Supporting Information

Synthesis of Isocoumarins via Silver(I)-mediated Annulation of Enol-esters

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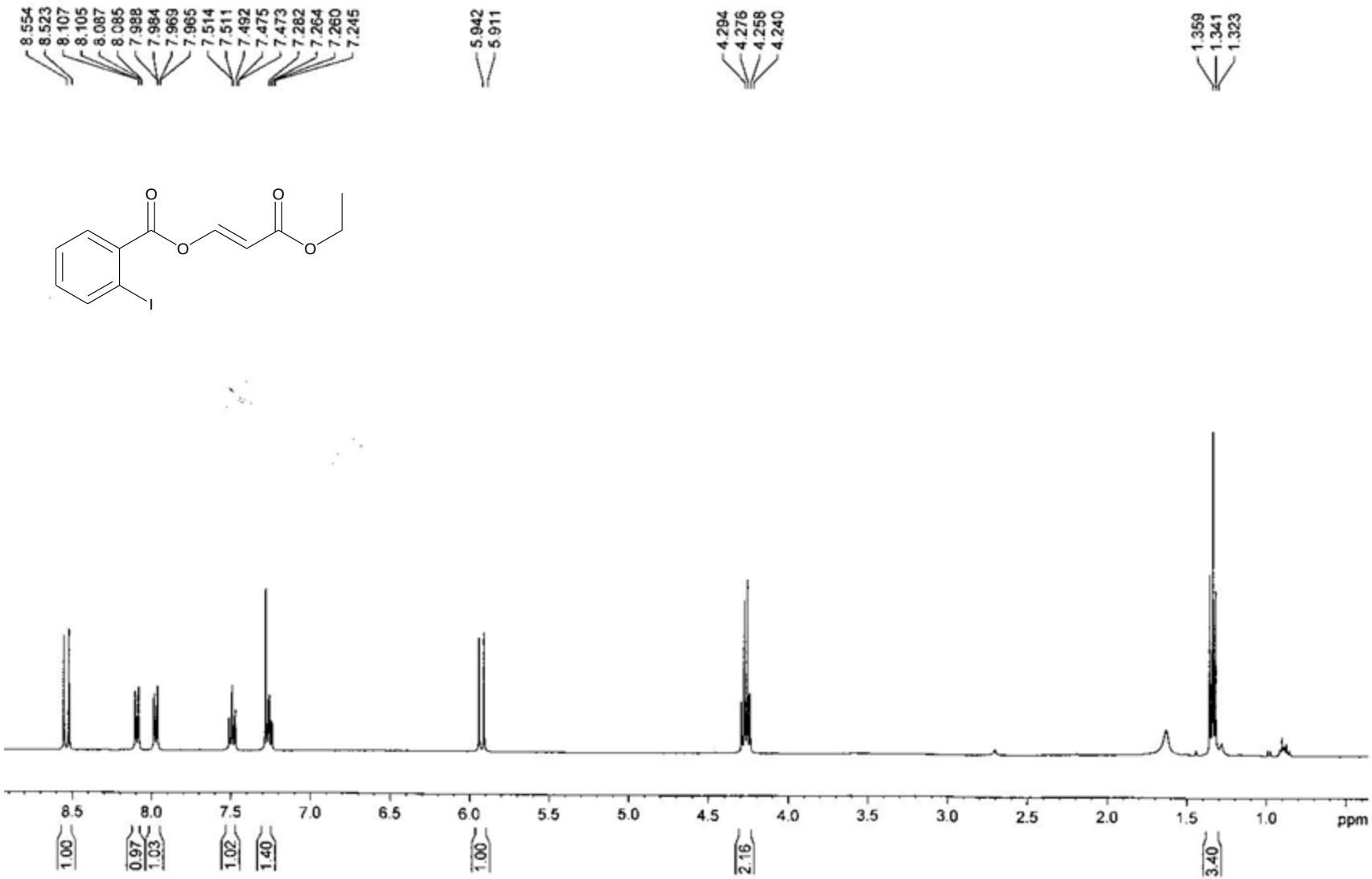
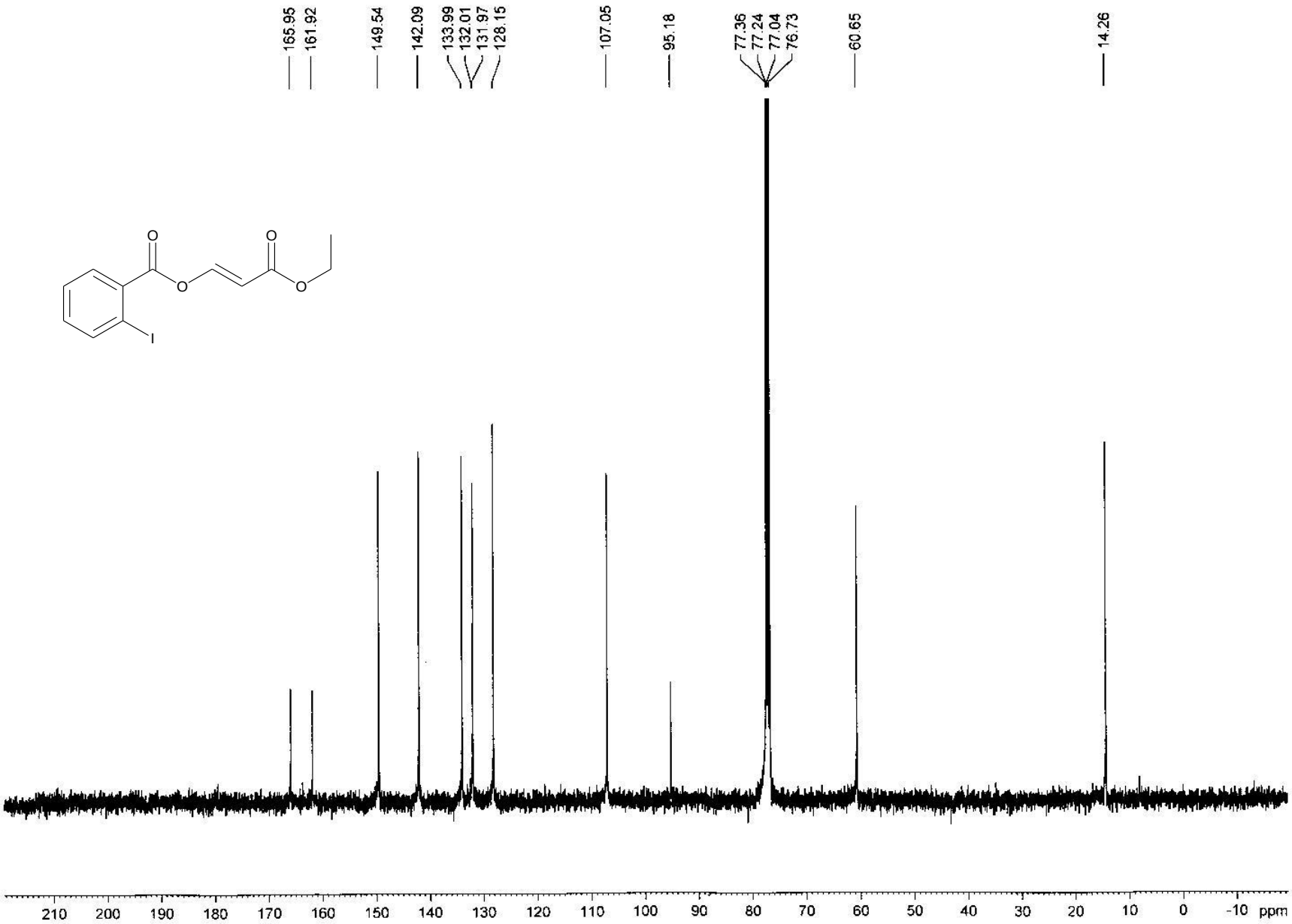
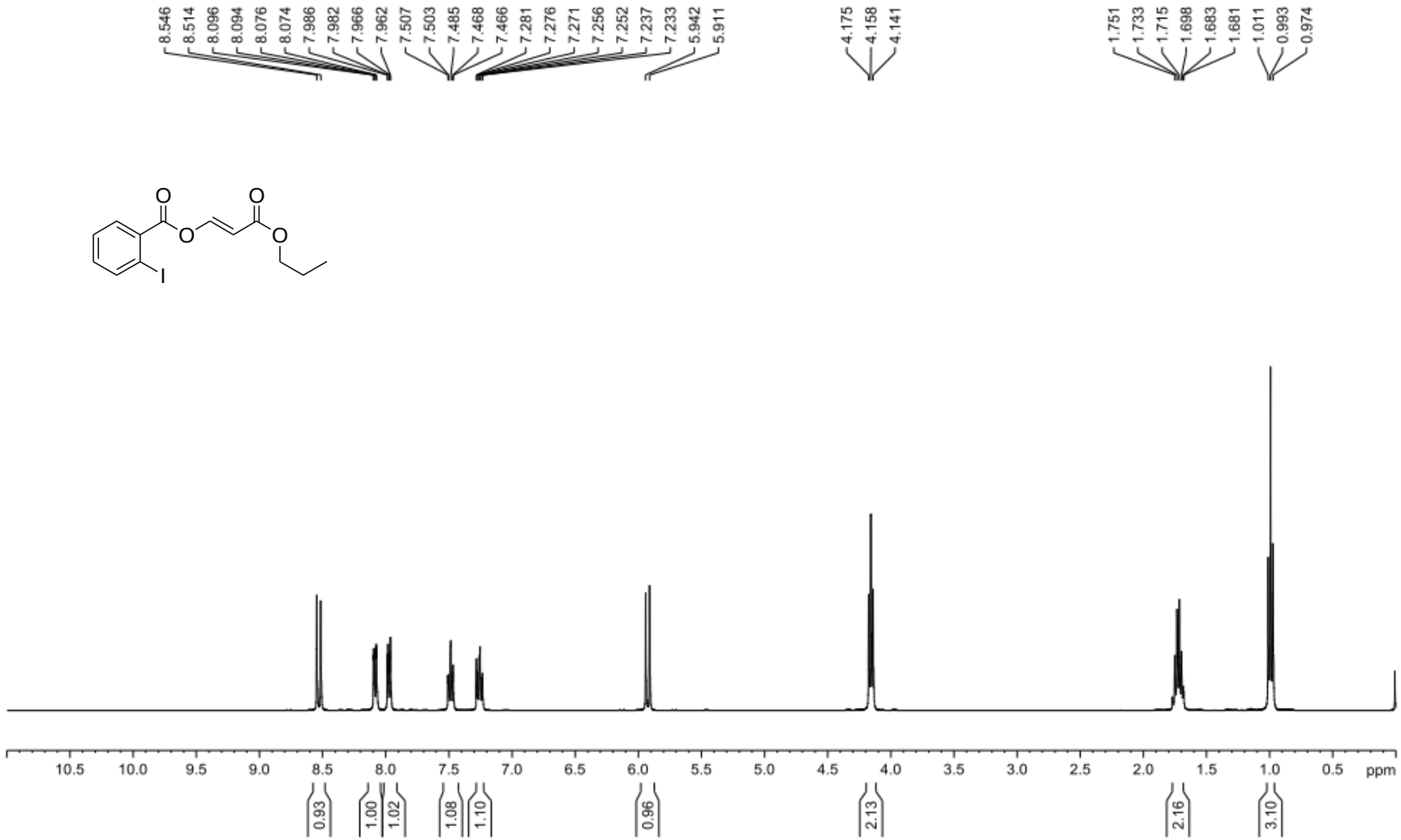
(*E*)-2-(ethoxycarbonyl)vinyl 2-iodobenzoate (1a): ^{1}H NMR



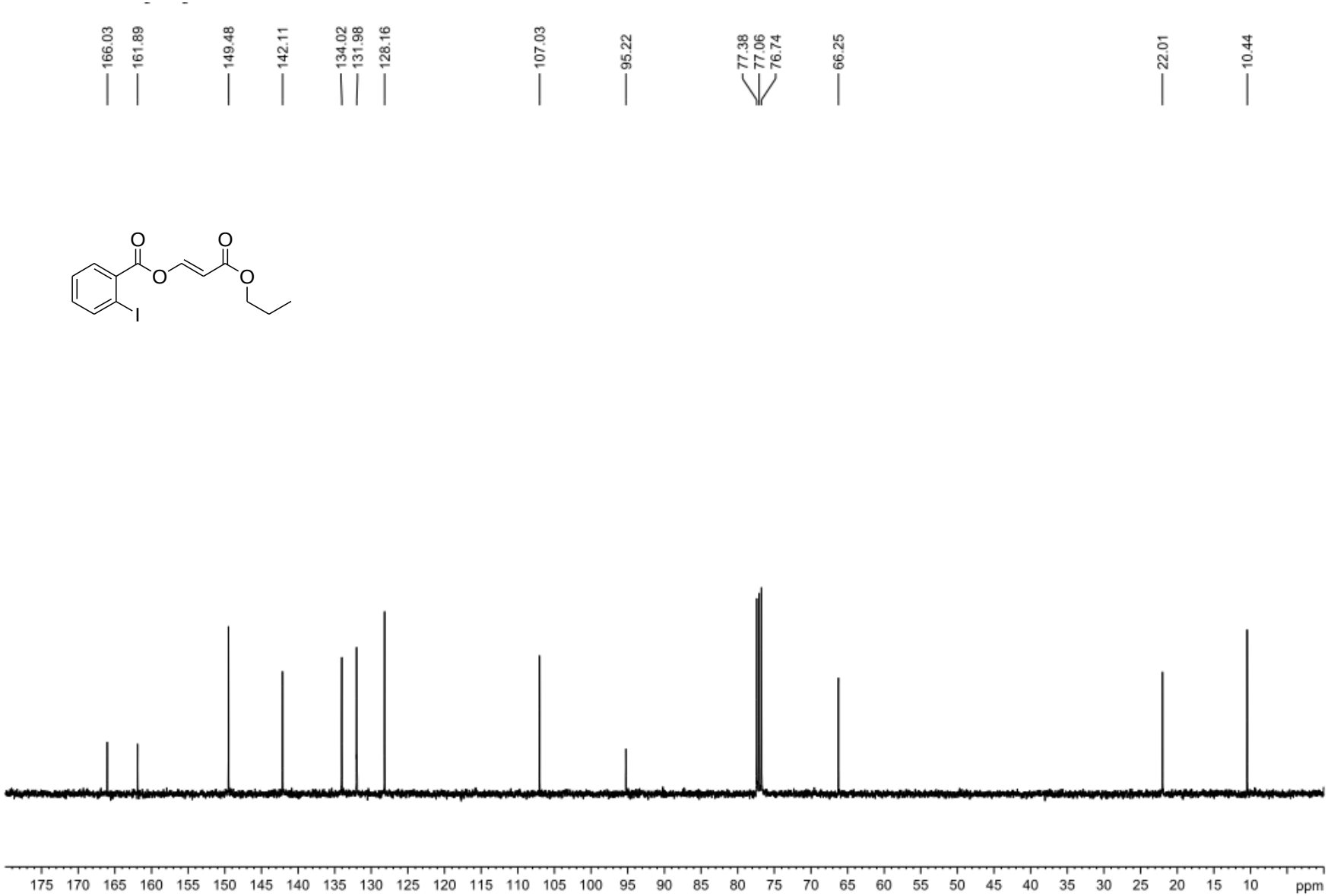
(*E*)-2-(ethoxycarbonyl)vinyl 2-iodobenzoate (1a): ^{13}C NMR



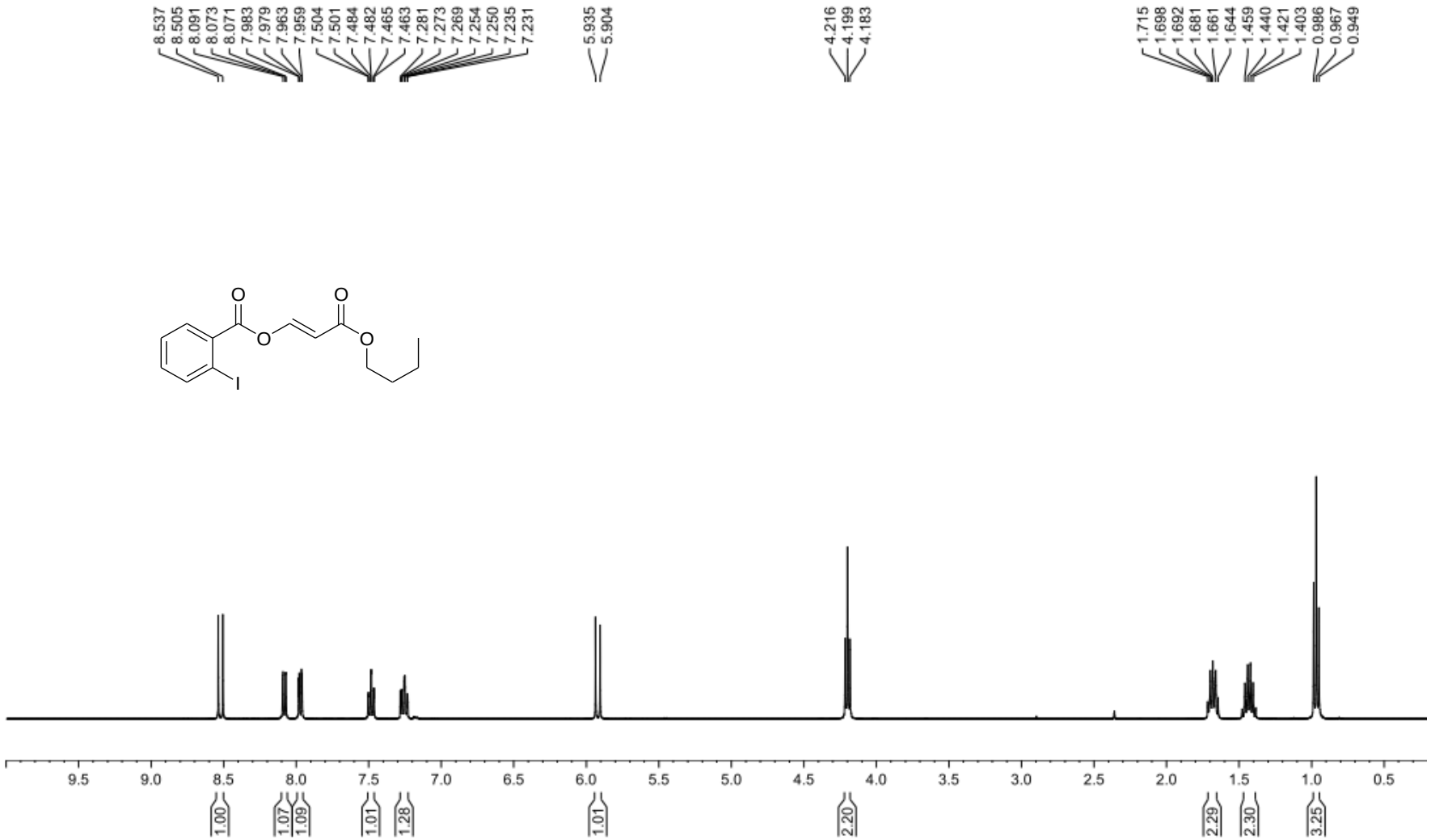
(*E*)-2-(propoxycarbonyl)vinyl 2-iodobenzoate (1b): ^{1}H NMR



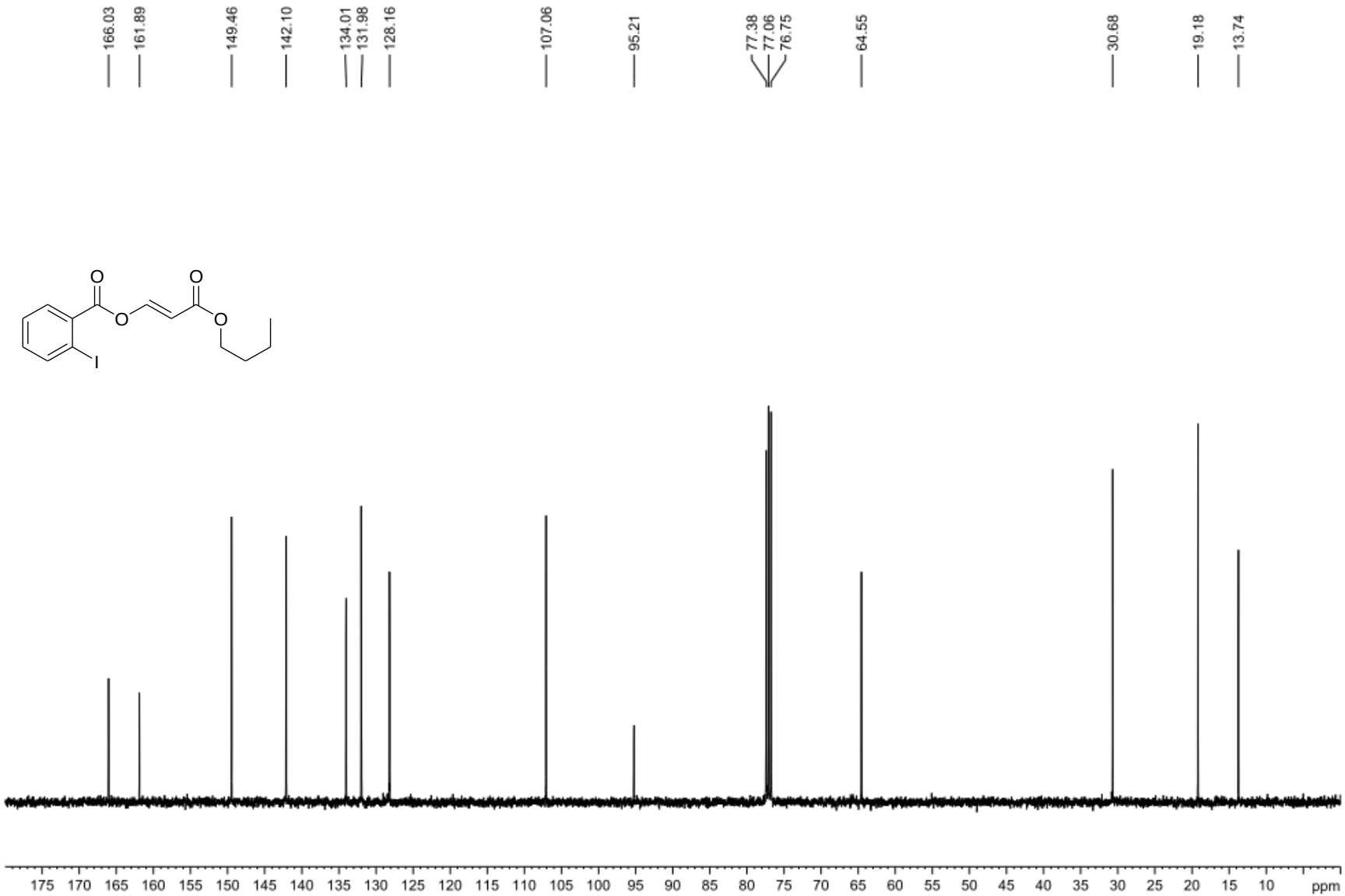
(*E*)-2-(propoxycarbonyl)vinyl 2-iodobenzoate (1b): ^{13}C NMR



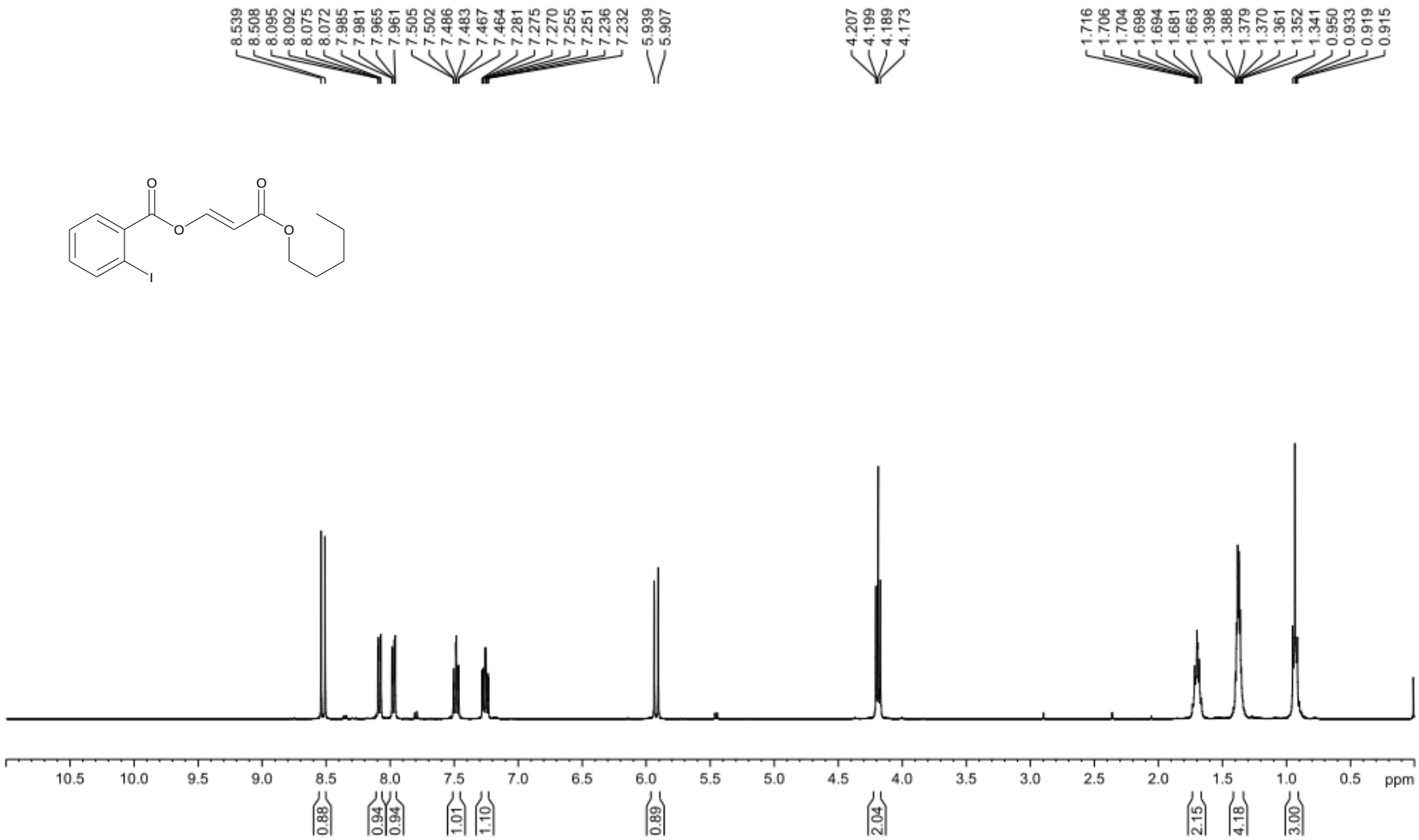
(E)-2-(butoxycarbonyl)vinyl 2-iodobenzoate (1c): ^{1}H NMR



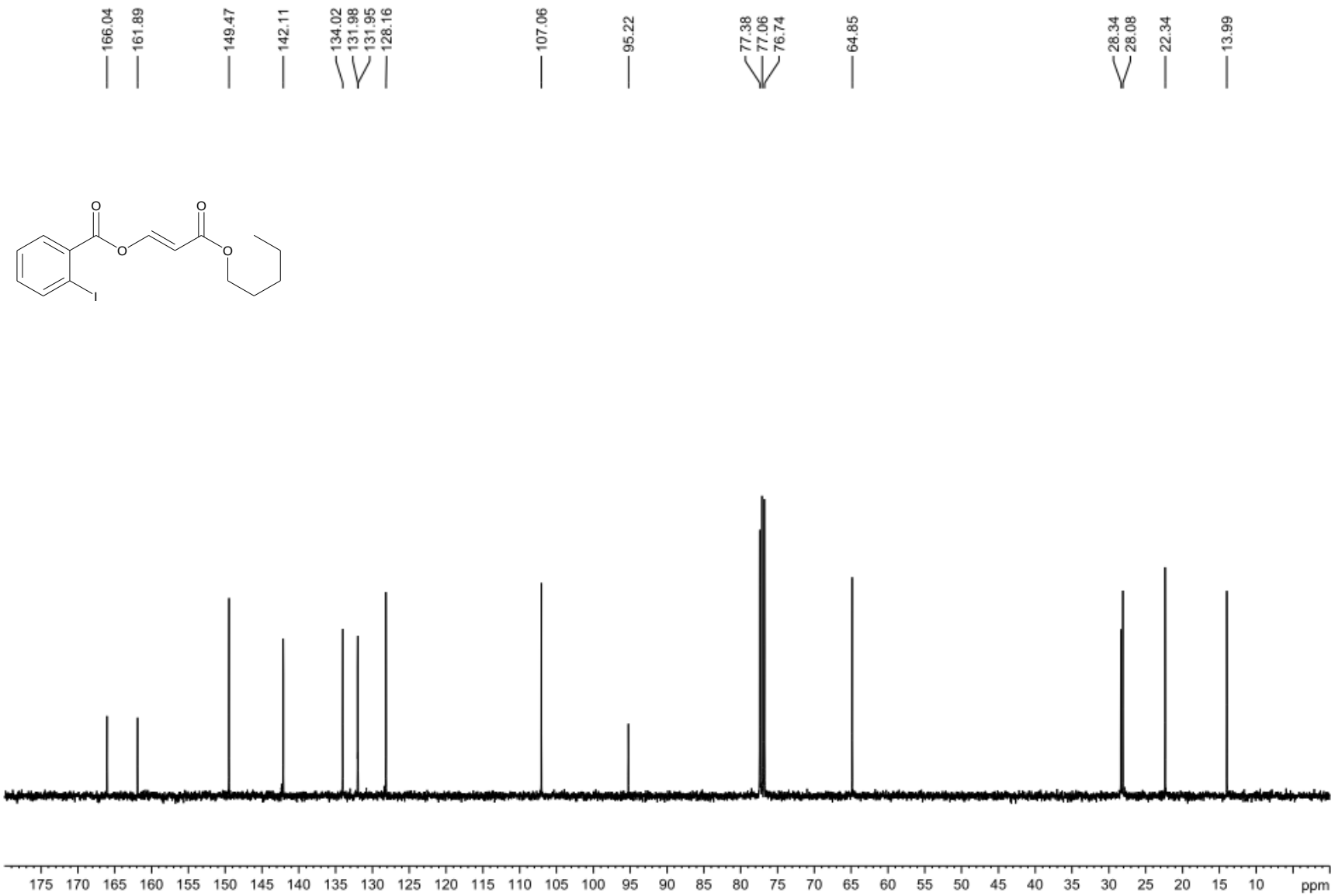
(*E*)-2-(butoxycarbonyl)vinyl 2-iodobenzoate (1c): ^{13}C NMR :



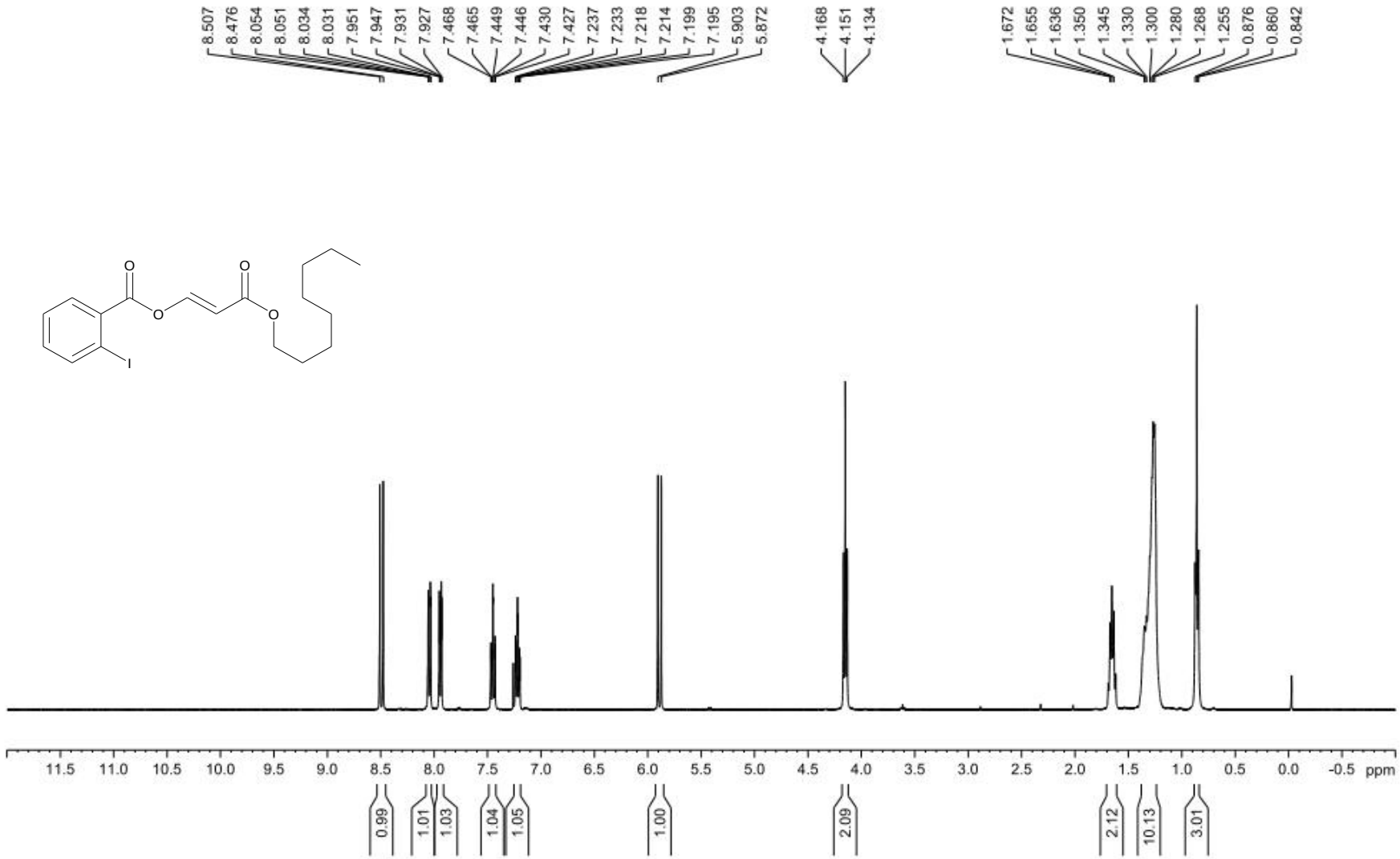
(*E*)-2-((pentyloxy)carbonyl)vinyl 2-iodobenzoate (1d): ^{1}H NMR



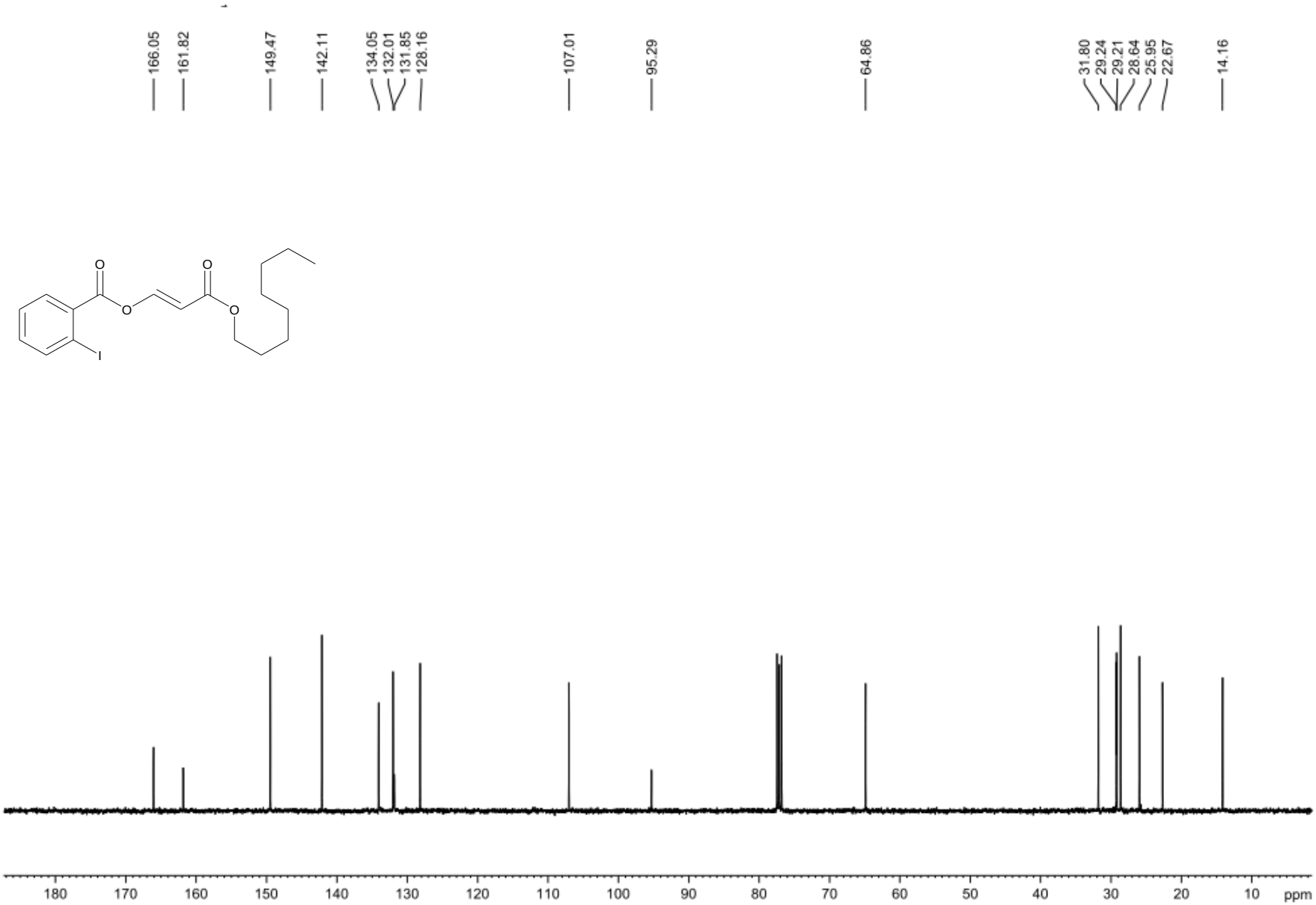
(*E*)-2-((pentyloxy)carbonyl)vinyl 2-iodobenzoate (1d): ^{13}C NMR



(E)-2-((octyloxy)carbonyl)vinyl 2-iodobenzoate (1e): ^{1}H NMR

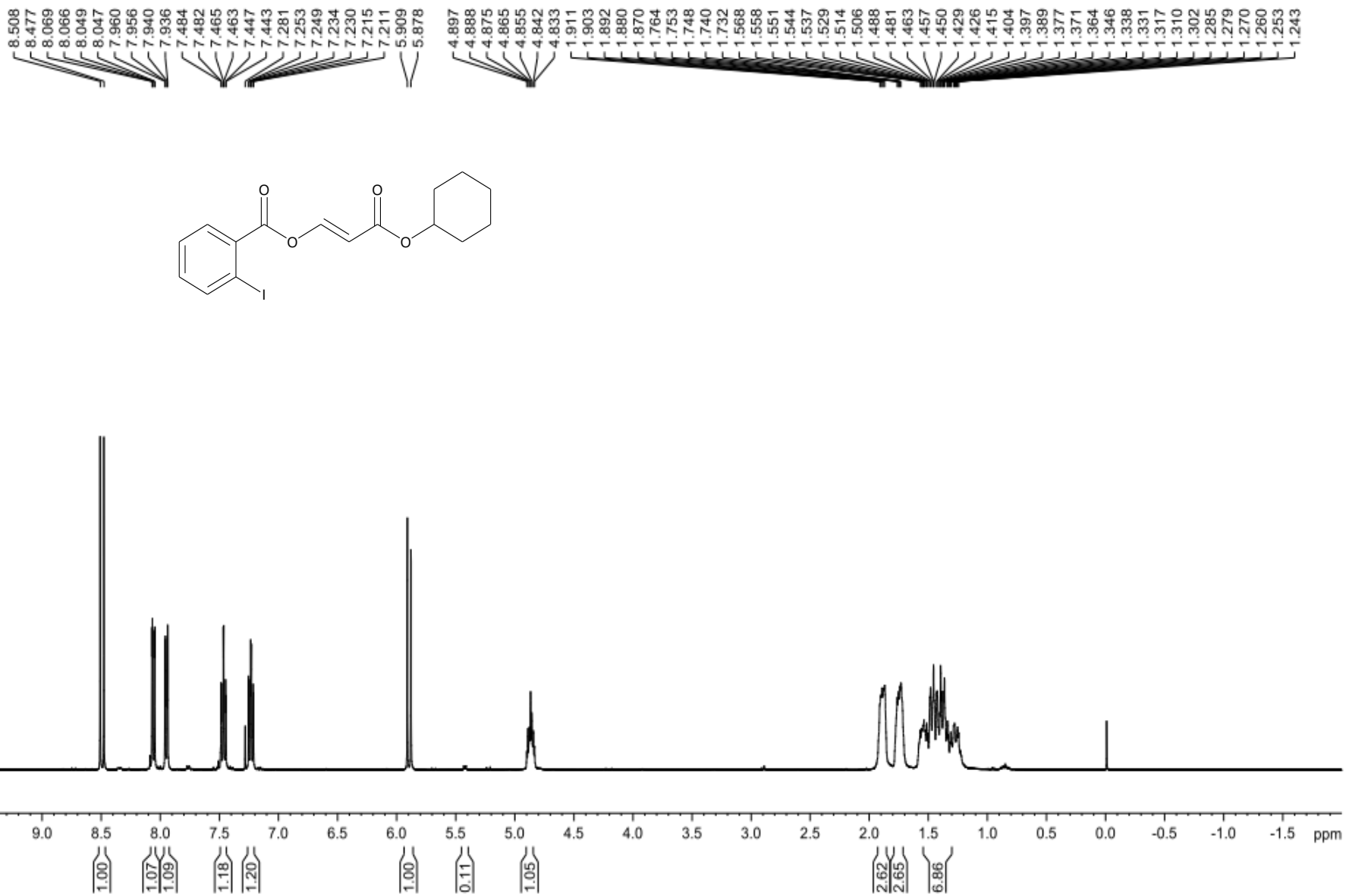


(*E*)-2-((octyloxy)carbonyl)vinyl 2-iodobenzoate (1e): ^{13}C NMR

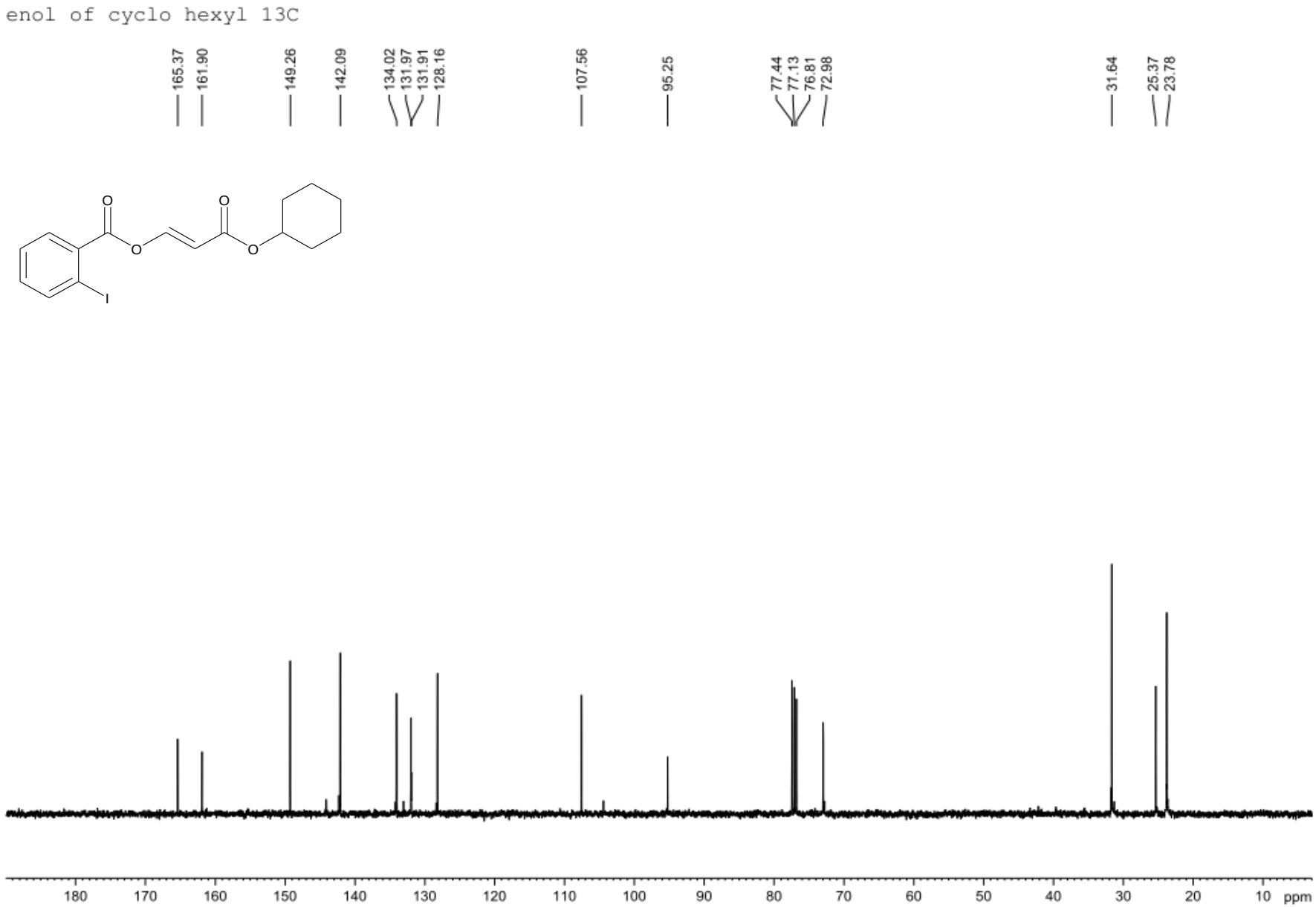


enol of cyclo hexyl

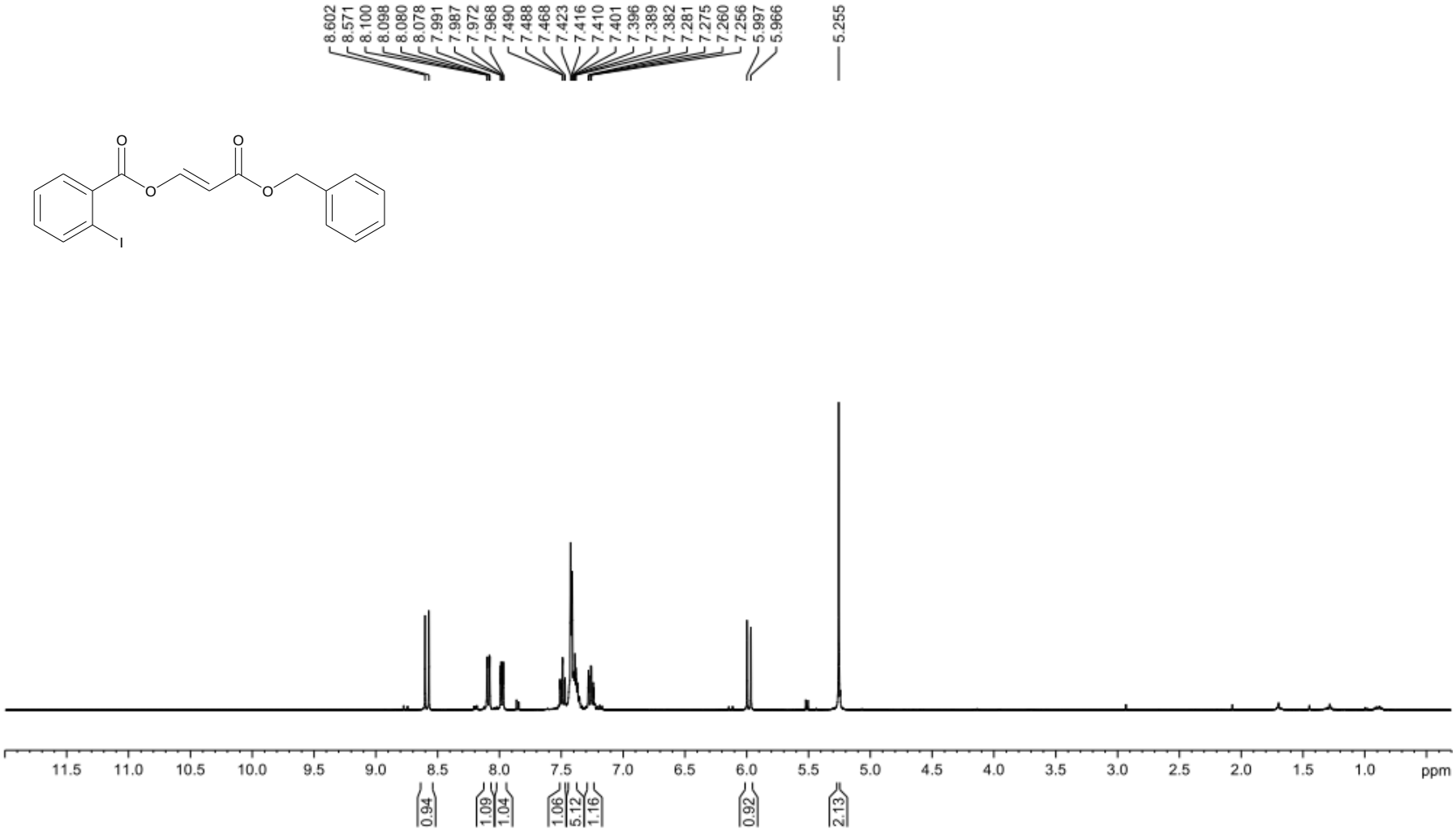
(*E*)-2-((cyclohexyloxy)carbonyl)vinyl 2-iodobenzoate (1f): ^{1}H NMR



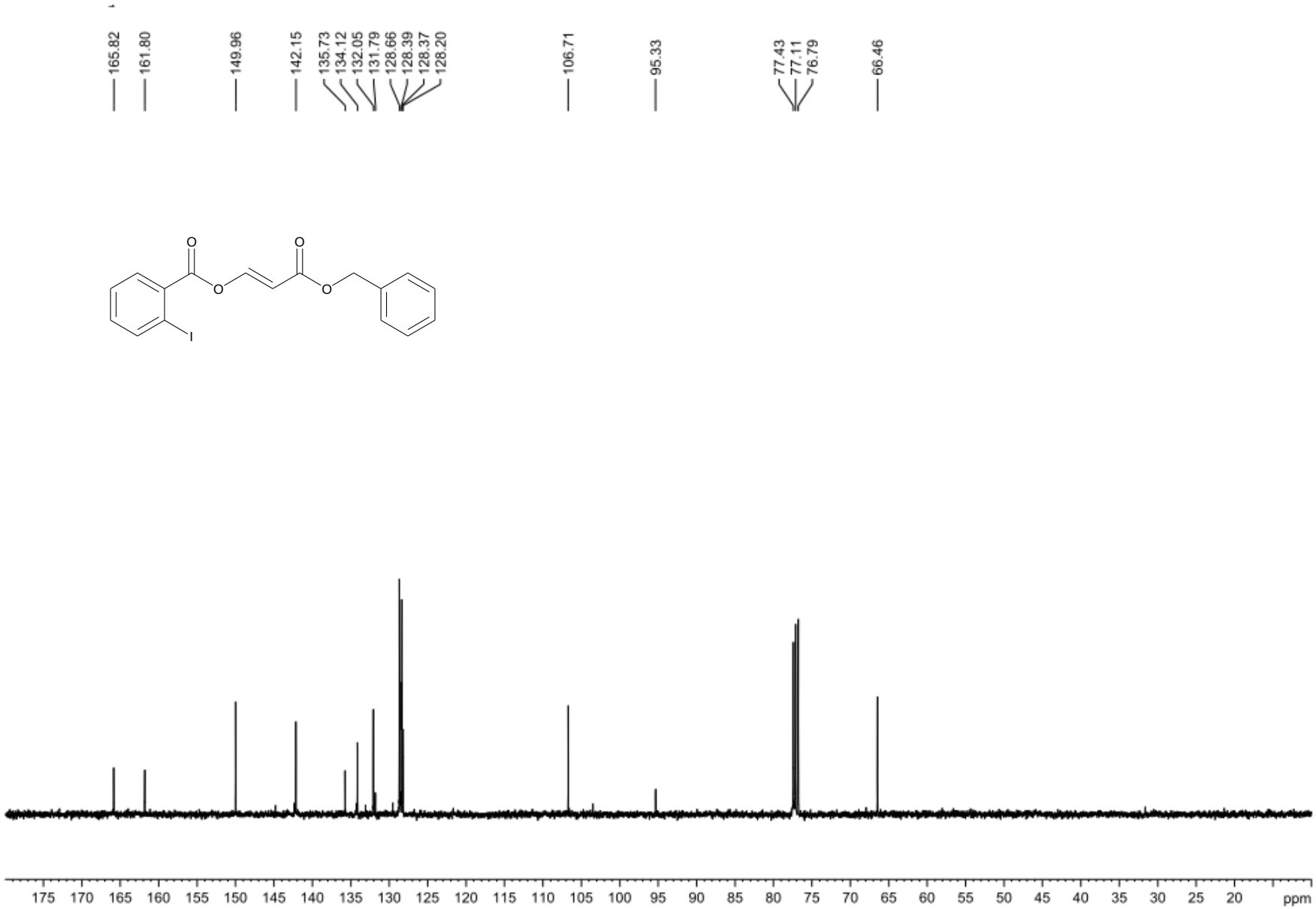
(*E*)-2-((cyclohexyloxy)carbonyl)vinyl 2-iodobenzoate (1f): ^{13}C NMR



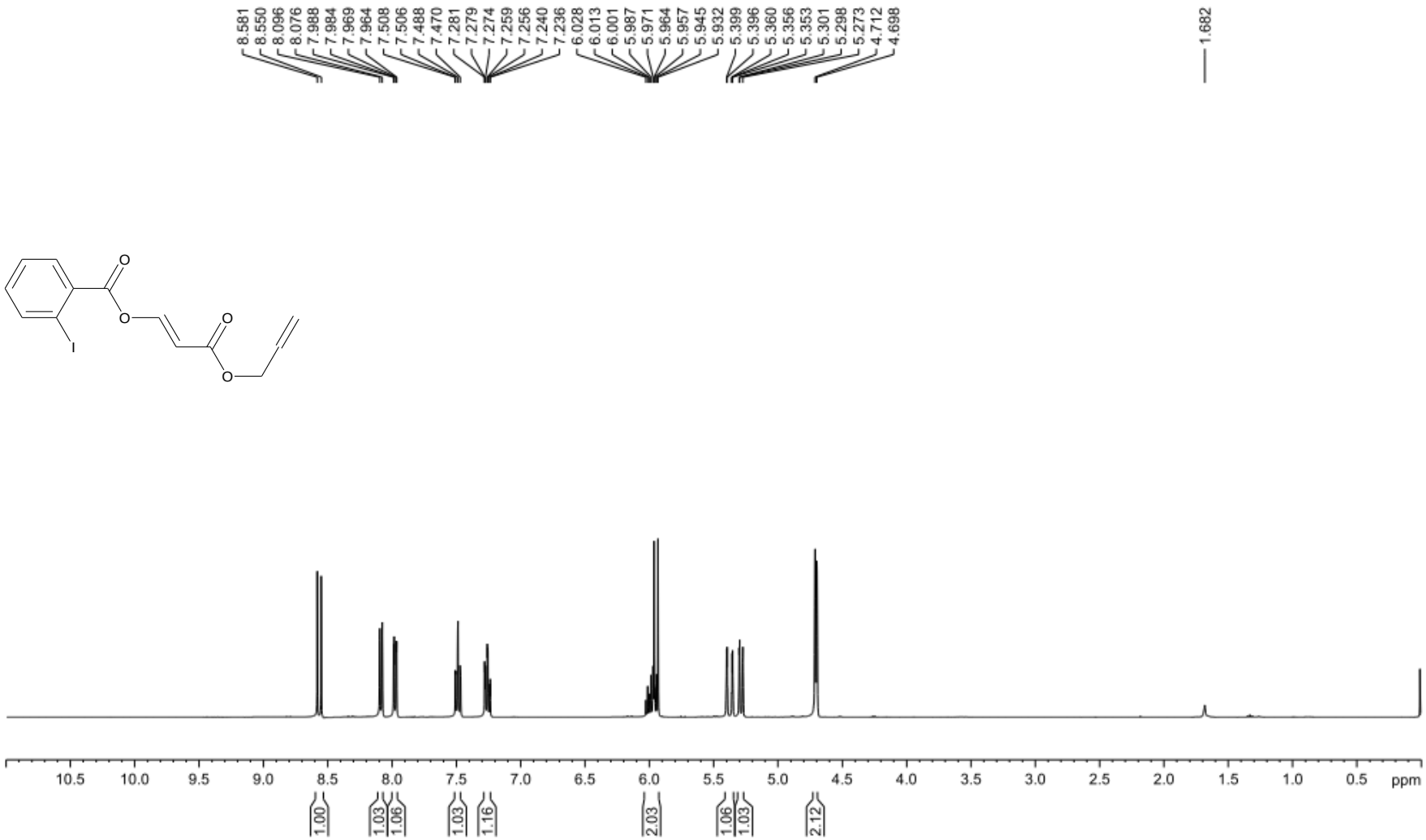
(*E*)-2-((benzyloxy)carbonyl)vinyl 2-iodobenzoate(1g): ^{1}H NMR



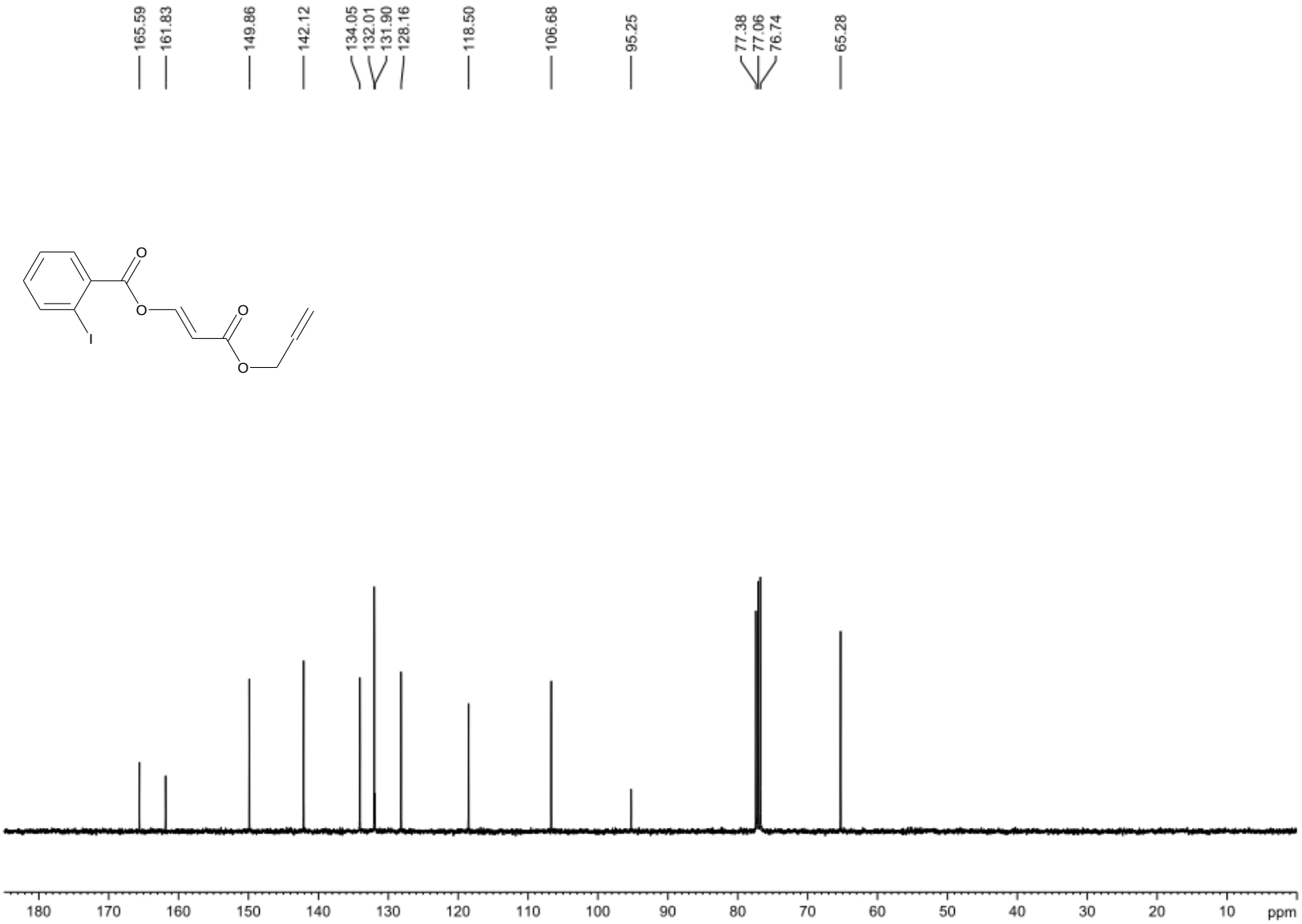
(*E*)-2-((benzyloxy)carbonyl)vinyl 2-iodobenzoate (1g): ^{13}C NMR



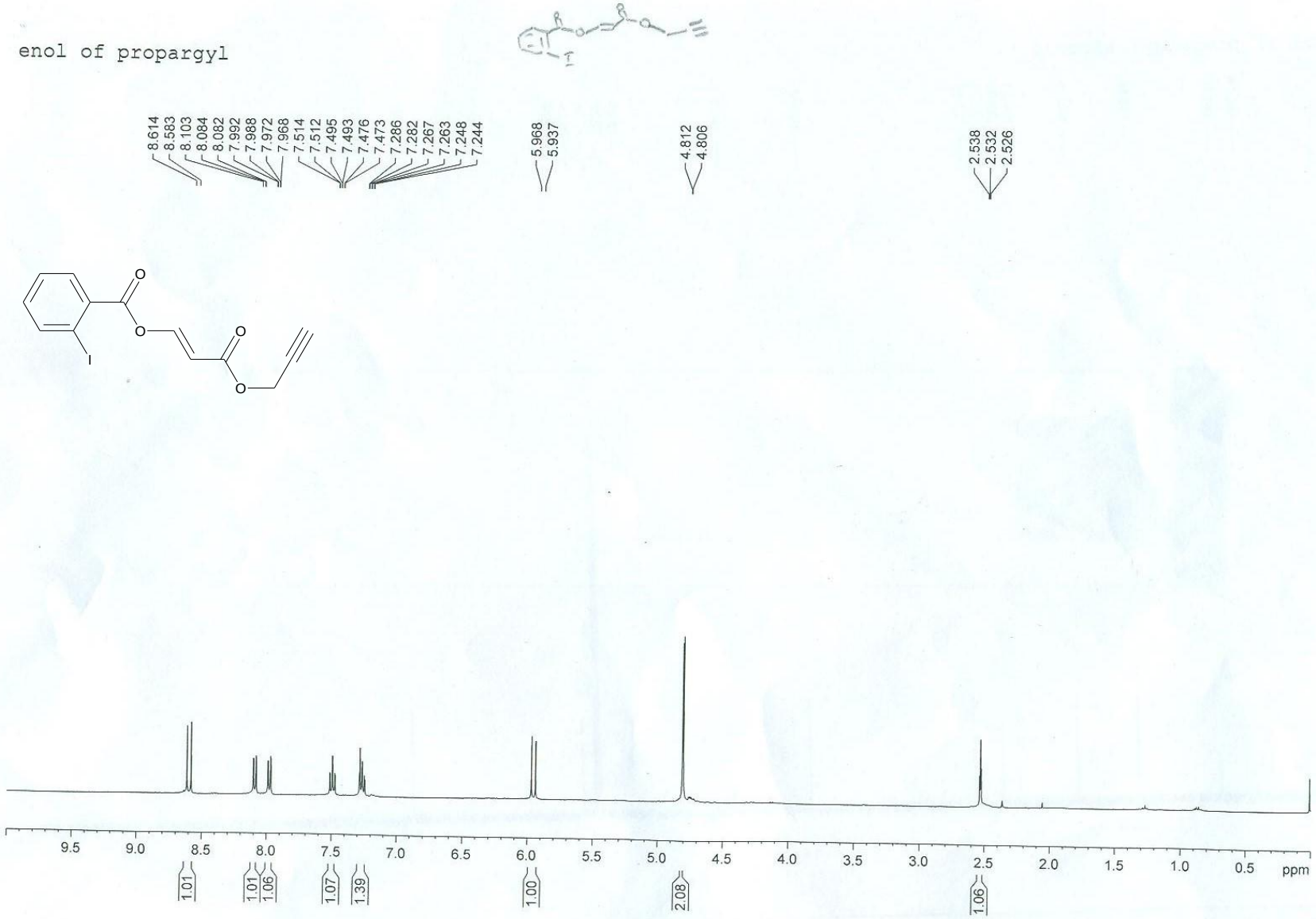
(*E*)-2-((allyloxy)carbonyl)vinyl 2-iodobenzoate (1h): ^{1}H NMR



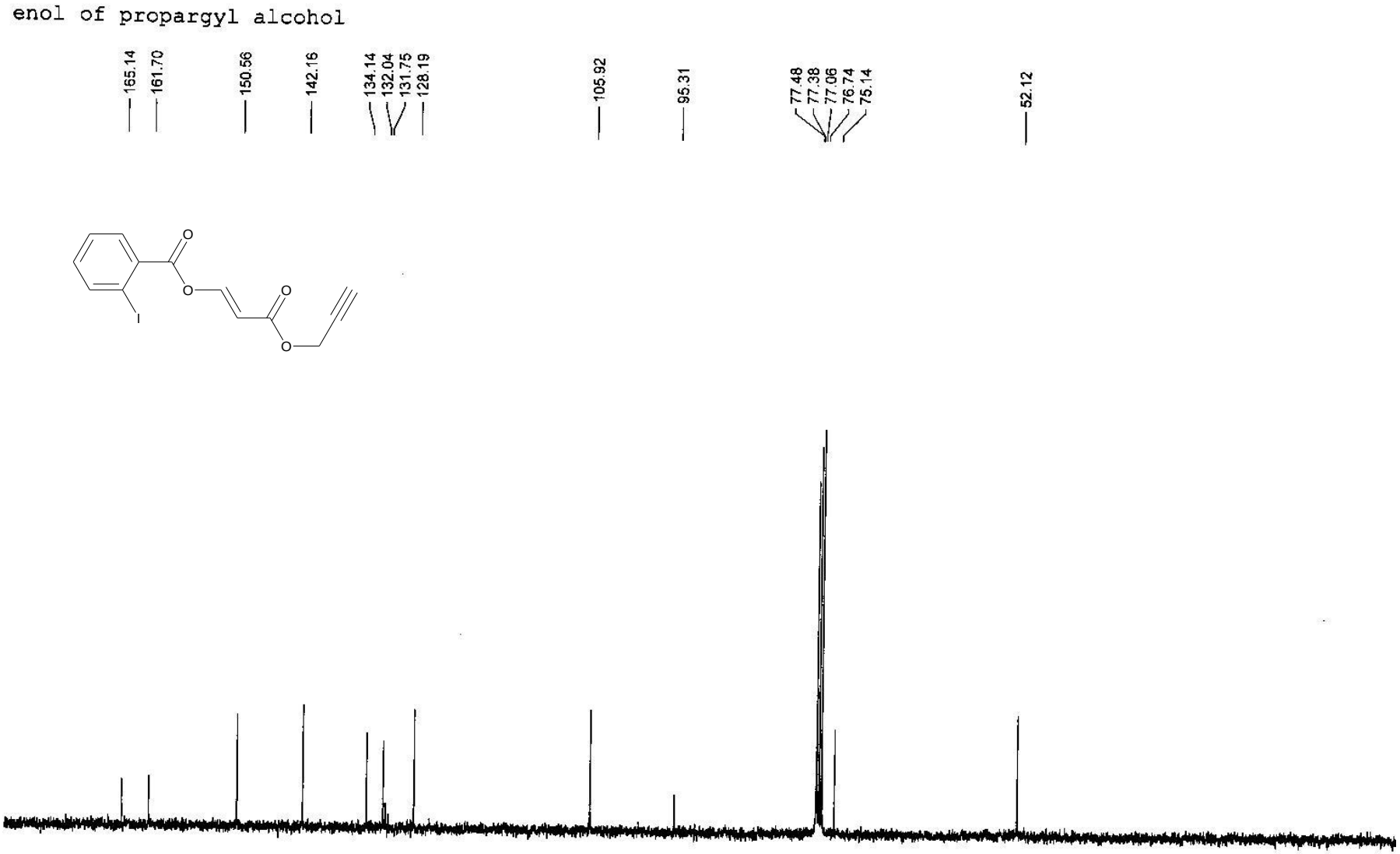
(*E*)-2-((allyloxy)carbonyl)vinyl 2-iodobenzoate (1h): ^{13}C NMR



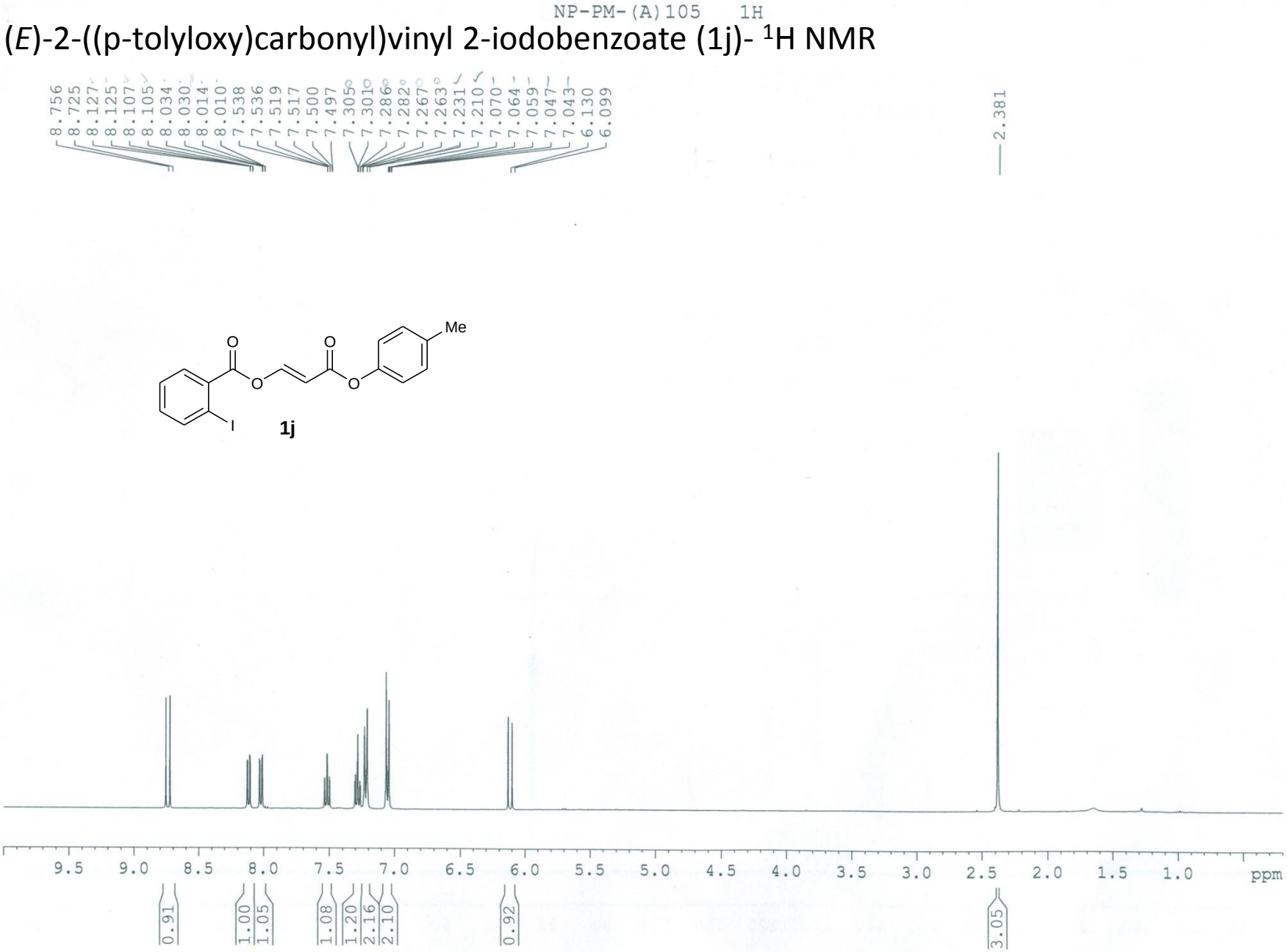
(*E*)-2-((prop-2-ynyloxy)carbonyl)vinyl 2-iodobenzoate (1i): ^{1}H NMR



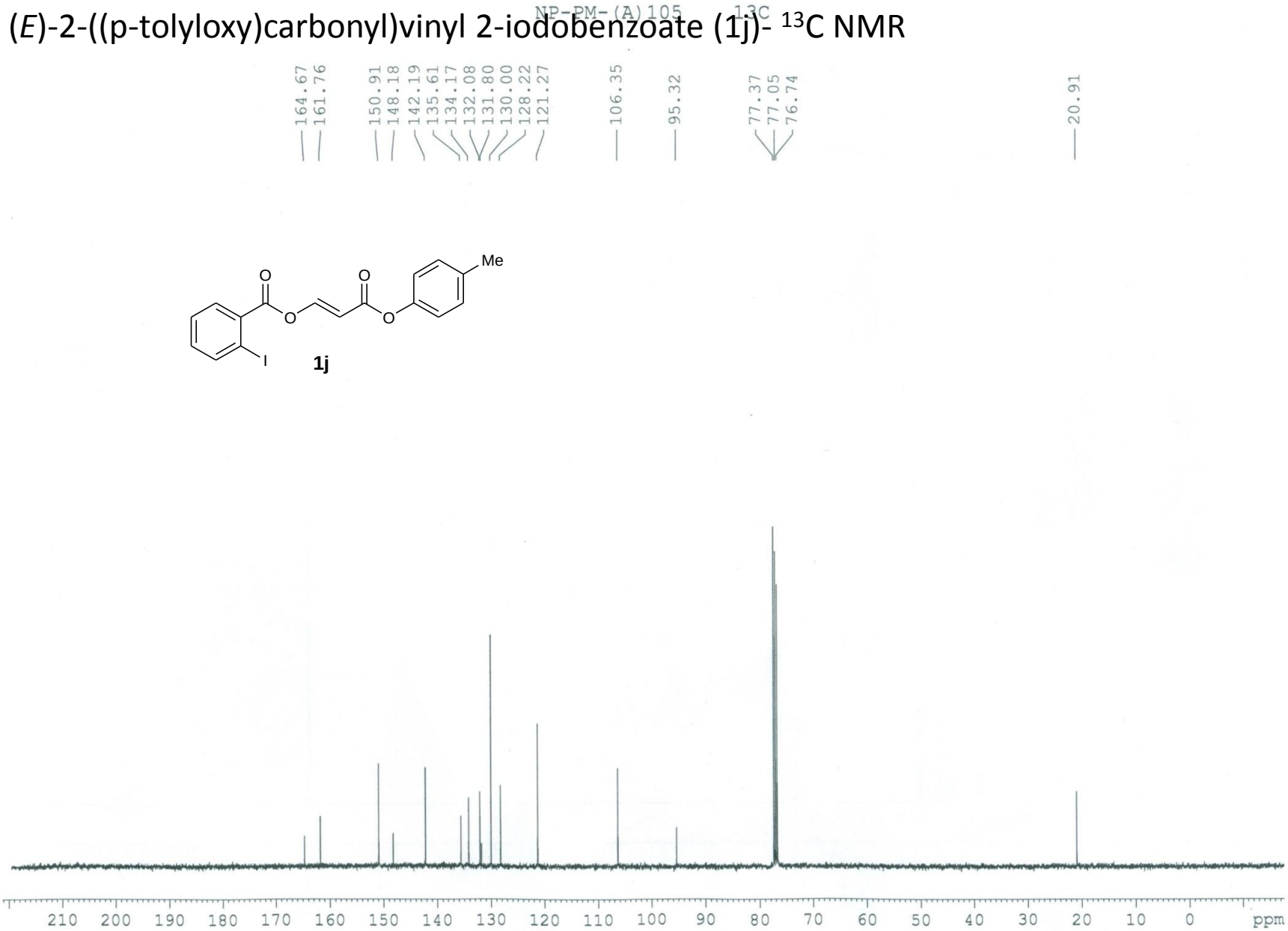
(*E*)-2-((prop-2-ynyloxy)carbonyl)vinyl 2-iodobenzoate (1i): ^{13}C NMR



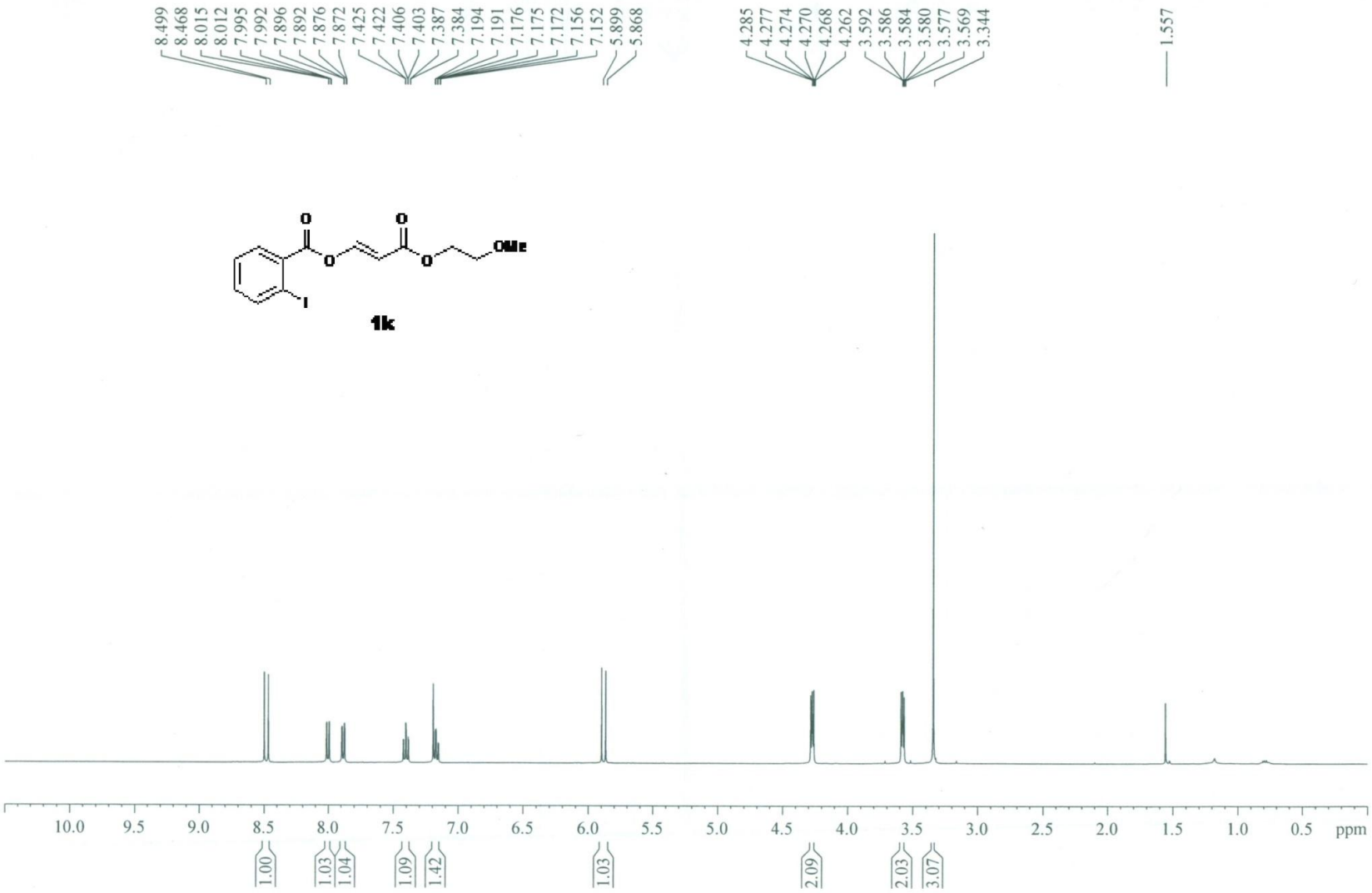
(*E*)-2-((p-tolyloxy)carbonyl)vinyl 2-iodobenzoate (1j)- ^{1}H NMR



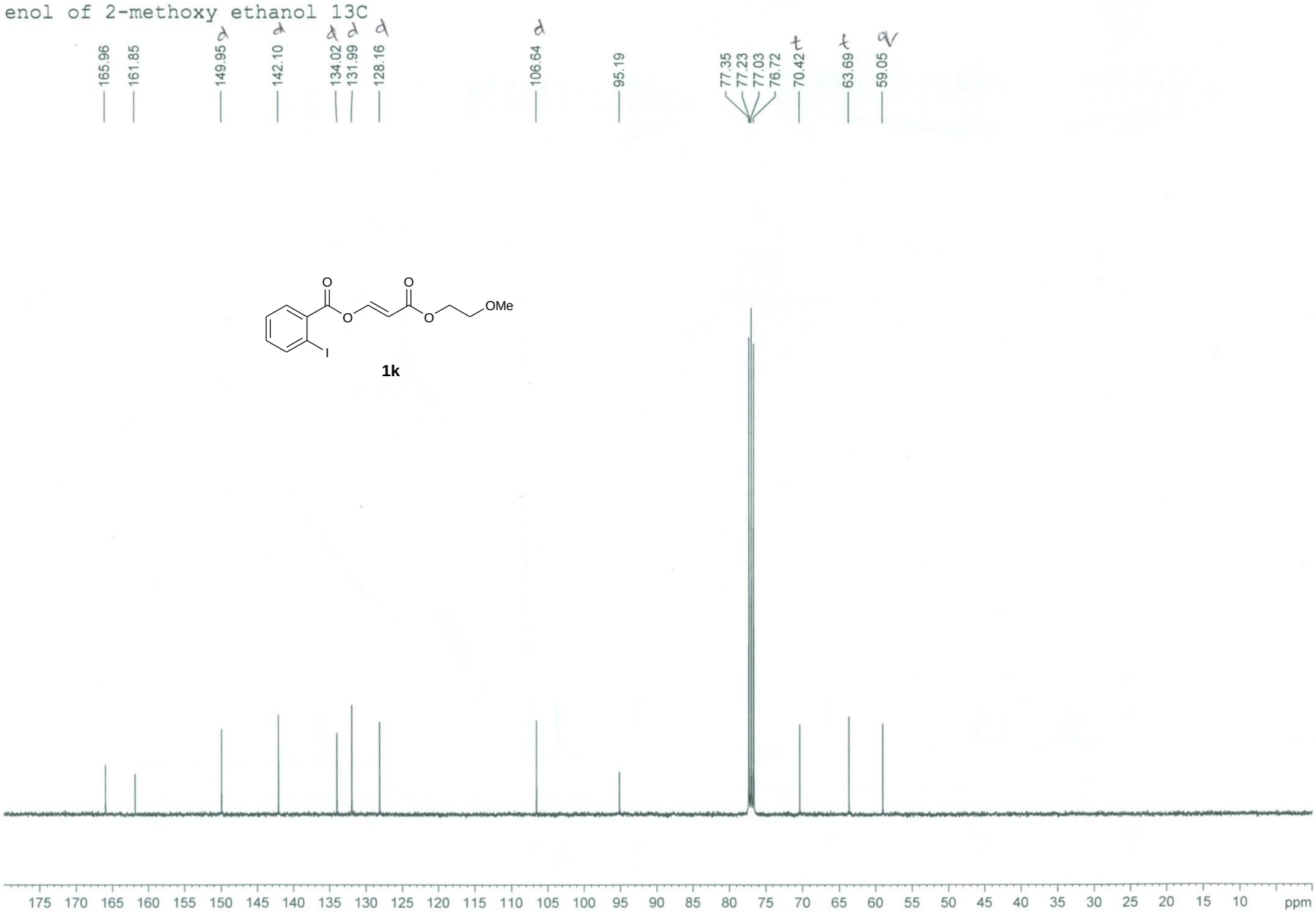
(*E*)-2-((p-tolyloxy)carbonyl)vinyl 2-iodobenzoate (1j)- ^{13}C NMR



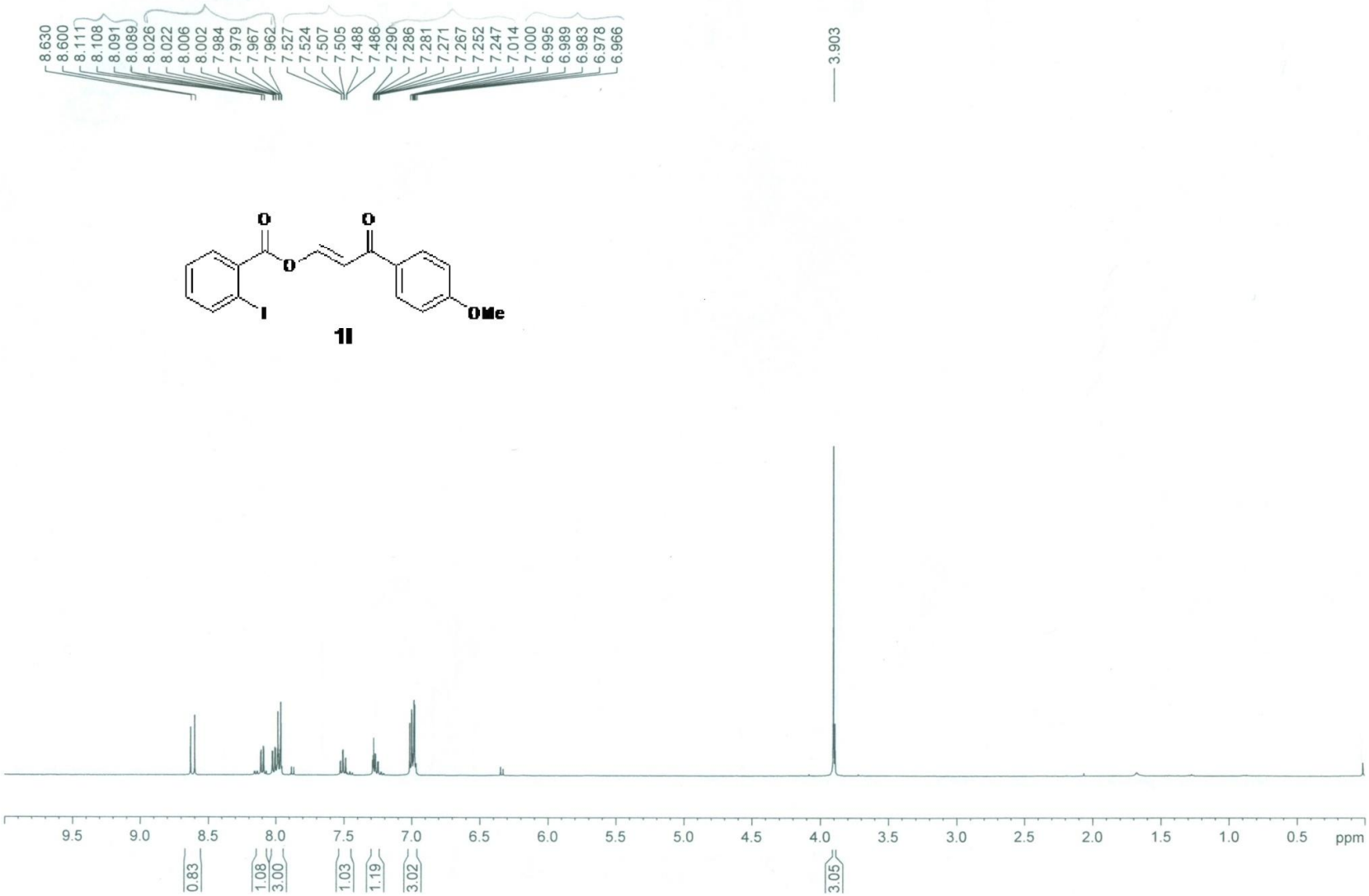
(E)-3-(2-methoxyethoxy)-3-oxoprop-1-en-1-yl 2-iodobenzoate (**1k**): ^{1}H NMR



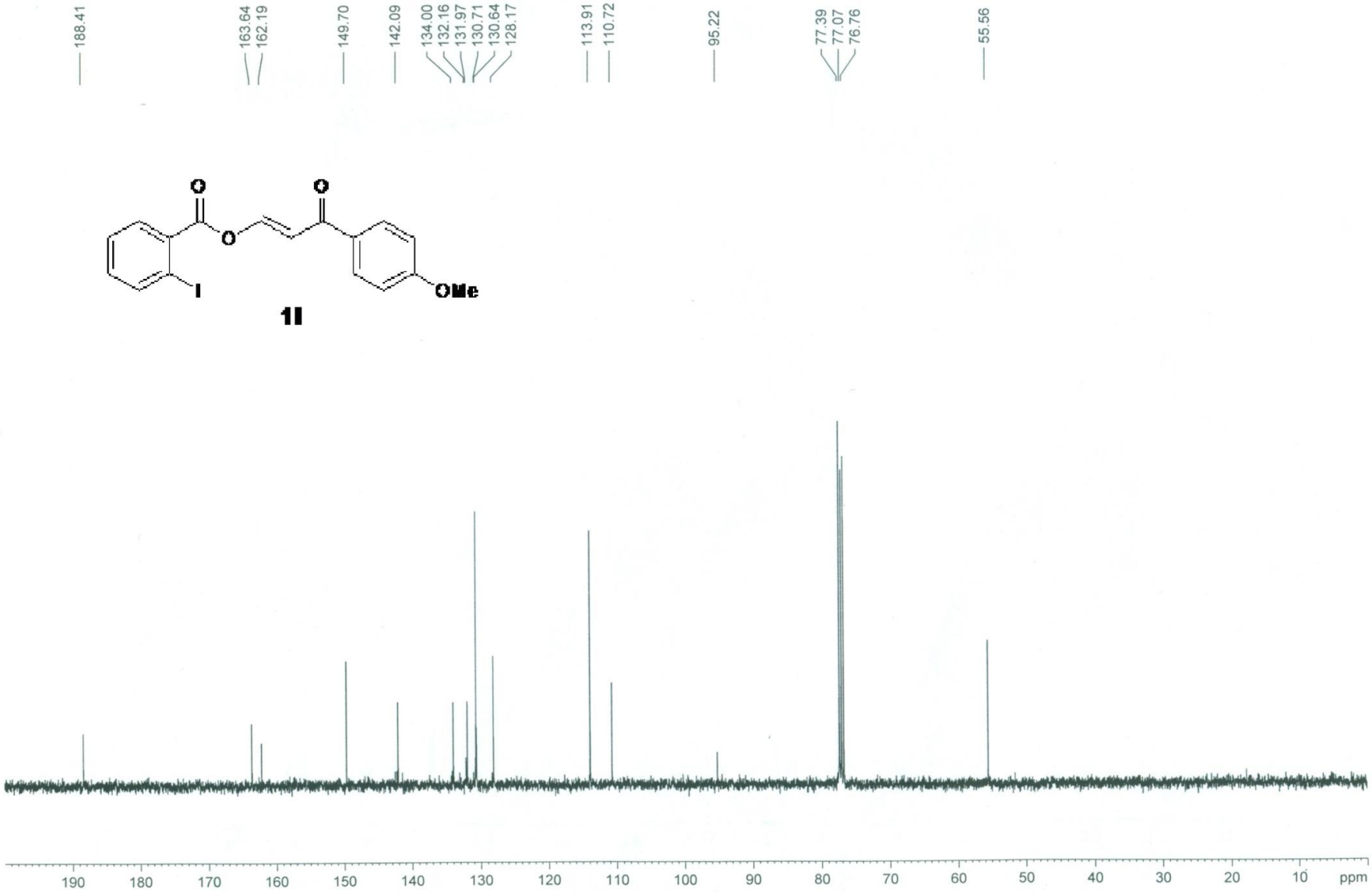
(E)-3-(2-methoxyethoxy)-3-oxoprop-1-en-1-yl 2-iodobenzoate (1k): ^{13}C NMR



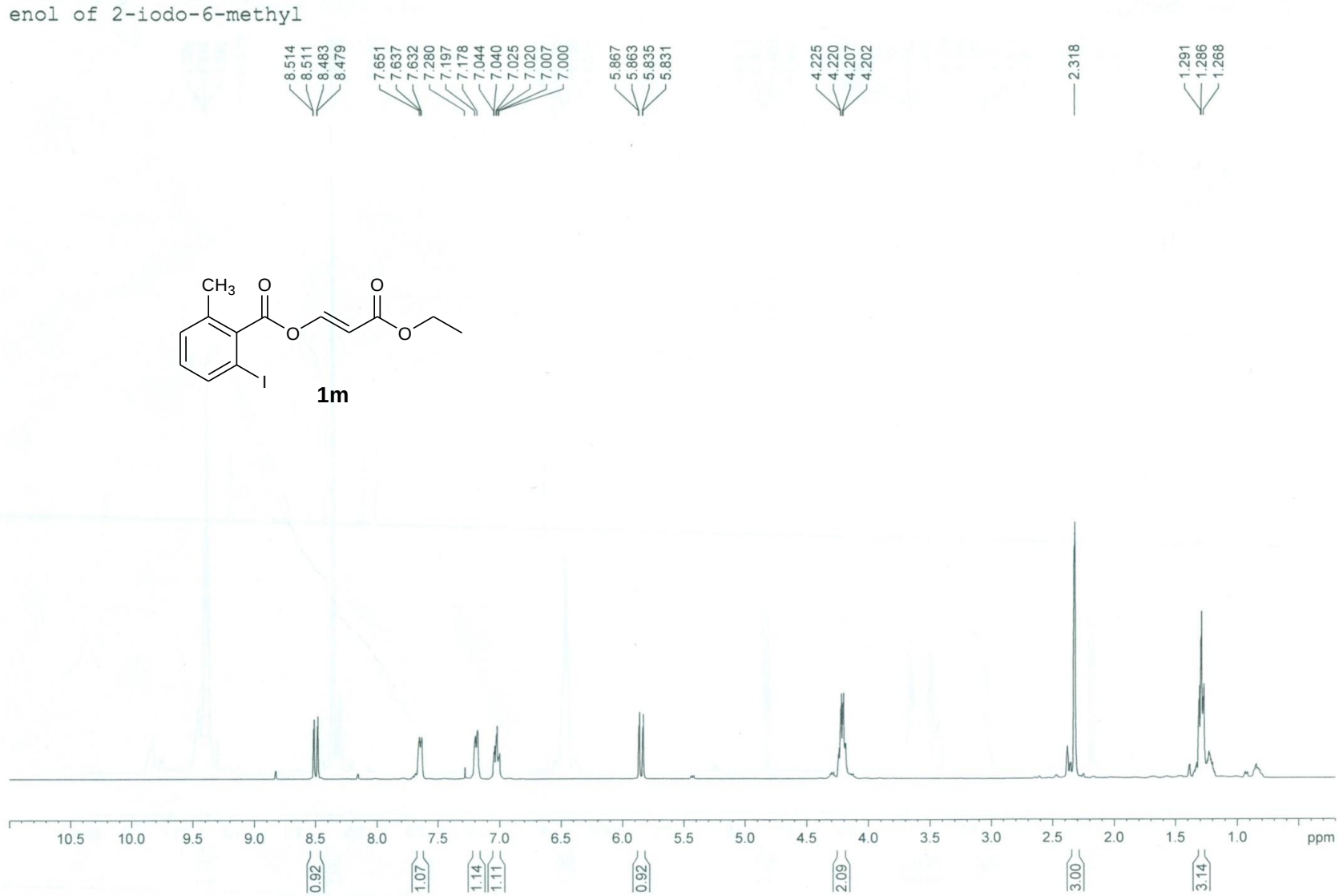
(E)-3-(4-methoxyphenyl)-3-oxoprop-1-en-1-yl 2-iodobenzoate (1l): ^{1}H NMR



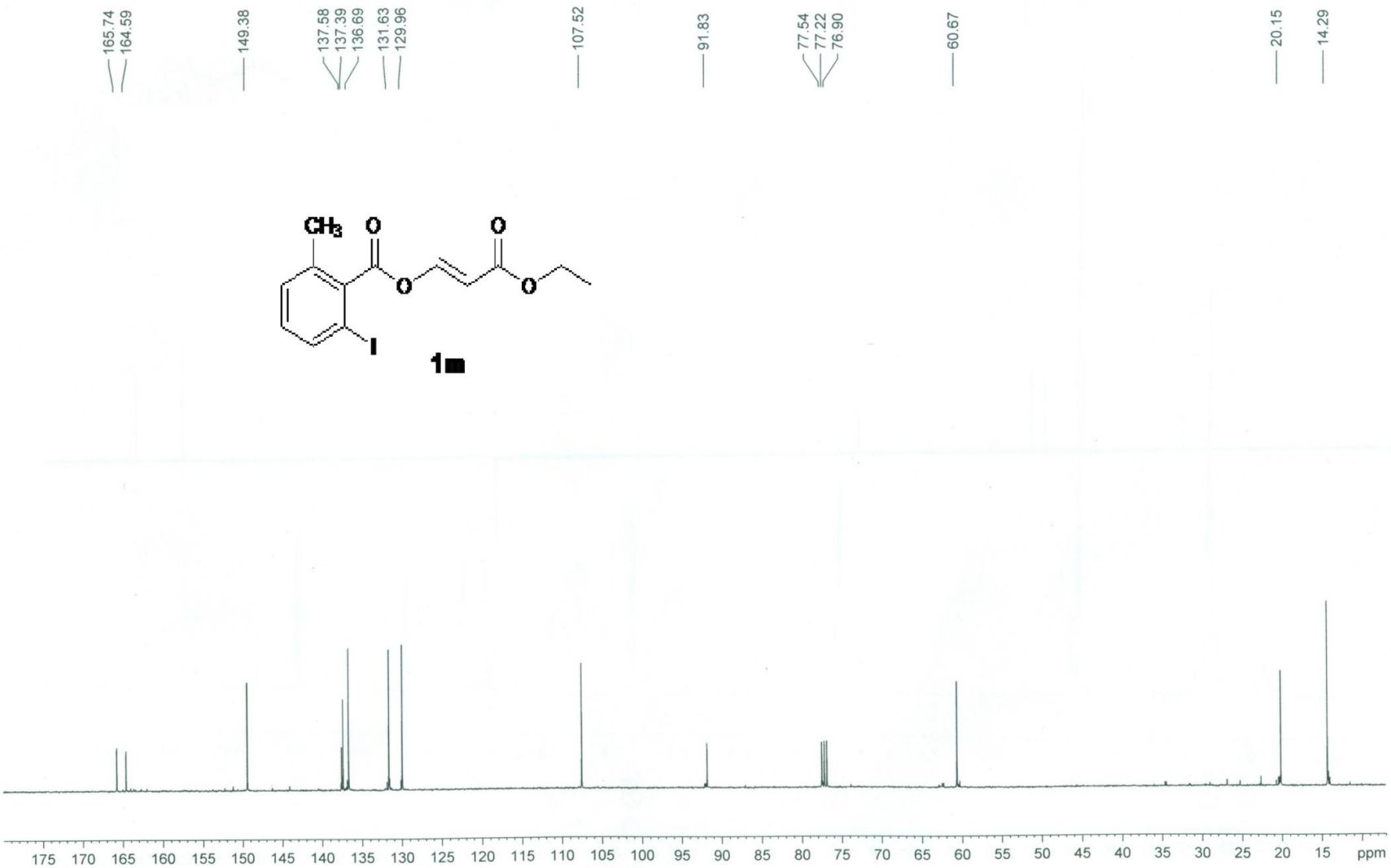
(E)-3-(4-methoxyphenyl)-3-oxoprop-1-en-1-yl 2-iodobenzoate (1l): ^{13}C NMR



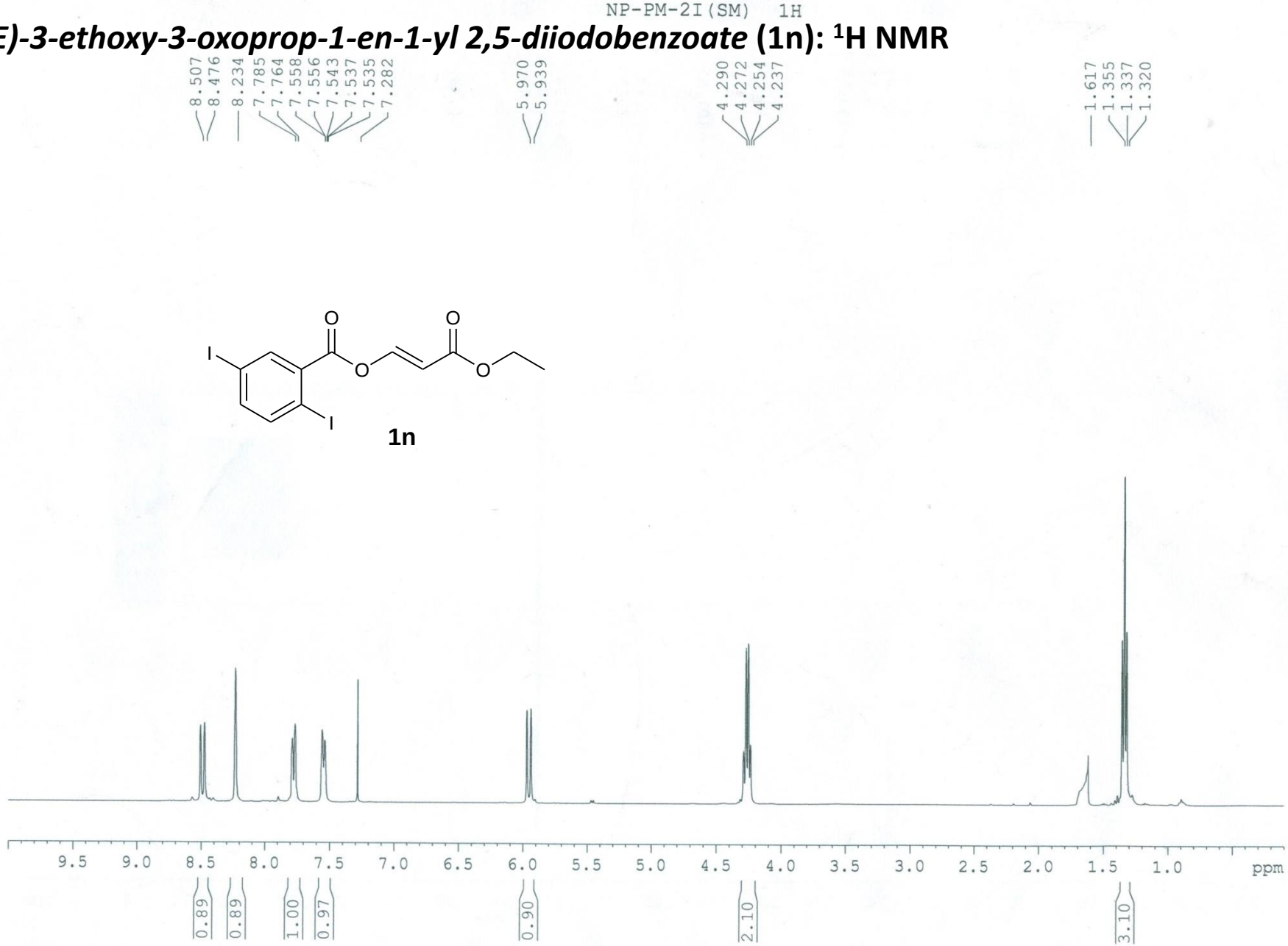
(E)-3-ethoxy-3-oxoprop-1-en-1-yl 2-iodo-6-methylbenzoate (1m):^{1}H NMR



(E)-3-ethoxy-3-oxoprop-1-en-1-yl 2-iodo-6-methylbenzoate (1m): ^{13}C NMR

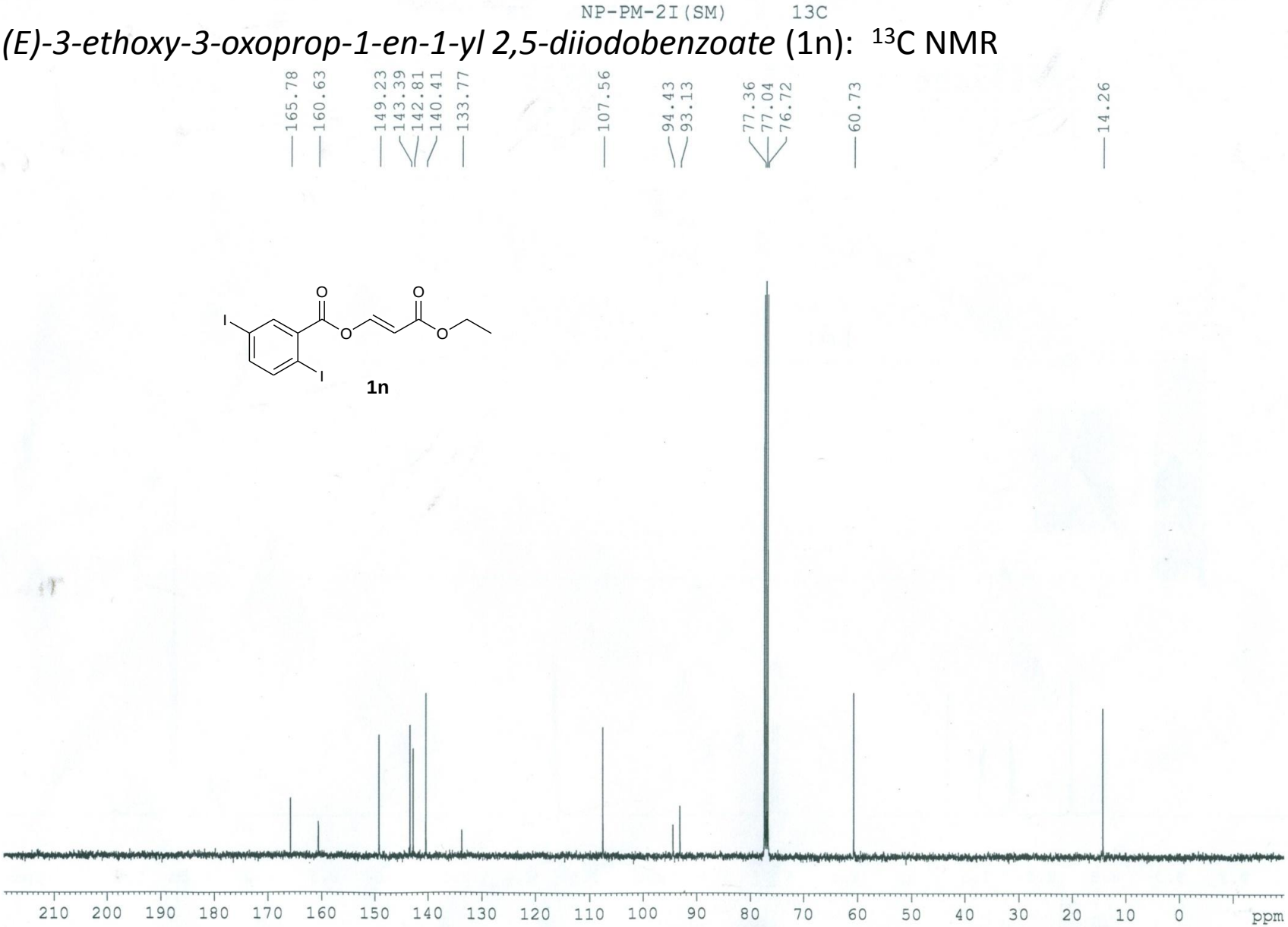


(E)-3-ethoxy-3-oxoprop-1-en-1-yl 2,5-diiodobenzoate (1n): ^{1}H NMR

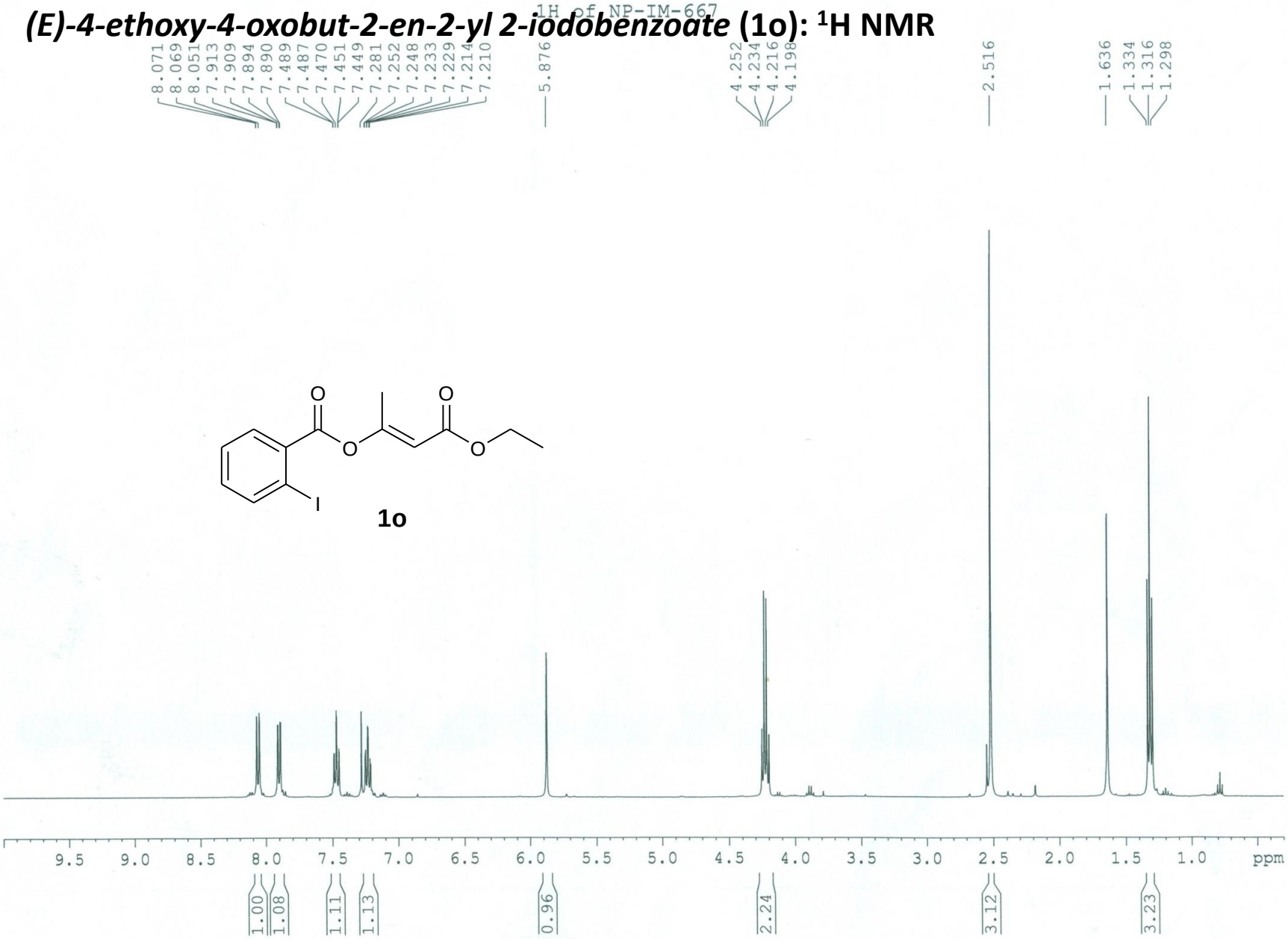


1n

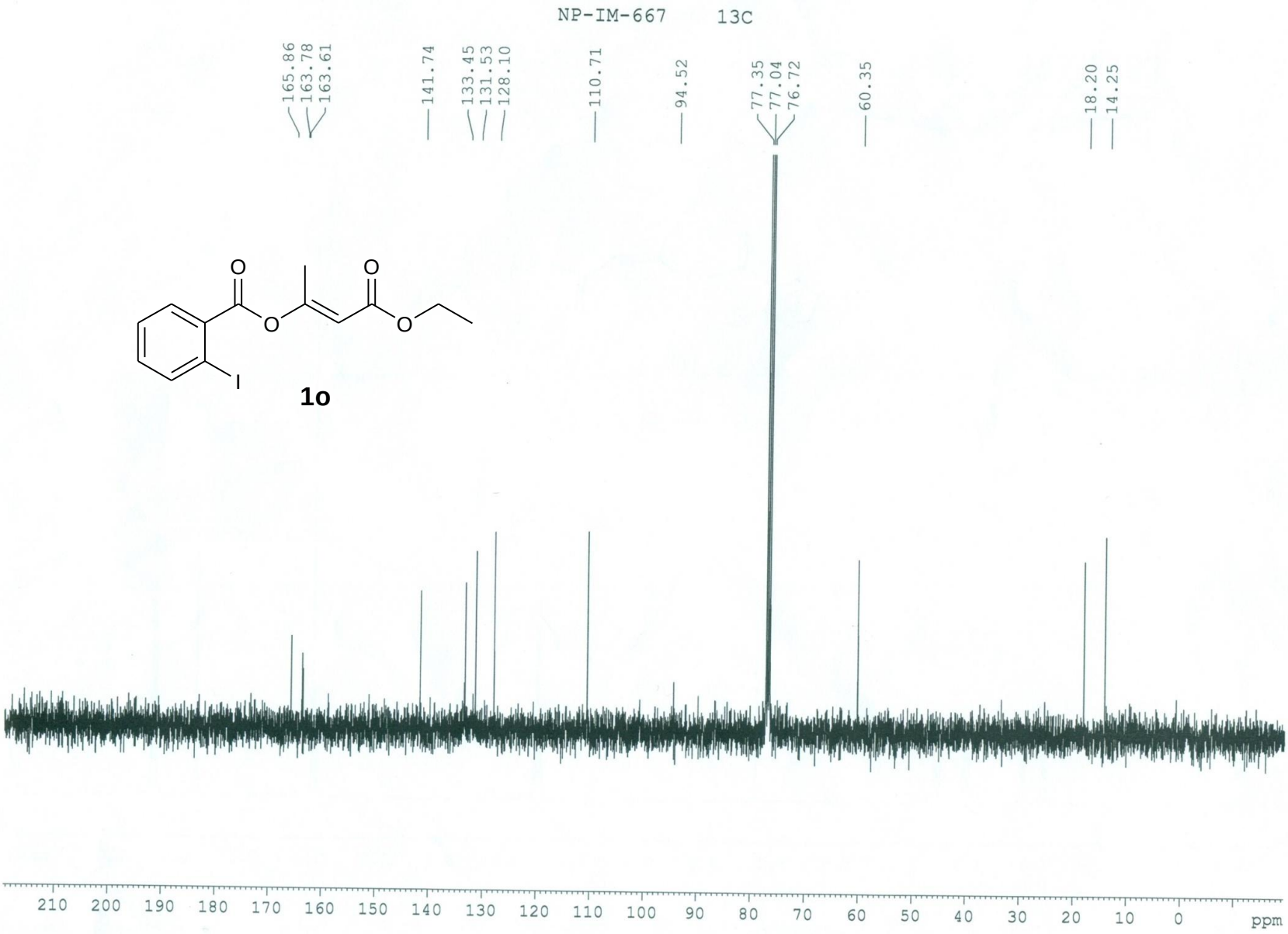
(E)-3-ethoxy-3-oxoprop-1-en-1-yl 2,5-diiodobenzoate (1n): ^{13}C NMR



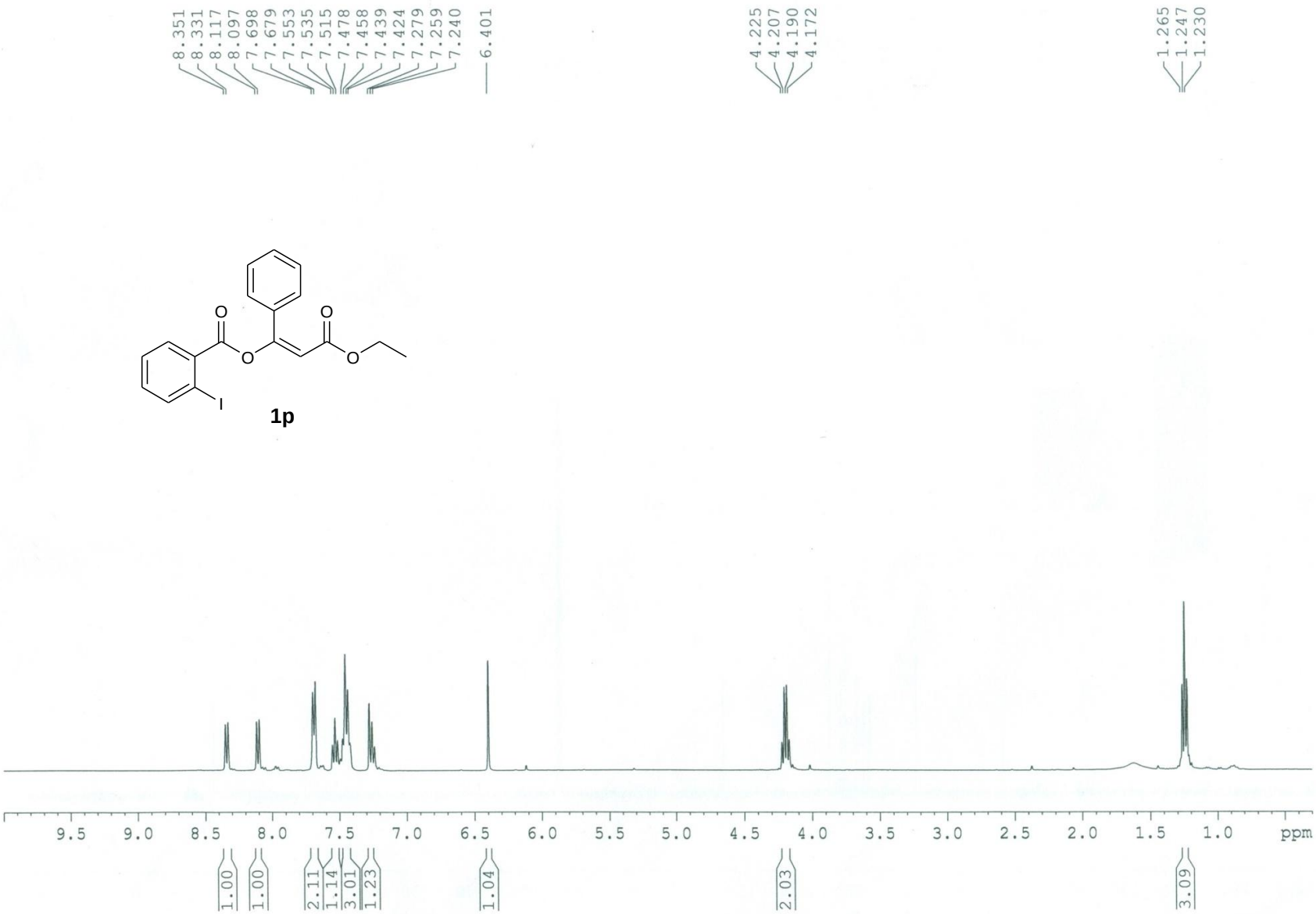
(E)-4-ethoxy-4-oxobut-2-en-2-yl 2-iodobenzoate (1o): ^{1}H NMR



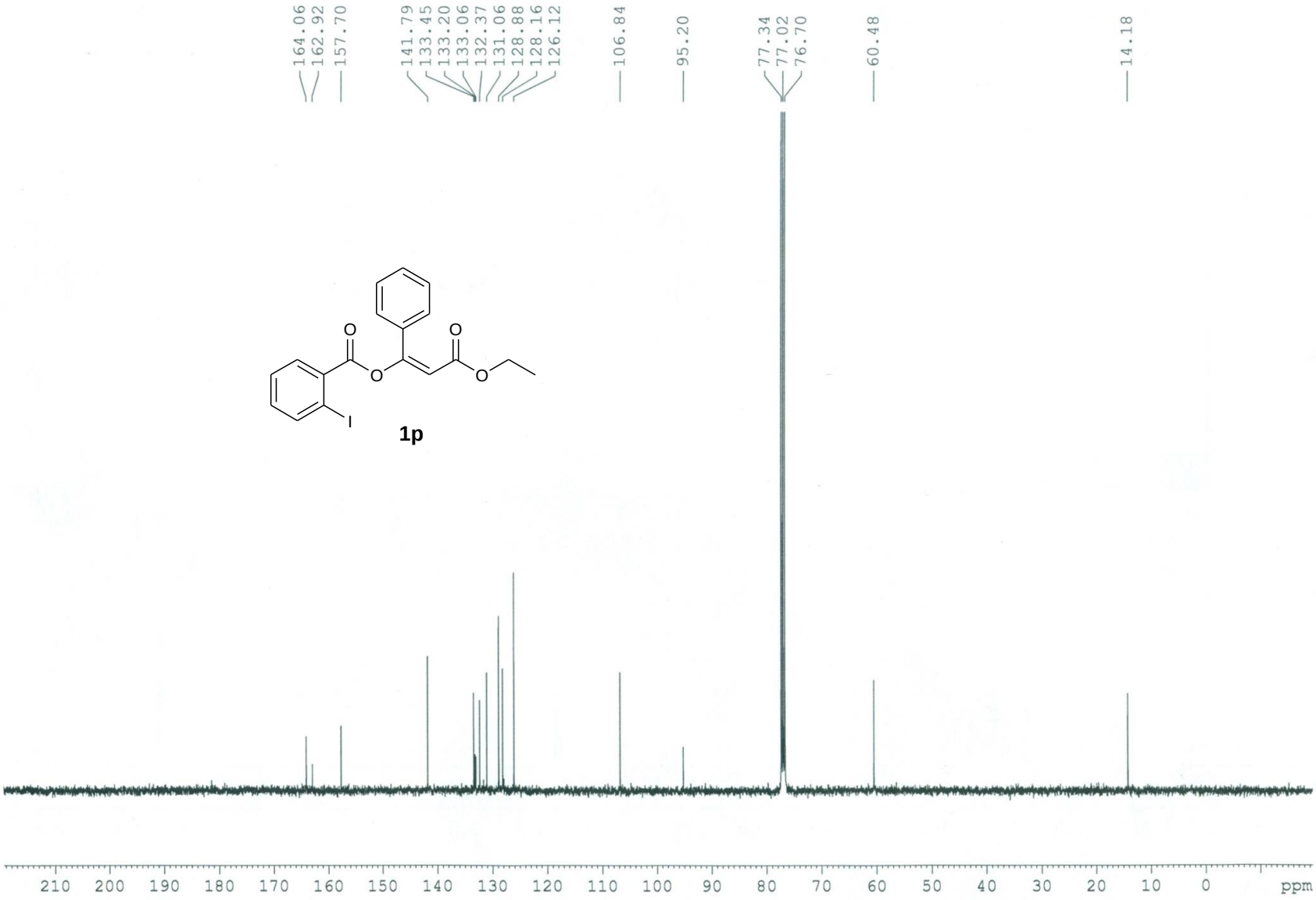
(E)-4-ethoxy-4-oxobut-2-en-2-yl 2-iodobenzoate (1o): 13C NMR



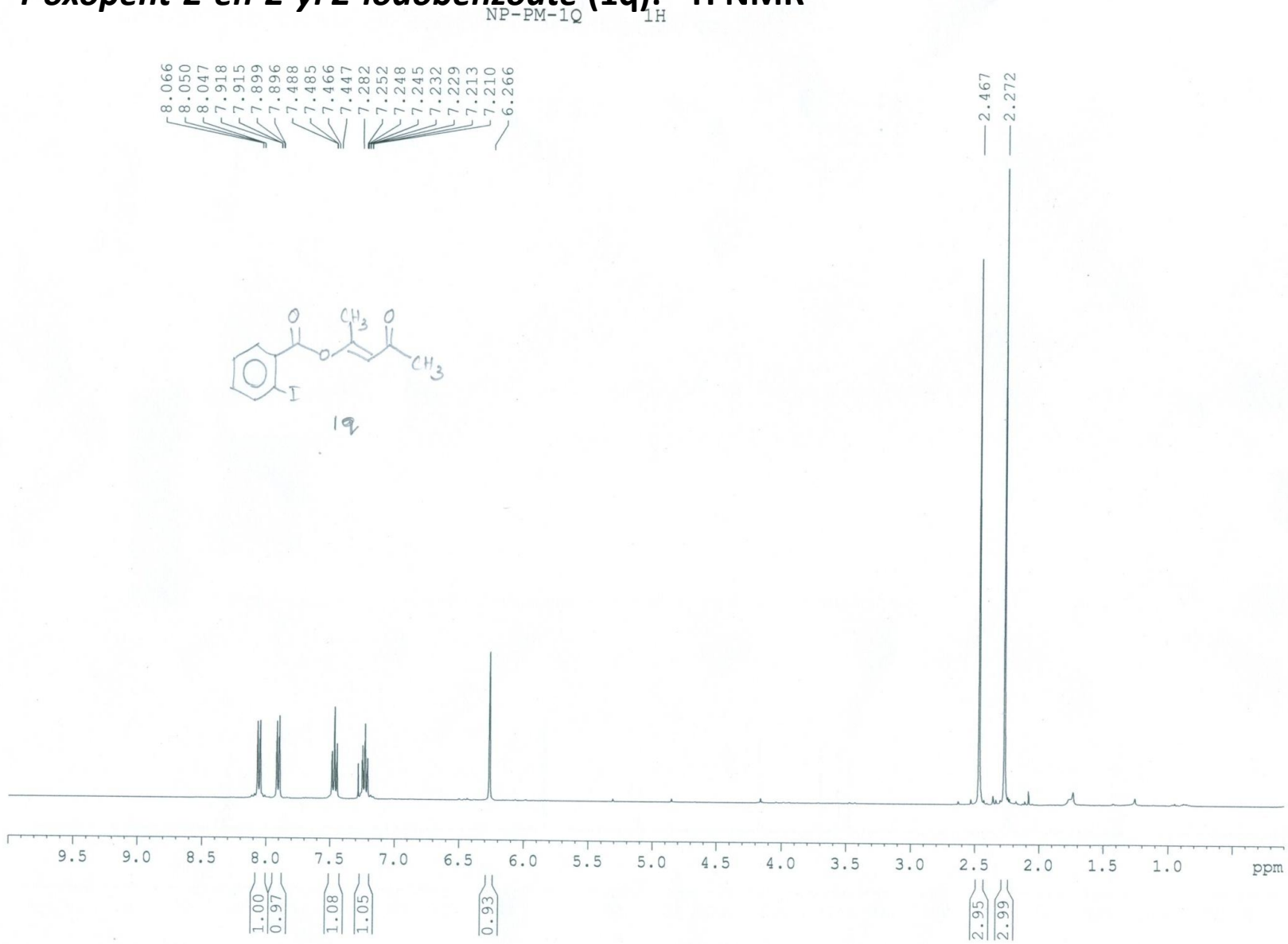
(E)-3-ethoxy-3-oxo-1-phenylprop-1-en-1-yl 2-iodobenzoate (1p): ^{1}H NMR



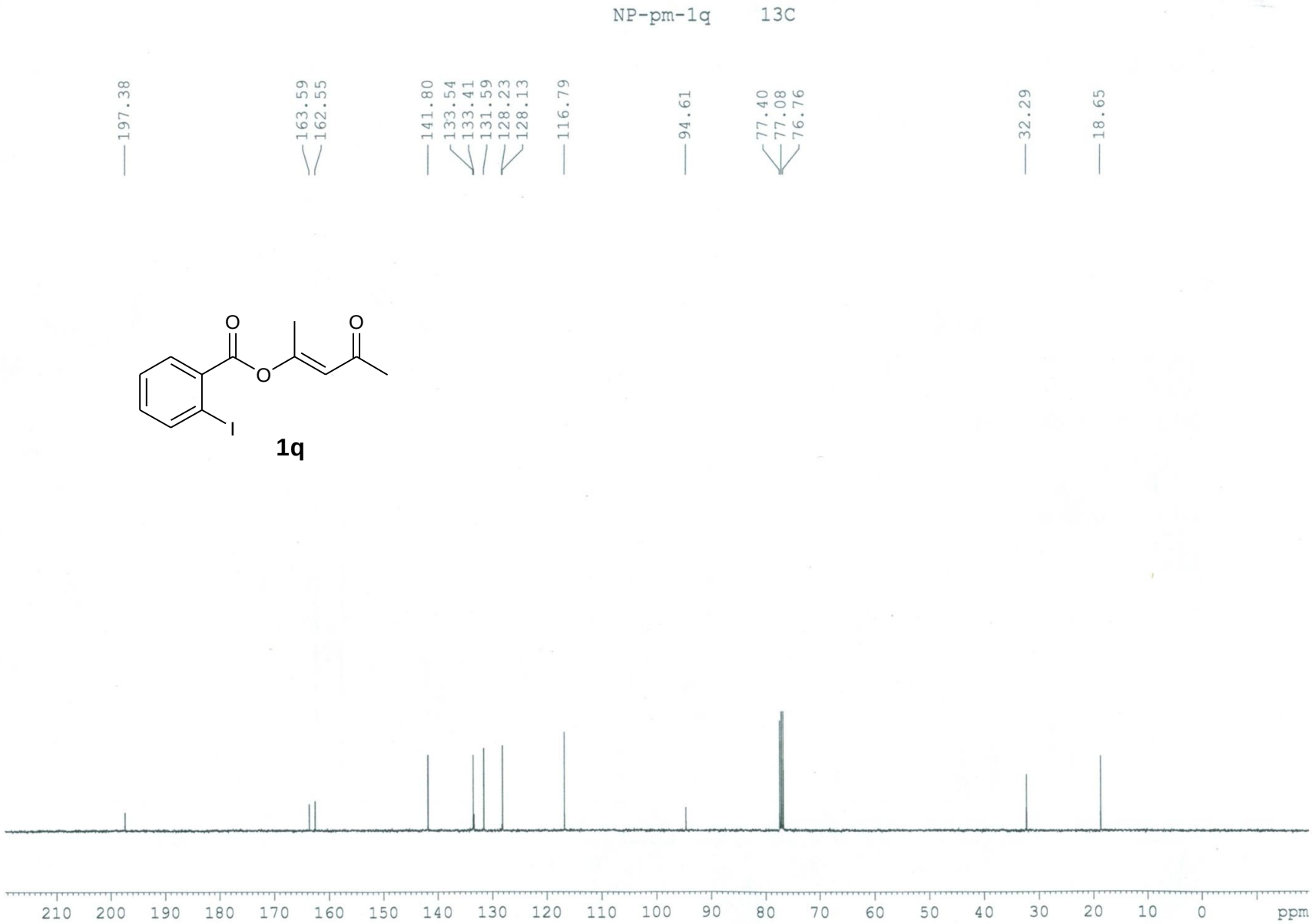
(E)-3-ethoxy-3-oxo-1-phenylprop-1-en-1-yl 2-iodobenzoate (1p): ^{13}C NMR



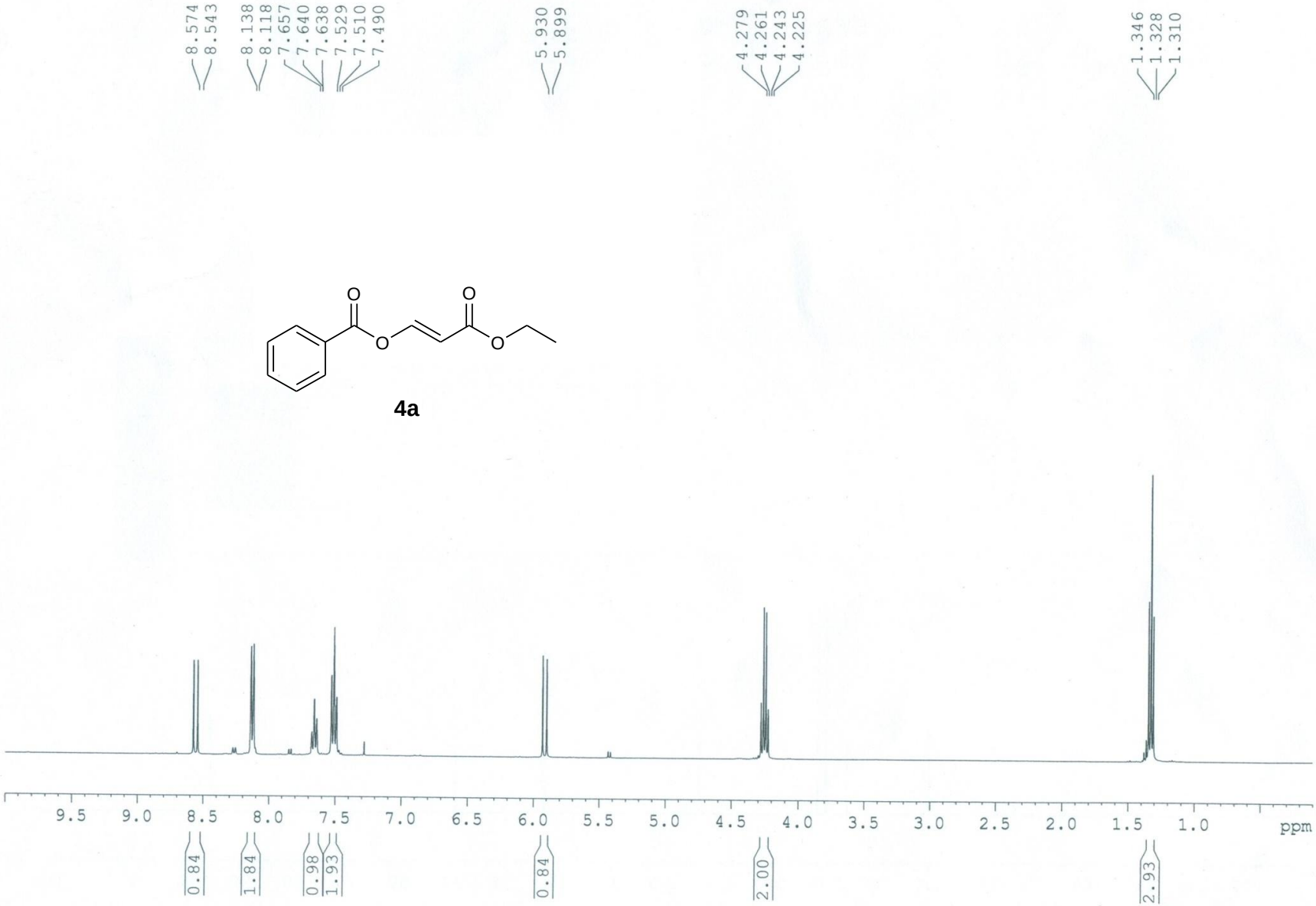
(E)-4-oxopent-2-en-2-yl 2-iodobenzoate (1q): ^{1}H NMR



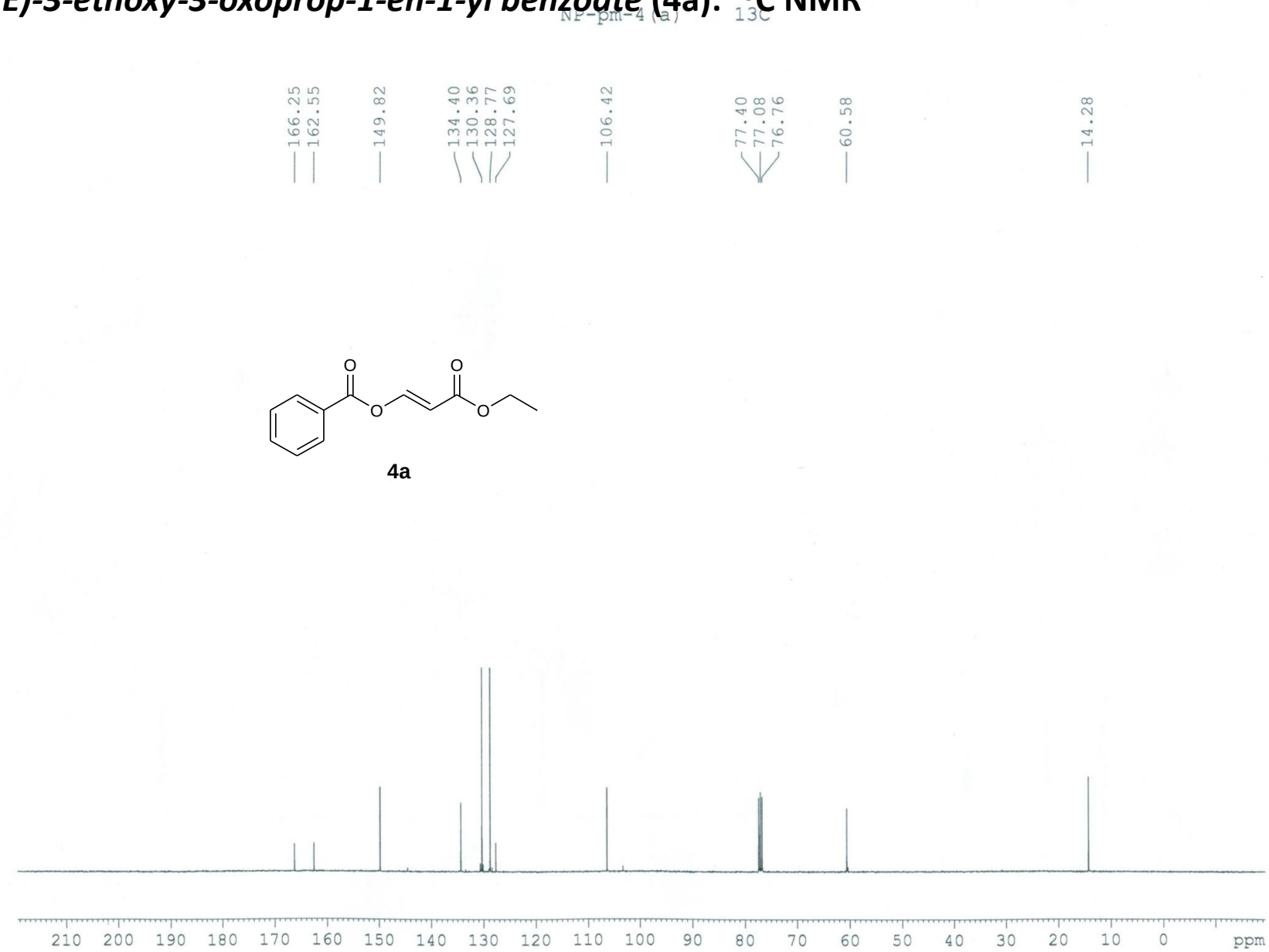
(E)-4-oxopent-2-en-2-yl 2-iodobenzoate (1q): ^{13}C NMR



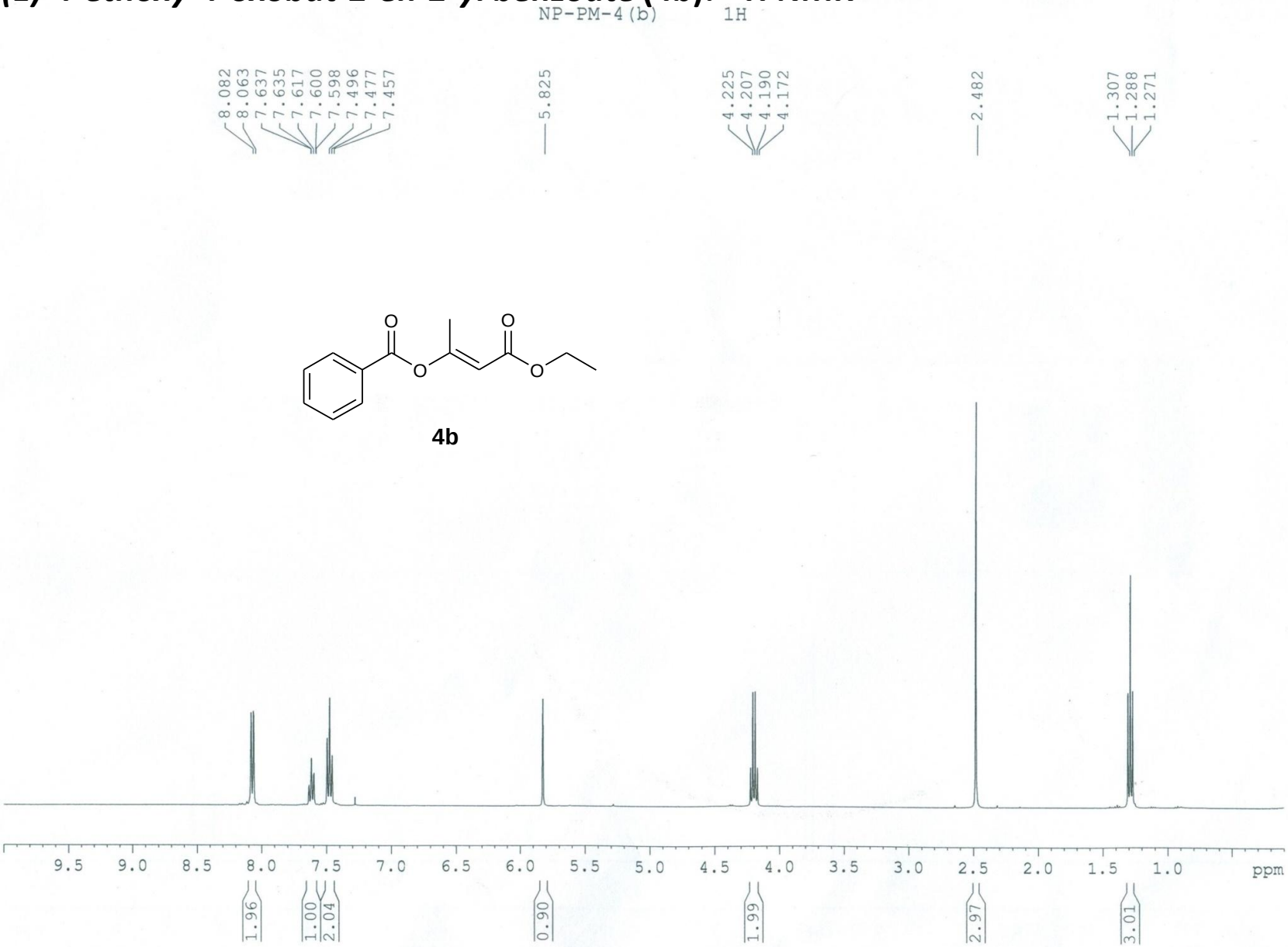
(E)-3-ethoxy-3-oxoprop-1-en-1-yl benzoate (4a): ^{1}H NMR



(E)-3-ethoxy-3-oxoprop-1-en-1-yl benzoate (4a): ^{13}C NMR

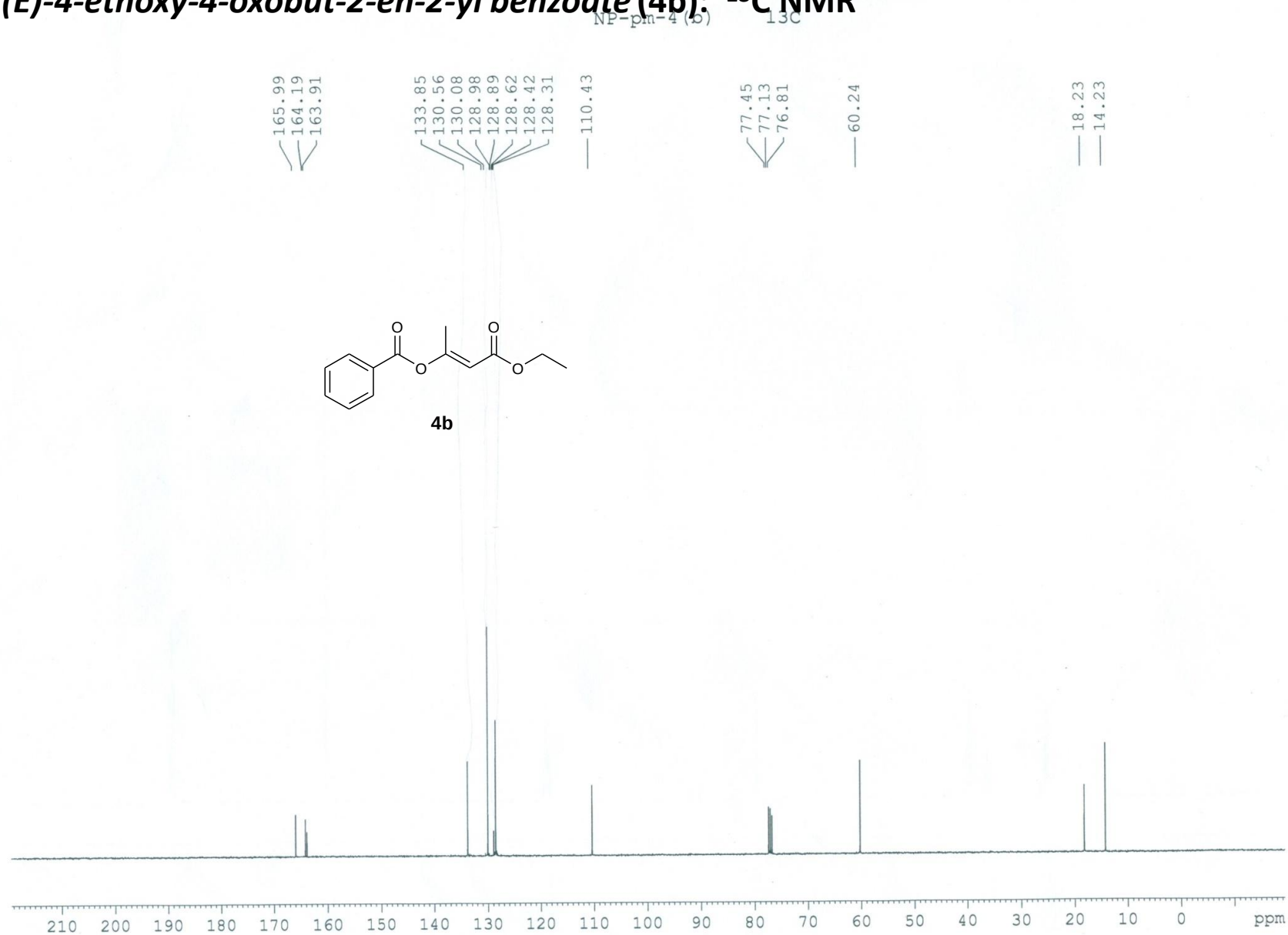


(E)-4-ethoxy-4-oxobut-2-en-2-yl benzoate (4b): ^{1}H NMR

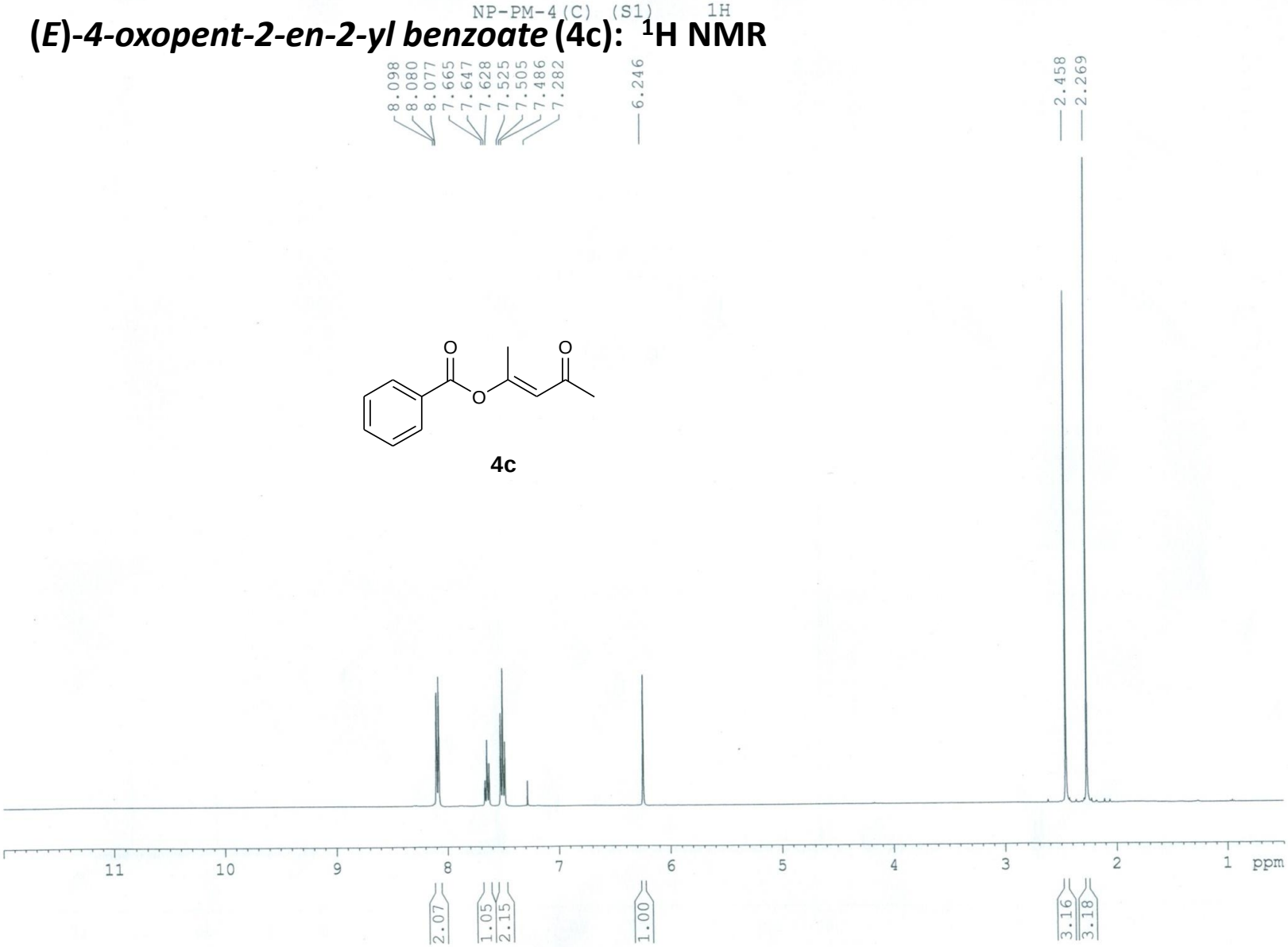


4b

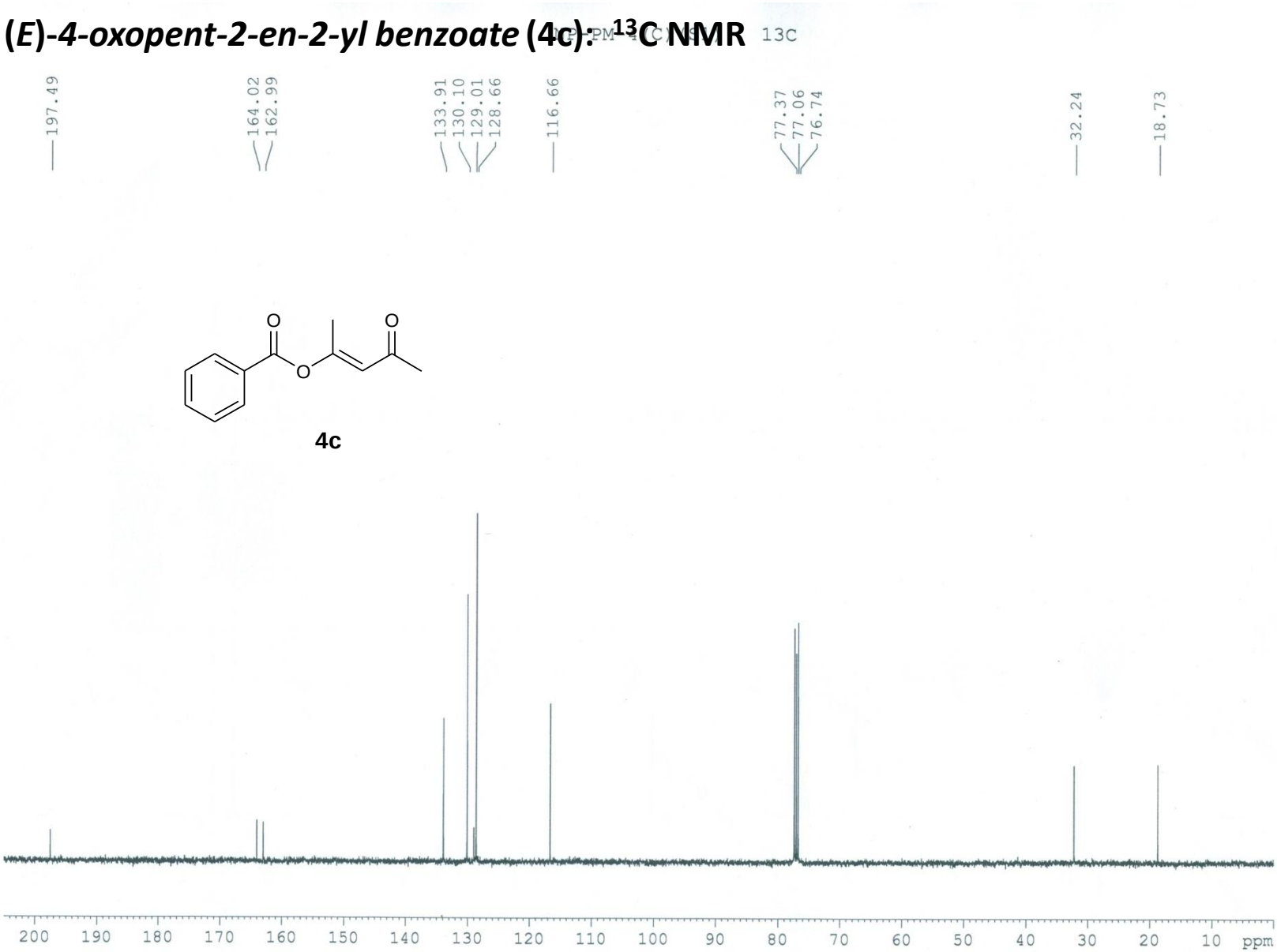
(E)-4-ethoxy-4-oxobut-2-en-2-yl benzoate (4b): ^{13}C NMR



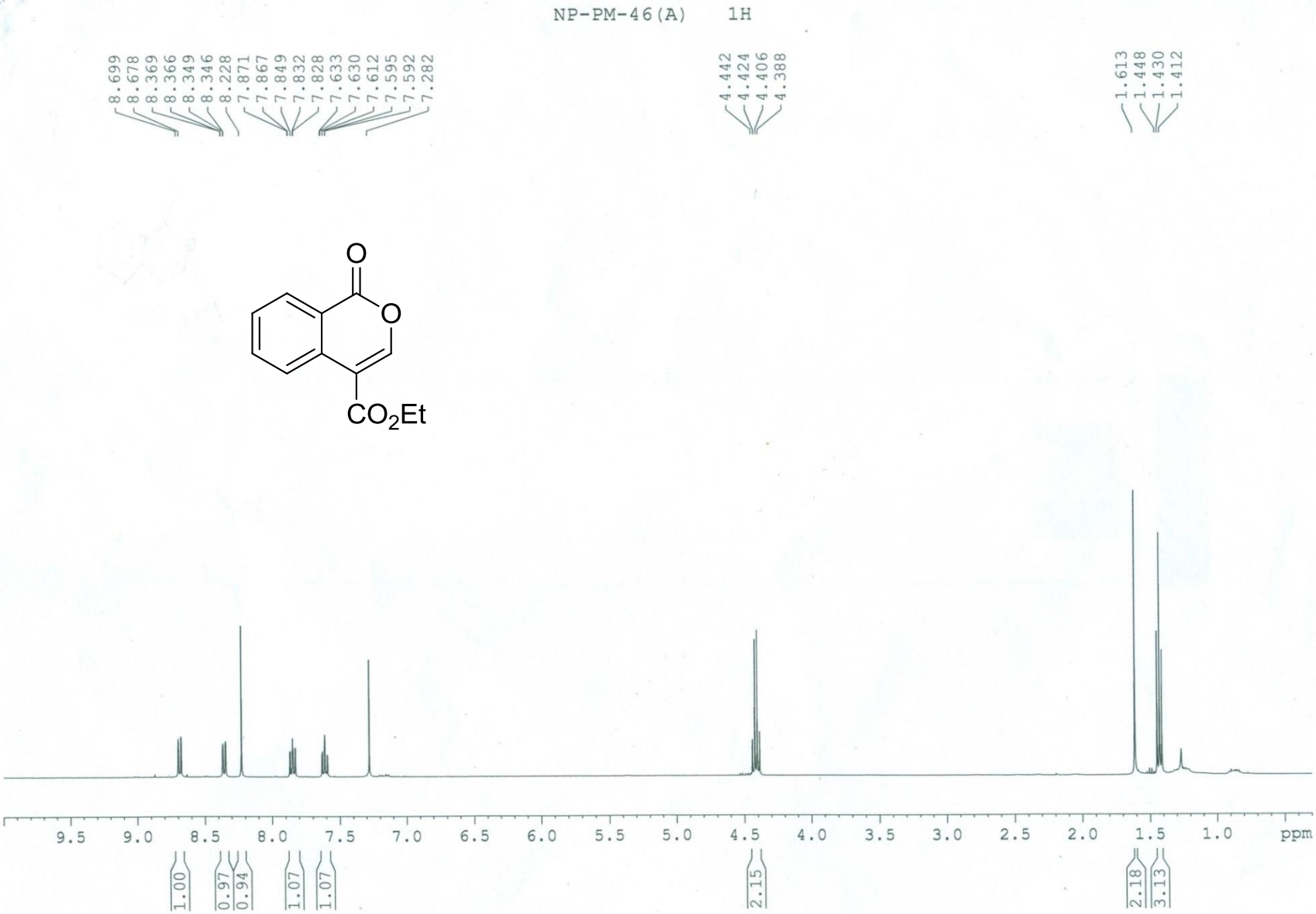
(*E*)-4-oxopent-2-en-2-yl *benzoate* (4c): ^{1}H NMR



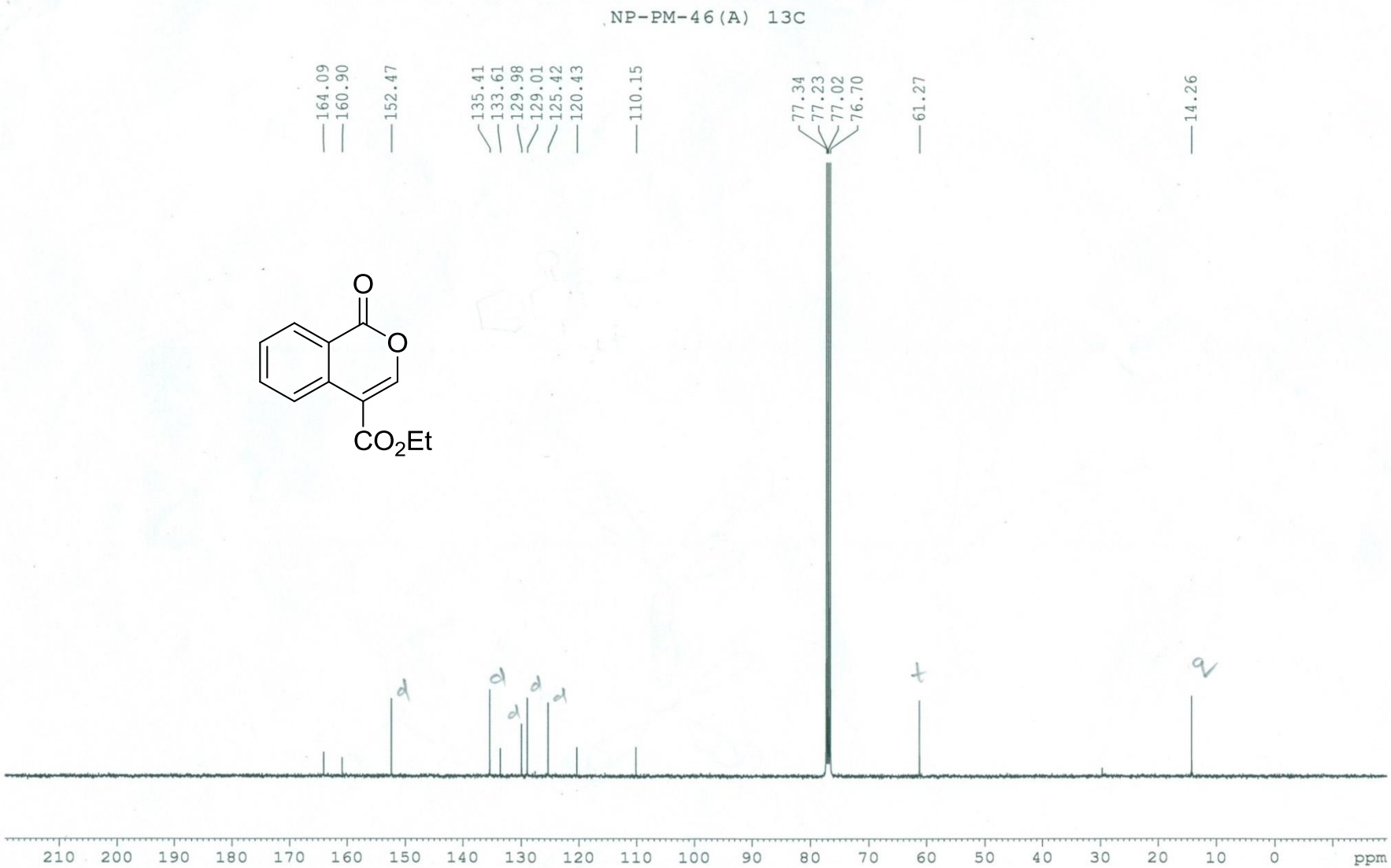
(*E*)-4-oxopent-2-en-2-yl *benzoate* (4c): ^{13}C NMR



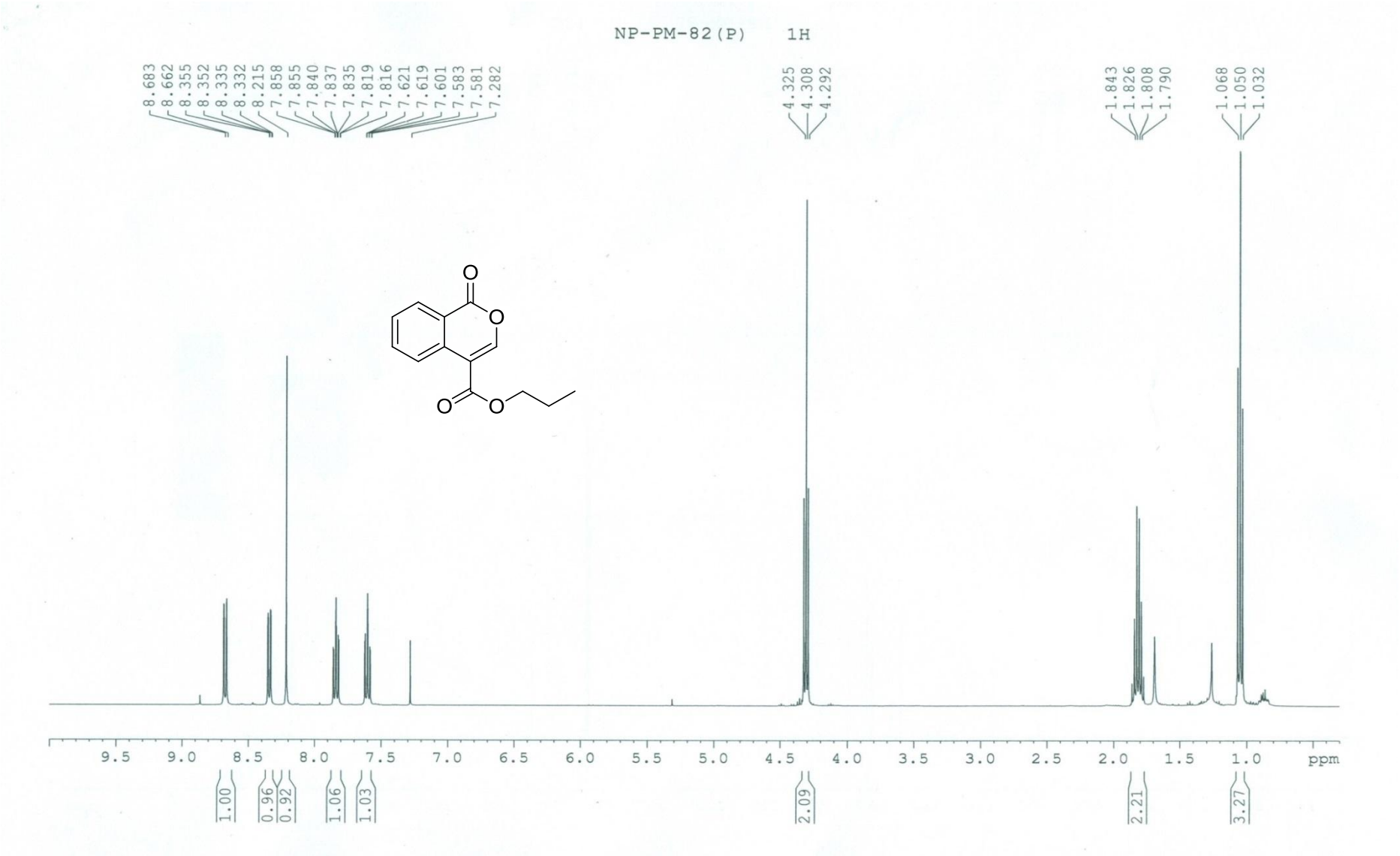
Ethyl 1-oxo-1H-isochromene-4-carboxylate (2a)– ^{1}H NMR*(from Method I)*



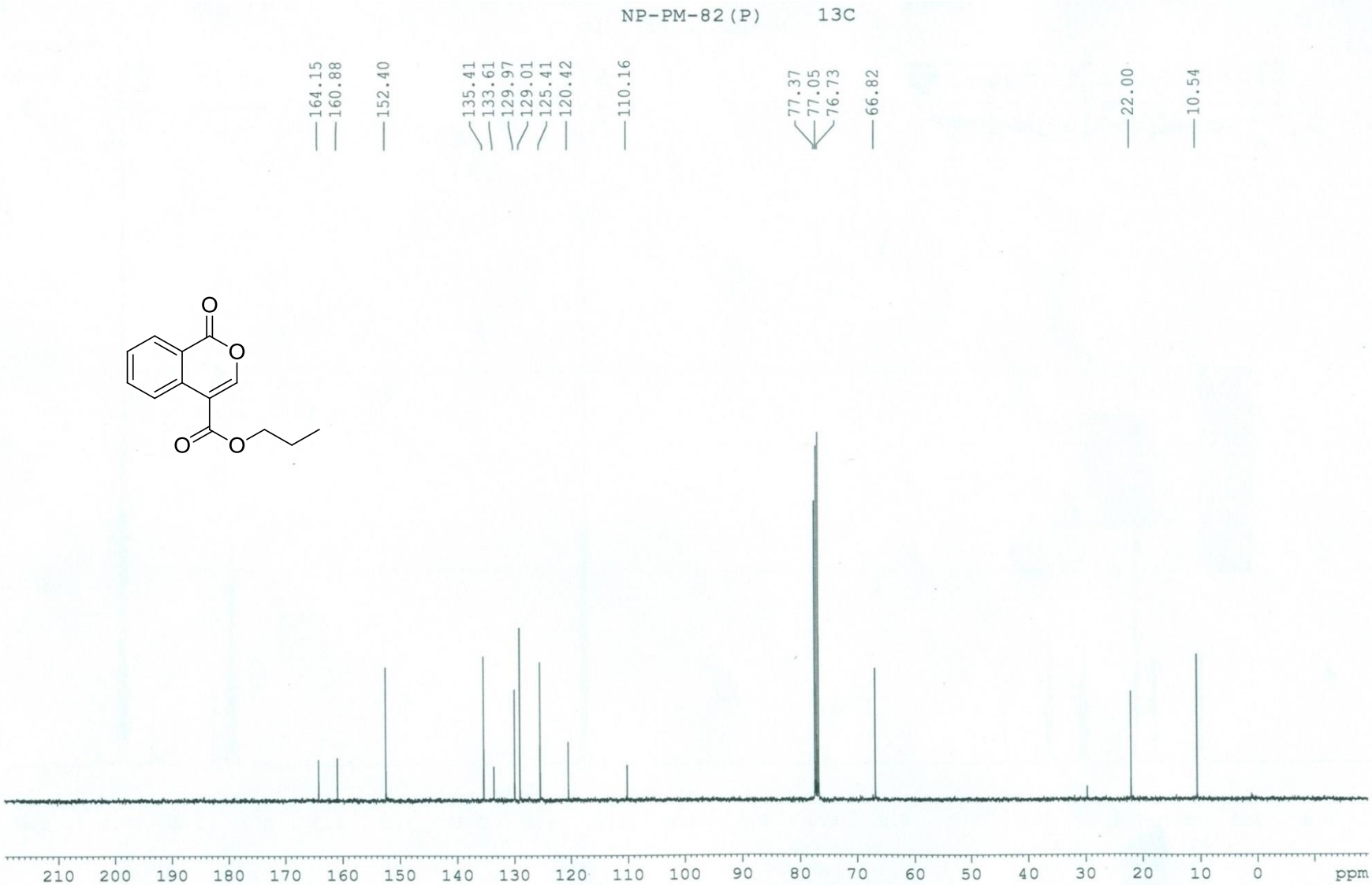
Ethyl 1-oxo-1H-isochromene-4-carboxylate (2a) -^{13}C NMR *(from Method I)*



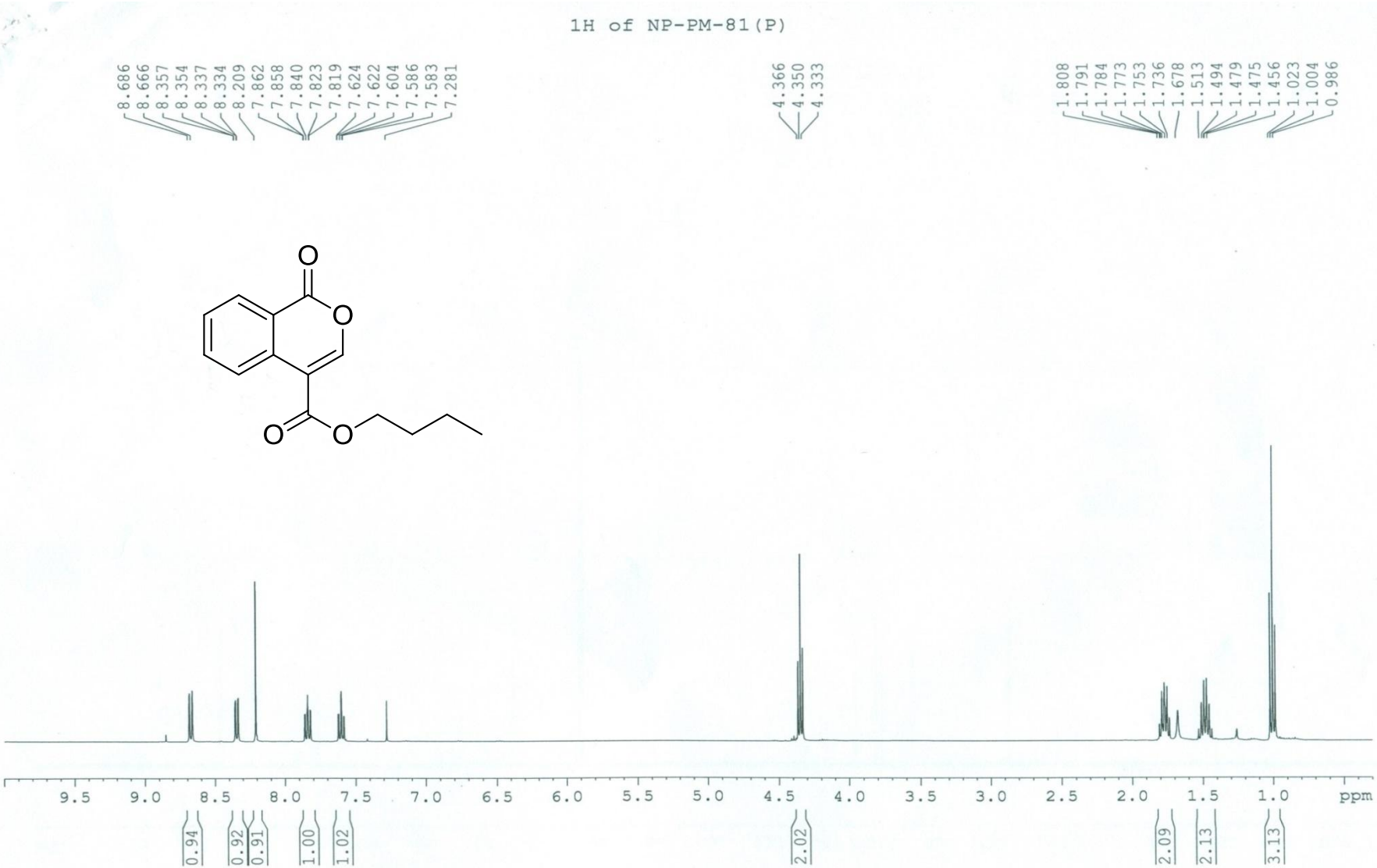
Propyl 1-oxo-1H-isochromene-4-carboxylate (2b) – ^{1}H NMR



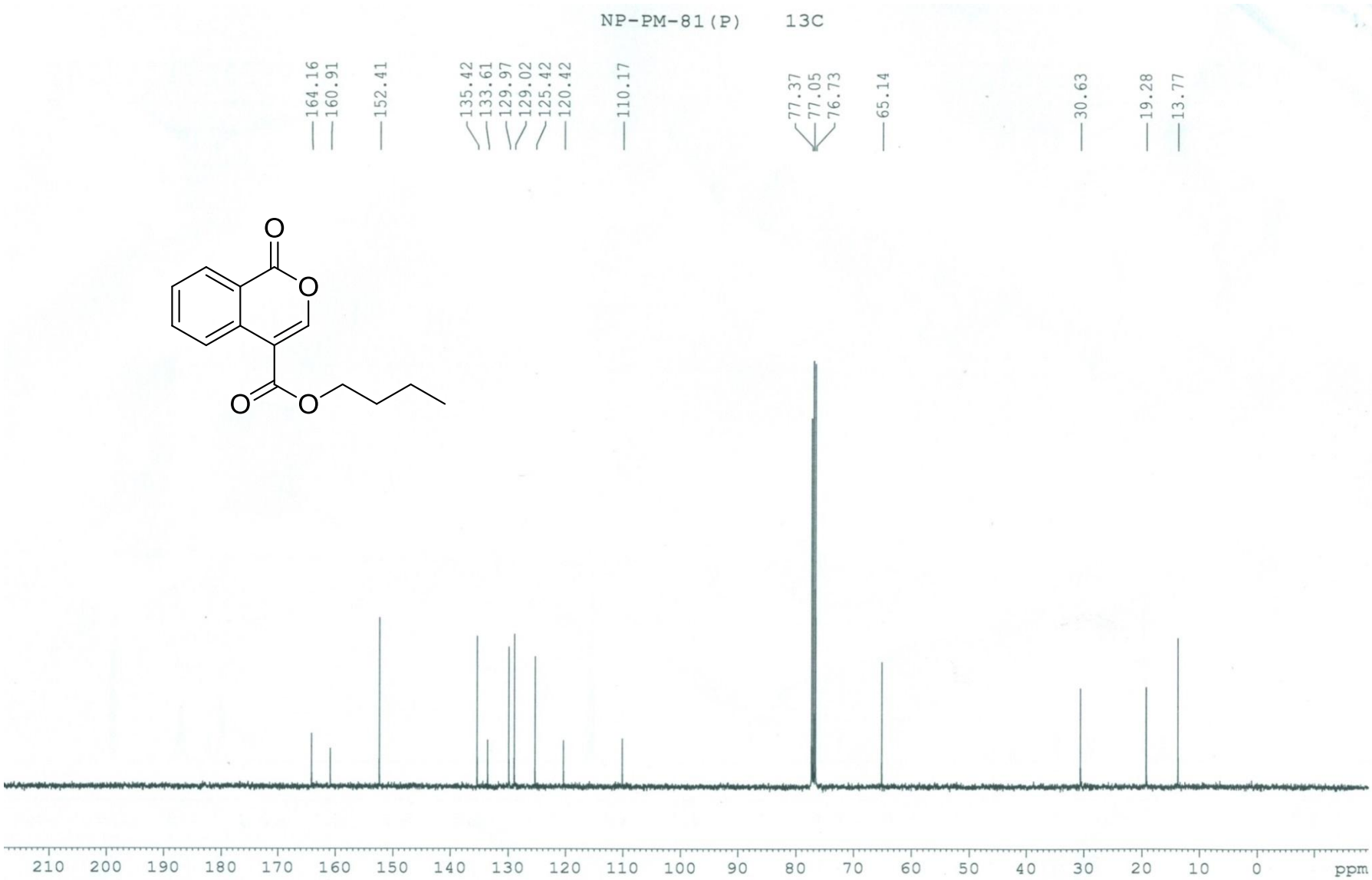
Propyl 1-oxo-1H-isochromene-4-carboxylate (2b)– ^{13}C NMR



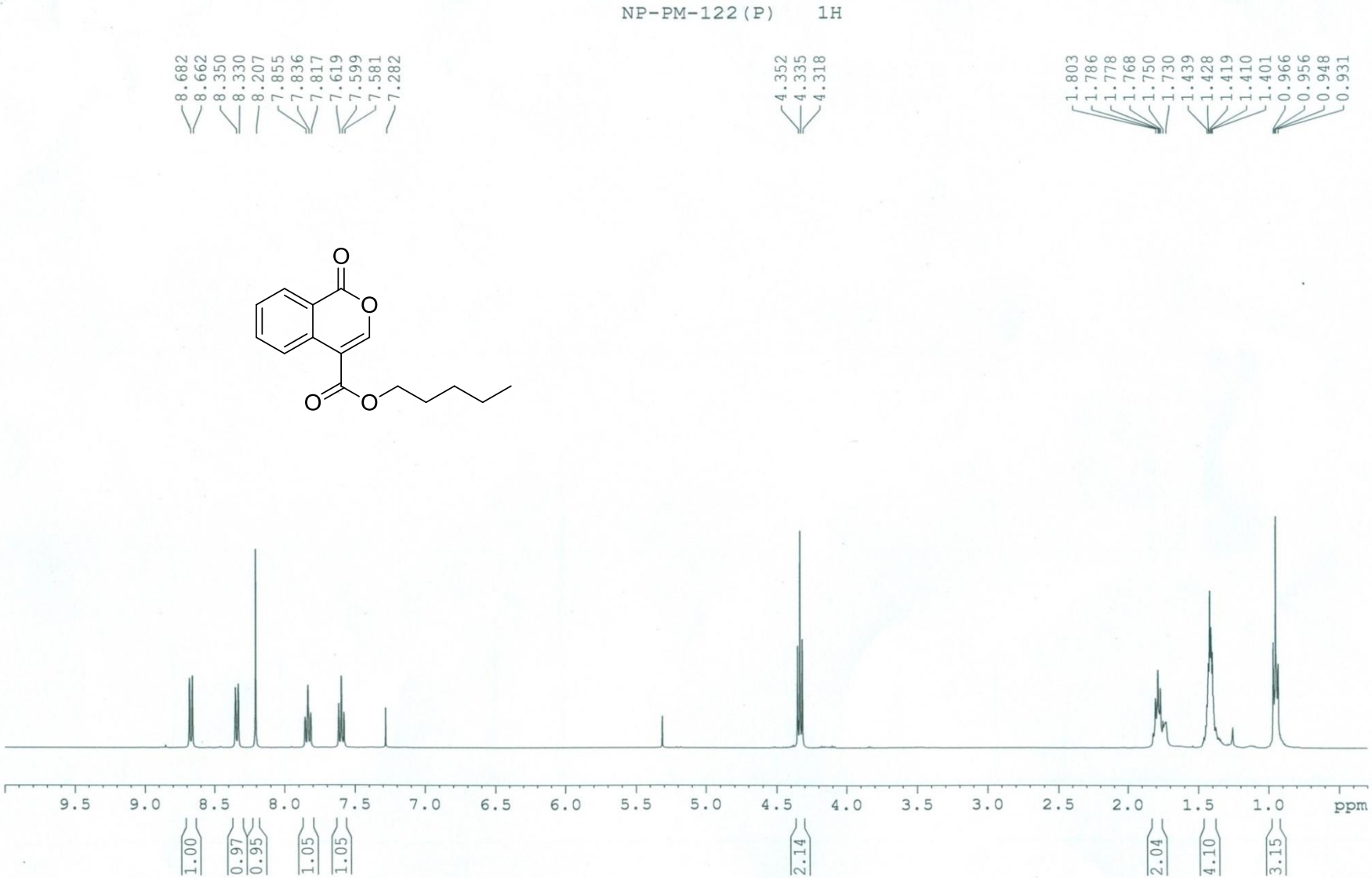
Butyl 1-oxo-1H-isochromene-4-carboxylate (2c) – ^{1}H NMR



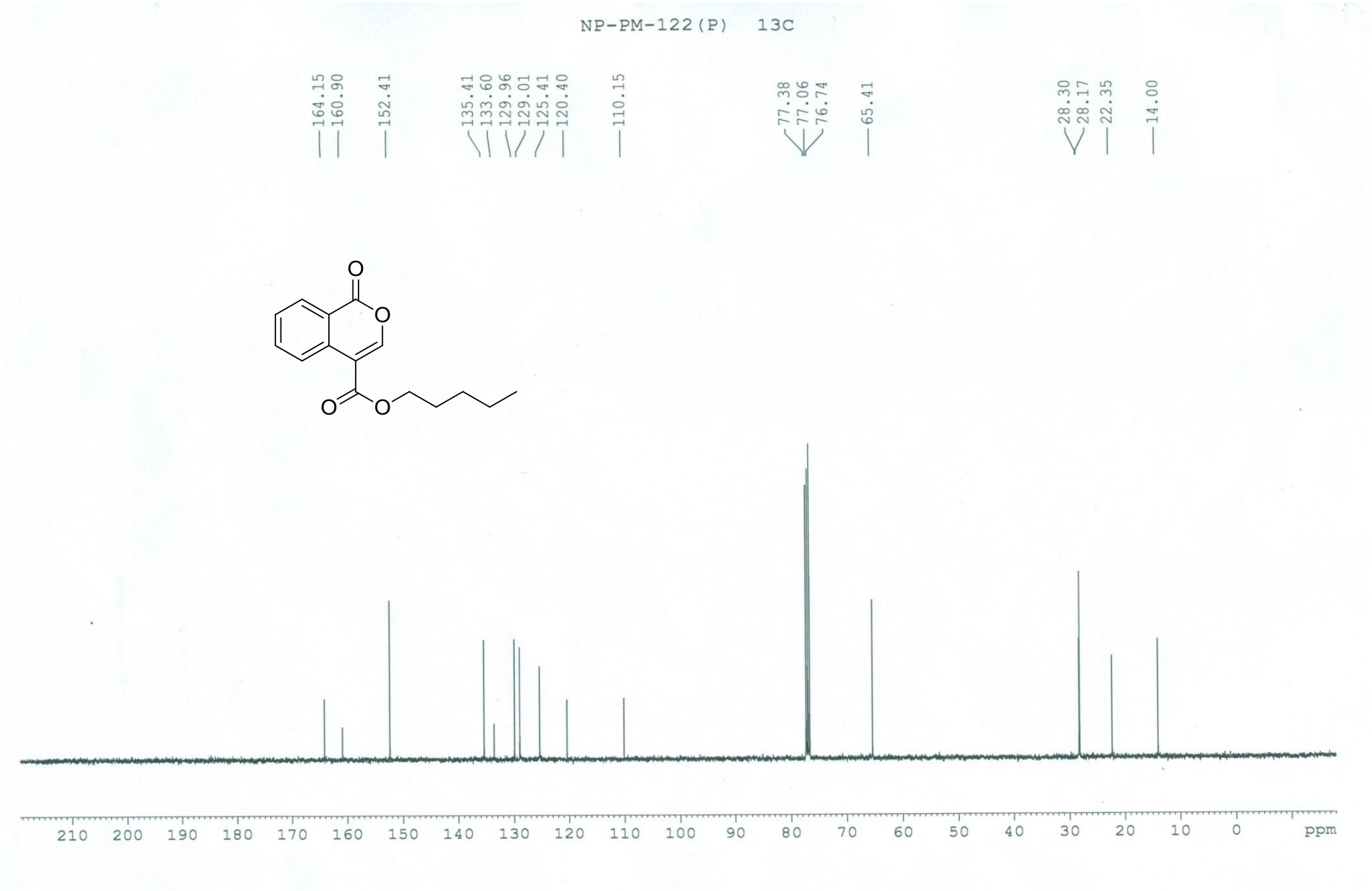
Butyl 1-oxo-1H-isochromene-4-carboxylate (2c) – ^{13}C NMR



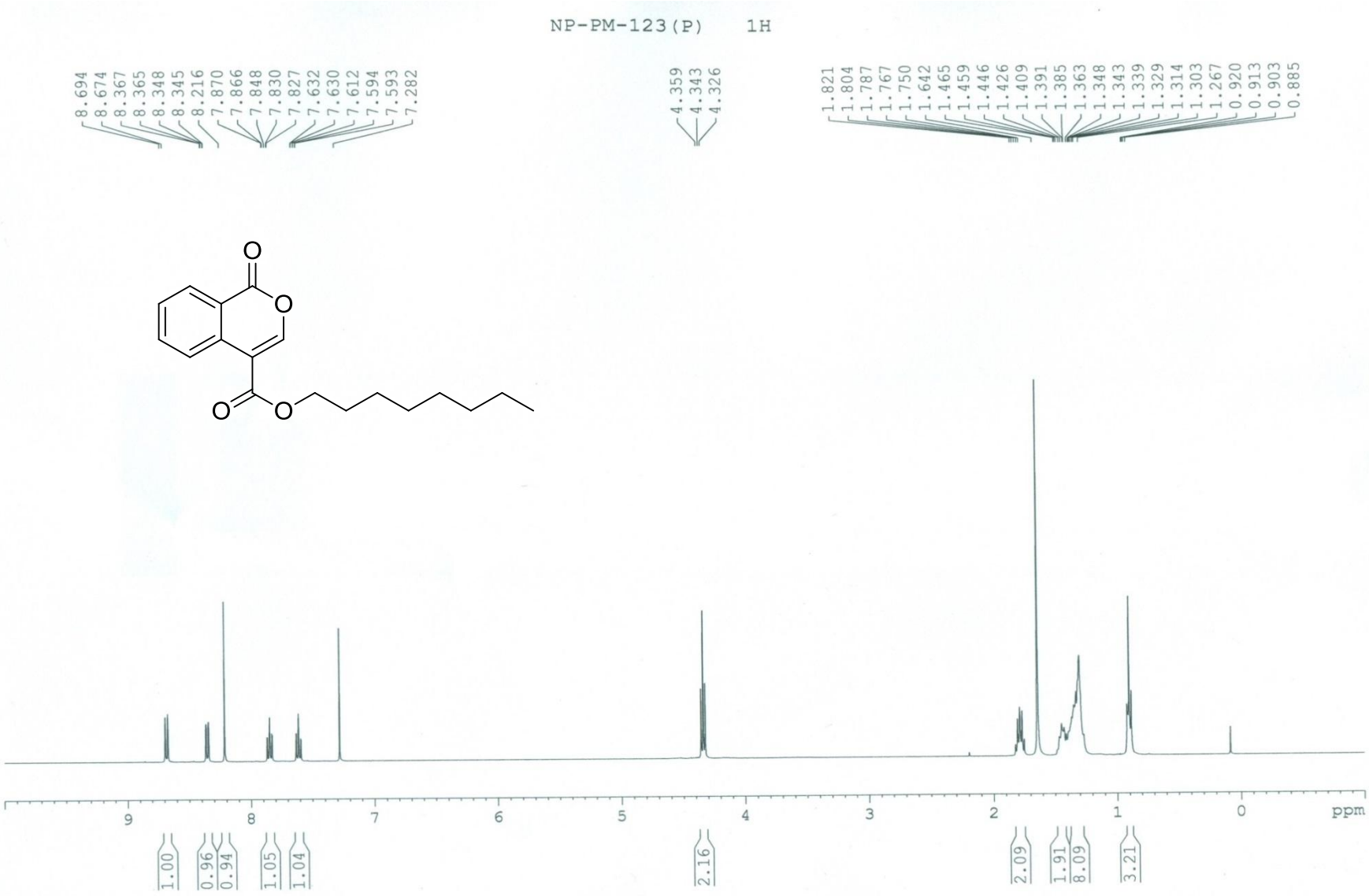
Pentyl 1-oxo-1H-isochromene-4-carboxylate (2d) – ^{1}H NMR



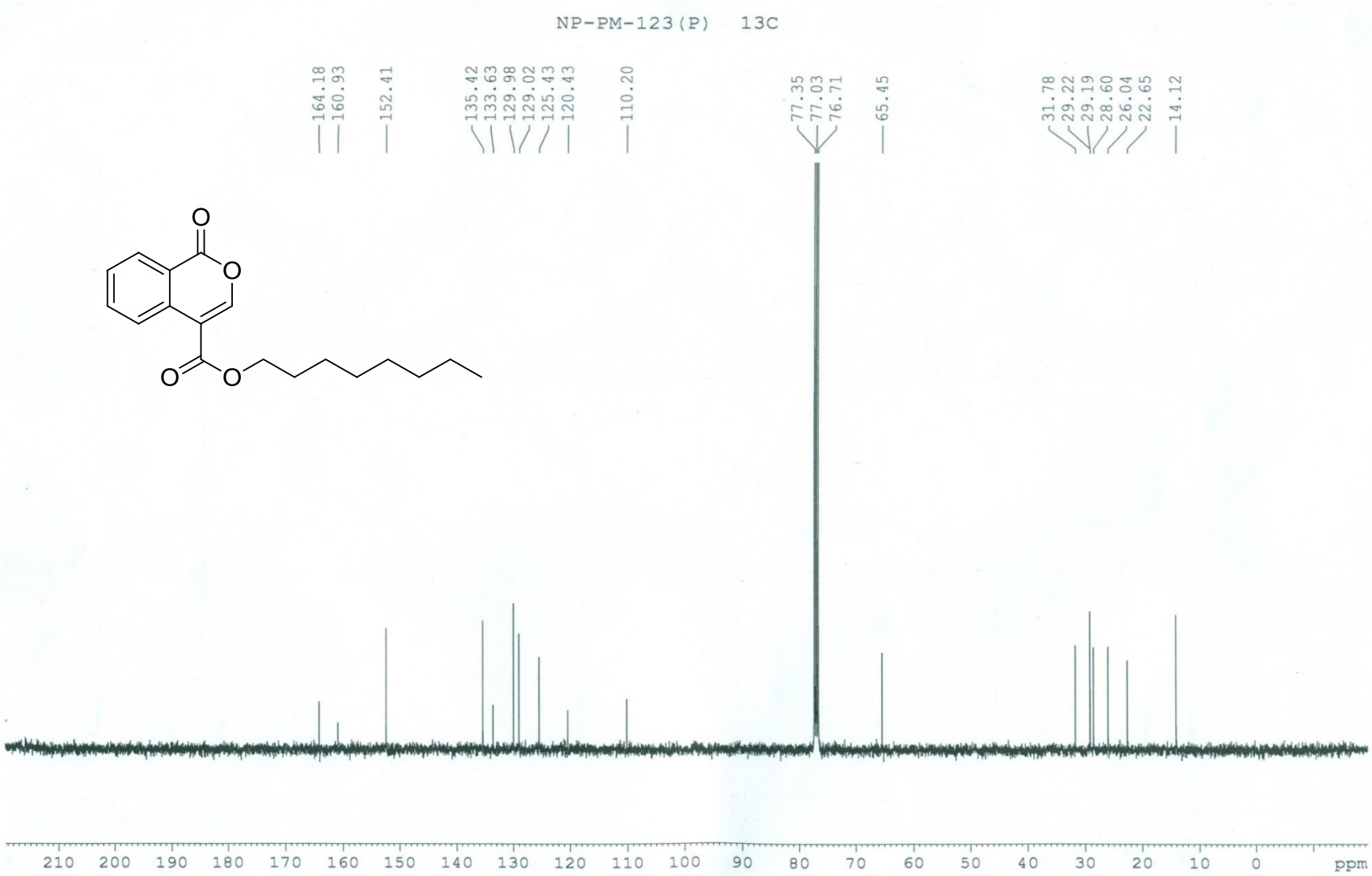
Pentyl 1-oxo-1H-isochromene-4-carboxylate (2d) – ^{13}C NMR



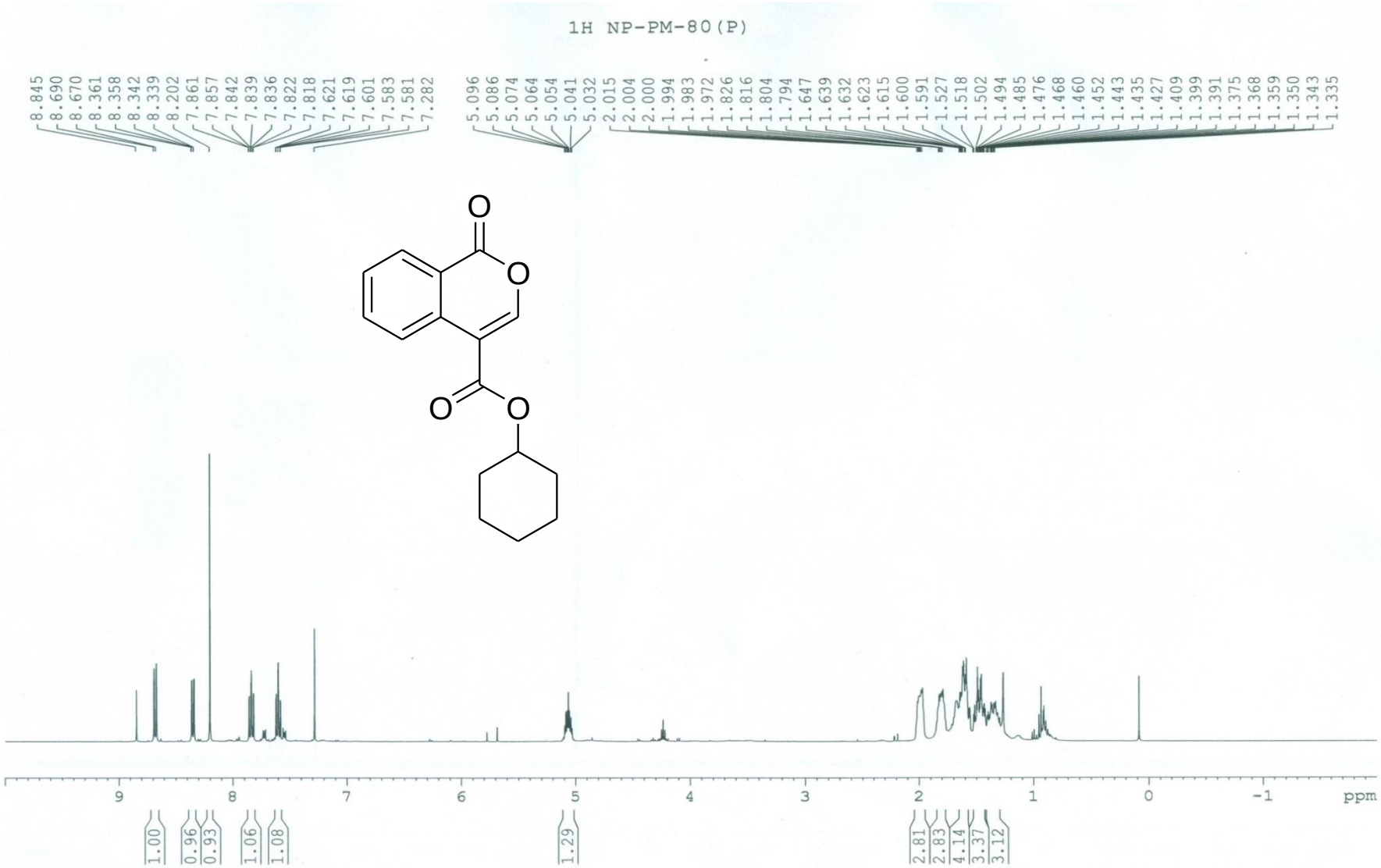
Octyl 1-oxo-1H-isochromene-4-carboxylate (2e) – ^{1}H NMR



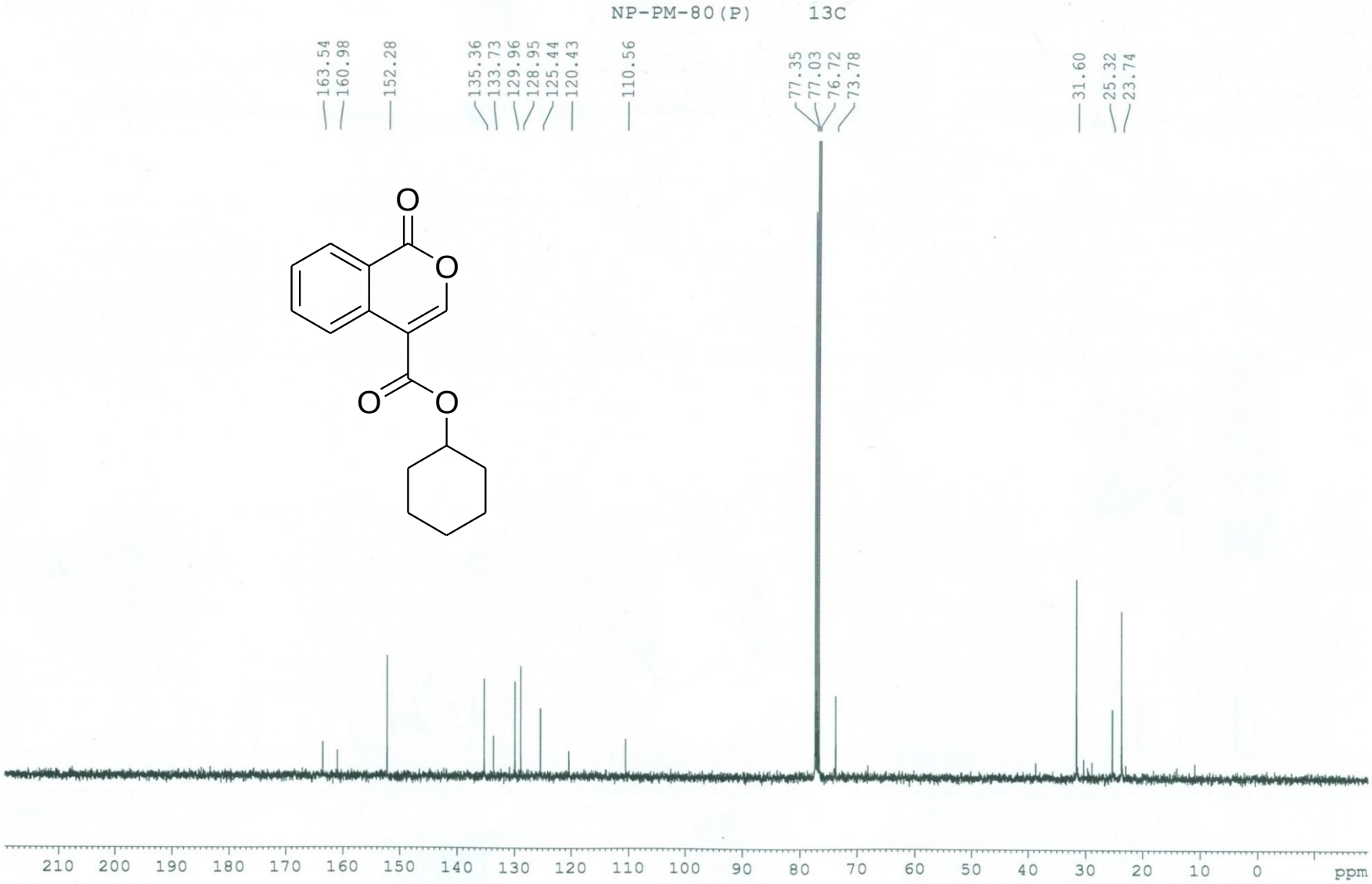
Octyl 1-oxo-1H-isochromene-4-carboxylate (2e) – ^{1}H NMR



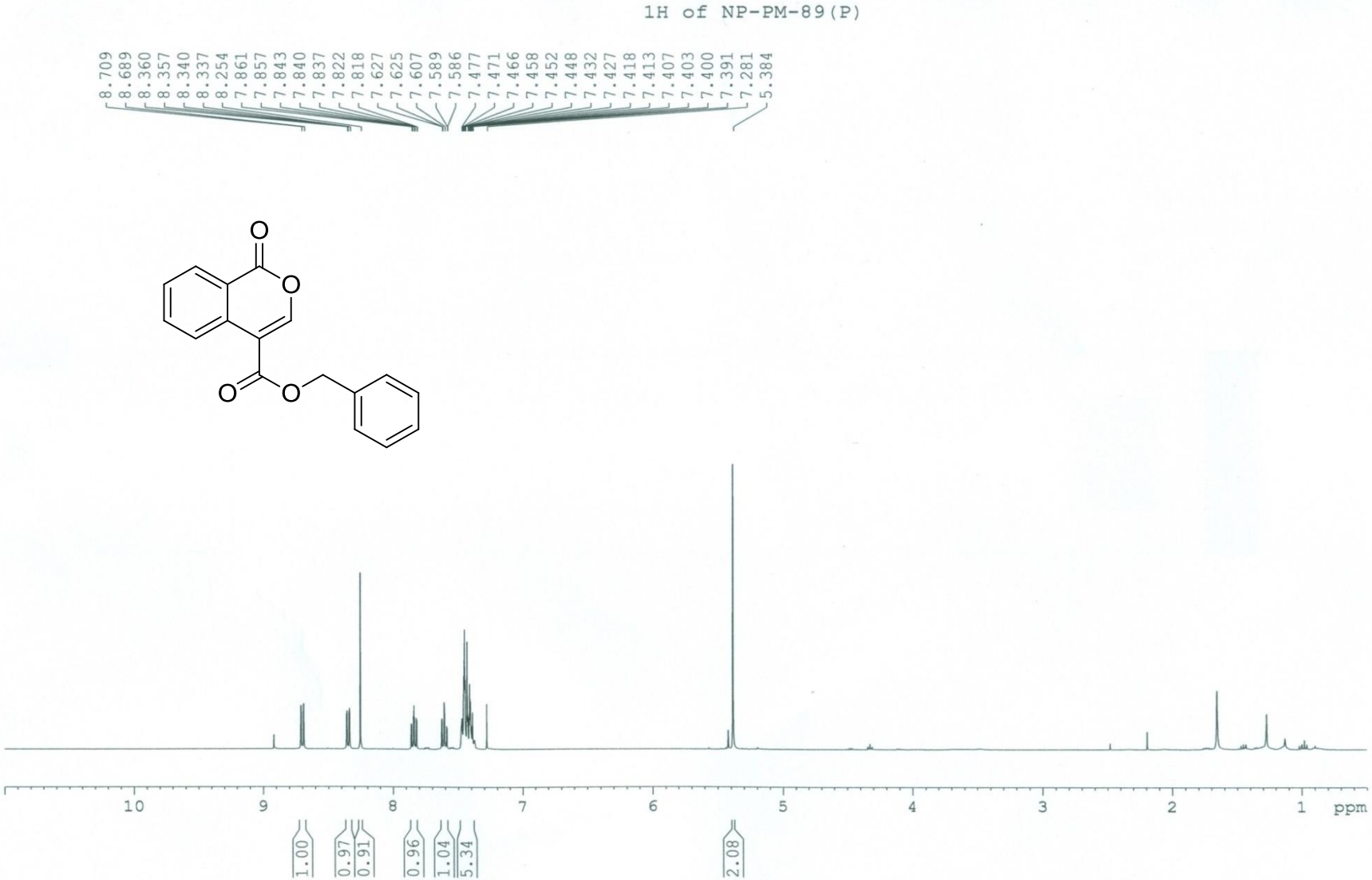
4-(2-Cyclohexylacetyl)-1H-isochromen-1-one (2f) – ^{1}H NMR



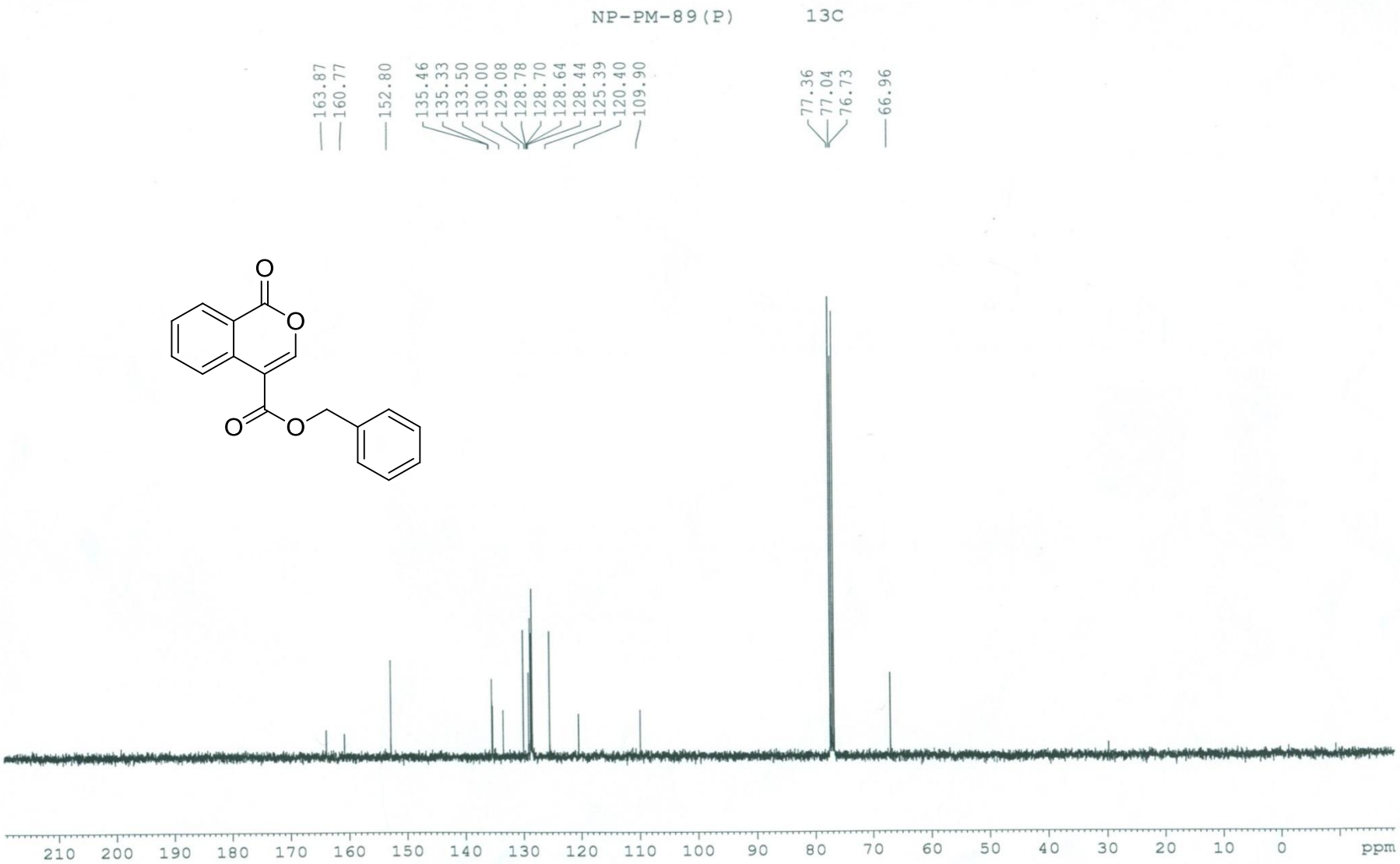
4-(2-Cyclohexylacetyl)-1H-isochromen-1-one (2f) – ^{13}C NMR



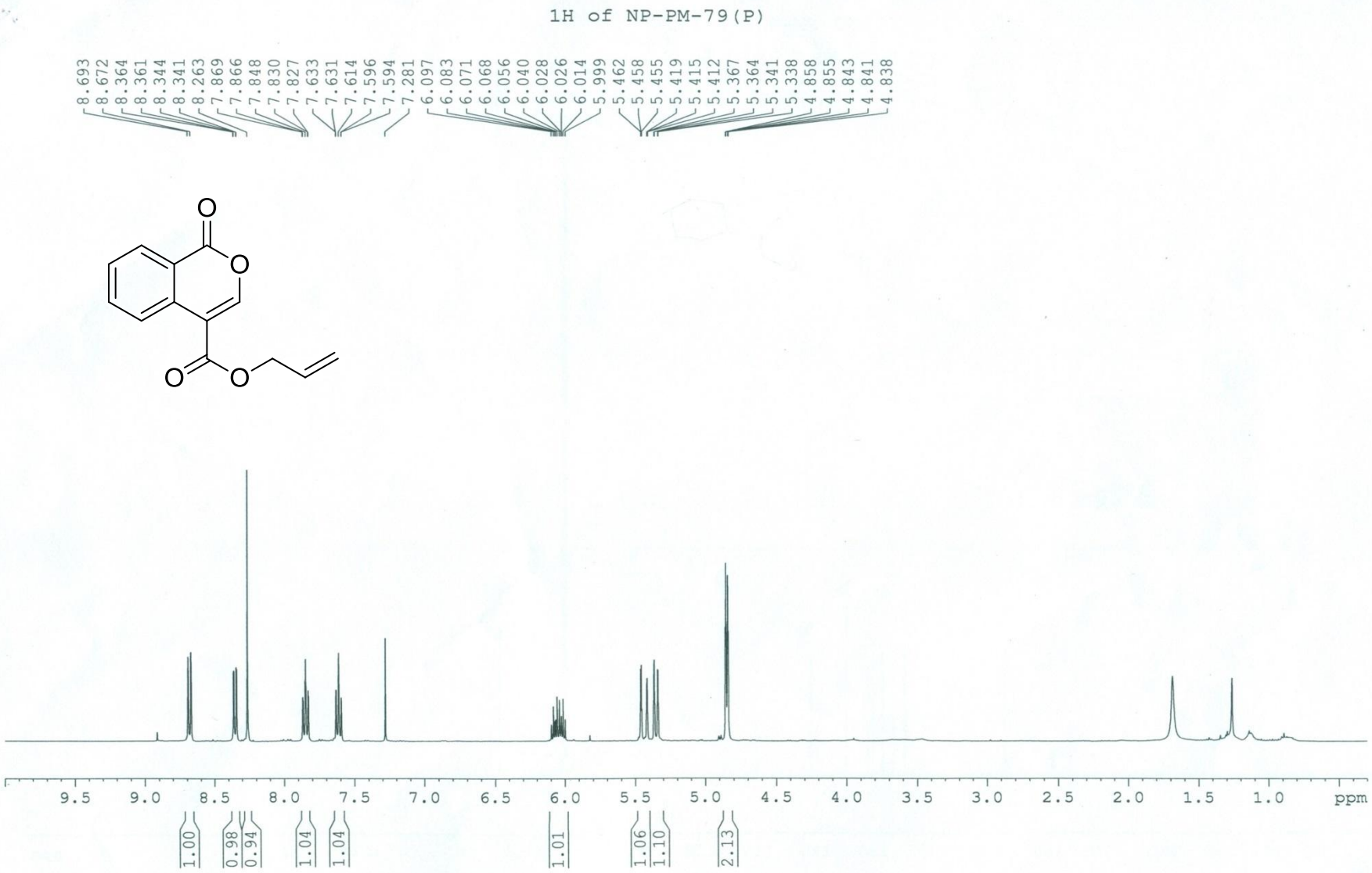
Benzyl 1-oxo-1H-isochromene-4-carboxylate (2g) – ^{1}H NMR



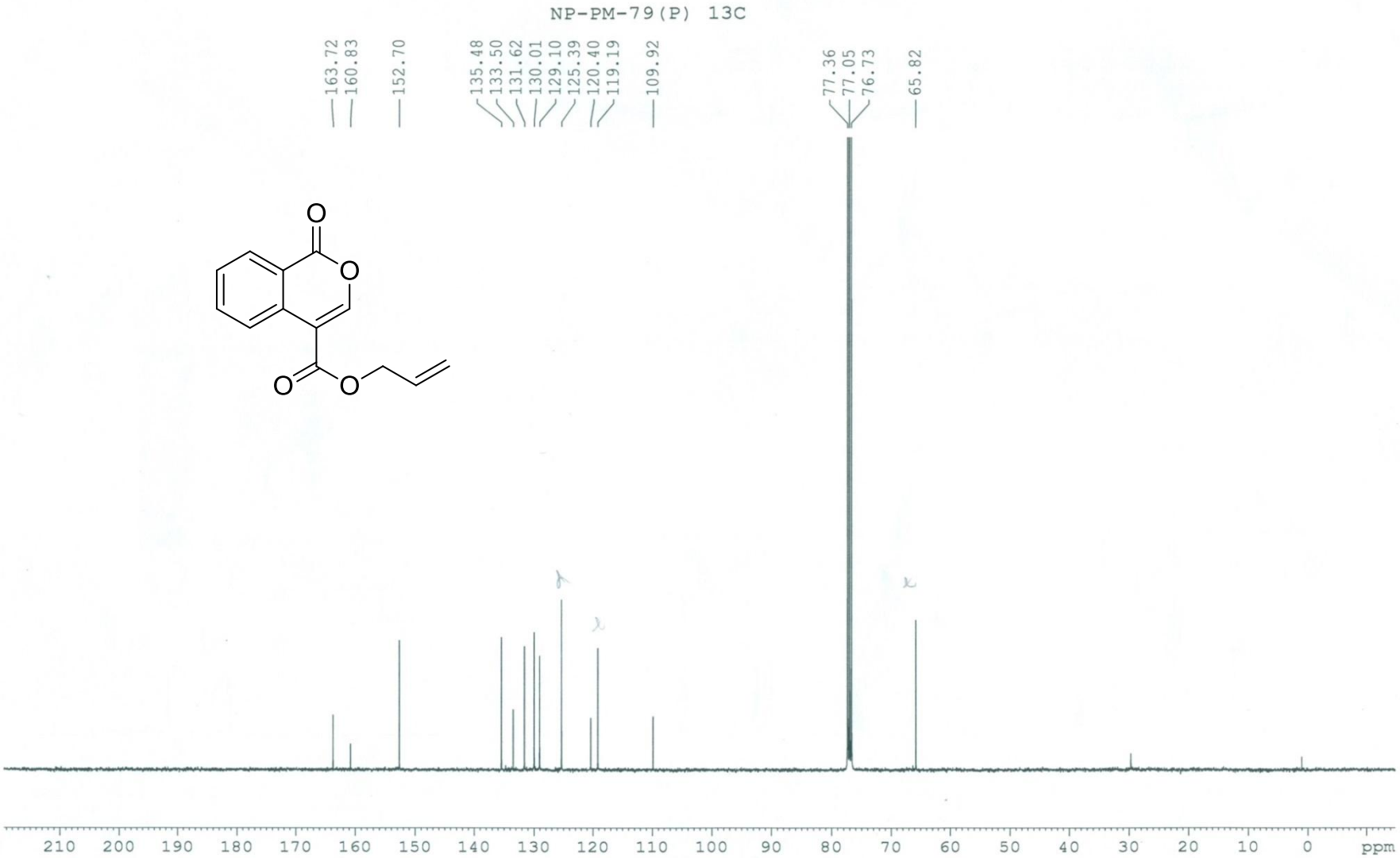
Benzyl 1-oxo-1H-isochromene-4-carboxylate (2g) – ^{13}C NMR



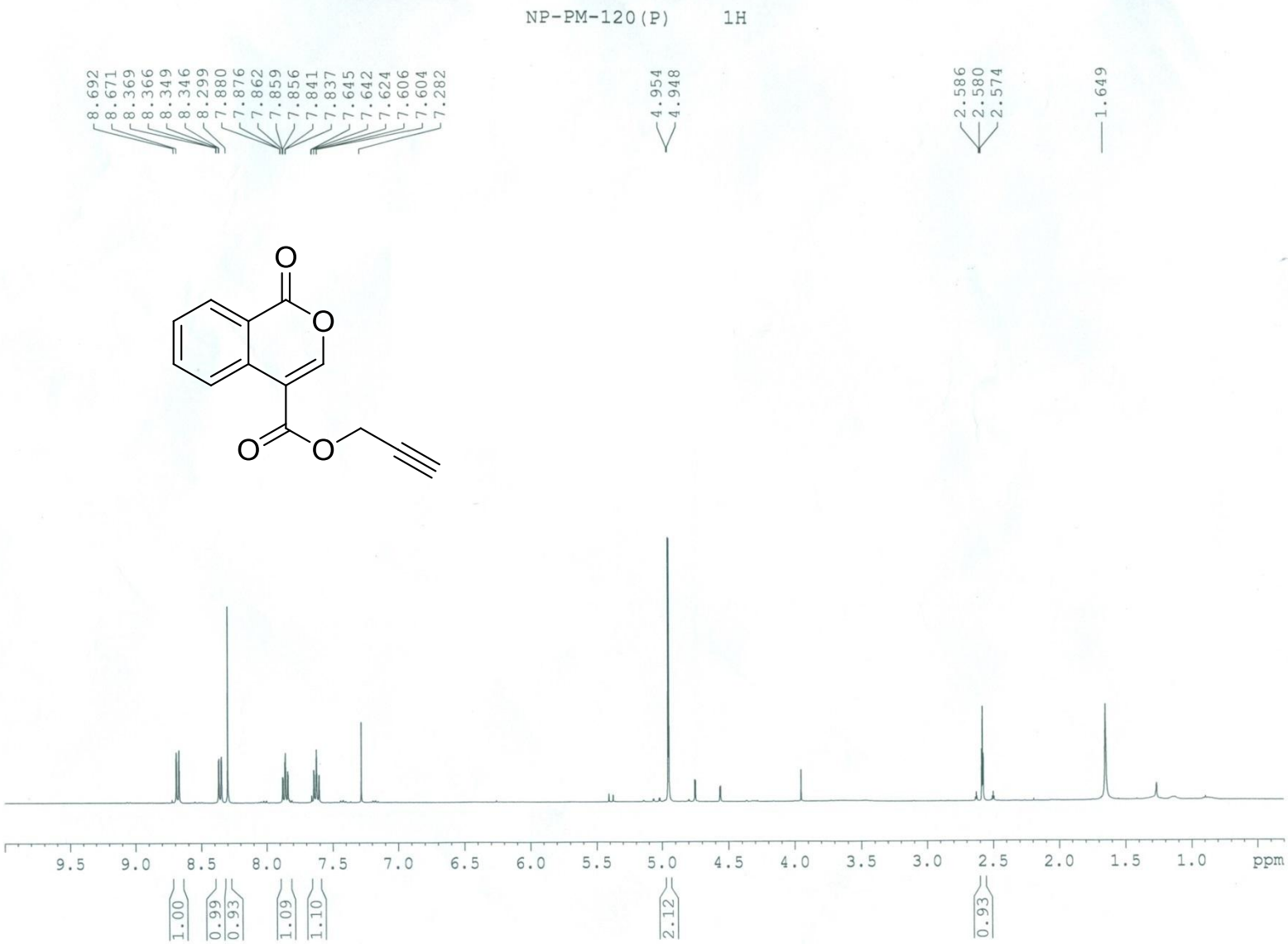
Allyl 1-oxo-1H-isochromene-4-carboxylate (2h) – ^{1}H NMR



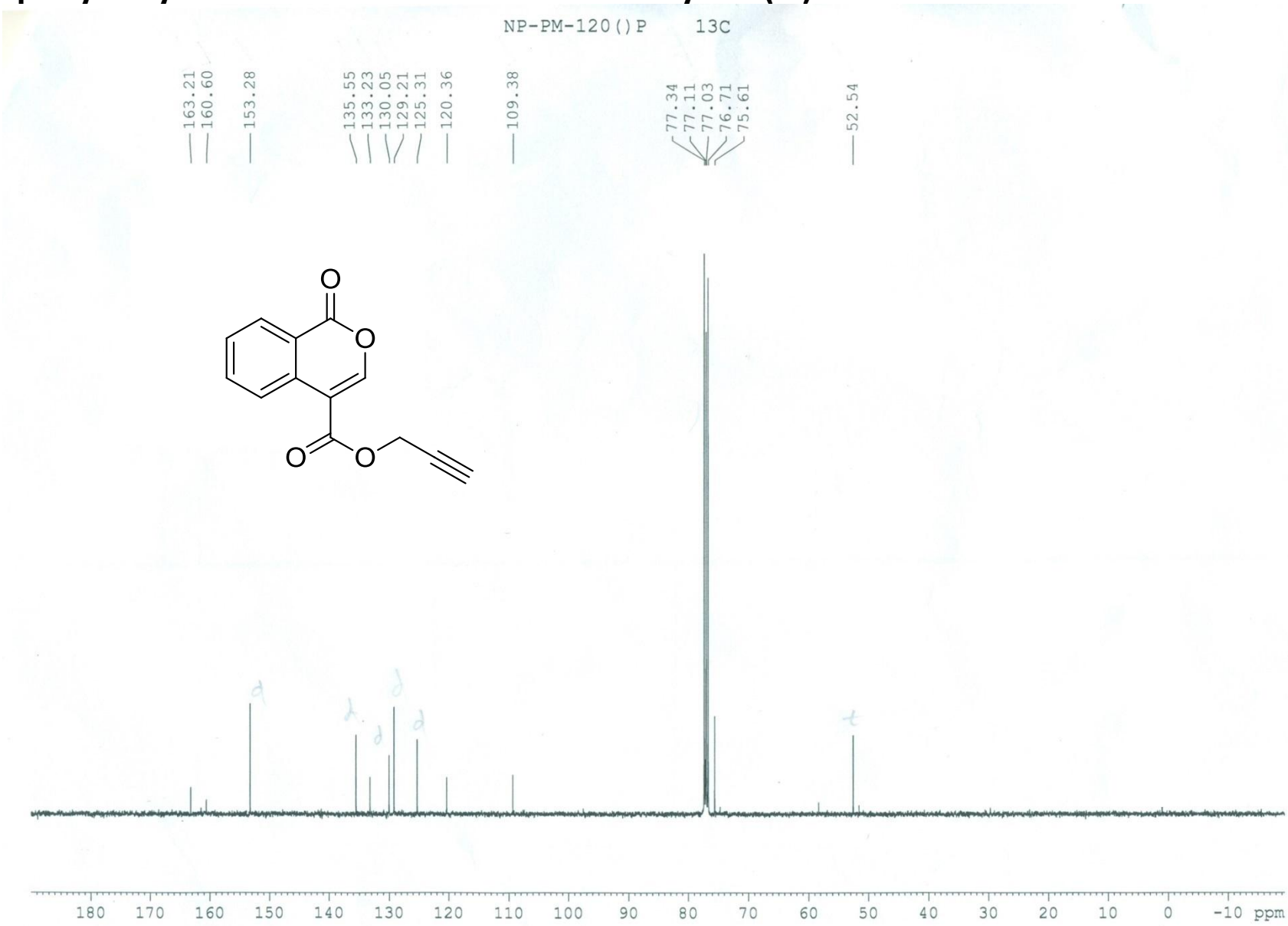
Allyl 1-oxo-1H-isochromene-4-carboxylate (2h) – ^{13}C NMR



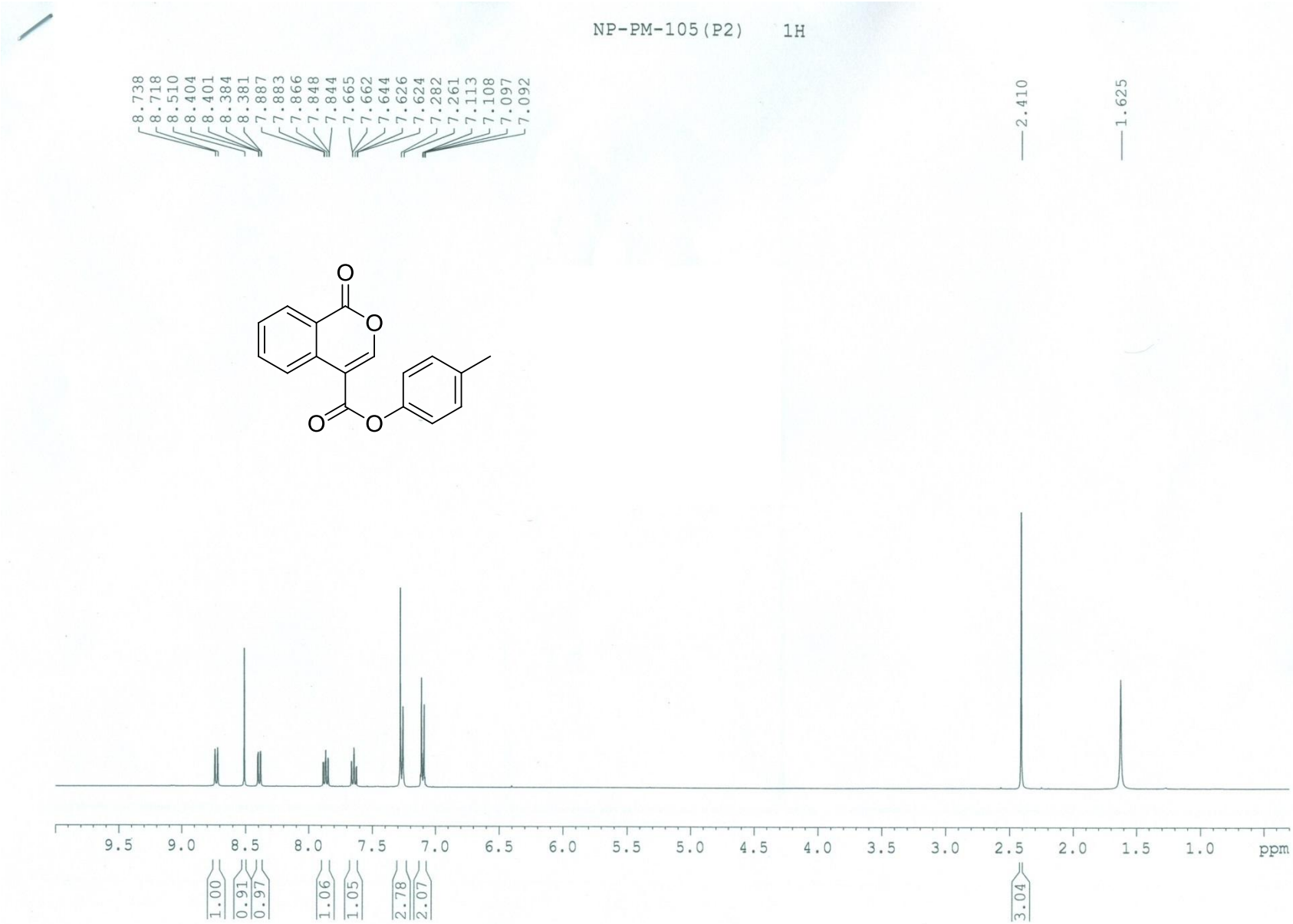
Prop-2-yn-1-yl 1-oxo-1H-isochromene-4-carboxylate (2i) – ^{1}H NMR



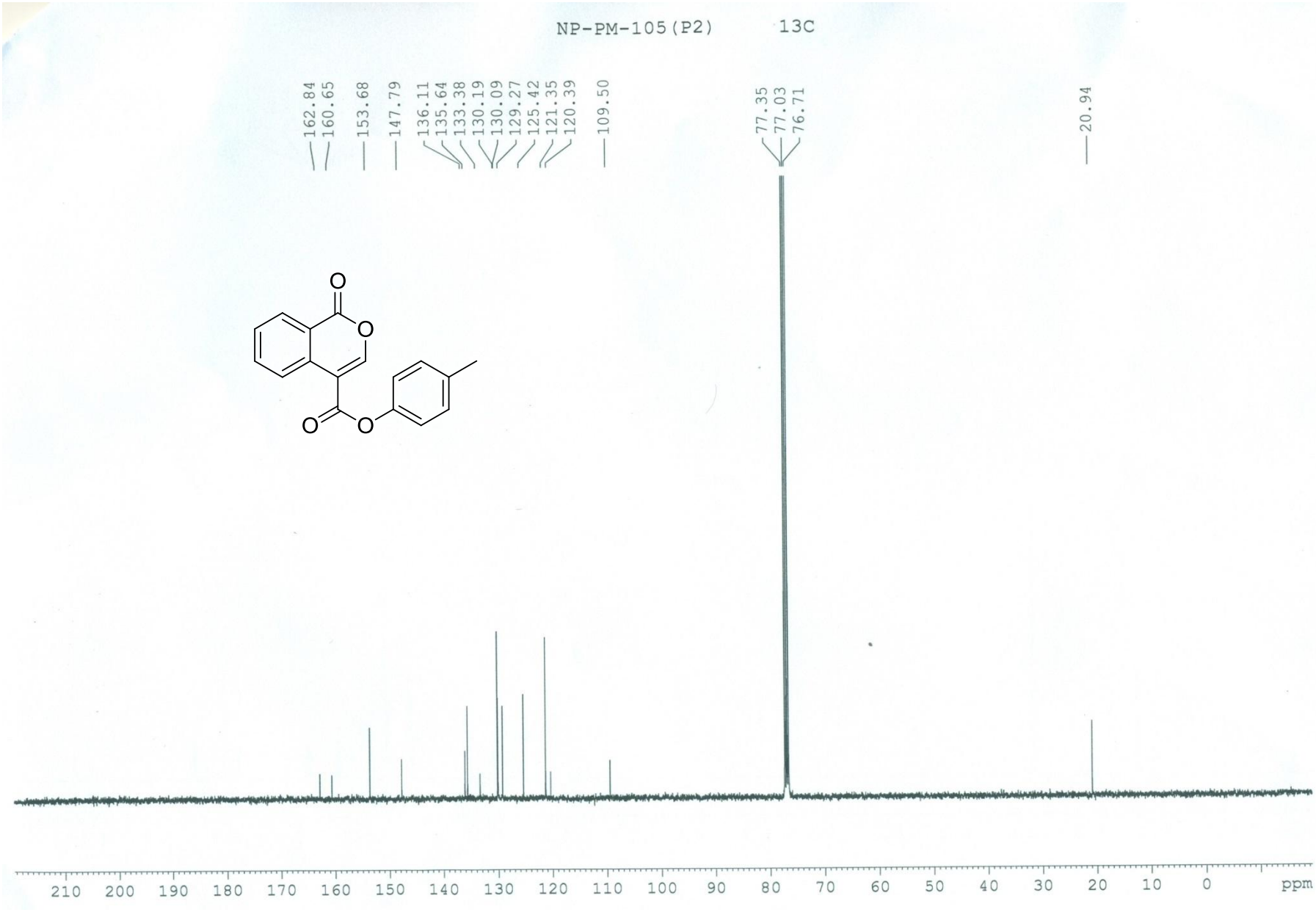
Prop-2-yn-1-yl 1-oxo-1H-isochromene-4-carboxylate (2i) – ^{13}C NMR



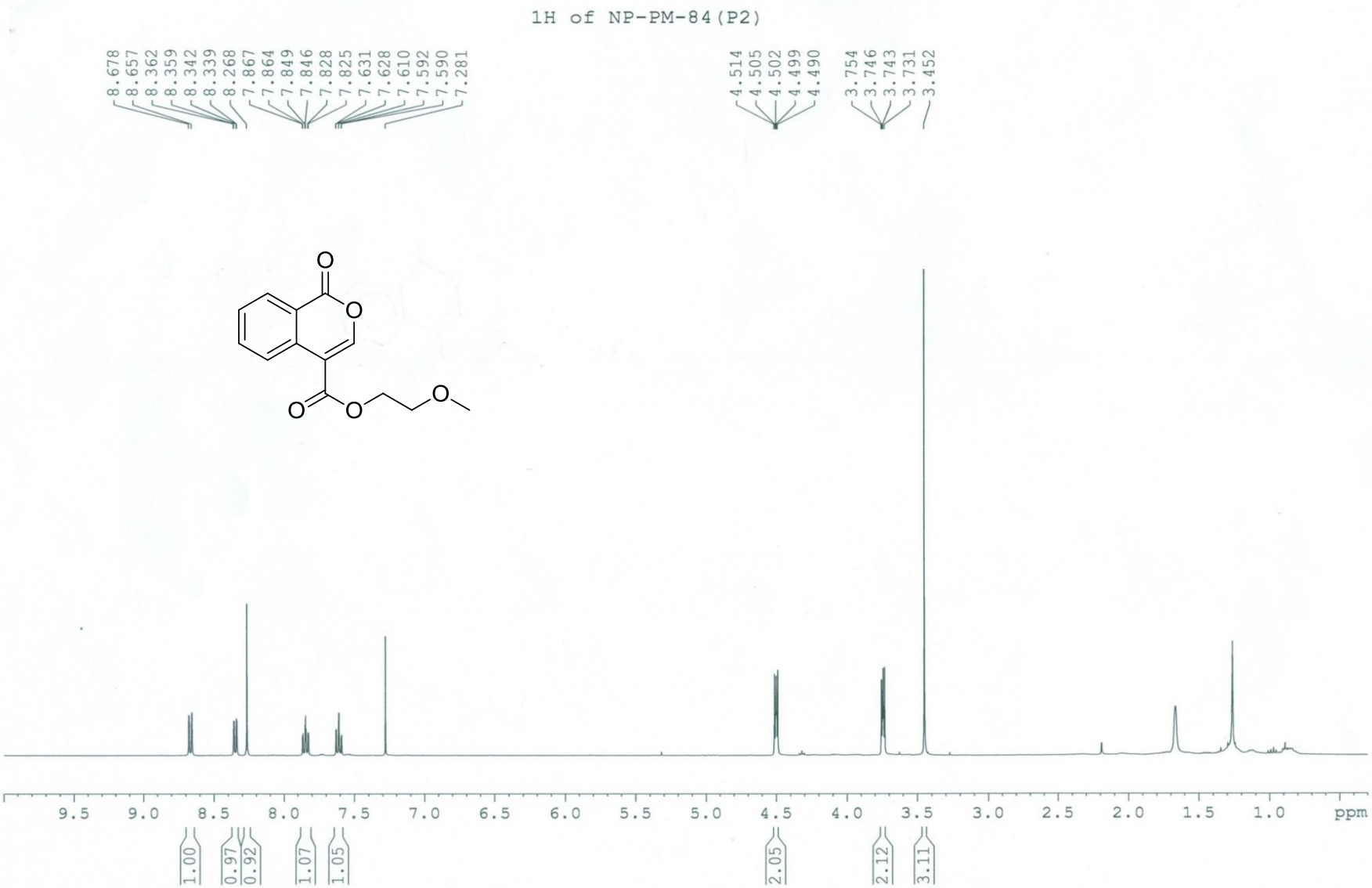
p-Tolyl 1-oxo-1H-isochromene-4-carboxylate (2j) – ^{1}H NMR



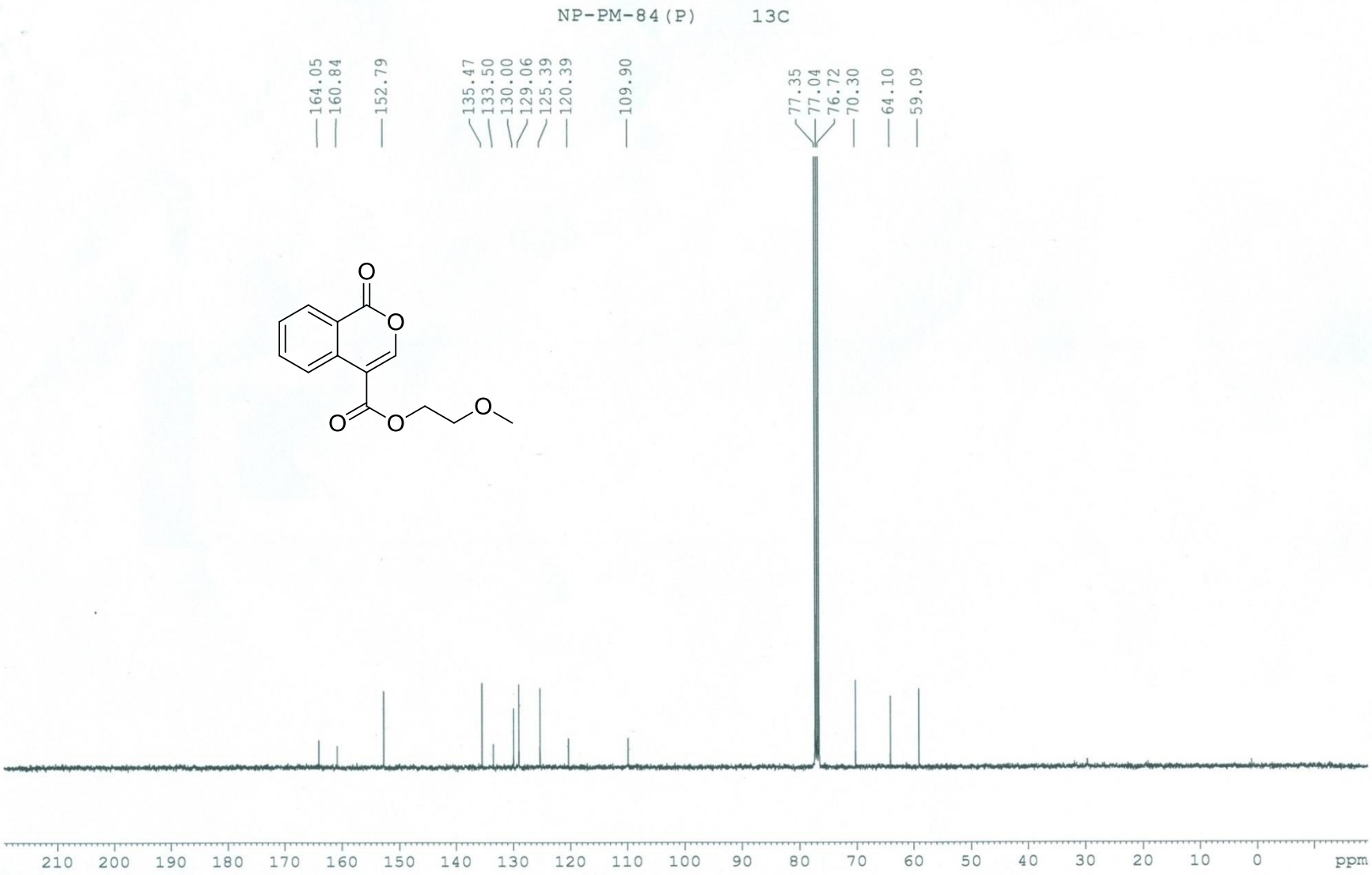
p-Tolyl 1-oxo-1H-isochromene-4-carboxylate (2j) – 13C NMR



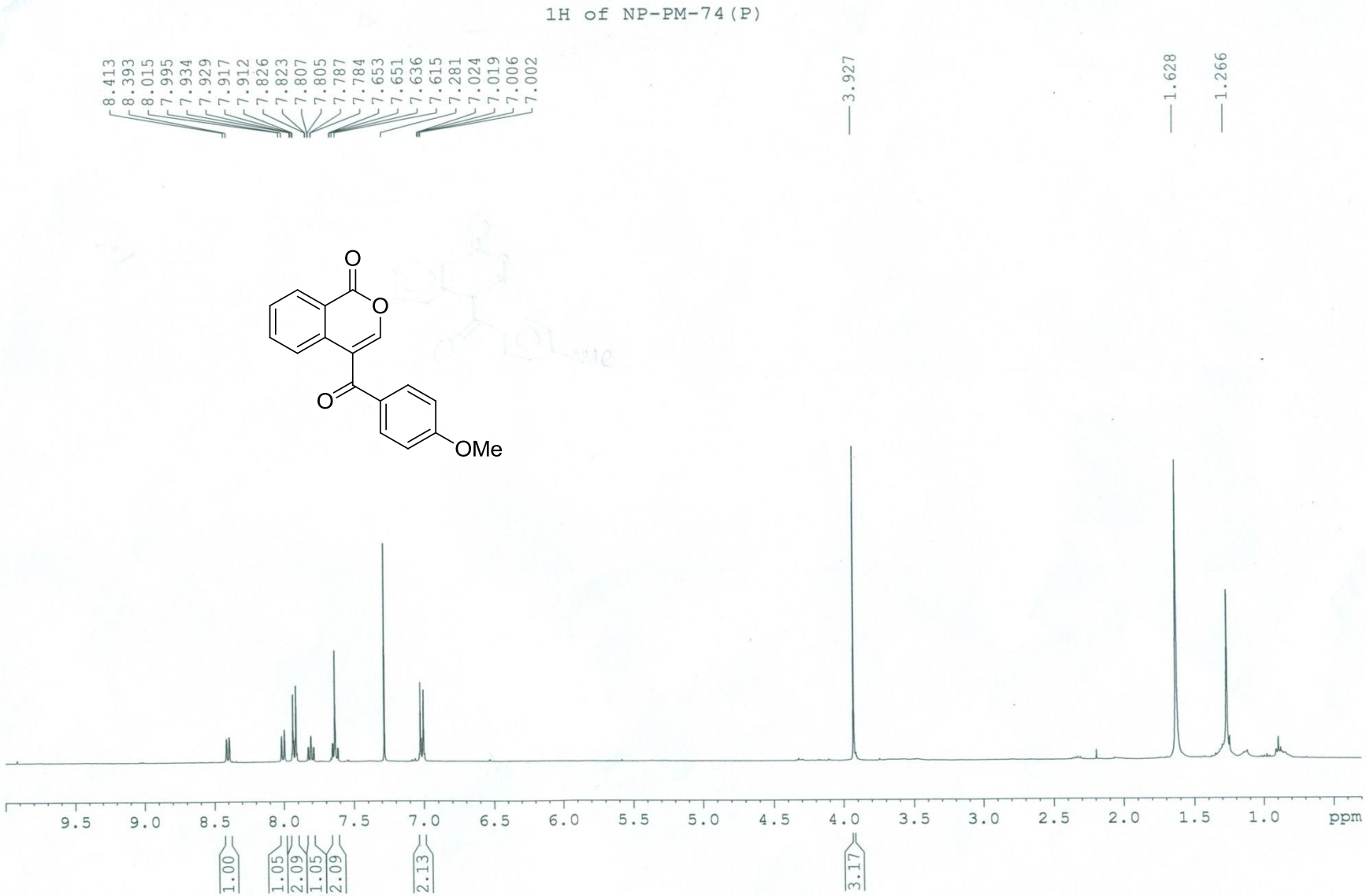
2-Methoxyethyl 1-oxo-1H-isochromene-4-carboxylate (2k) – ^{1}H NMR



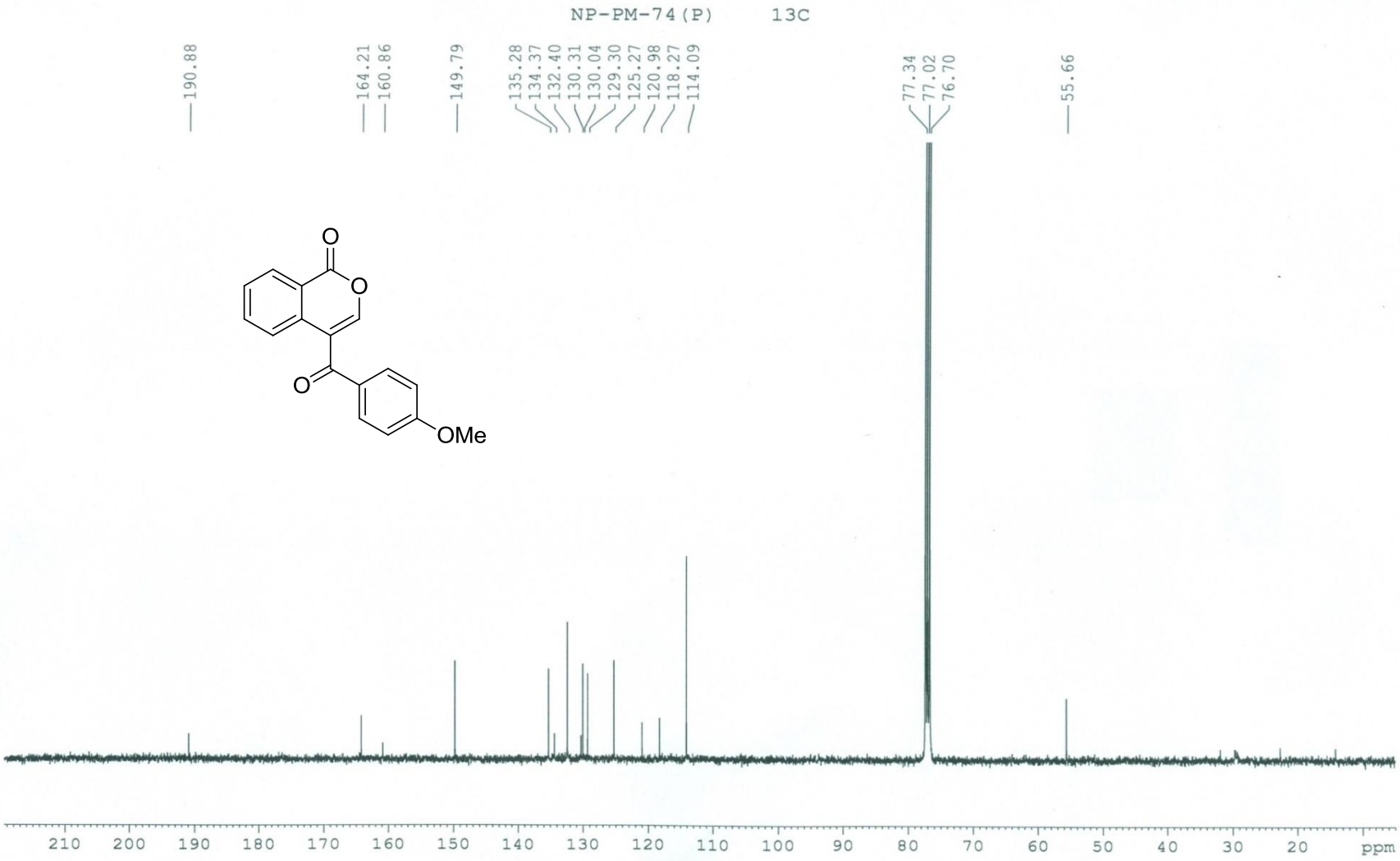
2-Methoxyethyl 1-oxo-1H-isochromene-4-carboxylate (2k) – ^{13}C NMR



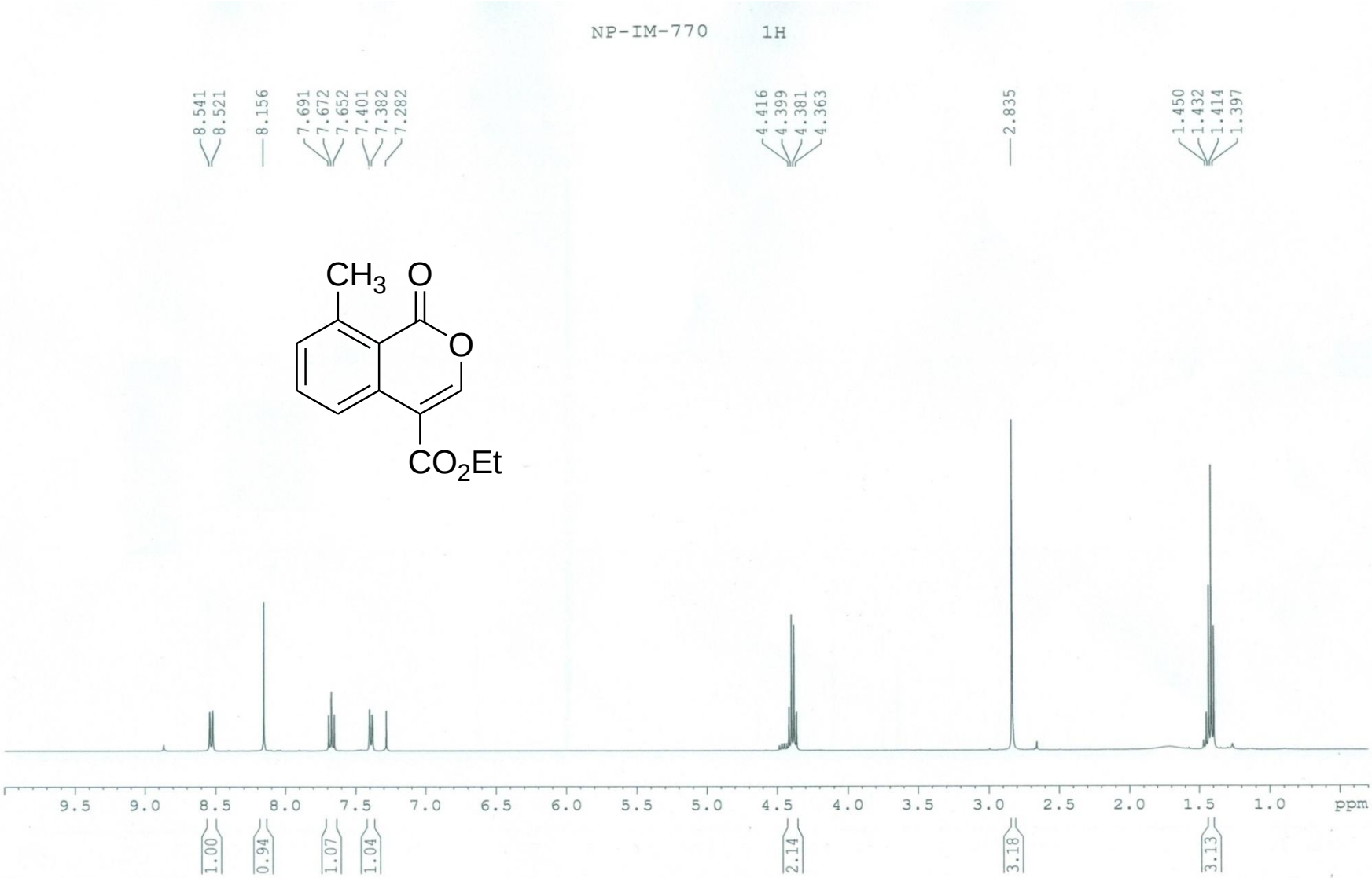
4-(4-Methoxybenzoyl)-1H-isochromen-1-one (2l) – ^{1}H NMR



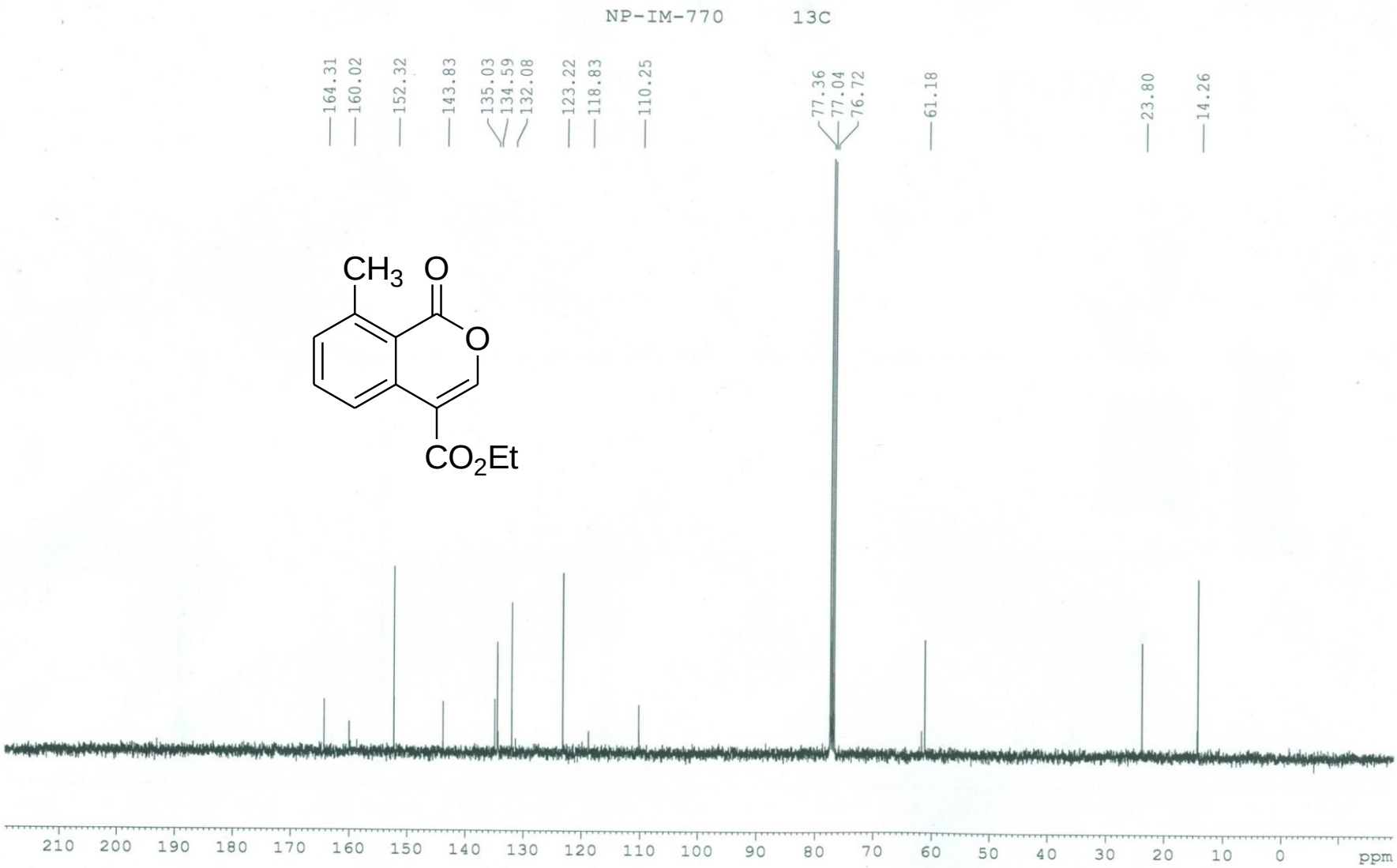
4-(4-Methoxybenzoyl)-1H-isochromen-1-one (2l) – ^{13}C NMR



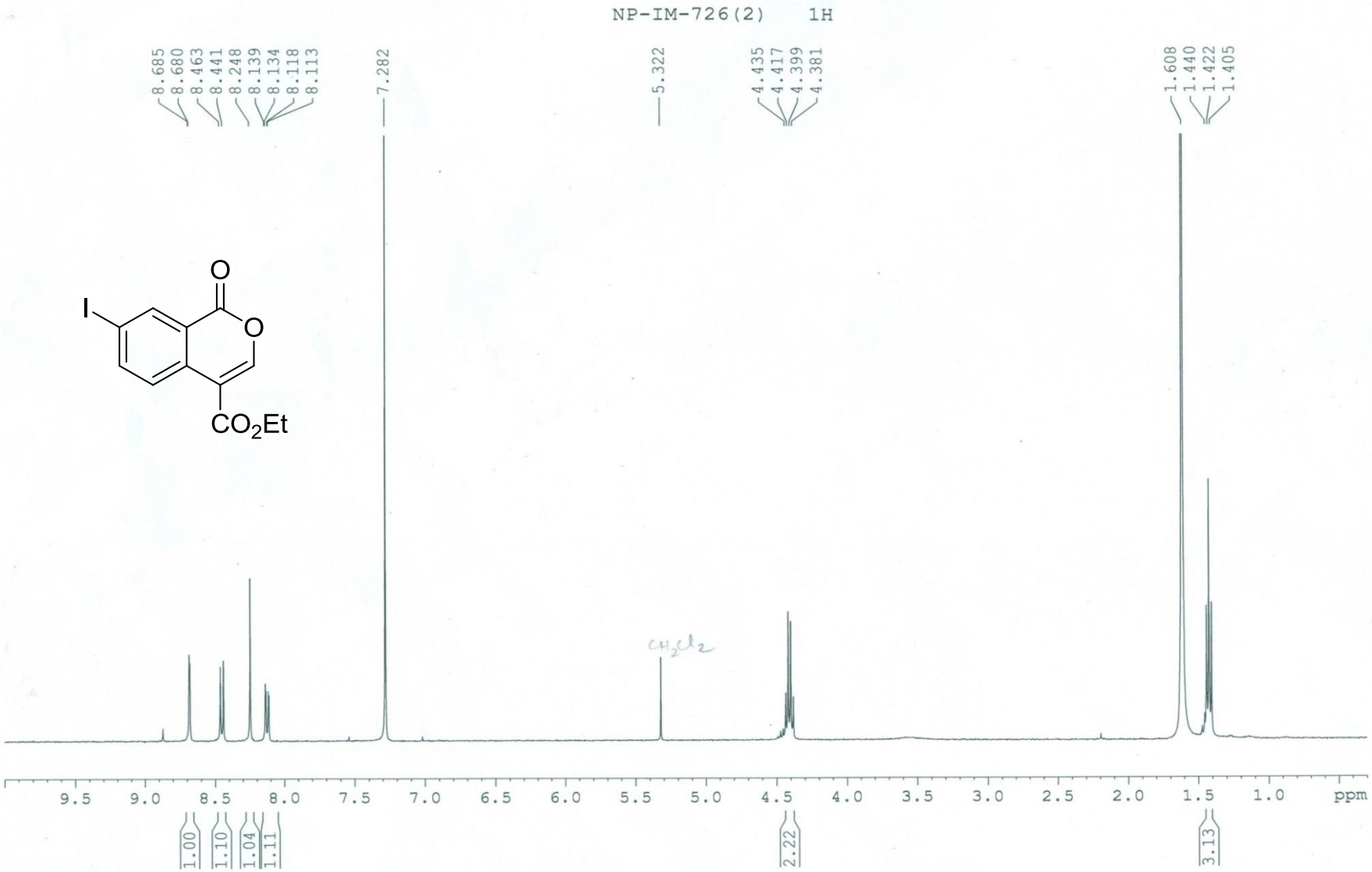
Ethyl 8-methyl-1-oxo-1H-isochromene-4-carboxylate (2m) – ^{1}H NMR *(from Method I)*



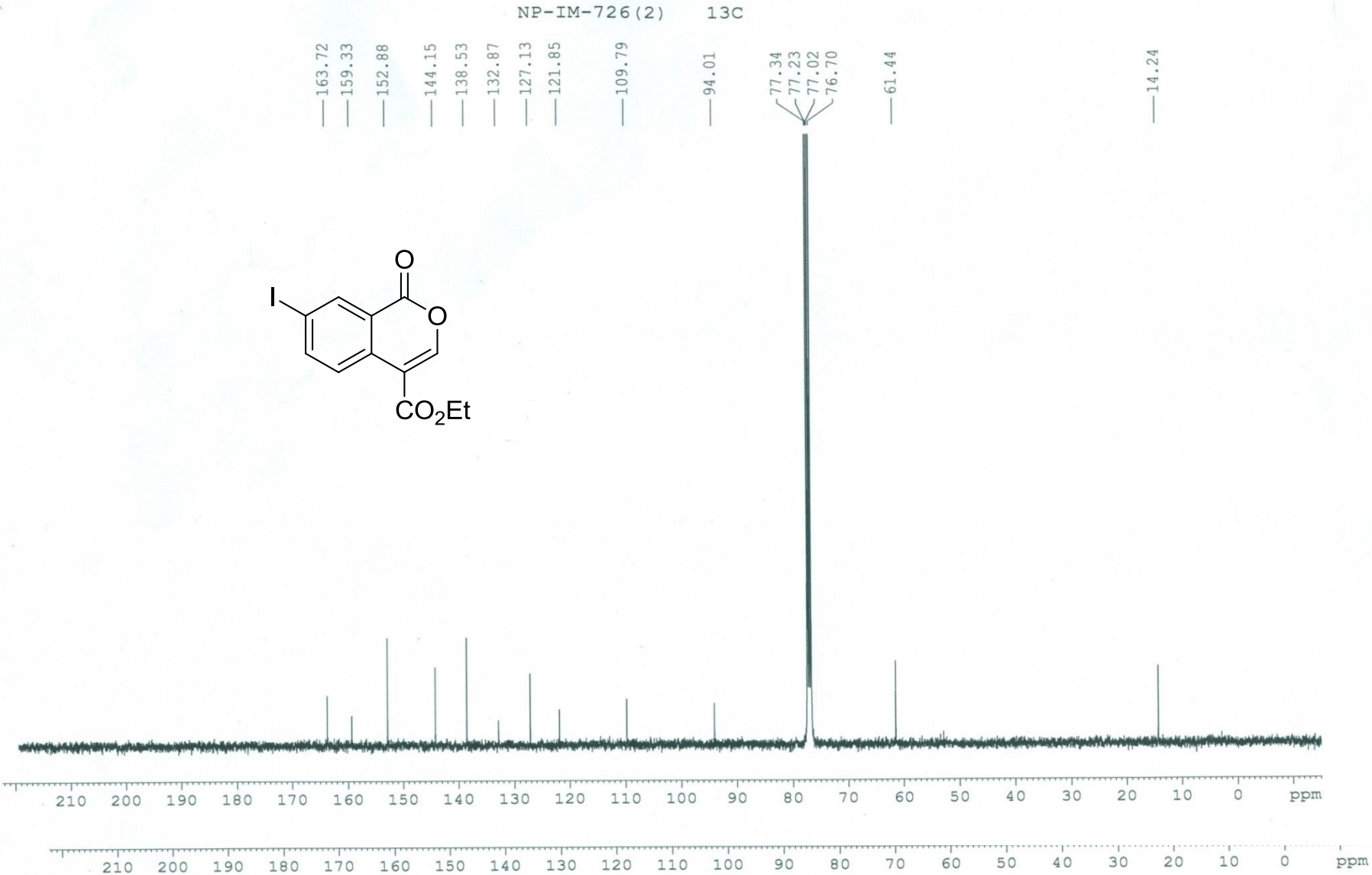
Ethyl 8-methyl-1-oxo-1H-isochromene-4-carboxylate (2m) – ^{13}C NMR *(from Method I)*



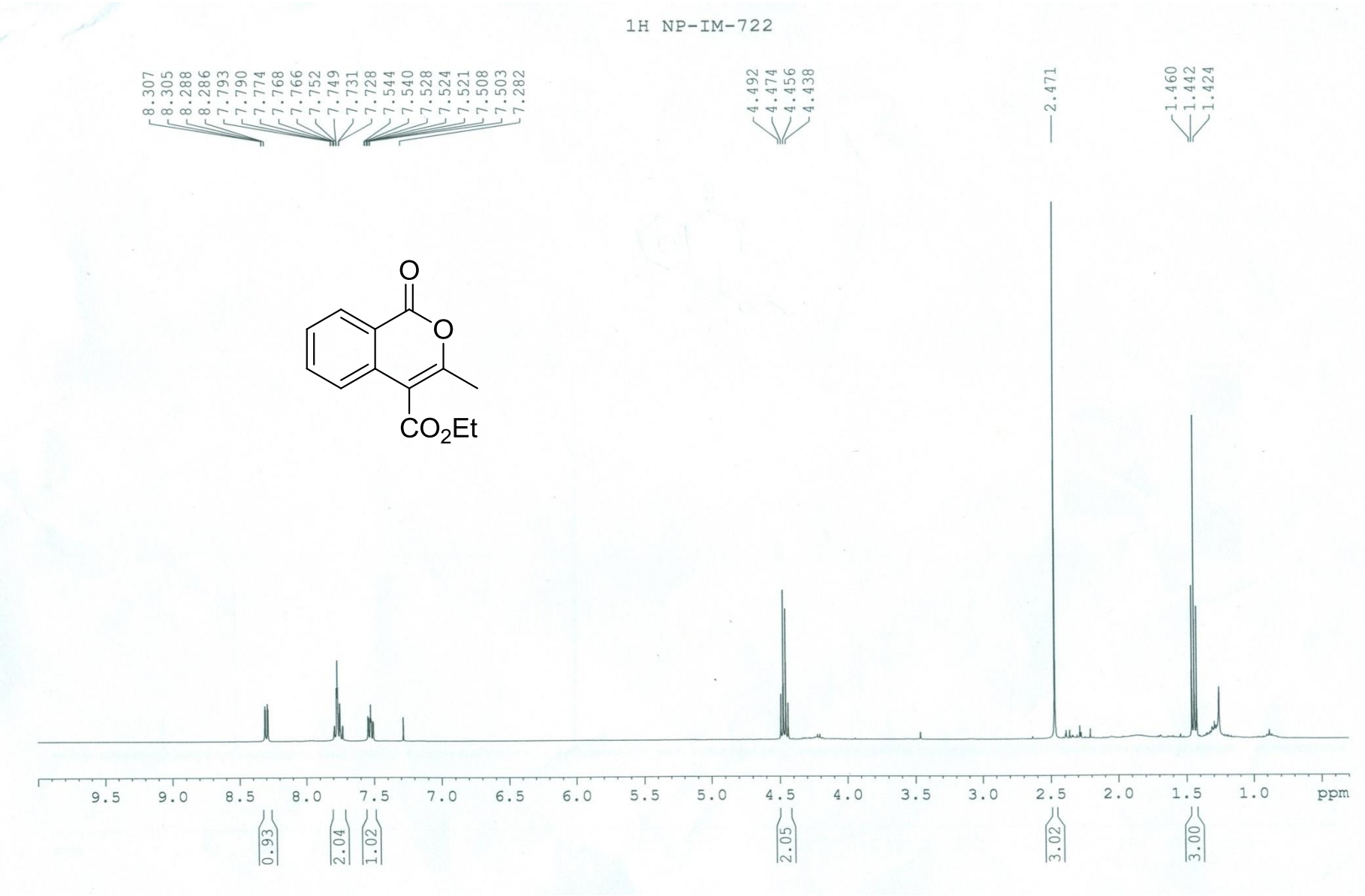
Ethyl 7-iodo-1-oxo-1H-isochromene-4-carboxylate (2n) – ^{1}H NMR *(from Method I)*



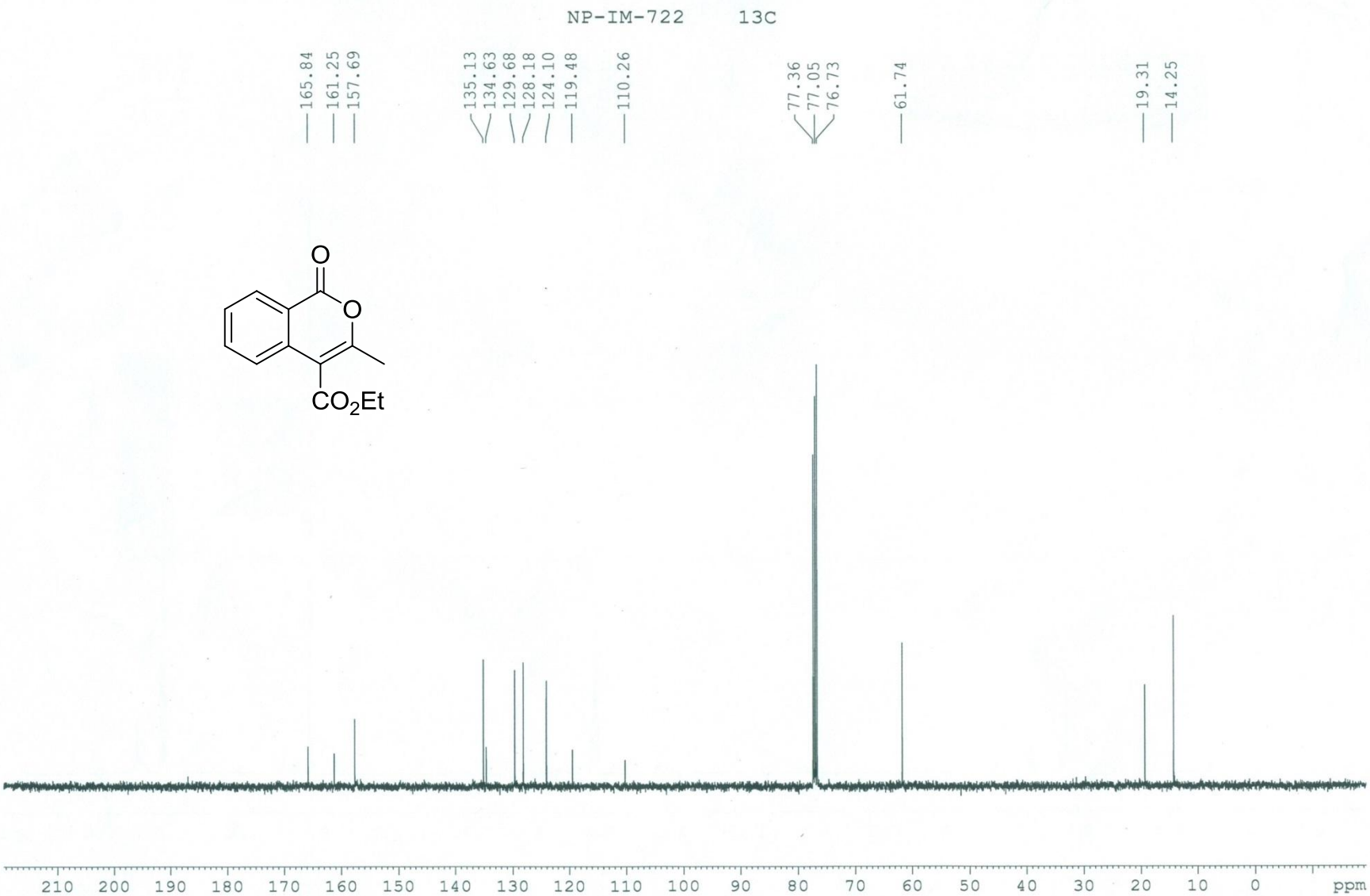
Ethyl 7-iodo-1-oxo-1H-isochromene-4-carboxylate (2n) – ^{13}C NMR *(from Method I)*



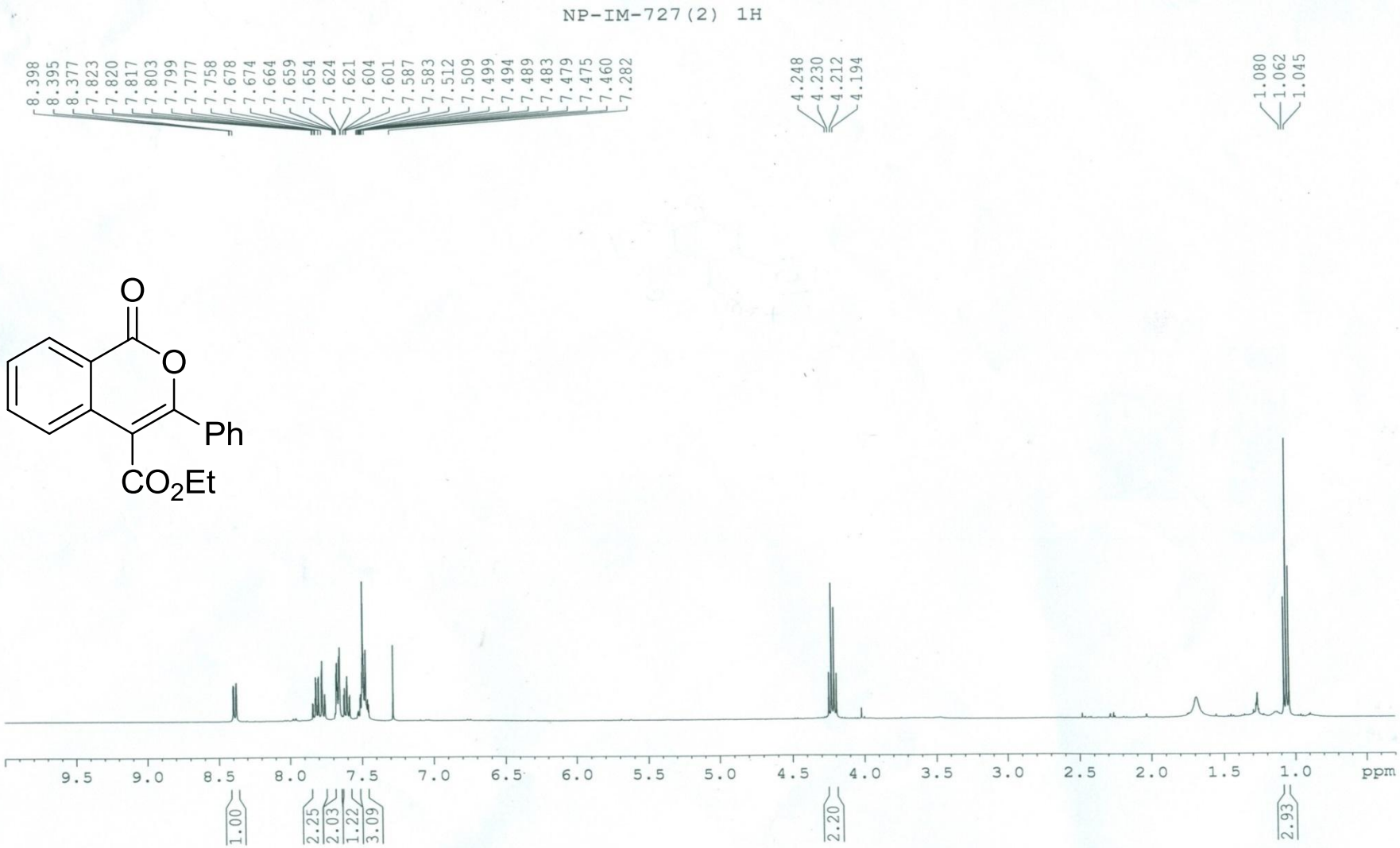
Ethyl 3-methyl-1-oxo-1H-isochromene-4-carboxylate (2o) – ^{1}H NMR *(from Method I)*



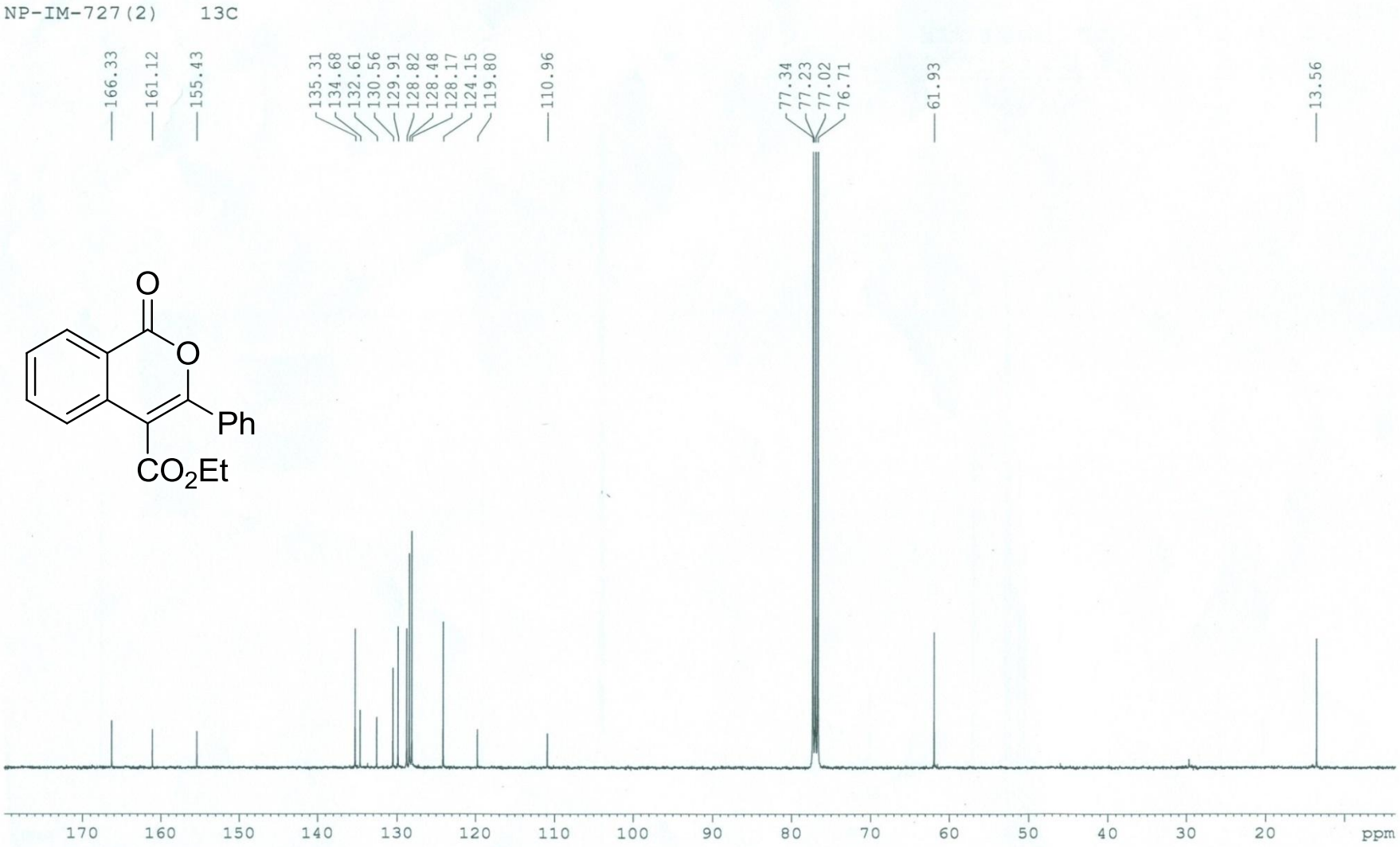
Ethyl 3-methyl-1-oxo-1H-isochromene-4-carboxylate (2o) – ^{13}C NMR *(from Method I)*



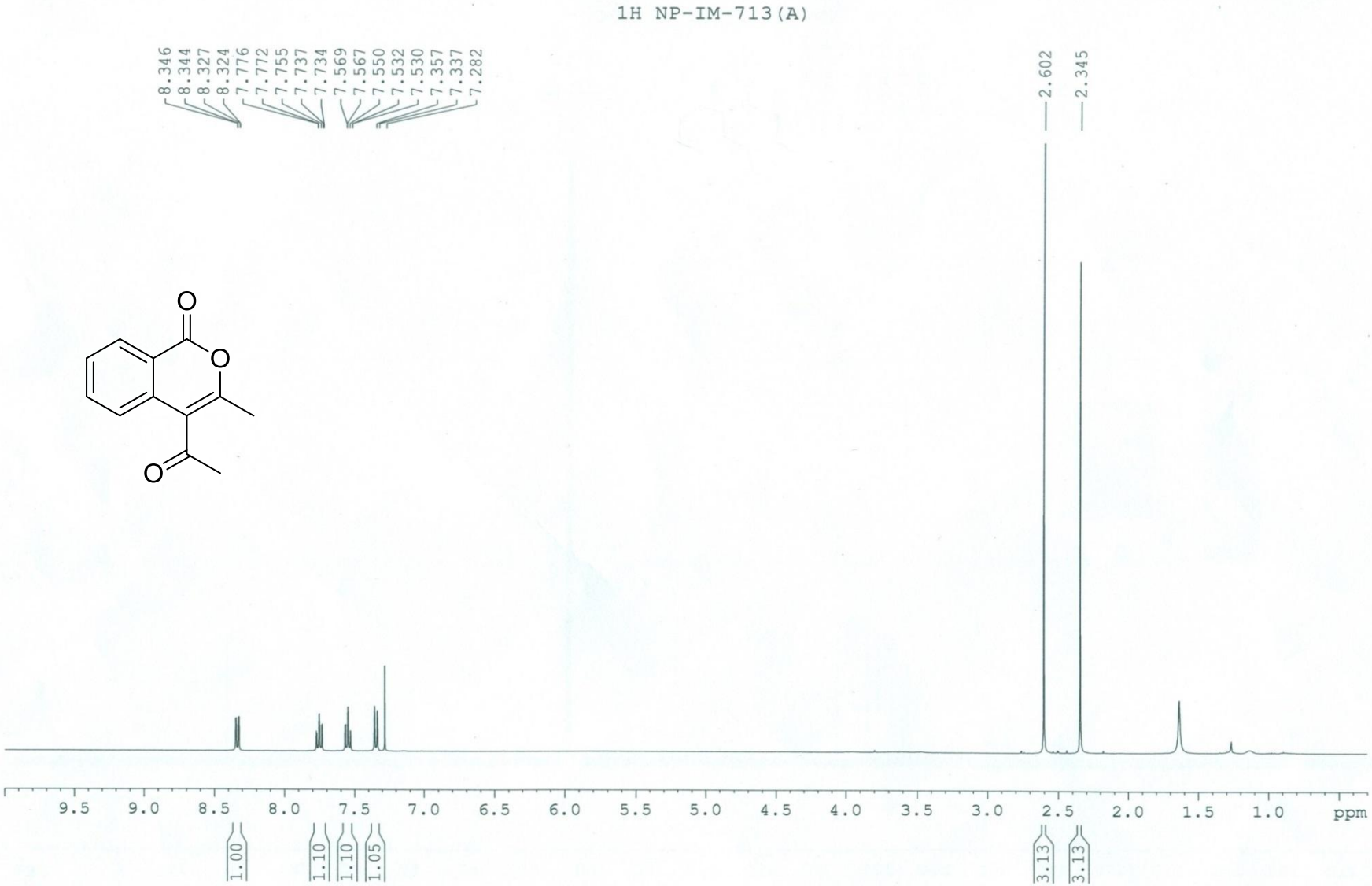
Ethyl 1-oxo-3-phenyl-1H-isochromene-4-carboxylate (2p) – ^{1}H NMR



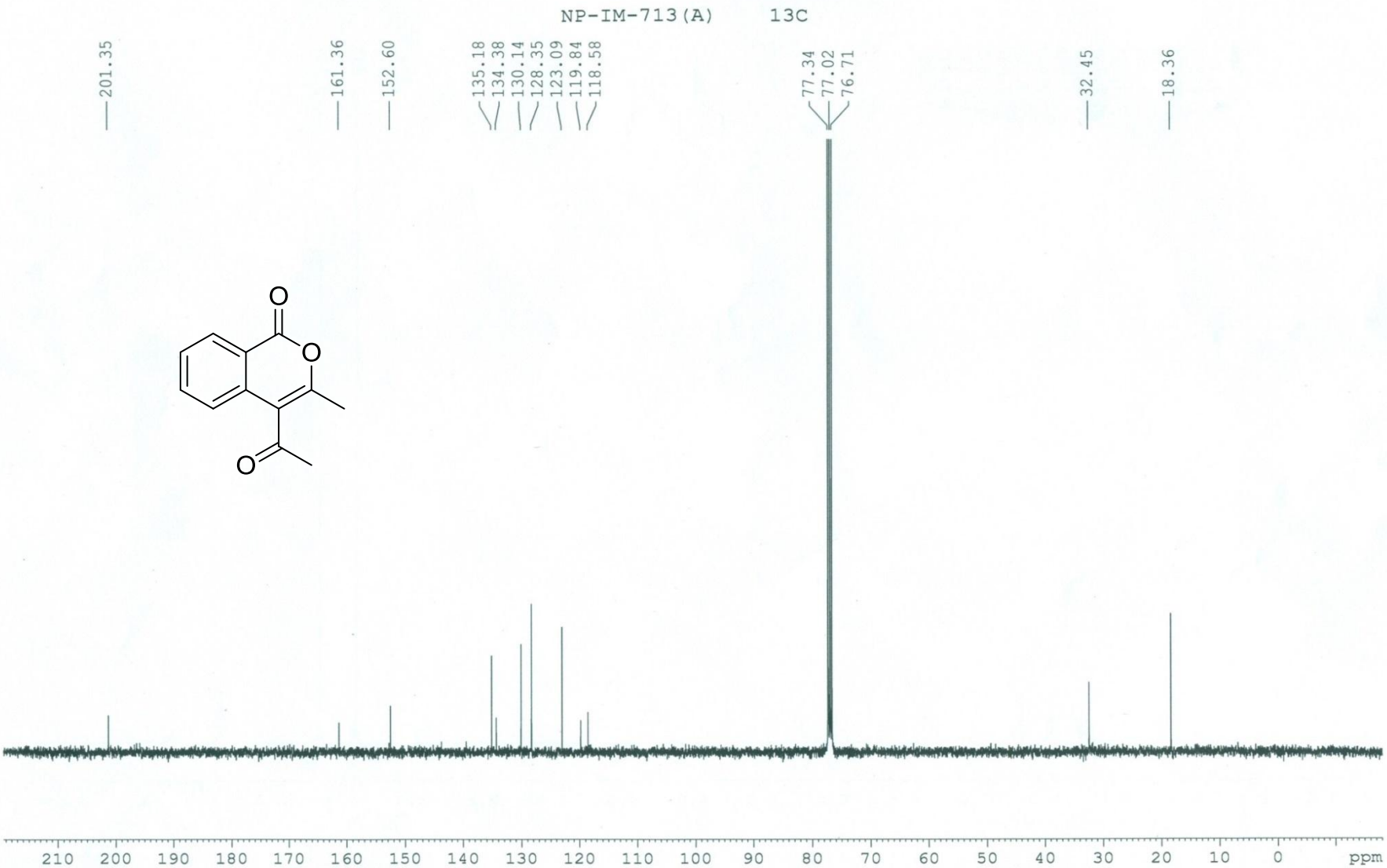
Ethyl 1-oxo-3-phenyl-1H-isochromene-4-carboxylate (2p) – ^{13}C NMR



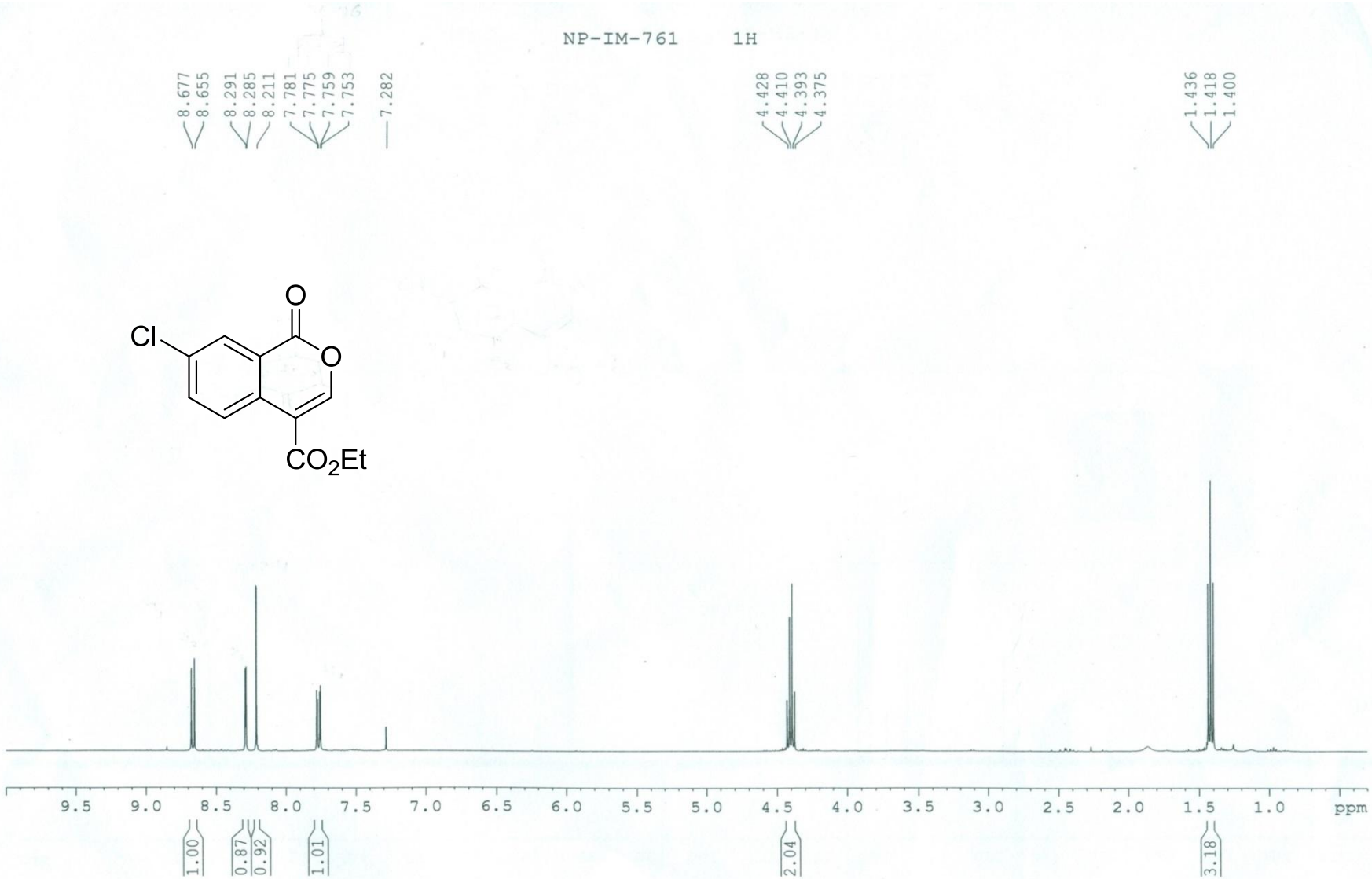
4-Acetyl-3-methyl-1H-isochromen-1-one (2q) – ^{1}H NMR *(from Method I)*



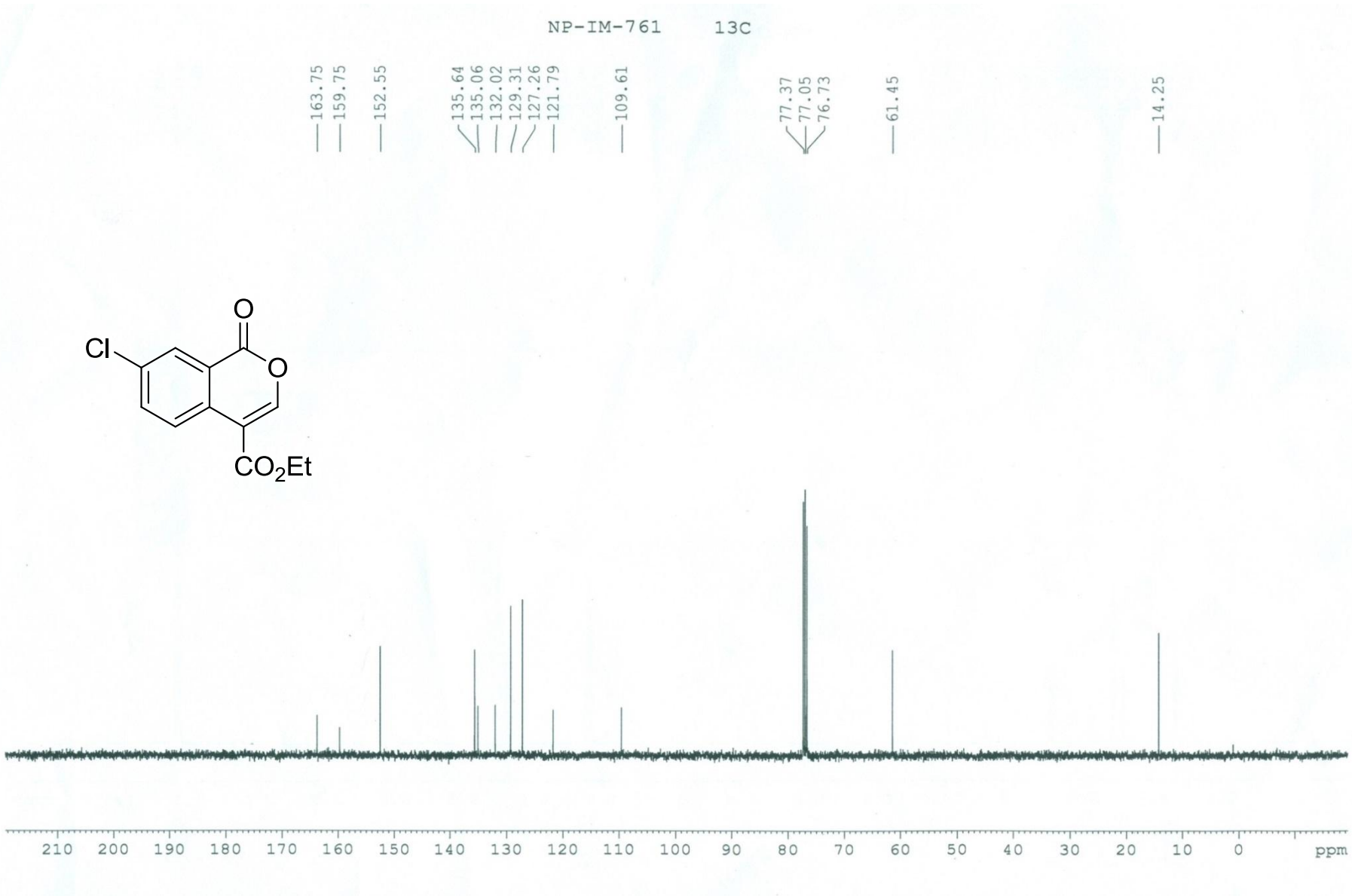
4-Acetyl-3-methyl-1H-isochromen-1-one (2q) – ^{13}C NMR *(from Method I)*



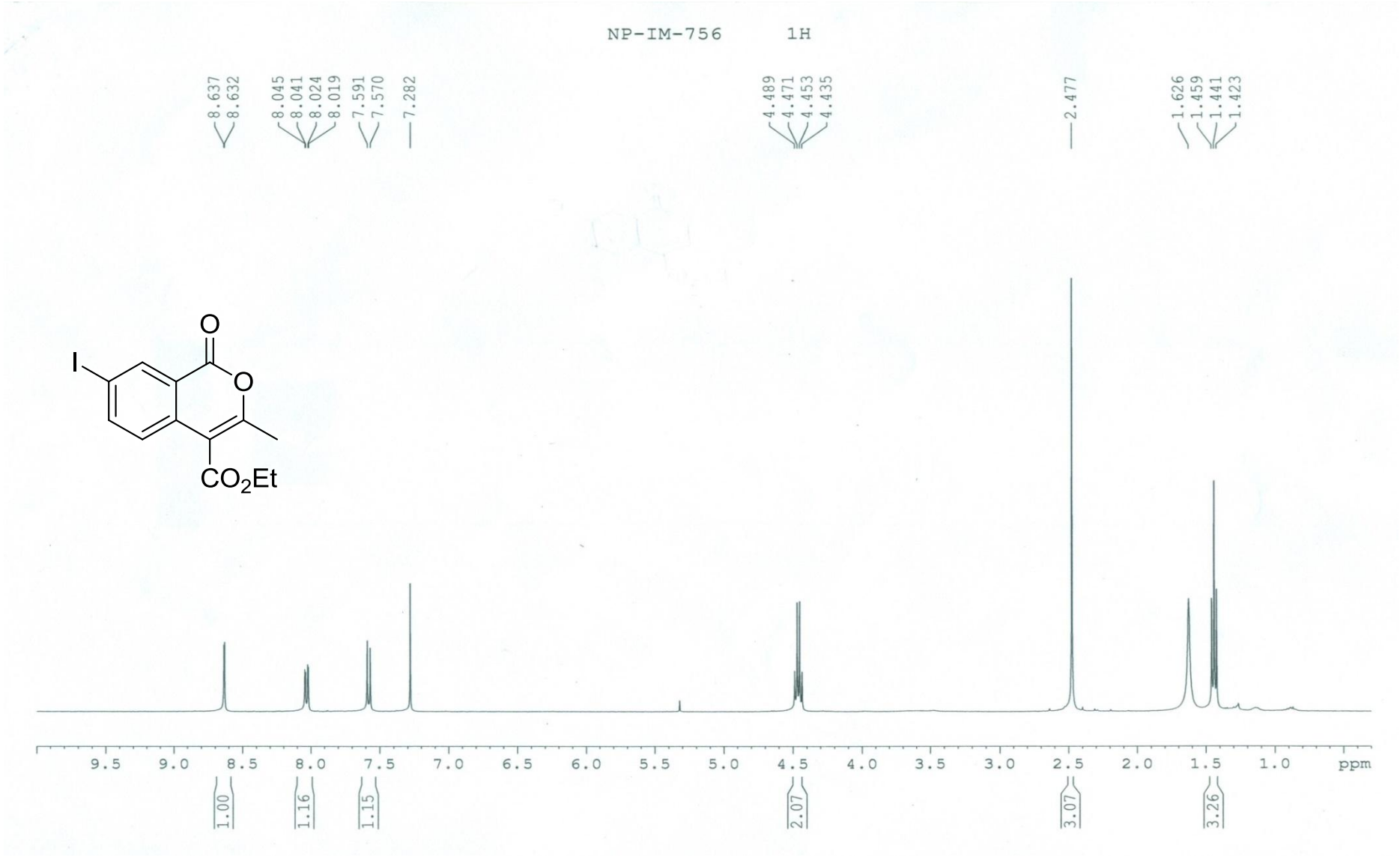
Ethyl 7-chloro-1-oxo-1H-isochromene-4-carboxylate (5a) – ^{1}H NMR



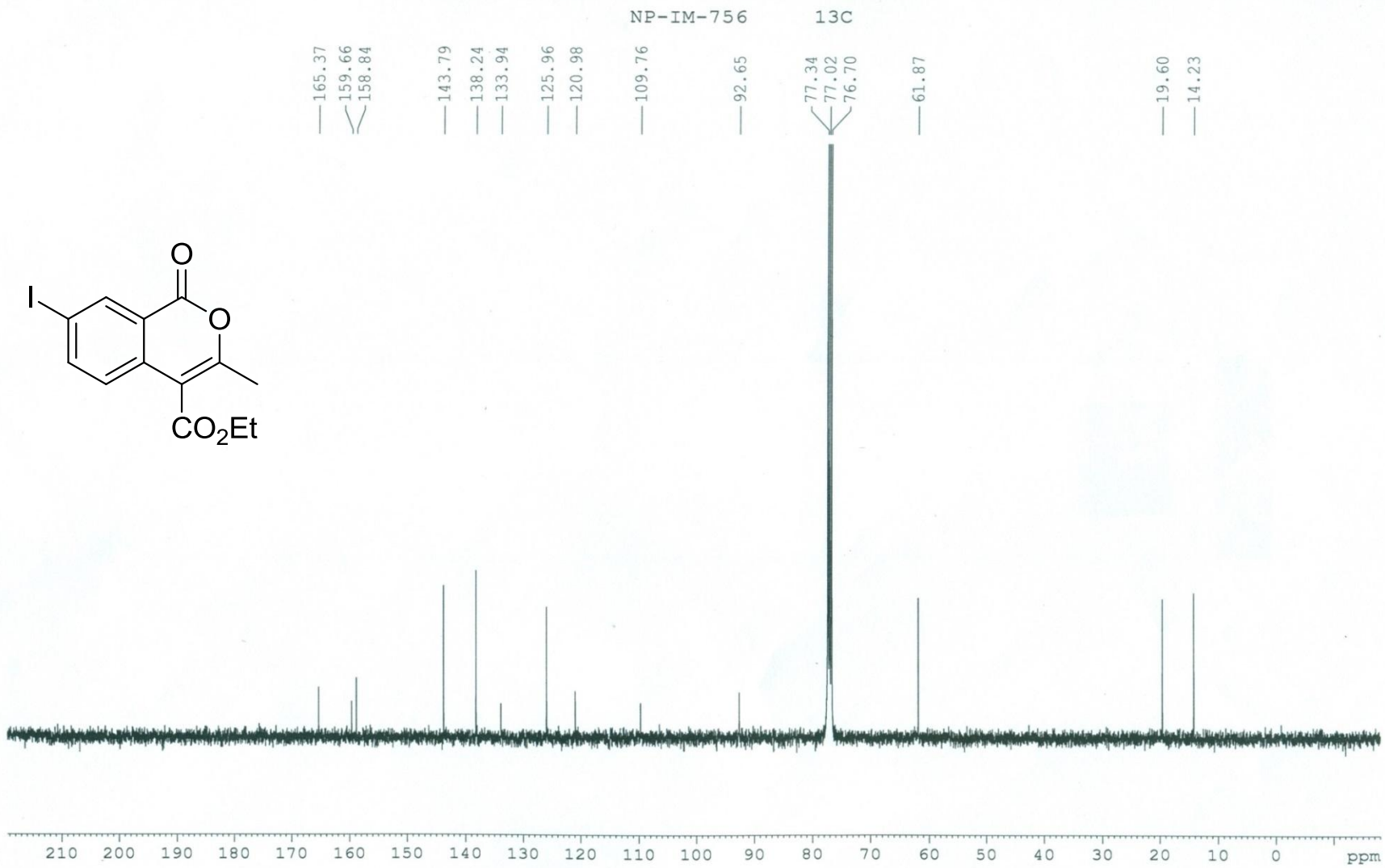
Ethyl 7-chloro-1-oxo-1H-isochromene-4-carboxylate (5a) – ^{13}C NMR



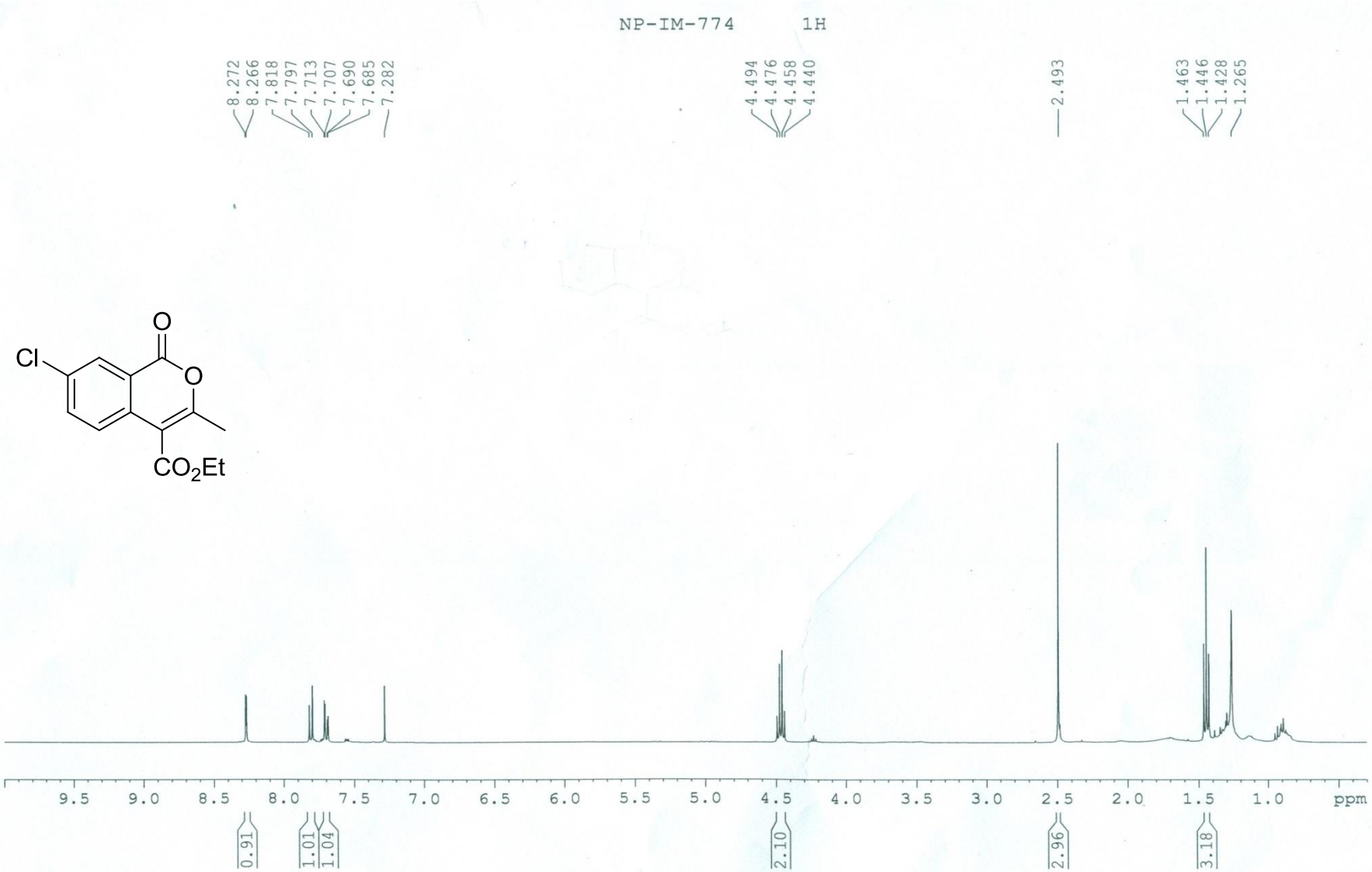
Ethyl 7-iodo-3-methyl-1-oxo-1H-isochromene-4-carboxylate (5b) – ^{1}H NMR



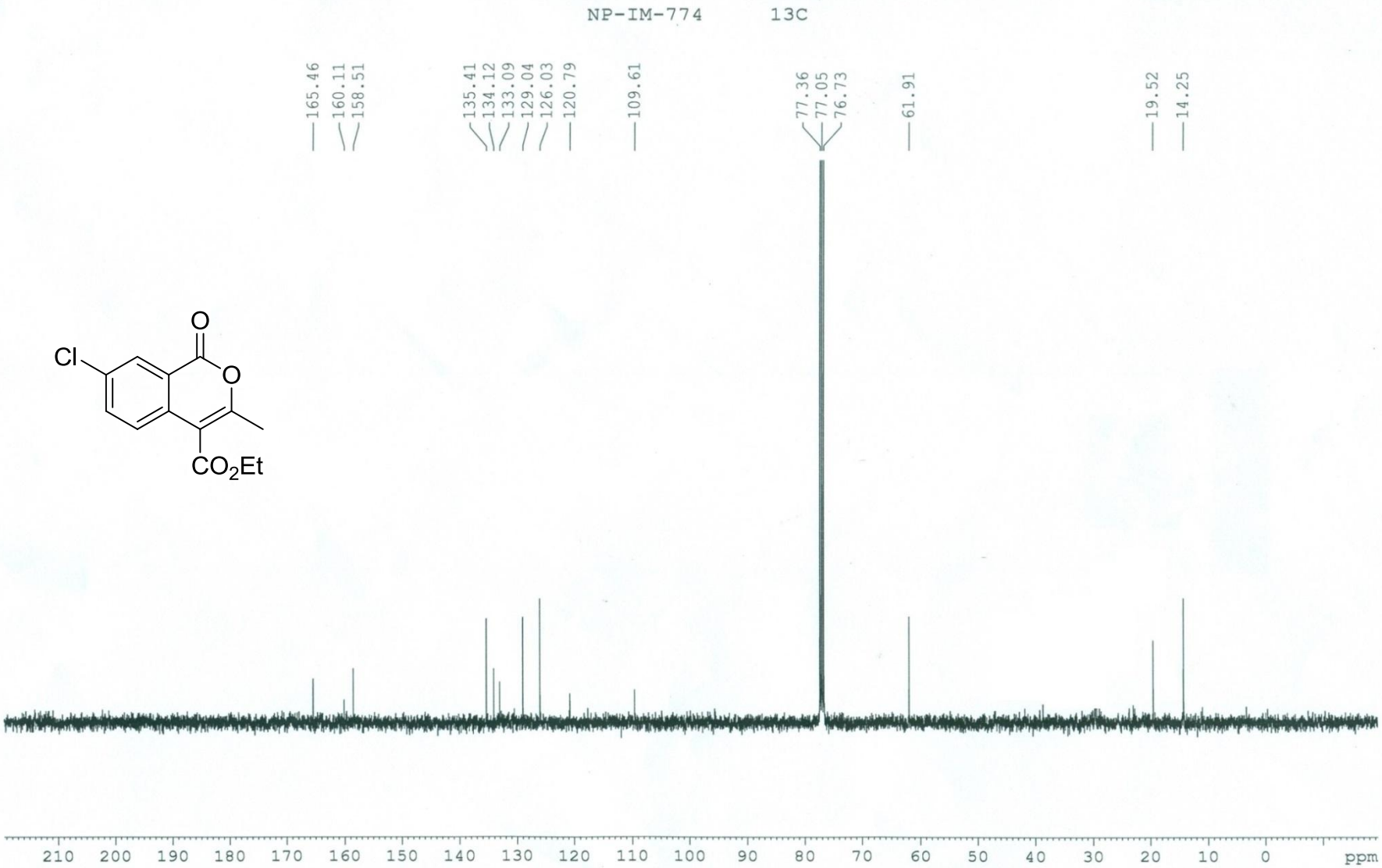
Ethyl 7-iodo-3-methyl-1-oxo-1H-isochromene-4-carboxylate (5b) – ^{13}C NMR



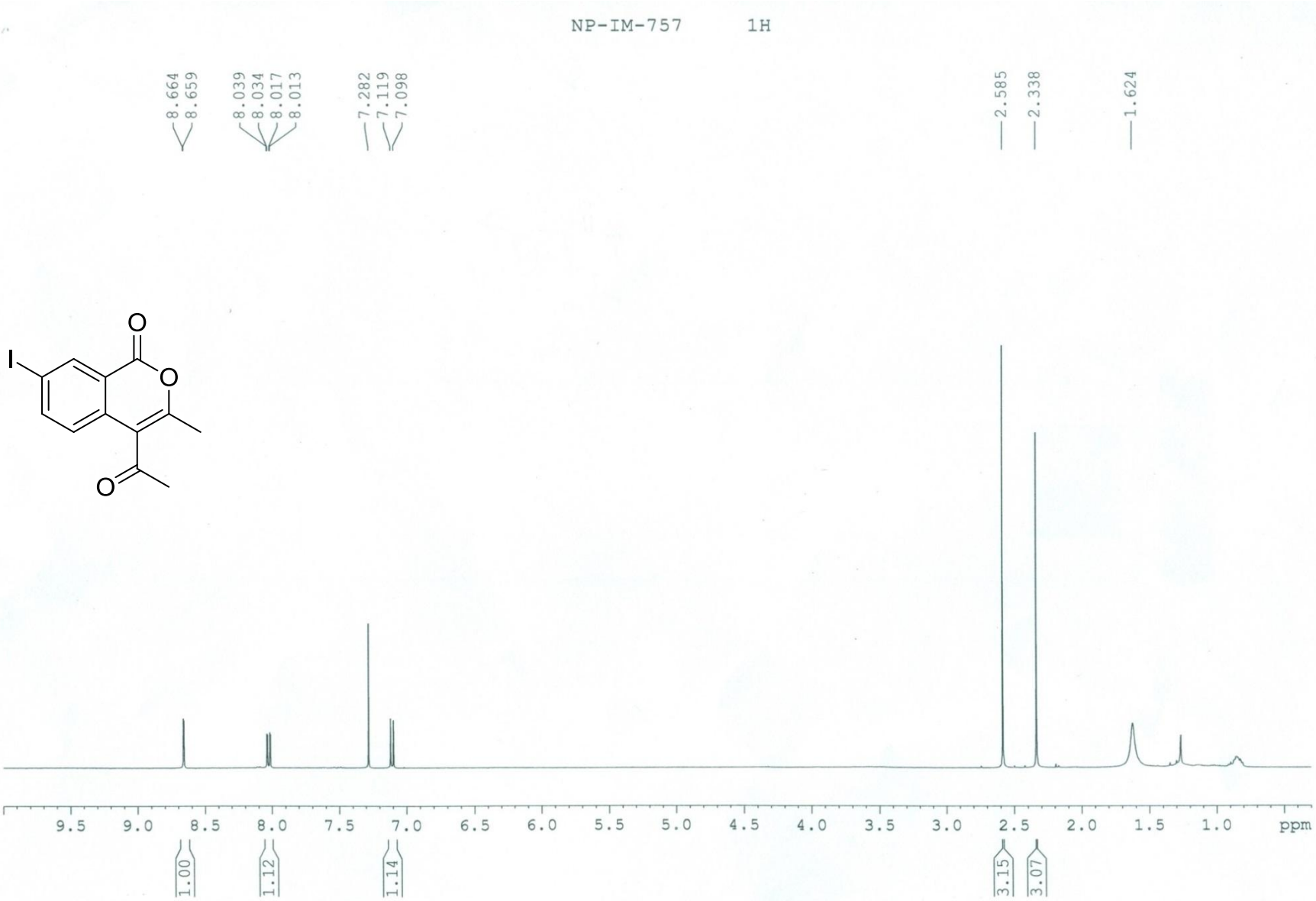
Ethyl 7-chloro-3-methyl-1-oxo-1H-isochromene-4-carboxylate (5c) – ^{1}H NMR



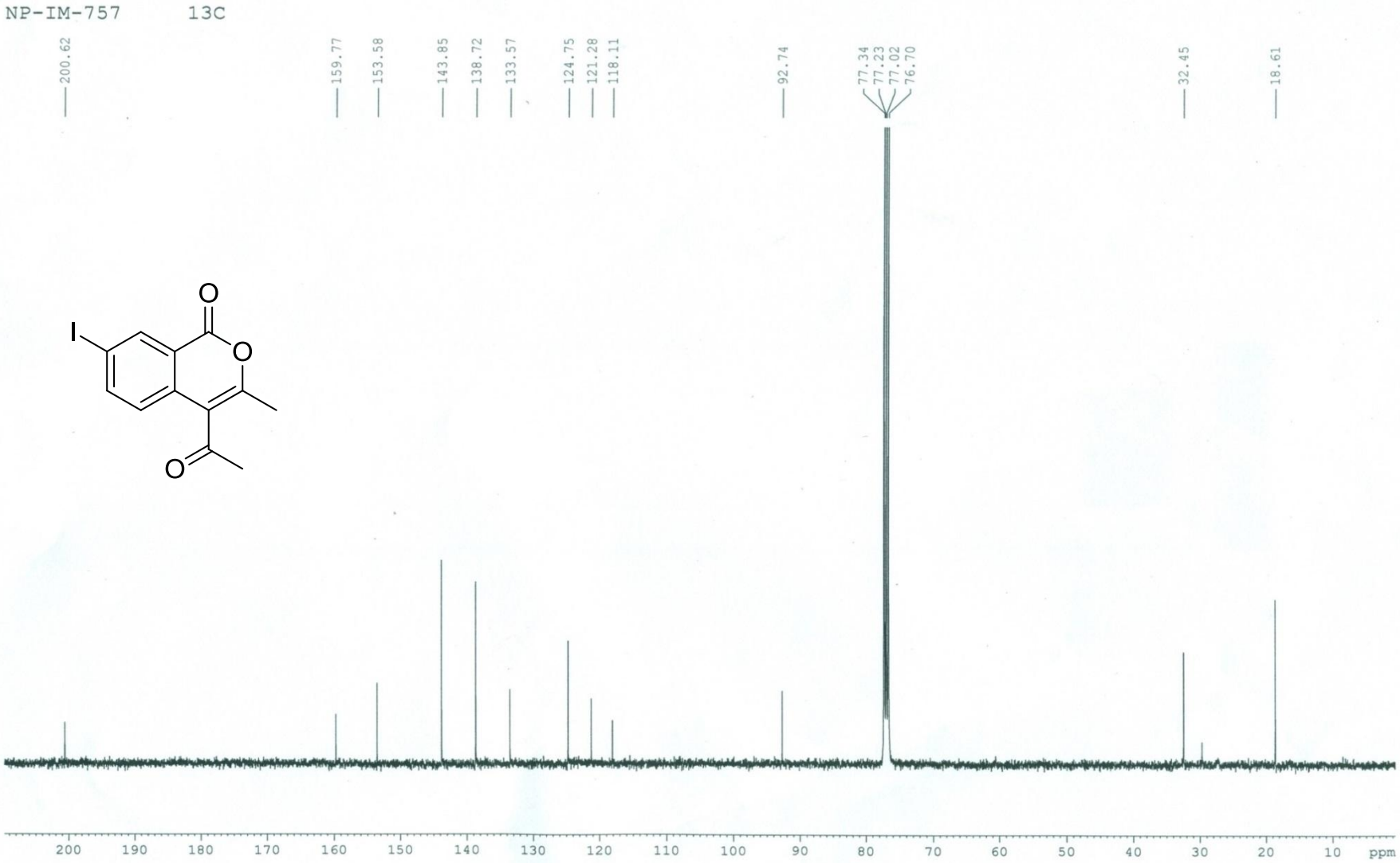
Ethyl 7-chloro-3-methyl-1-oxo-1H-isochromene-4-carboxylate (5c) – ^{13}C NMR



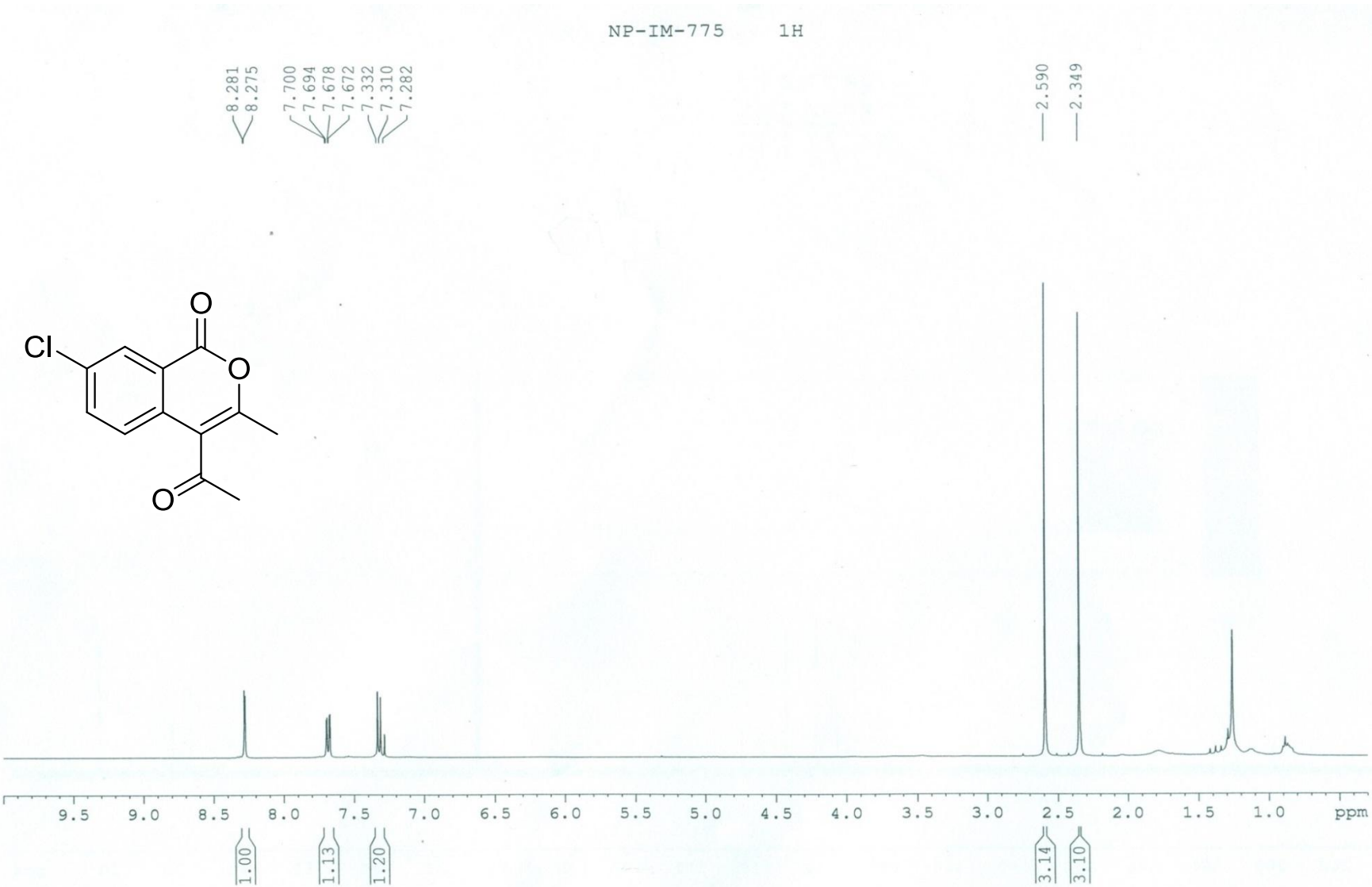
4-Acetyl-7-iodo-3-methyl-1H-isochromen-1-one (5d) – ^{1}H NMR



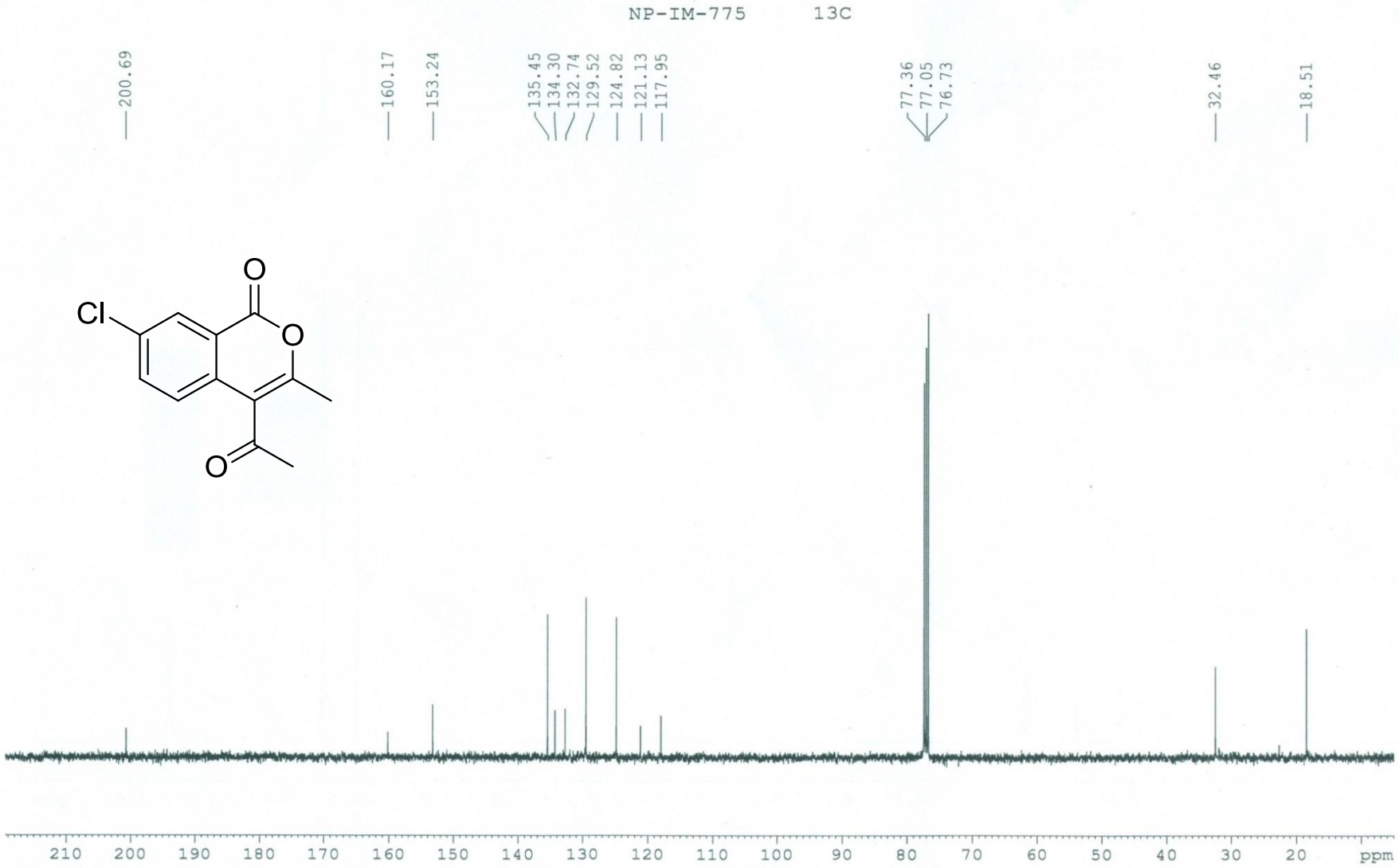
4-Acetyl-7-iodo-3-methyl-1H-isochromen-1-one (5d) – ^{13}C NMR



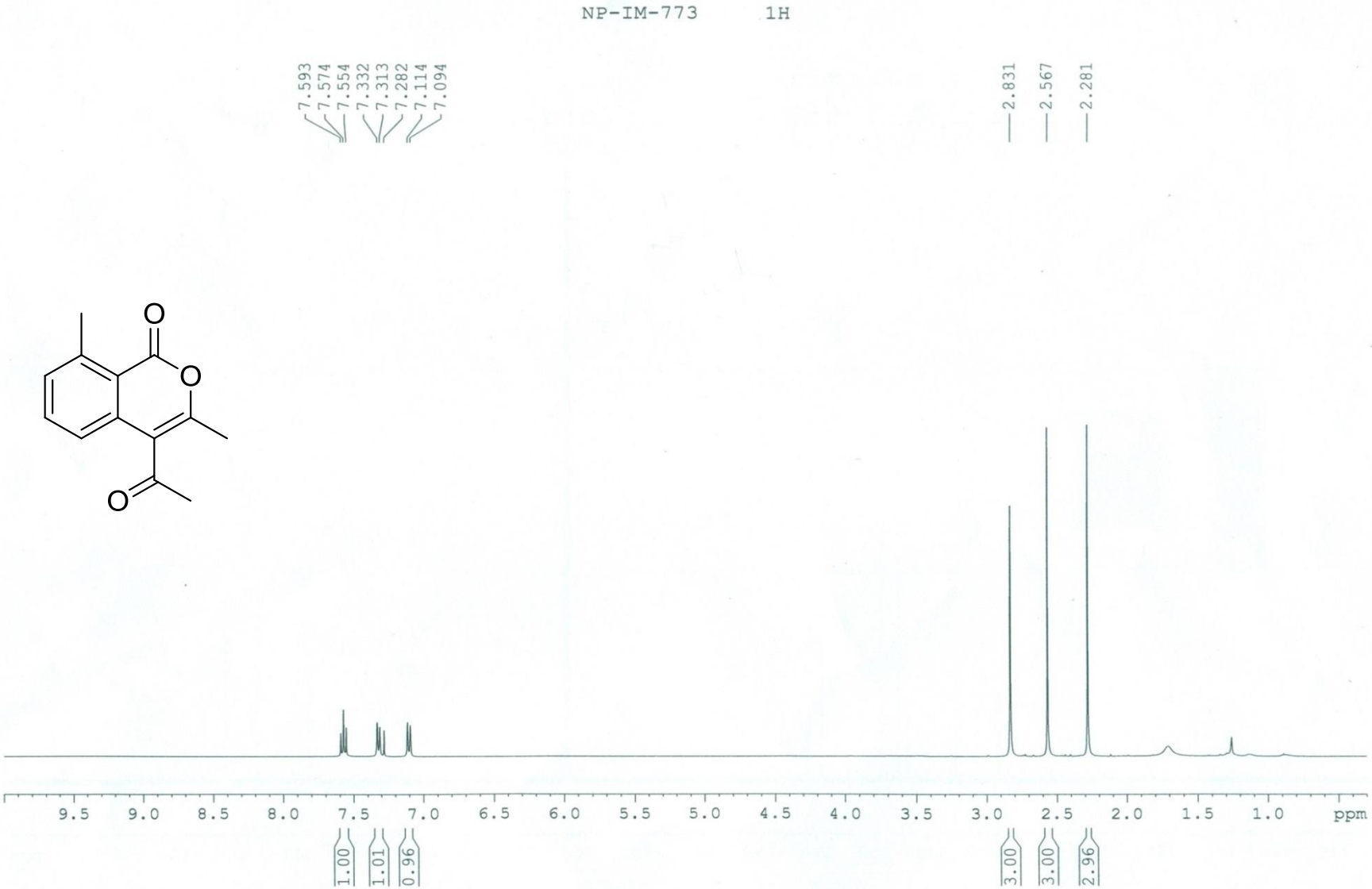
4-Acetyl-7-chloro-3-methyl-1H-isochromen-1-one (5e) – ^{1}H NMR



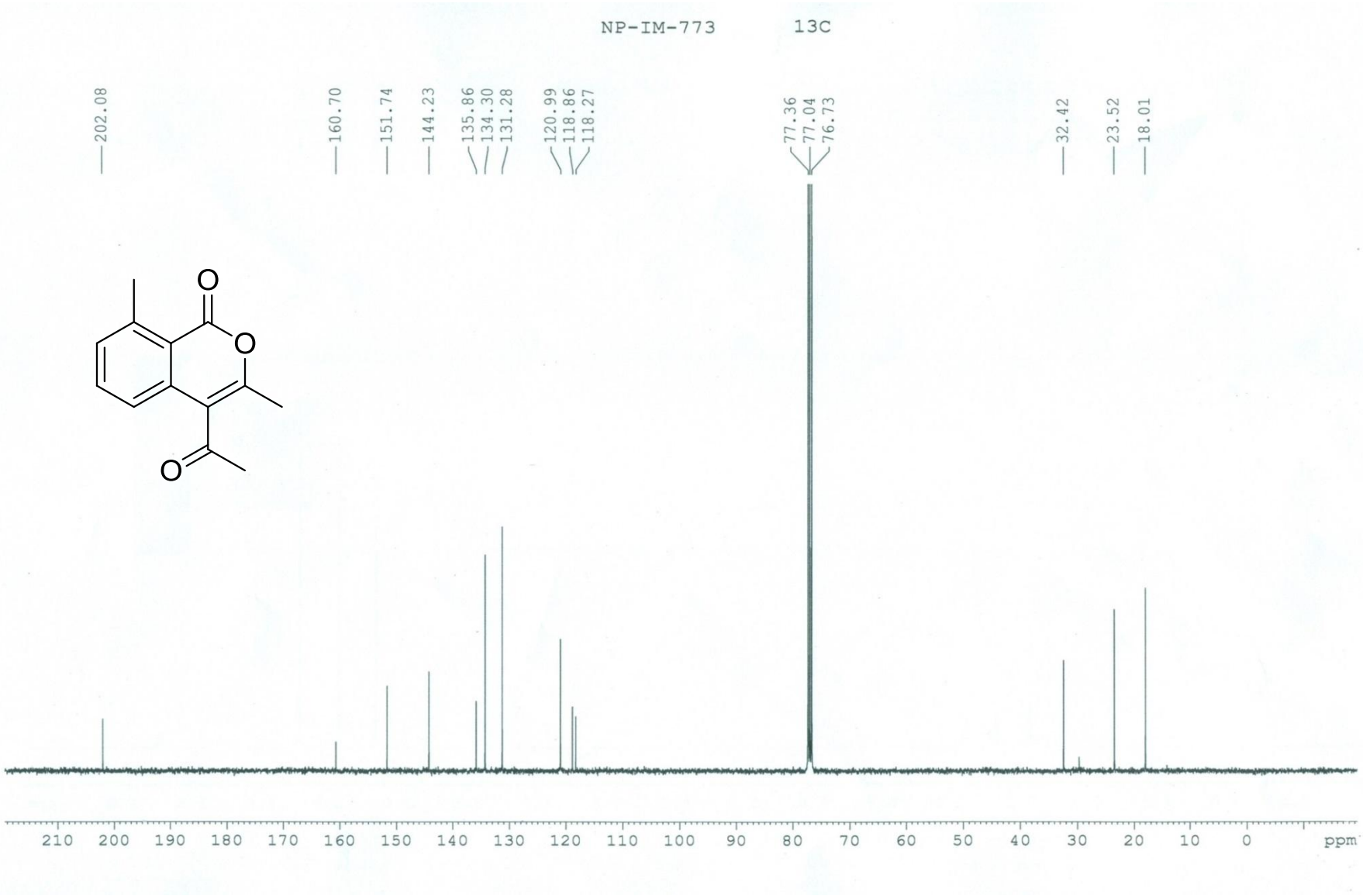
4-Acetyl-7-chloro-3-methyl-1H-isochromen-1-one (5e) – ^{13}C NMR



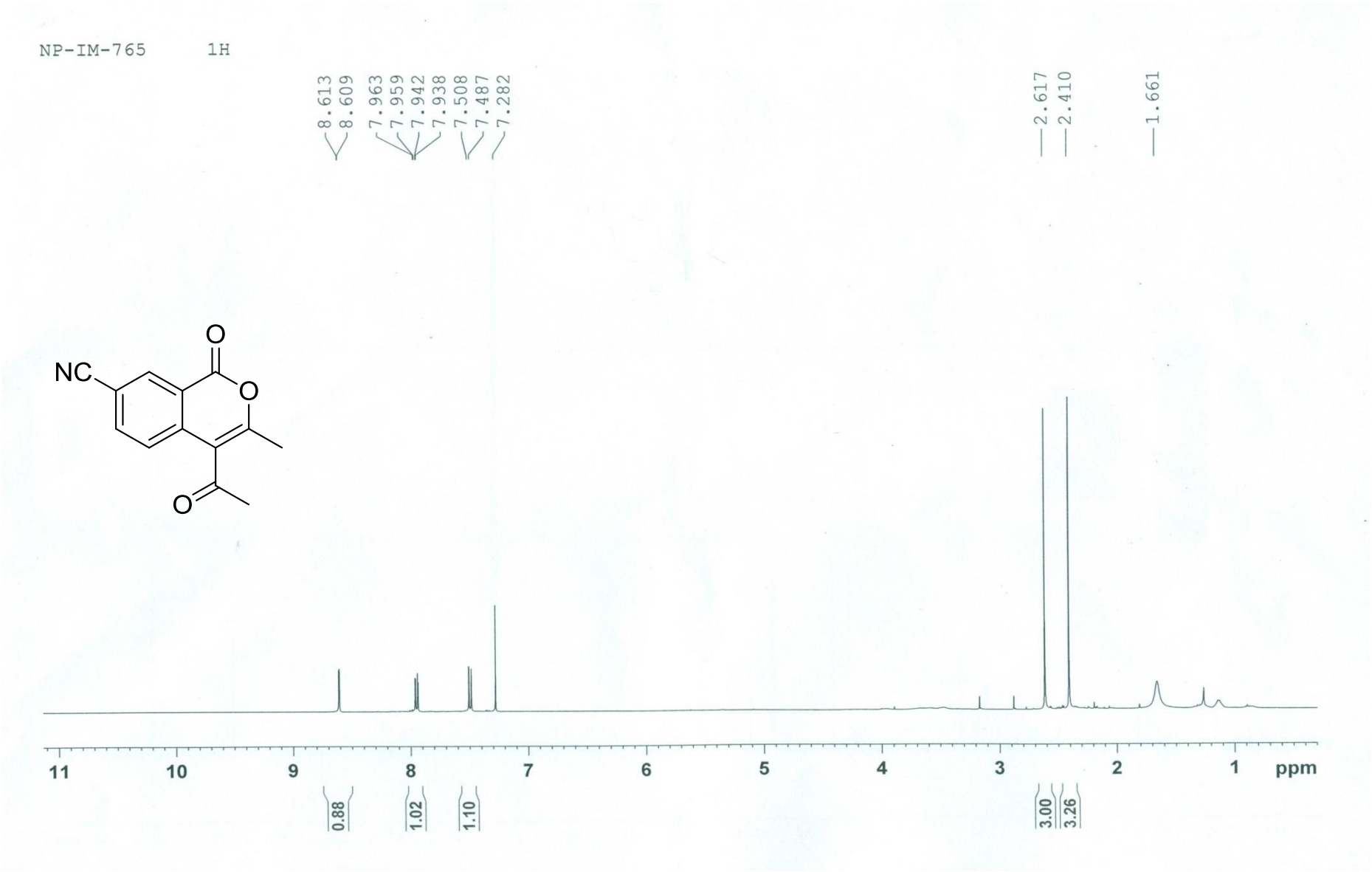
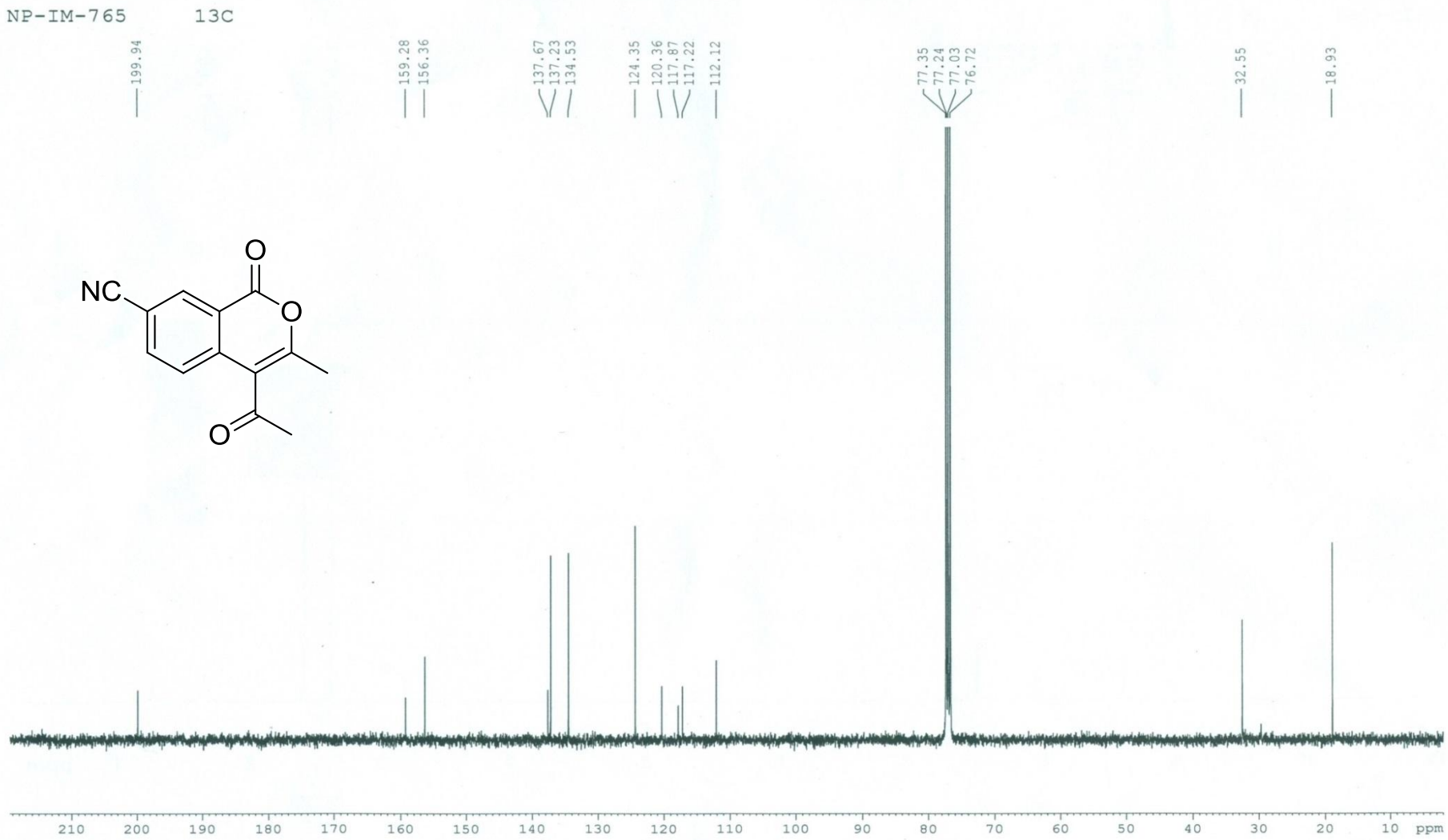
4-Acetyl-3,8-dimethyl-1H-isochromen-1-one (5f) – ^{1}H NMR



4-Acetyl-3,8-dimethyl-1H-isochromen-1-one (5f) – ^{13}C NMR



4-Acetyl-3-methyl-1-oxo-1H-isochromene-7-carbonitrile (5g) –^{1}H NMR



4-Acetyl-3-methyl-1-oxo-1H-isochromene-7-carbonitrile (5g) – ^{13}C NMR