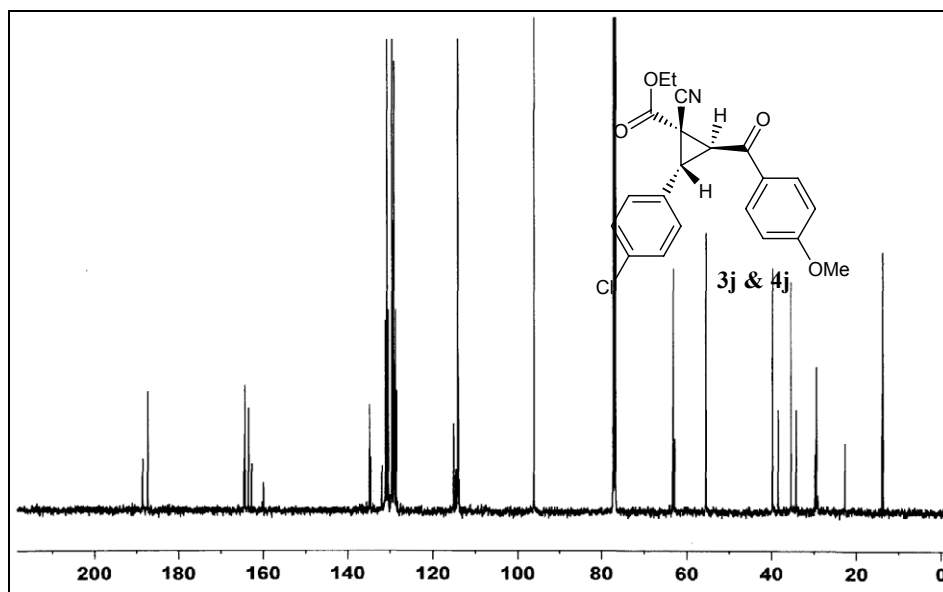


Fig-21 ¹³C NMR (500 MHz) spectrum of ethyl 3-(4-chlorophenyl)-1-cyano-2-(4-methoxybenzoyl)cyclopropane carboxylate (**3j** and **4j**)

Ethyl 2-(4-chlorobenzoyl)-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate was obtained from the reaction of ethyl 3-(4-chlorophenyl)-2-cyanoprop-2-ene carboxylate **1a** (176 mg, 0.5 mmol) with 2-bromo-1-(4-chlorophenyl)-1-ethanone **2c** (170 mg, 0.75 mmol) in the presence of dimesitylimidazocarbene as colorless solid in 68 % yield as a diastereomeric mixture of **3k** & **4k** (**3**:**4** = 4.12:1, mp 98-110°C).

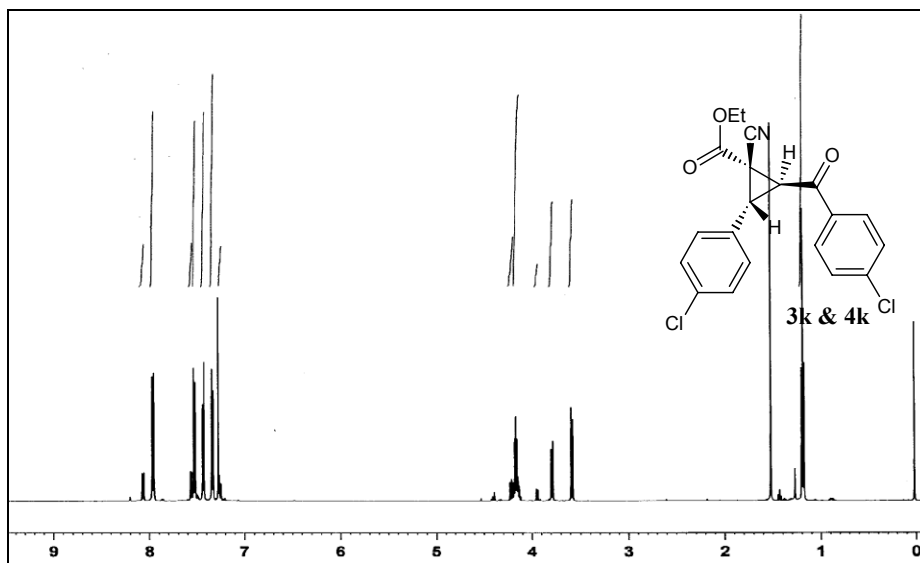


Fig-22 ¹H NMR (500 MHz) spectrum of ethyl 2-(4-chlorobenzoyl)-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate (**3k** and **4k**)

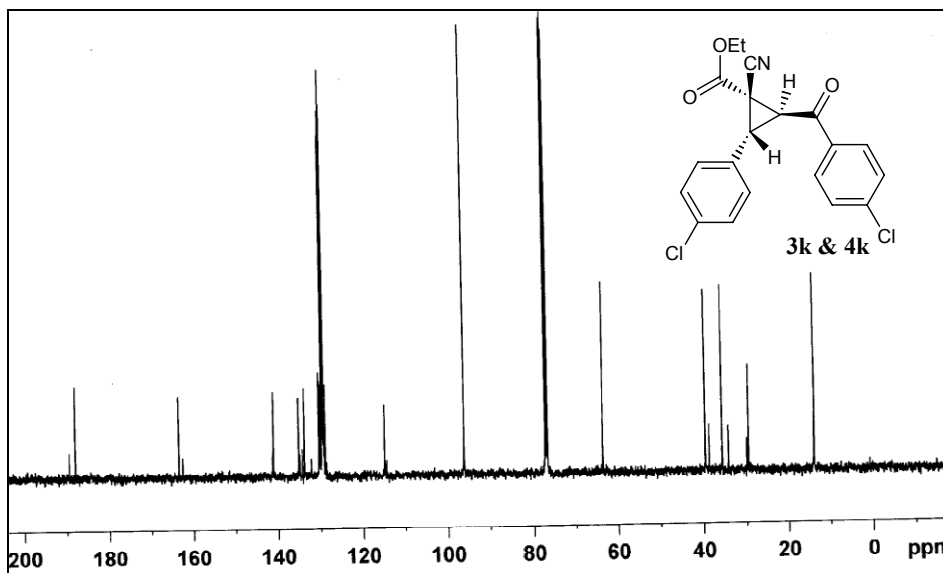


Fig-23 ¹³C NMR (500 MHz) spectrum of ethyl 2-(4-chlorobenzoyl)-3-(4-chlorophenyl)-1-cyanocyclopropane carboxylate (**3k** and **4k**)