

Supporting Information for

Green Synthesis and Antitumor Activity of (*E*)-Diethyl 2-styrylquinoline-3,4-dicarboxylates

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1H and 13C NMR spectra of compounds 3a-q

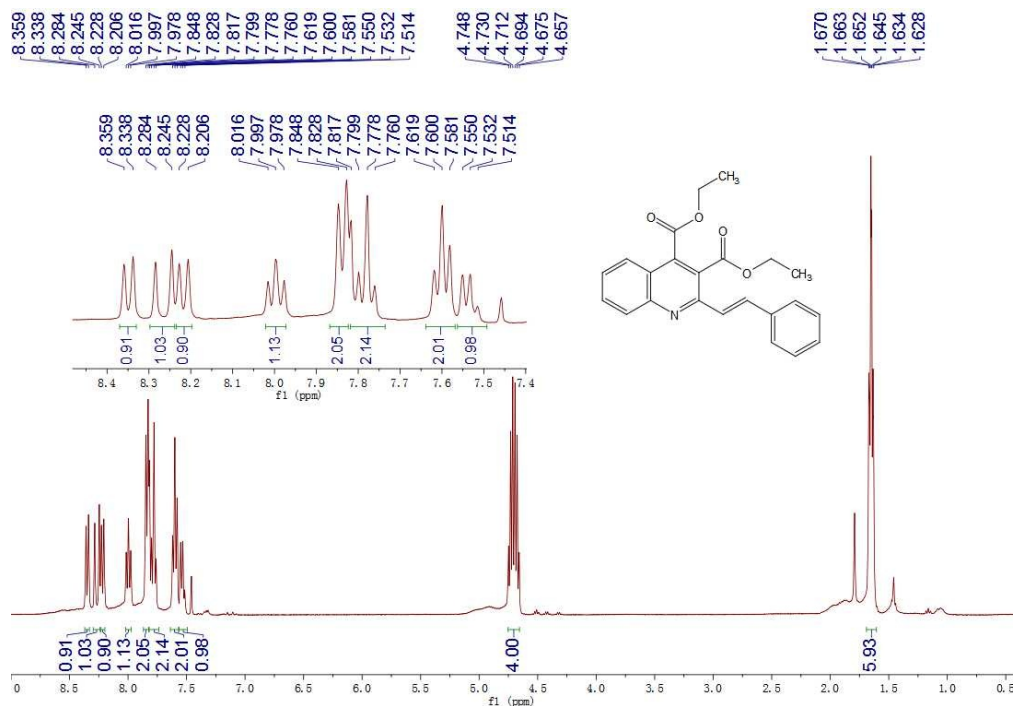


Fig. S1 ¹H NMR spectrum of 3a

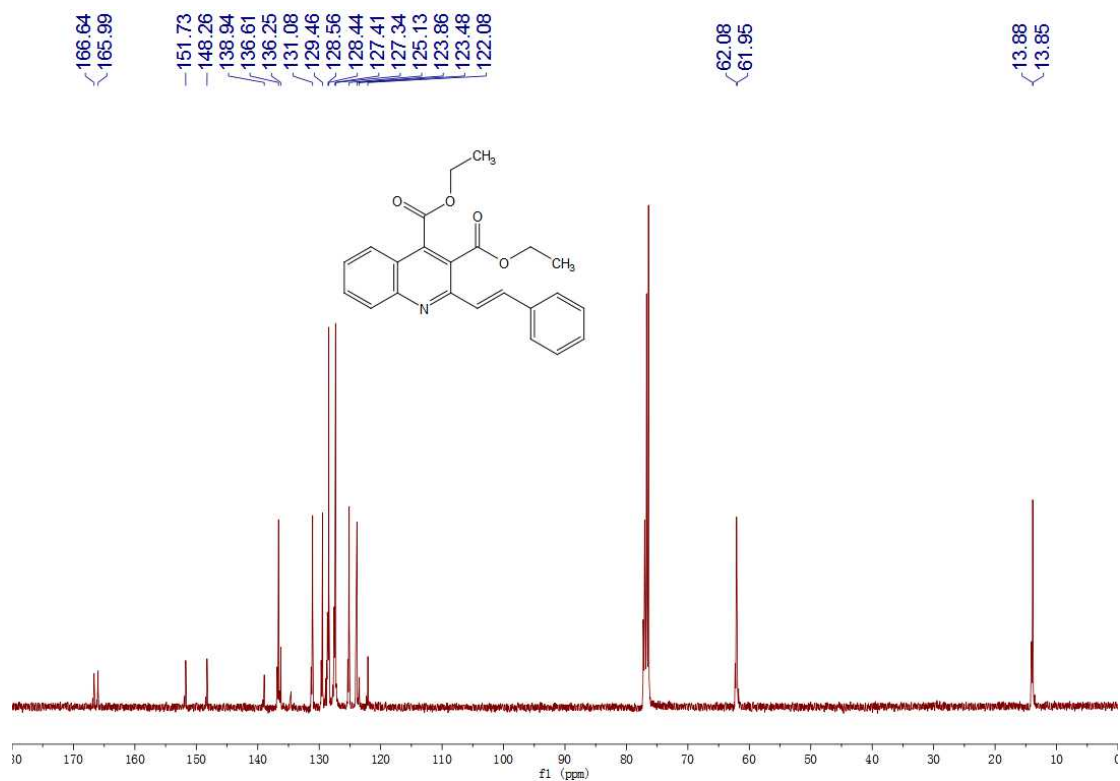


Fig. S2 ¹³C NMR spectrum of 3a

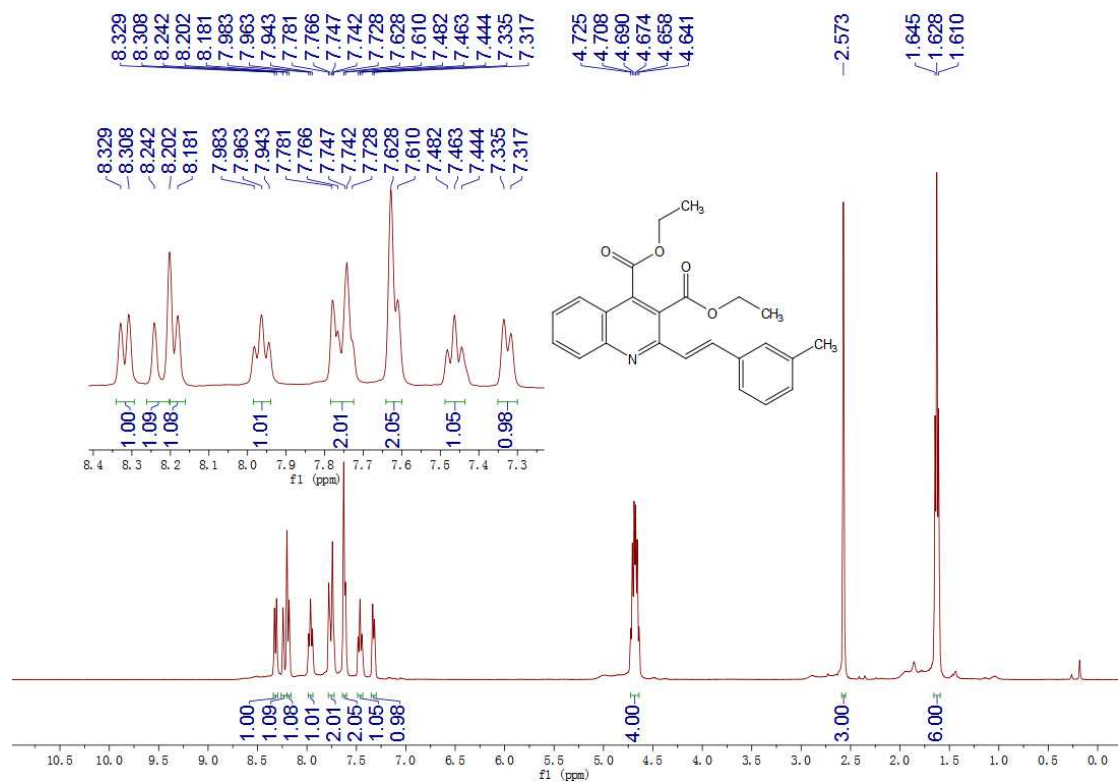


Fig. S3 ¹H NMR spectrum of **3b**

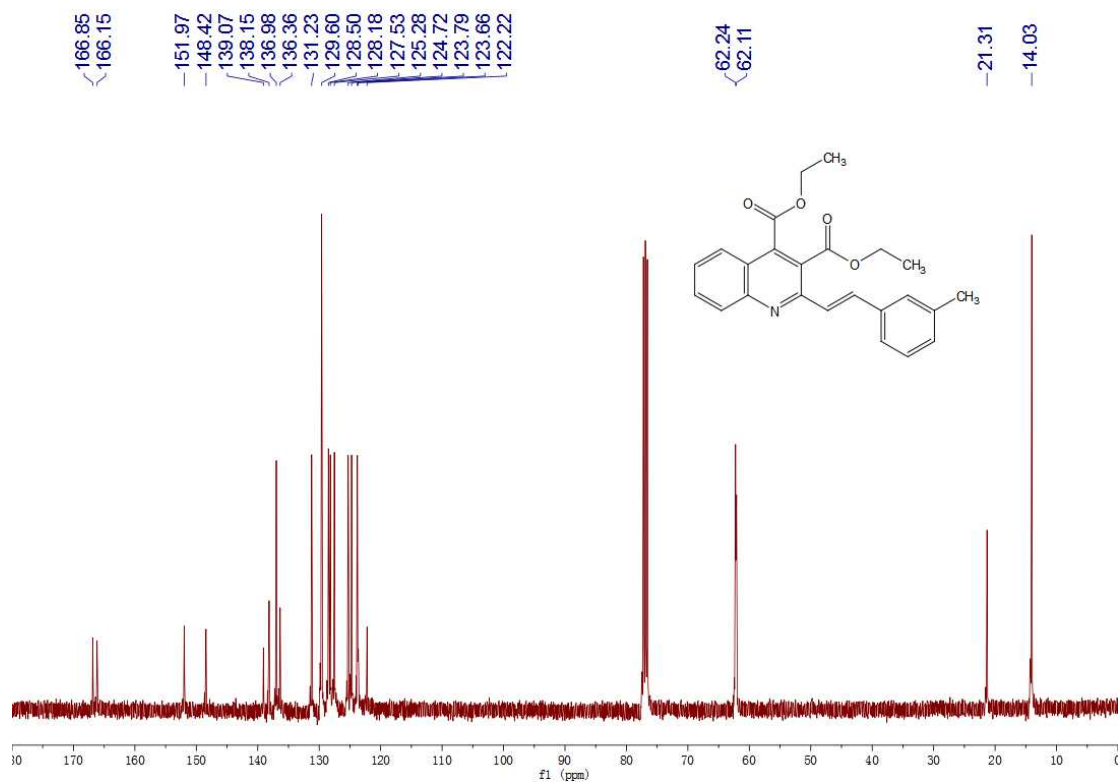


Fig. S4 ¹³C NMR spectrum of **3b**

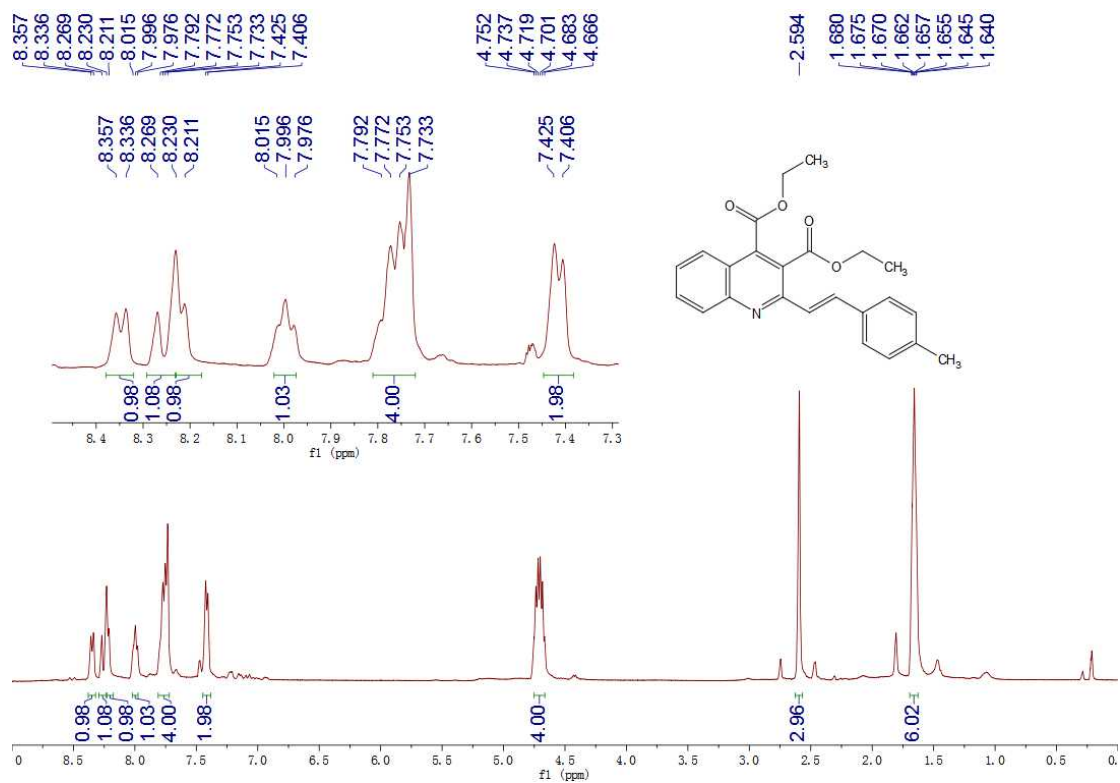


Fig. S5 ¹H NMR spectrum of 3c

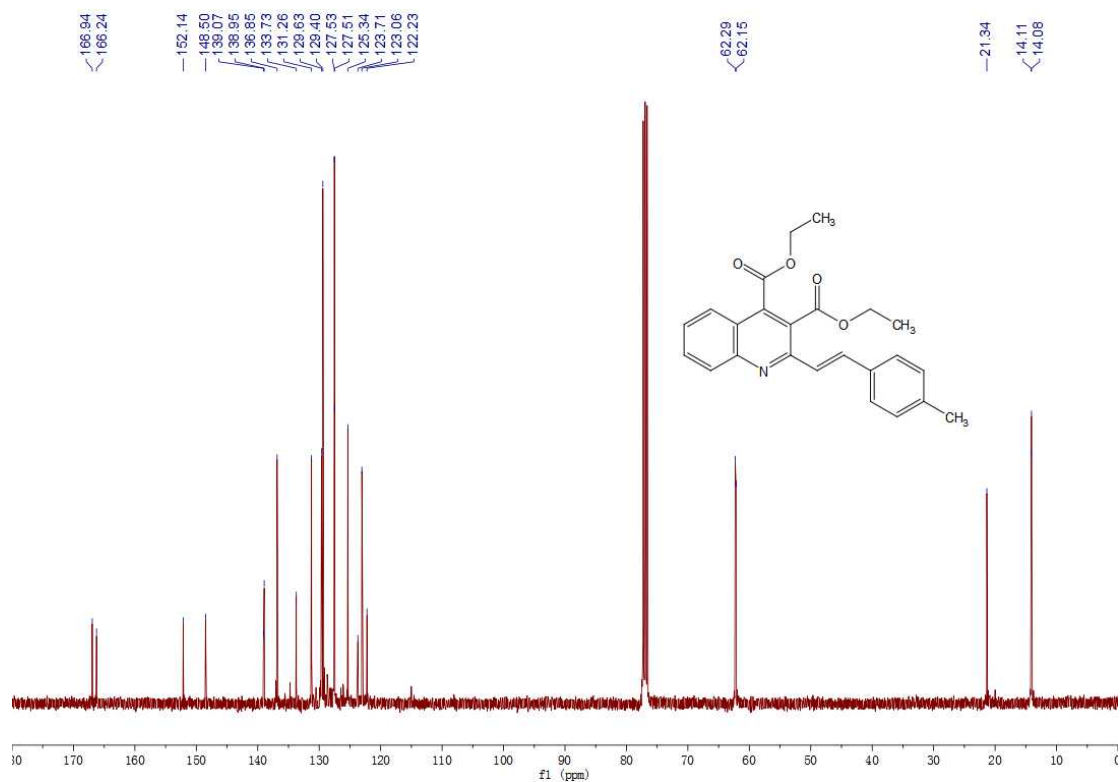


Fig. S6 ¹³C NMR spectrum of 3c

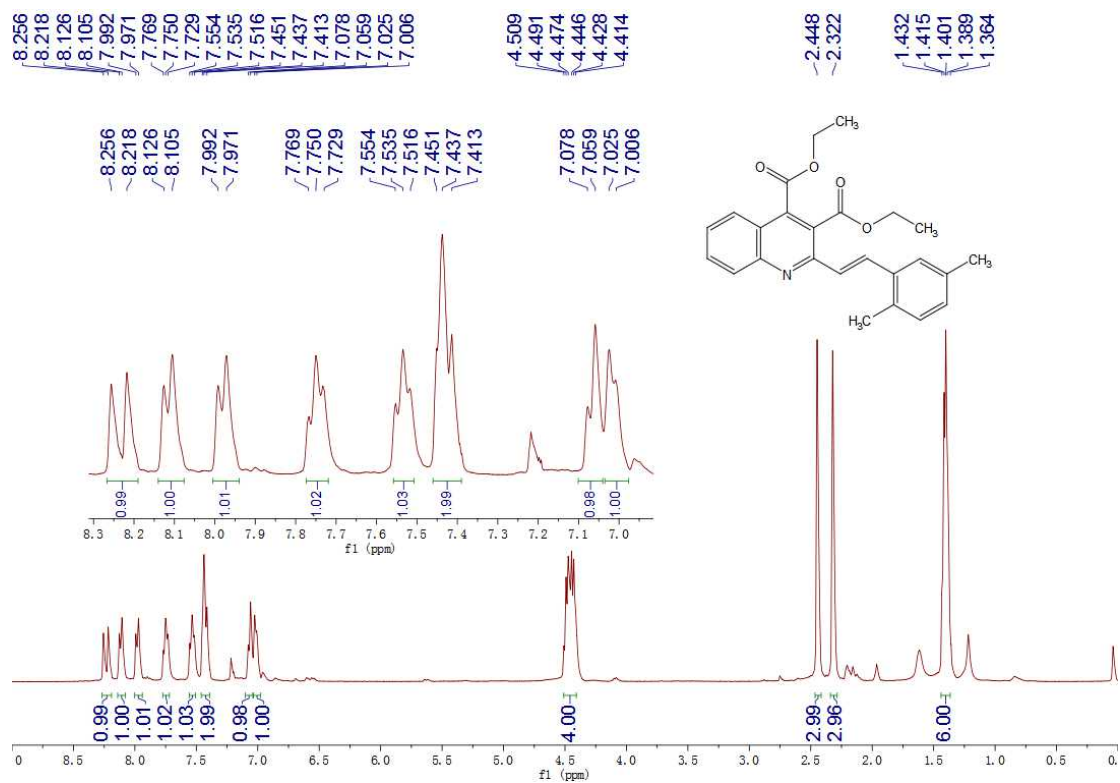


Fig. S7 ¹H NMR spectrum of 3d

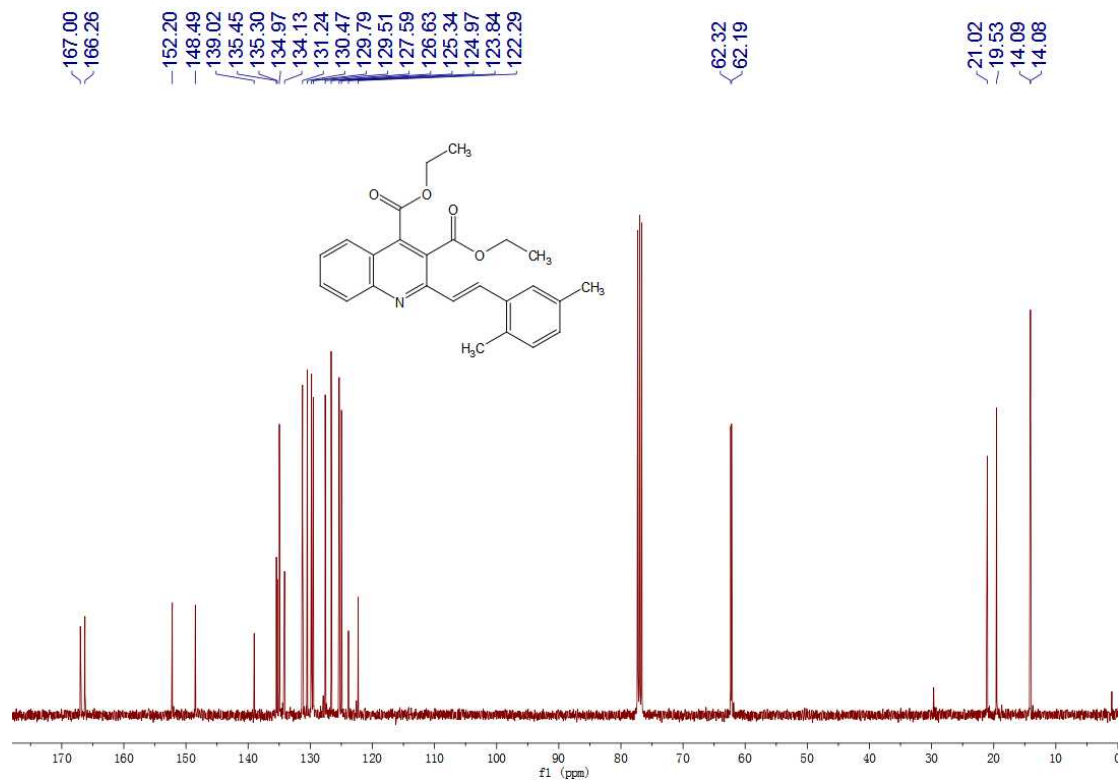


Fig. S8 ¹³C NMR spectrum of 3d

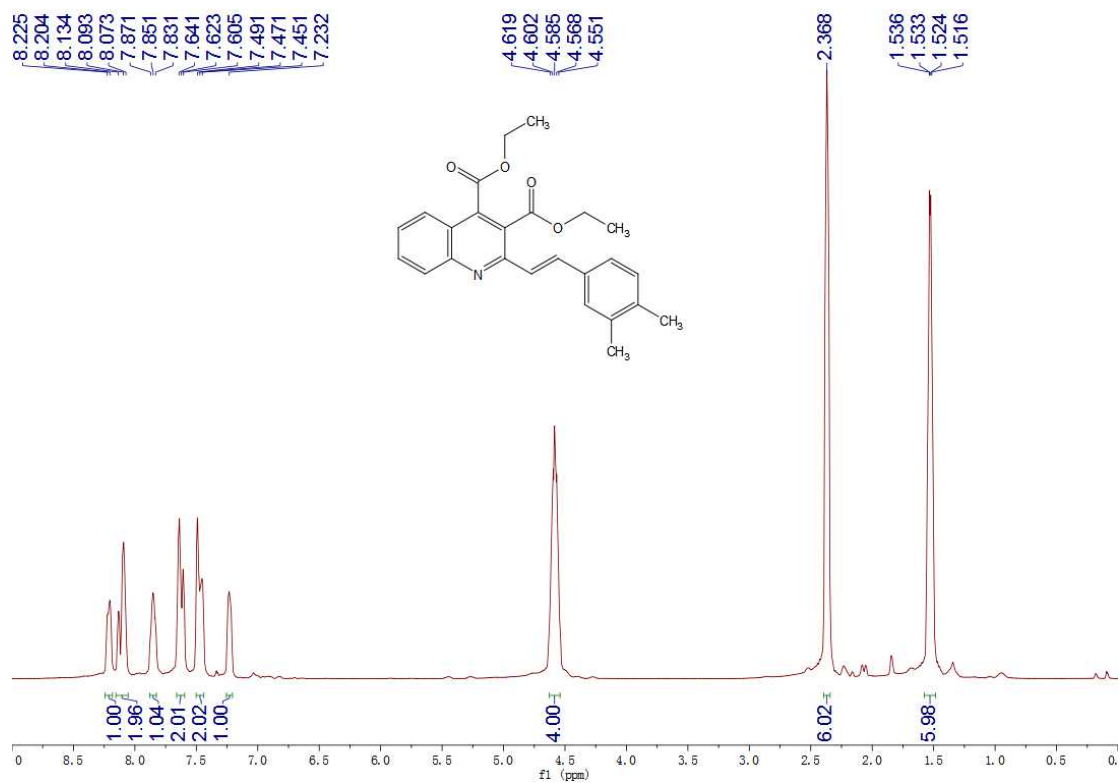


Fig. S9 ^1H NMR spectrum of 3e

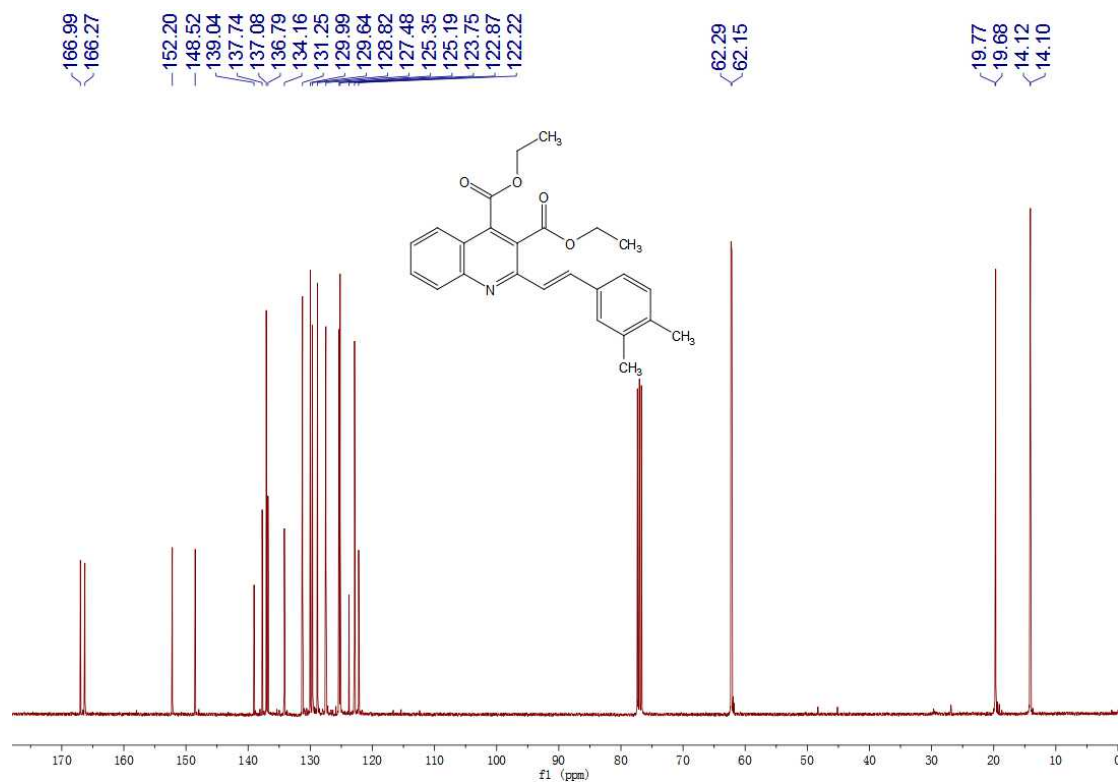


Fig. S10 ^{13}C NMR spectrum of 3e

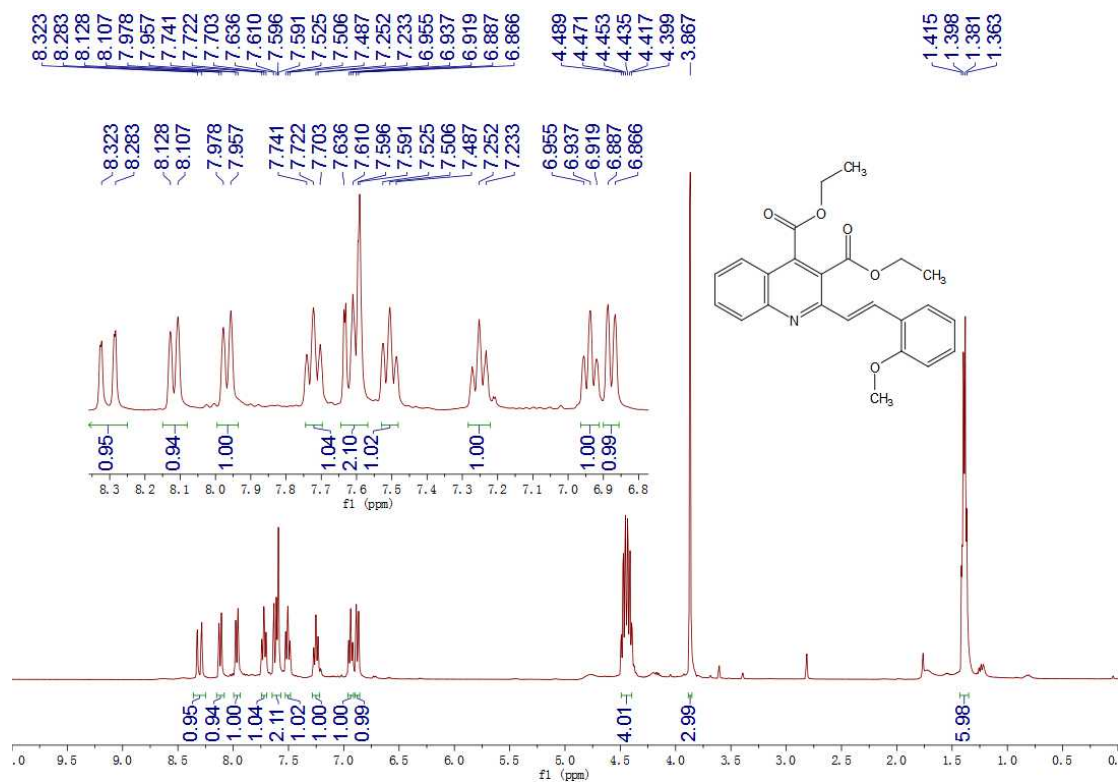


Fig. S11 ¹H NMR spectrum of **3f**

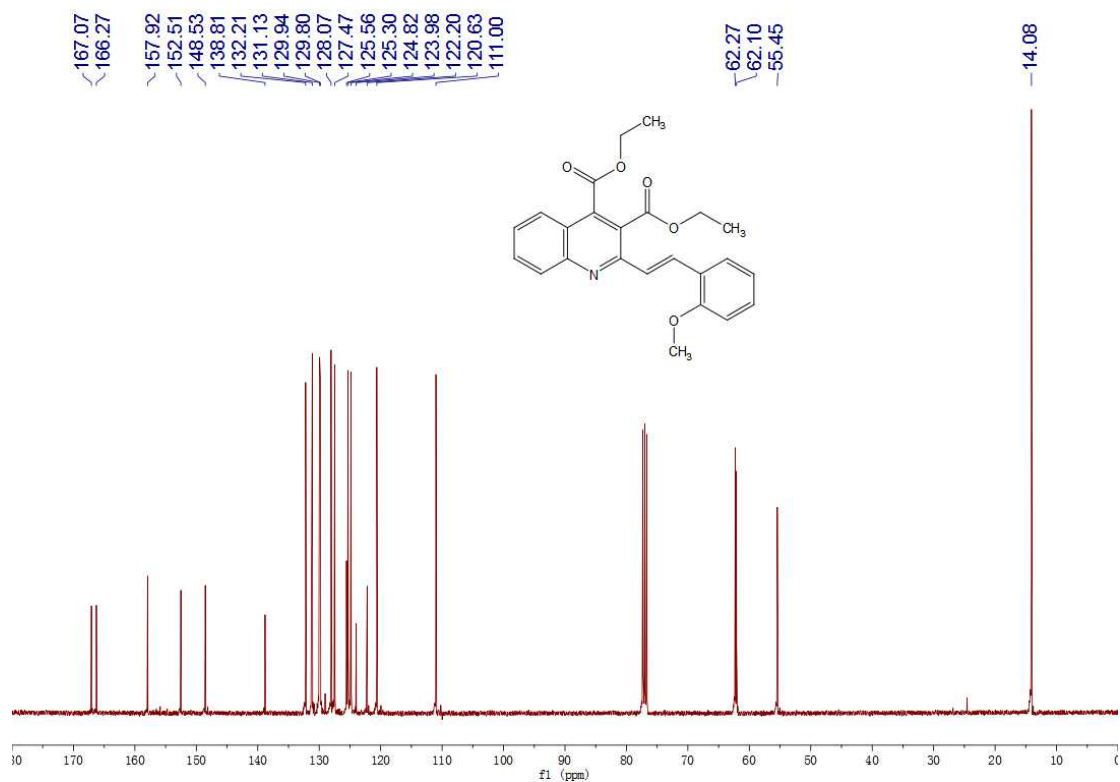


Fig. S12 ¹³C NMR spectrum of **3f**

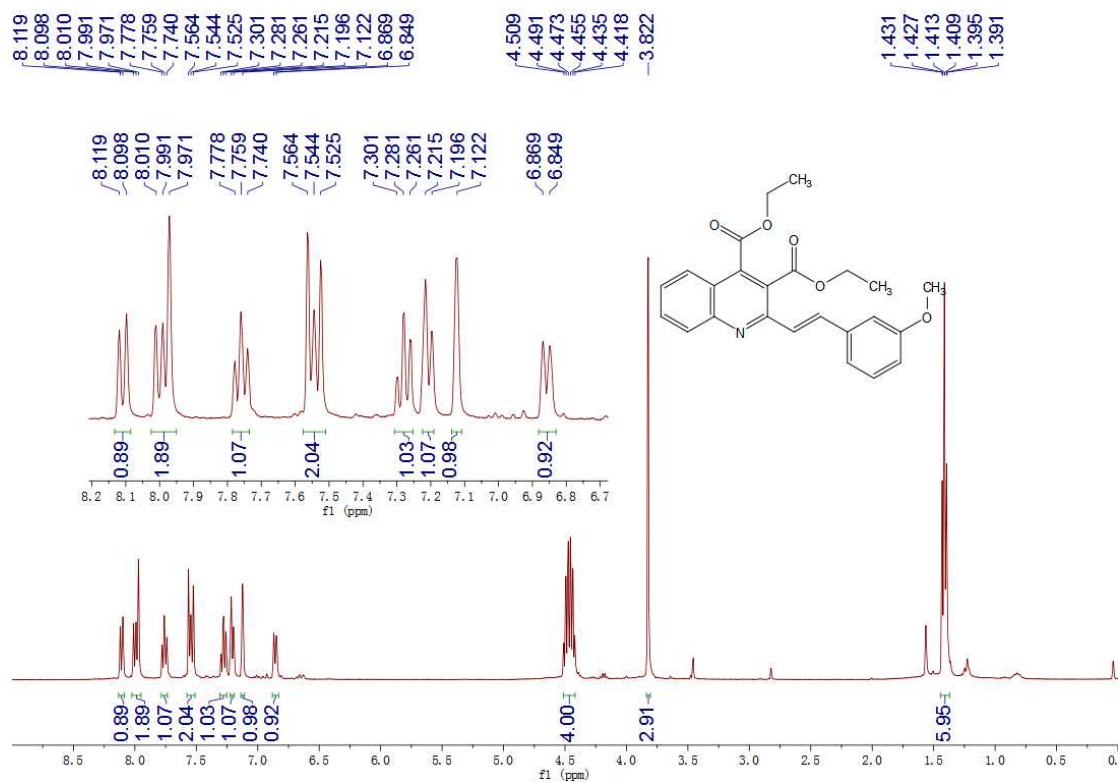


Fig. S13 ^1H NMR spectrum of **3g**

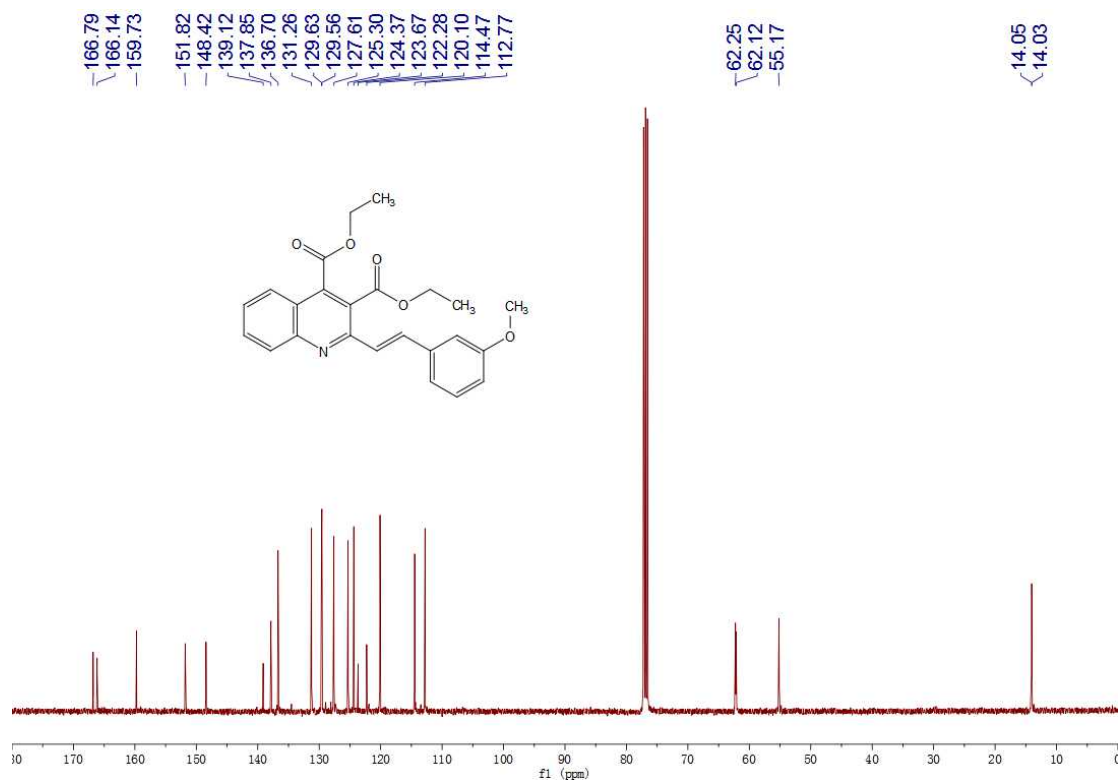


Fig. S14 ^{13}C NMR spectrum of **3g**

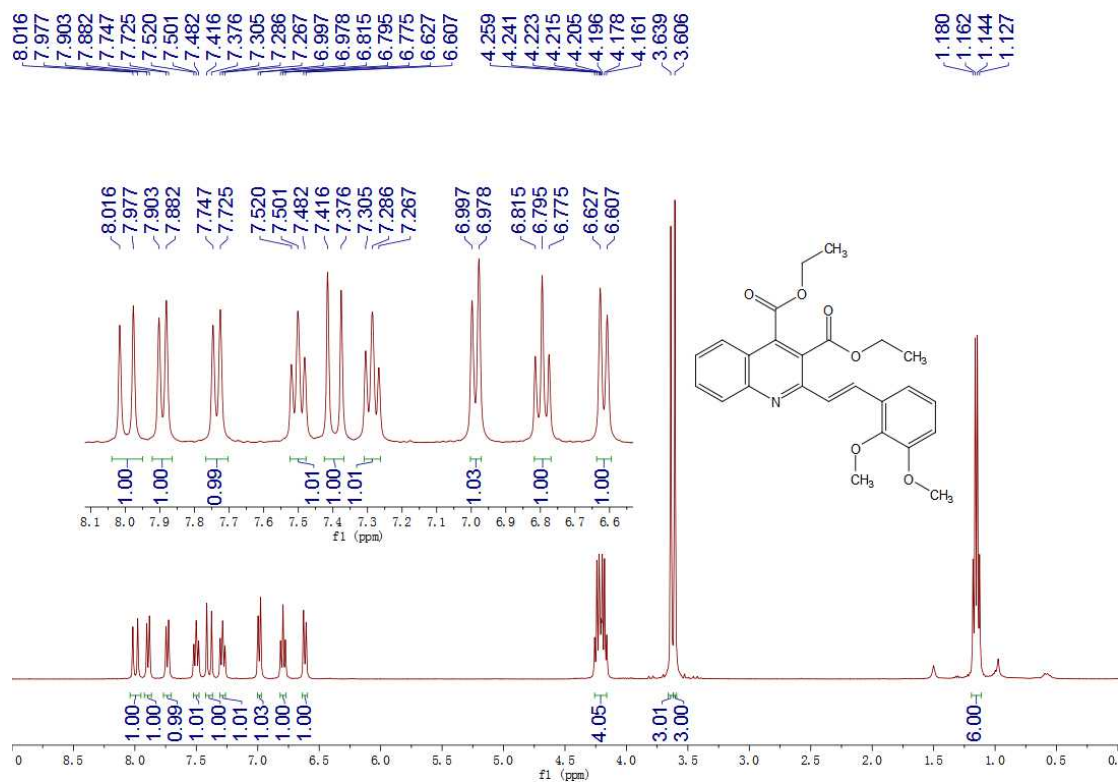


Fig. S15 ¹H NMR spectrum of **3h**

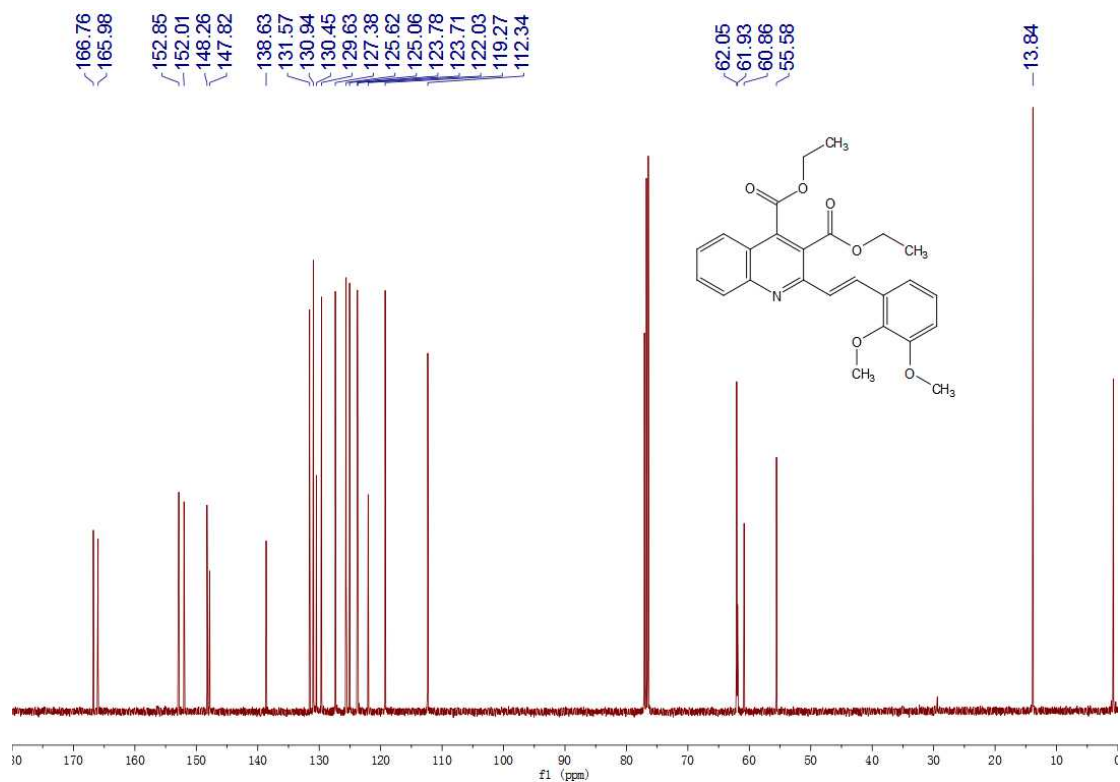


Fig. S16 ¹³C NMR spectrum of **3h**

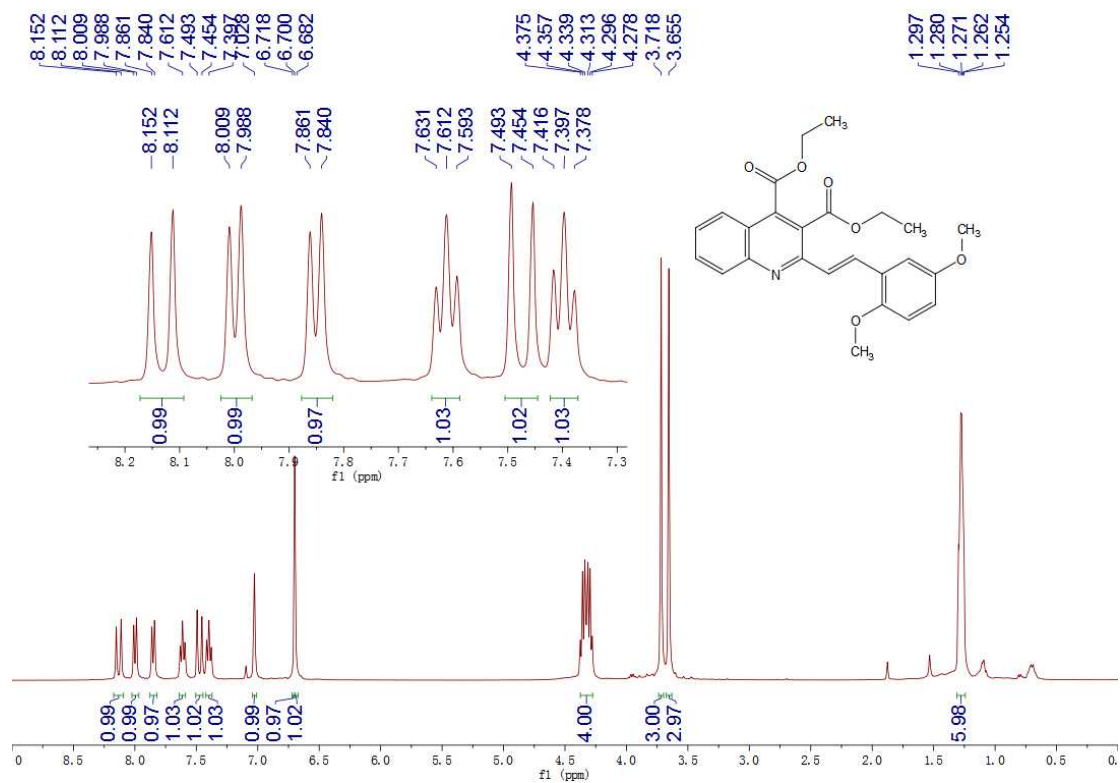


Fig. S17 ¹H NMR spectrum of **3i**

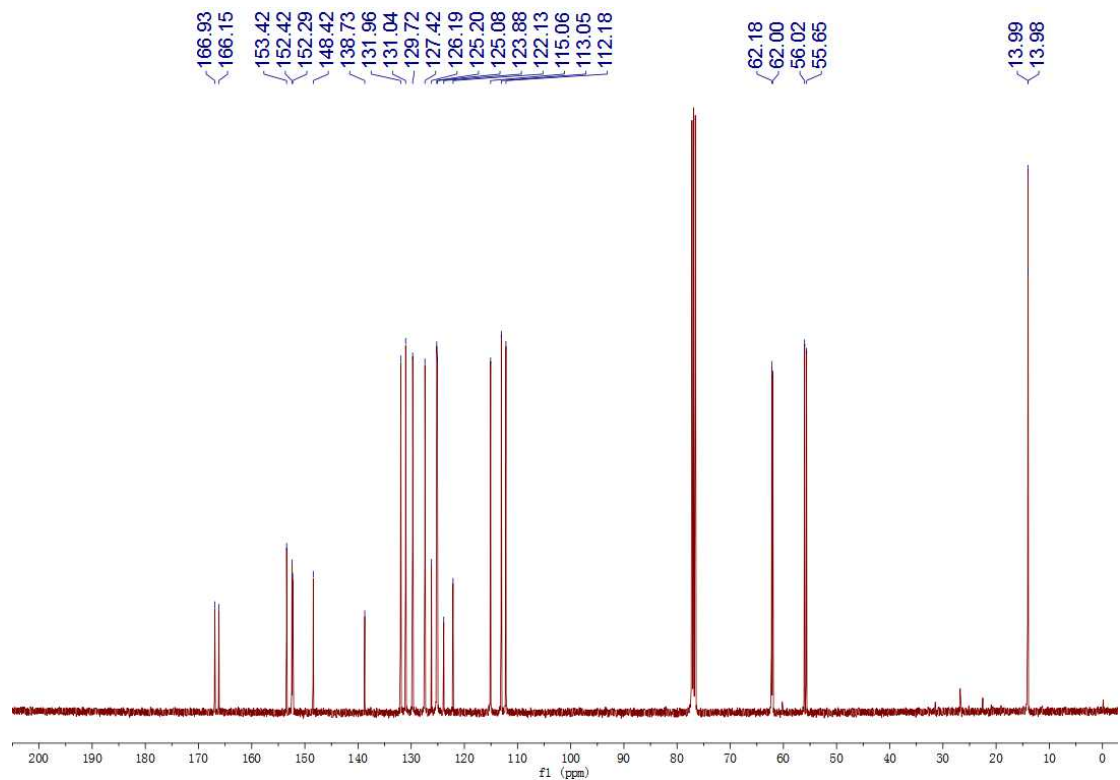


Fig. S18 ¹³C NMR spectrum of **3i**

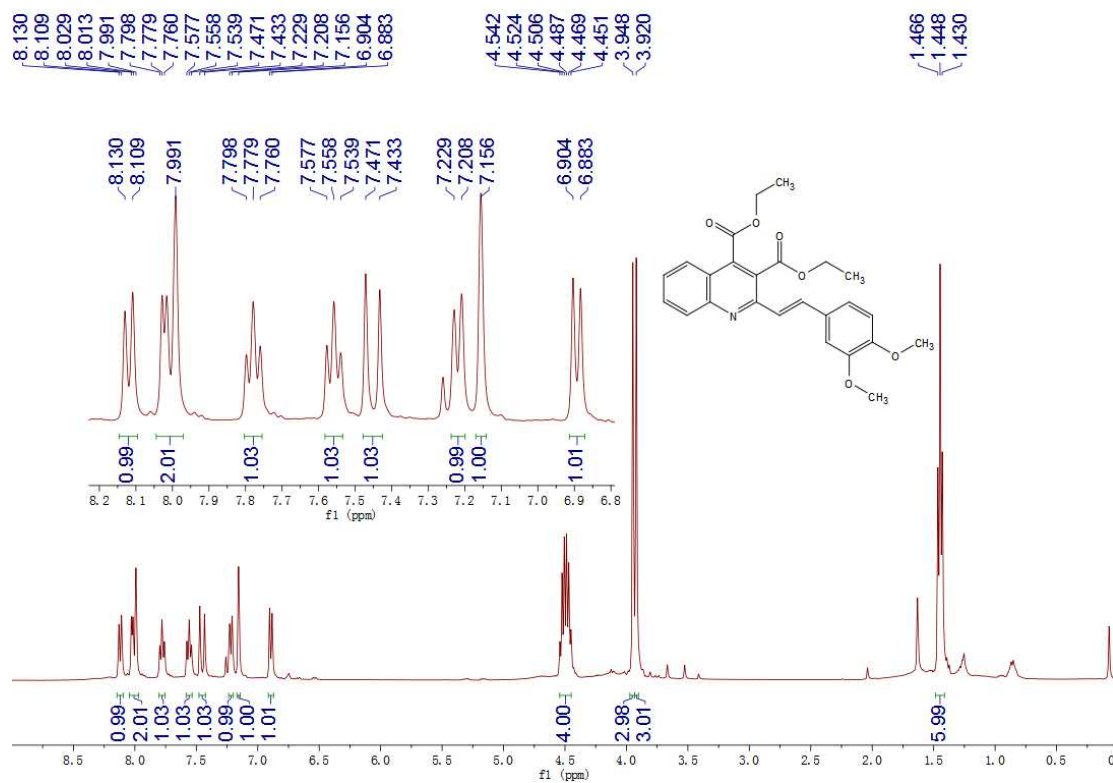


Fig. S19 ¹H NMR spectrum of **3j**

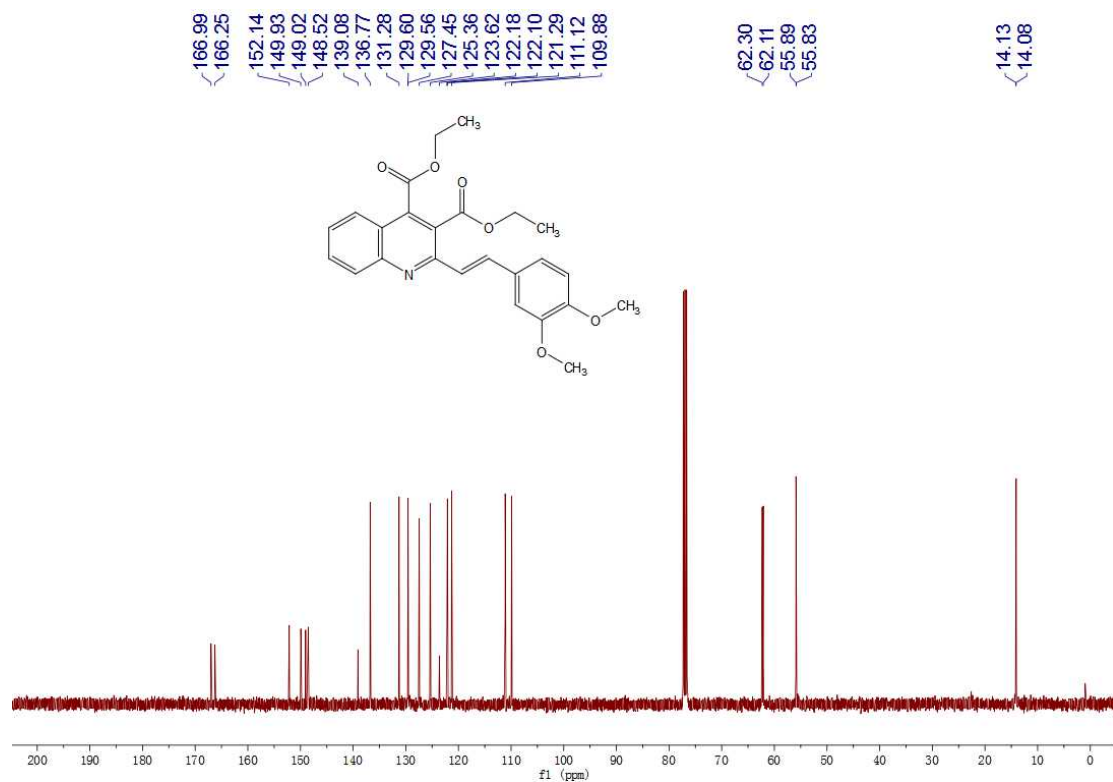


Fig. S20 ¹³C NMR spectrum of **3j**

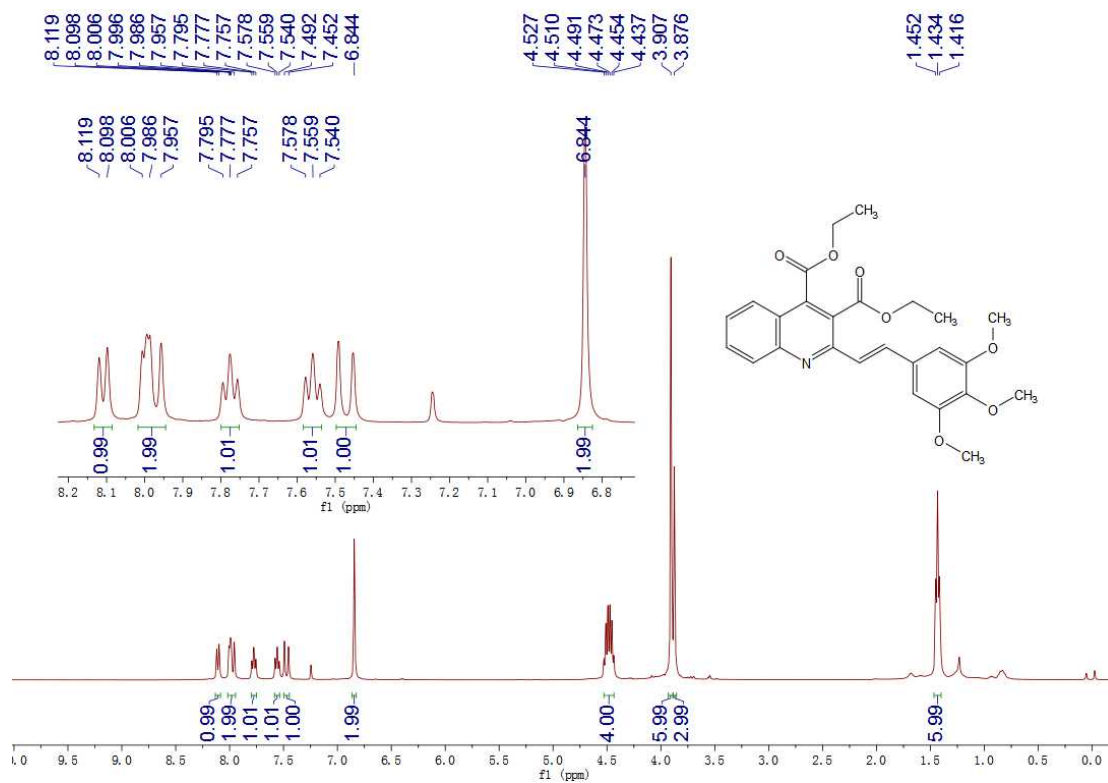


Fig. S21 ^1H NMR spectrum of **3k**

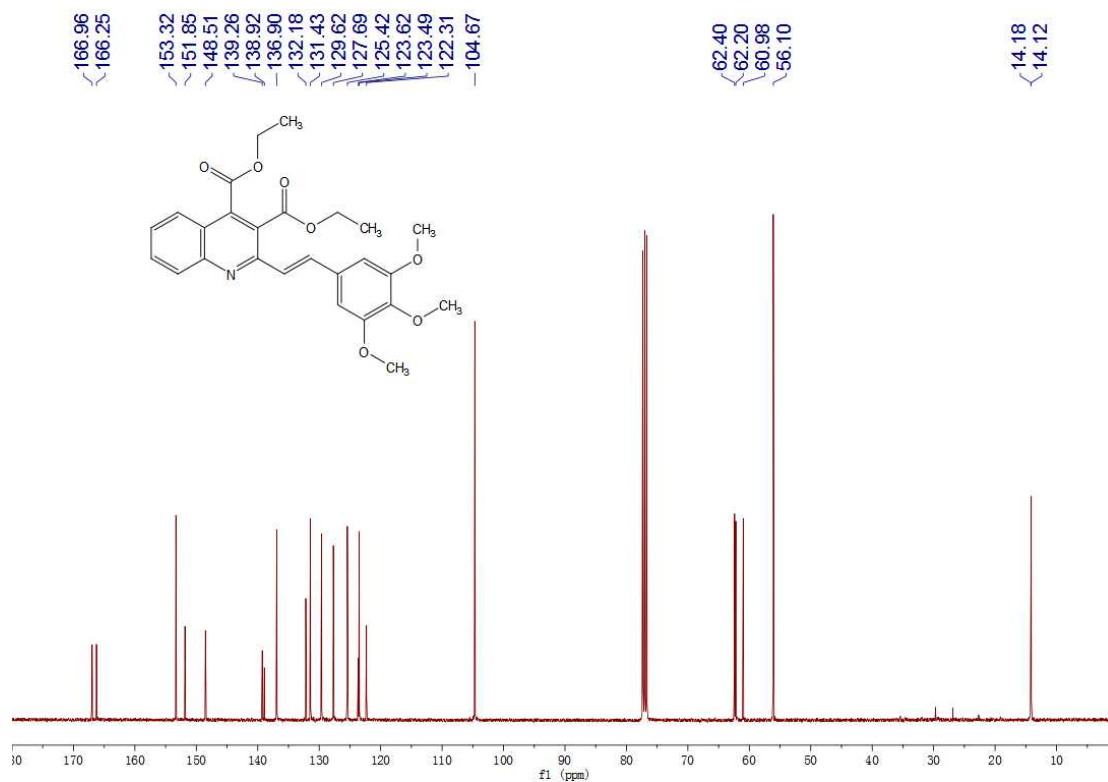


Fig. S22 ^{13}C NMR spectrum of **3k**

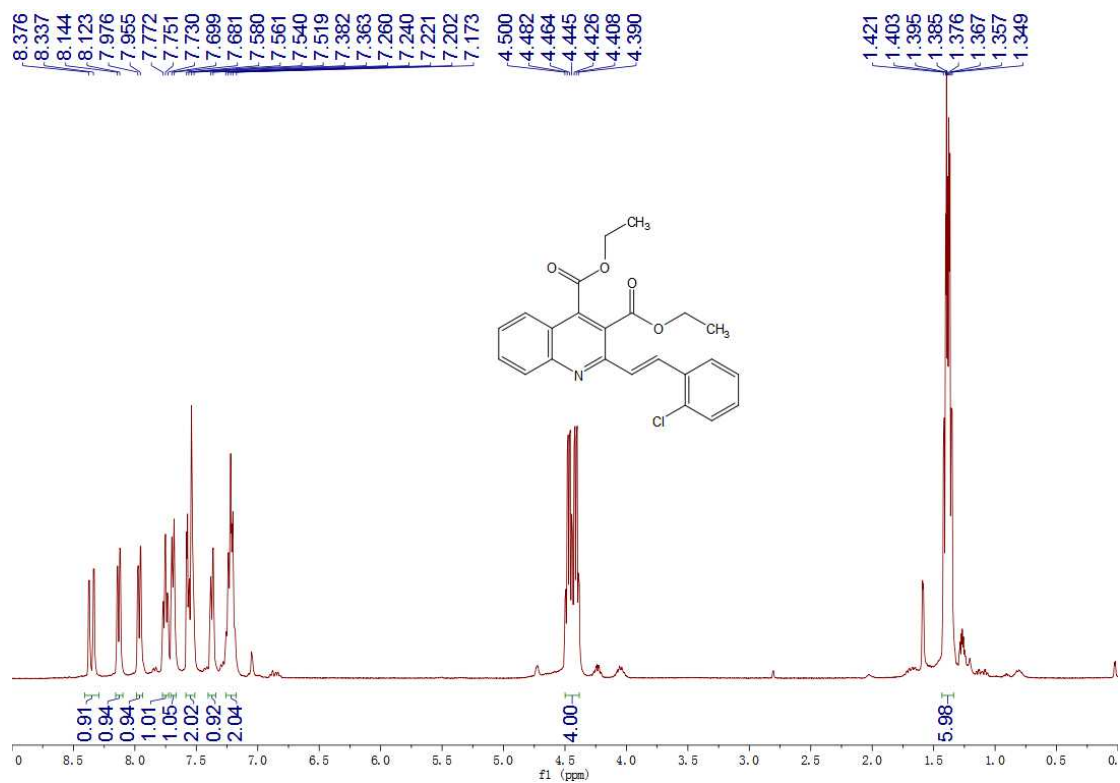


Fig. S23 ^1H NMR spectrum of 31

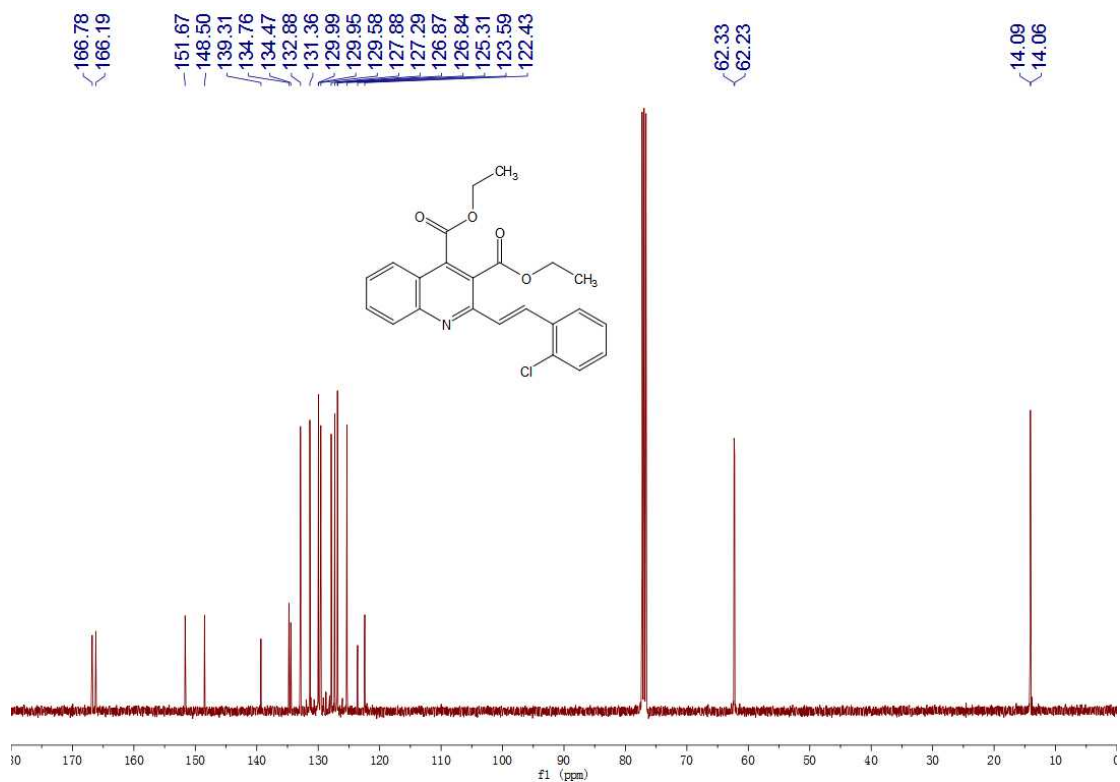


Fig. S24 ^{13}C NMR spectrum of 31

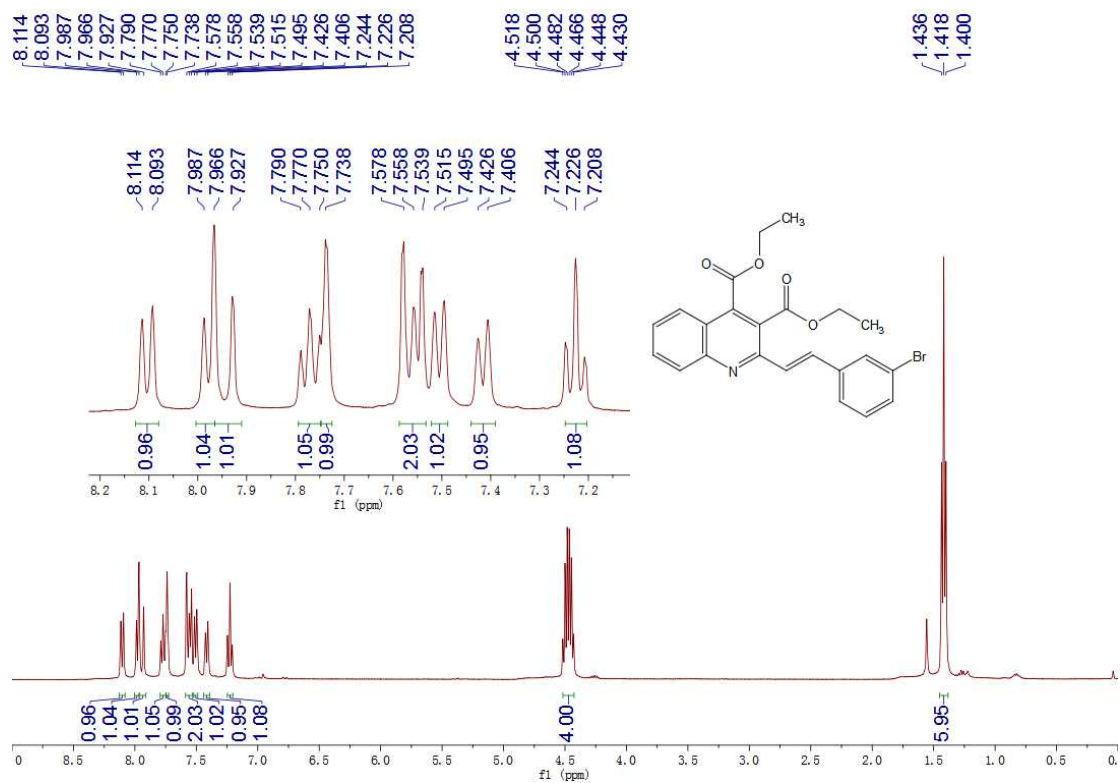


Fig. S25 ^1H NMR spectrum of **3m**

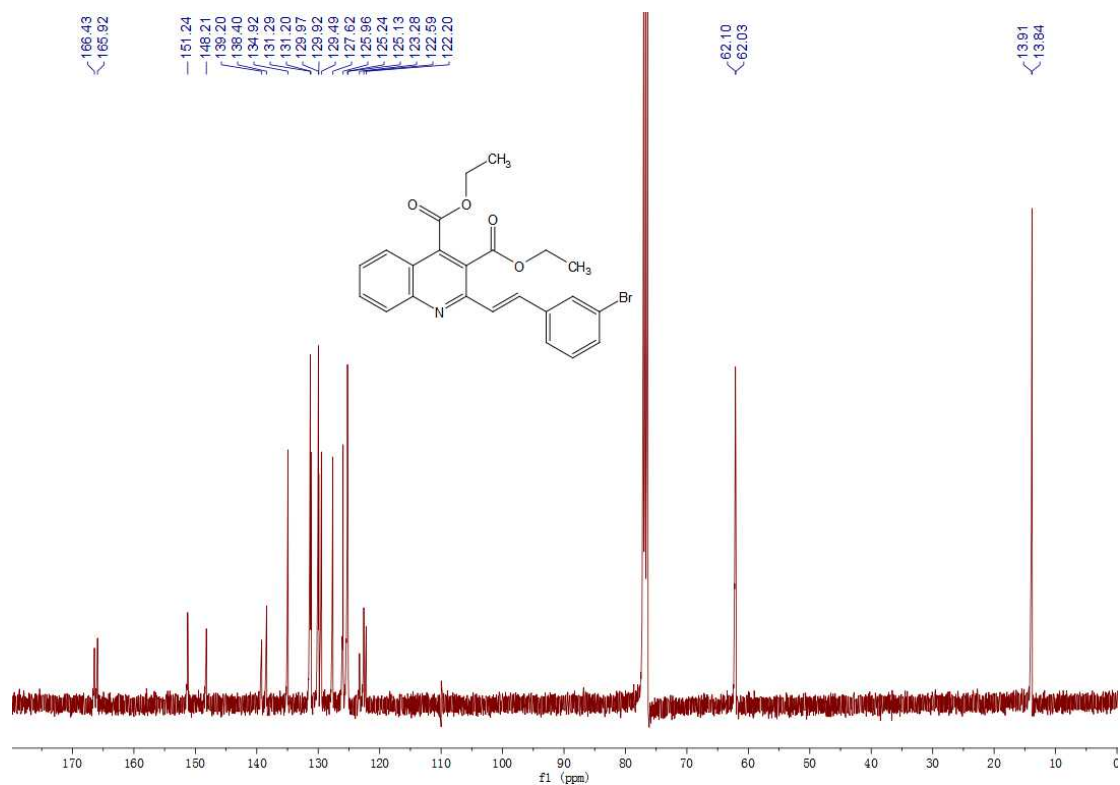


Fig. S26 ^{13}C NMR spectrum of **3m**

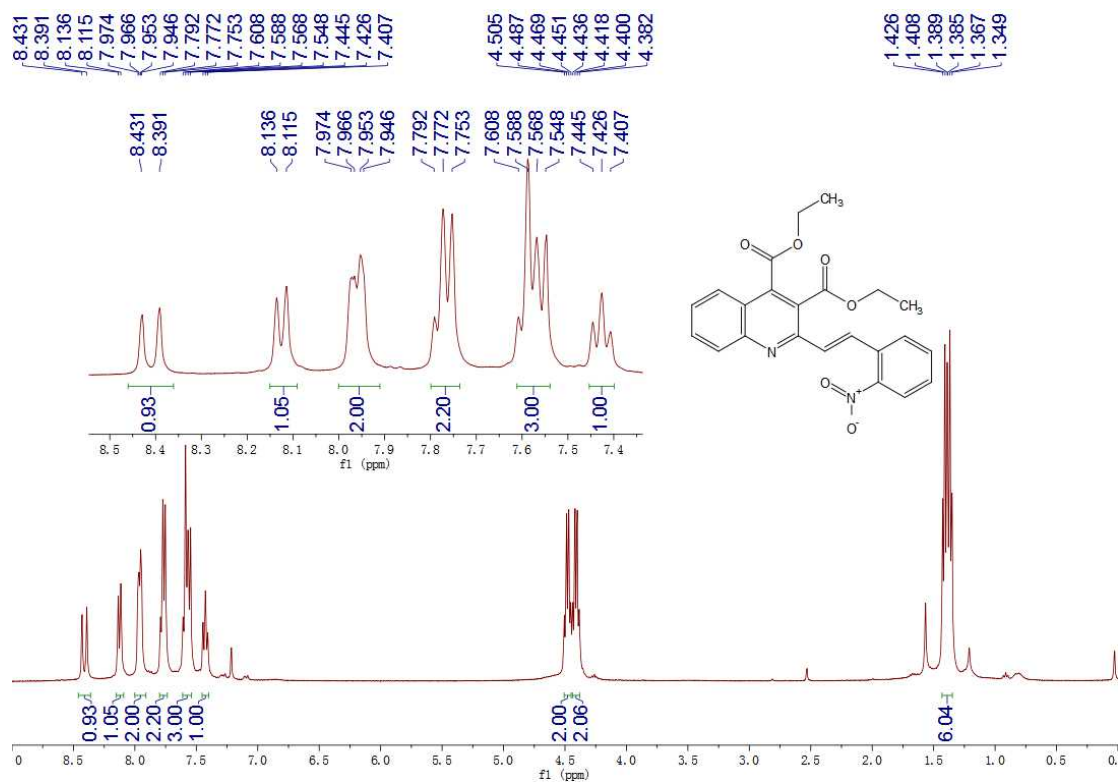


Fig. S27 ¹H NMR spectrum of **3n**

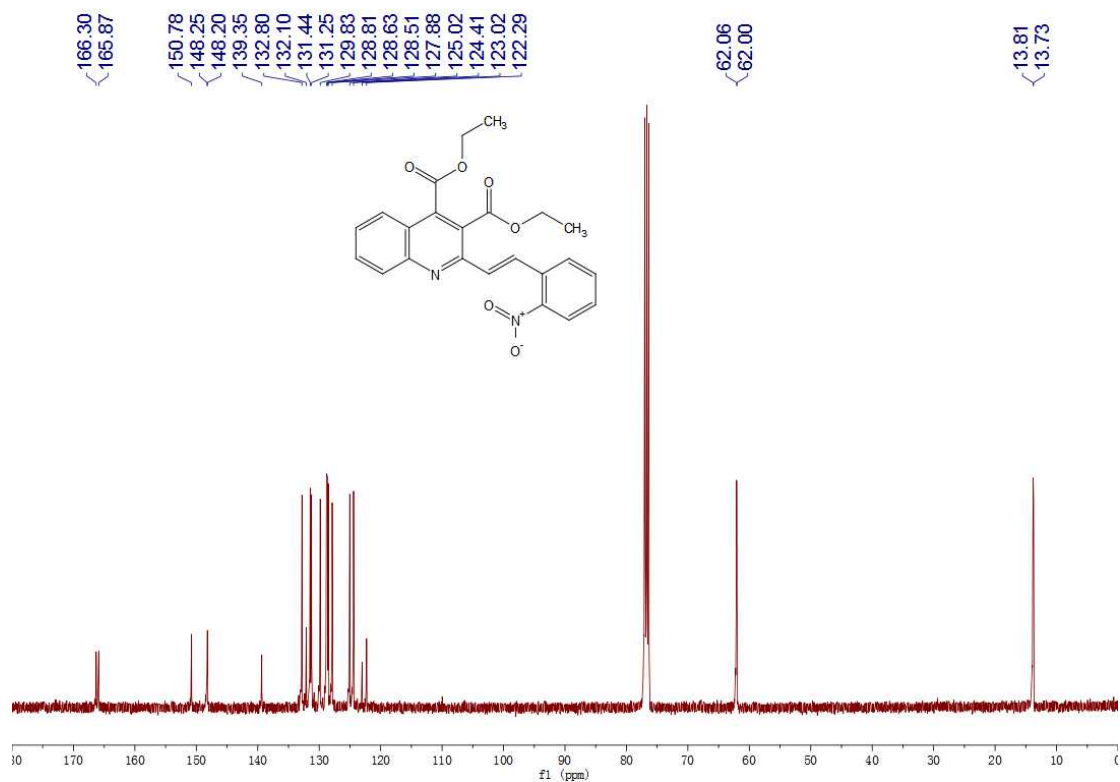


Fig. S28 ¹³C NMR spectrum of **3n**

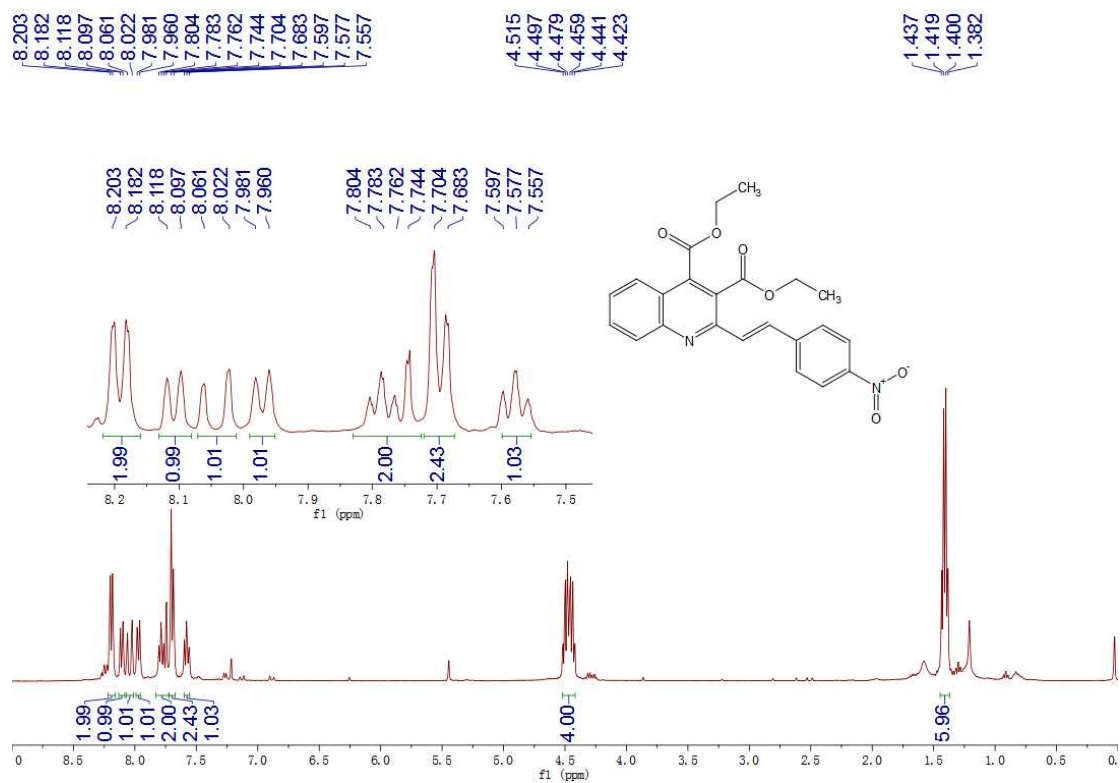


Fig. S29 ^1H NMR spectrum of **3o**

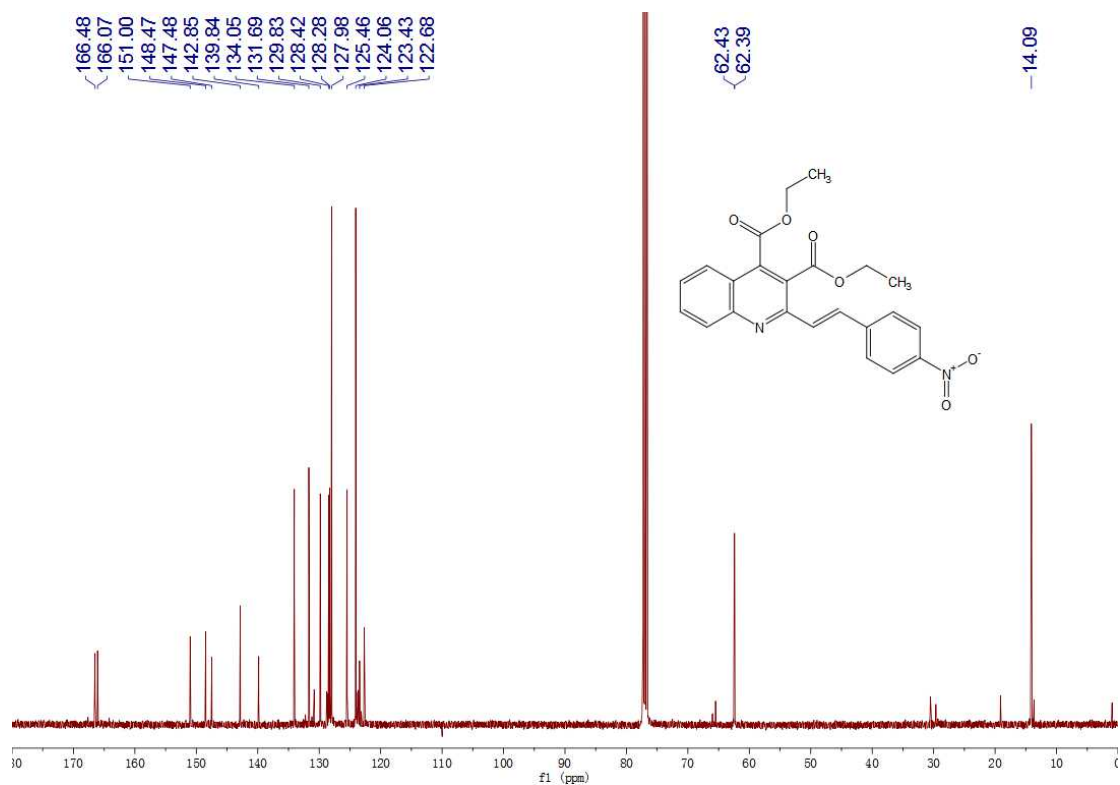


Fig. S30 ^{13}C NMR spectrum of **3o**

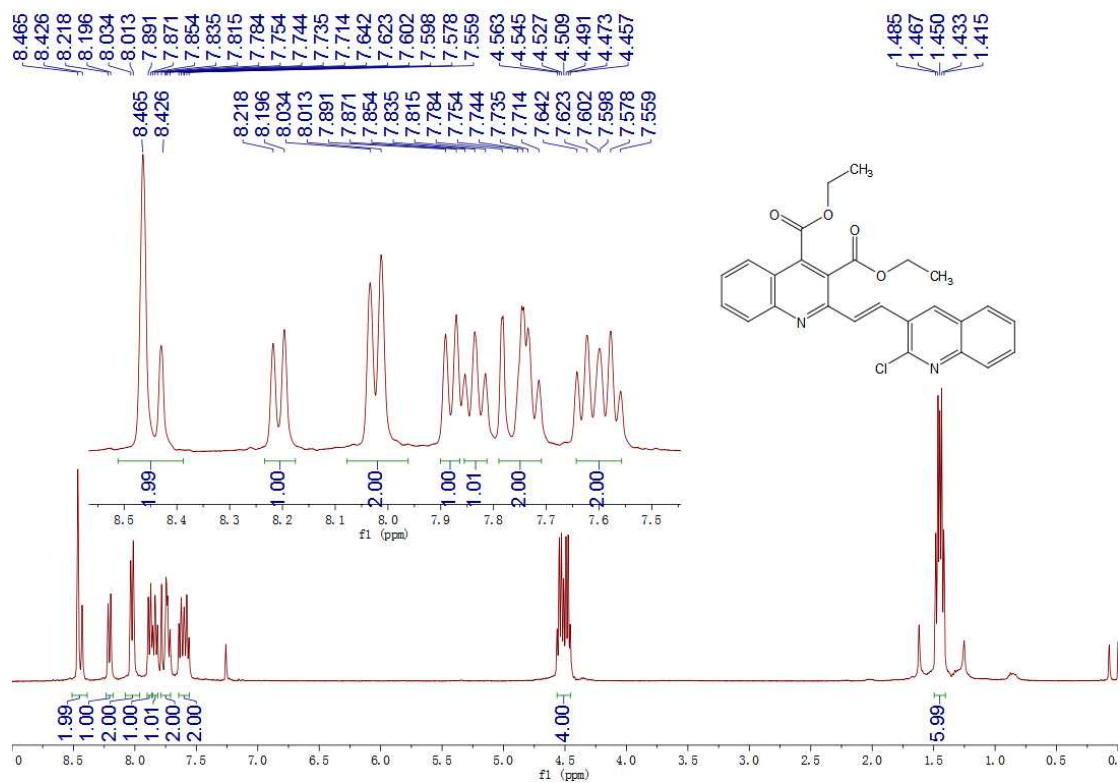


Fig. S31 ^1H NMR spectrum of **3p**

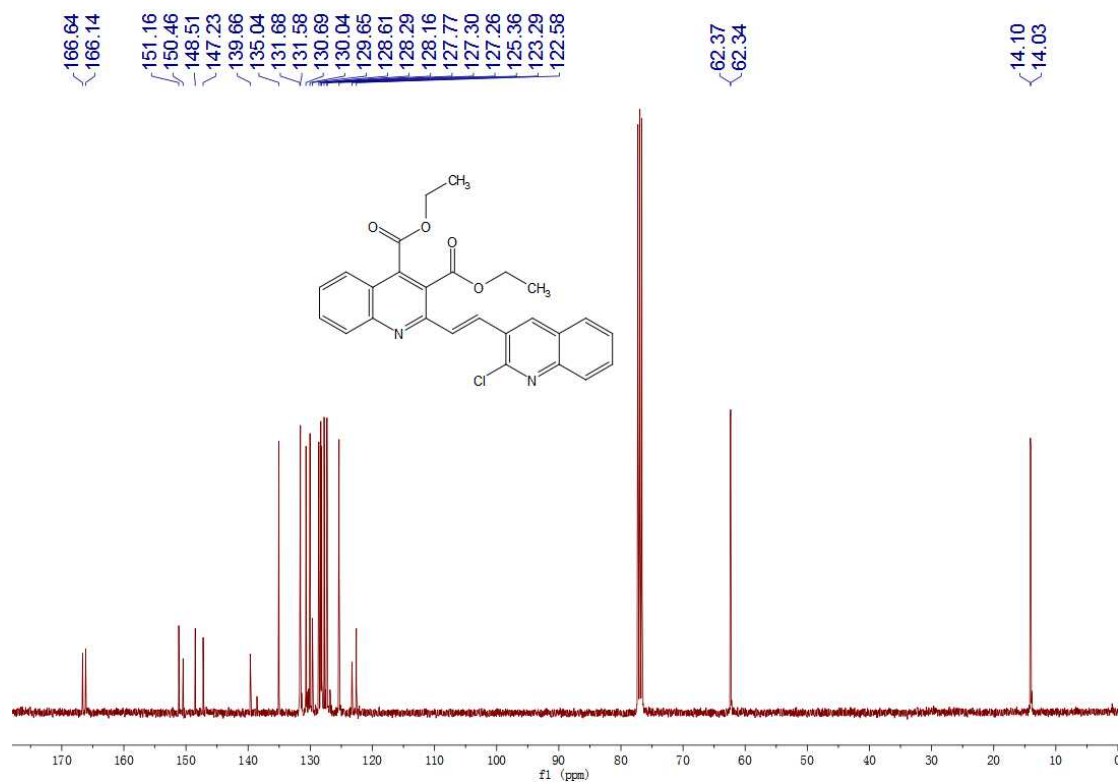


Fig. S32 ^{13}C NMR spectrum of **3p**

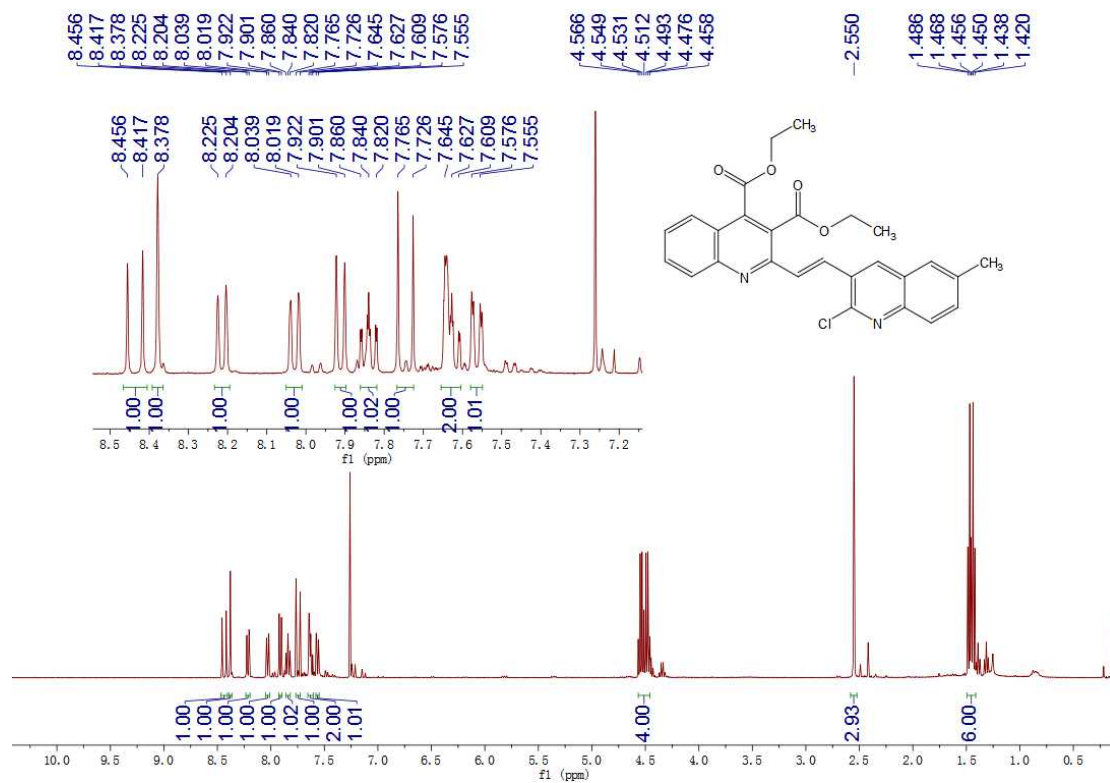


Fig. S33 ¹H NMR spectrum of **3q**

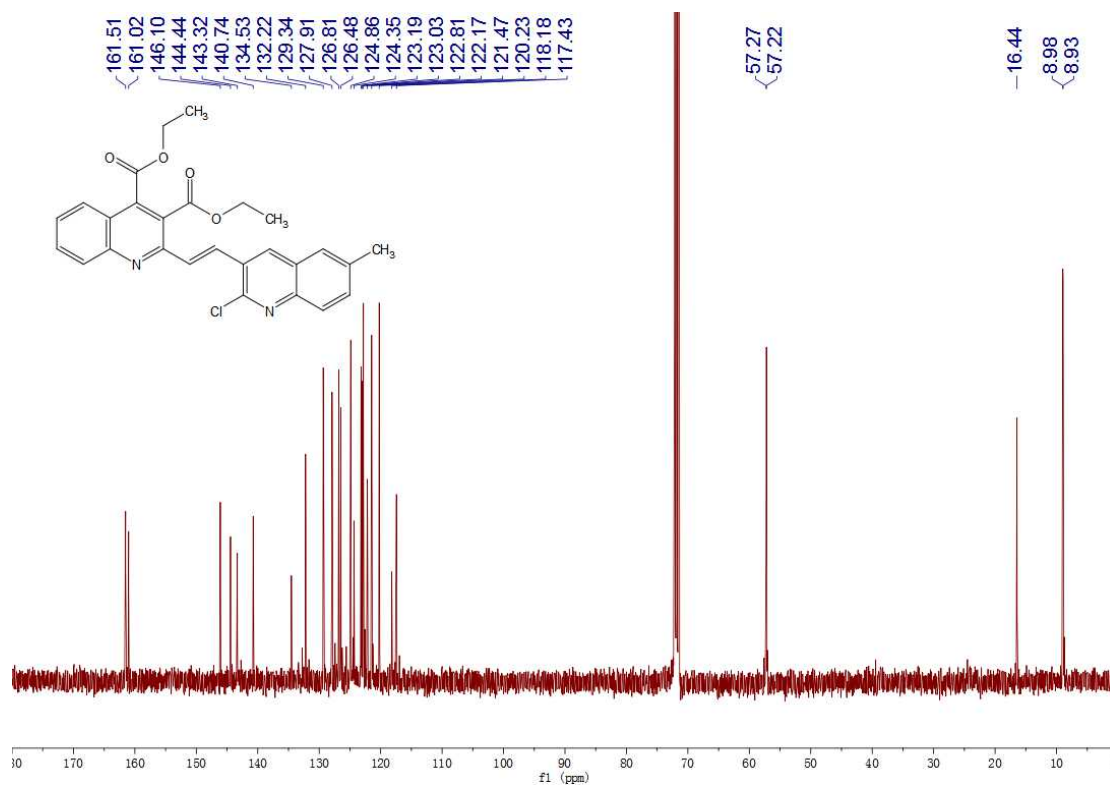


Fig. S34 ¹³C NMR spectrum of **3q**

二、 Biological assay for cancer cell growth inhibition assay (MTT assay)

Cell culture: A549, HT29 and T24 cells were cultured on cell culture flask using 4 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate, 4.5 g/L glucose, 10 mM 4-(2-hydroxyethyl)piperazine-1-ethanesulfonic acid (HEPES) and 1.0 mM sodium pyruvate in the Roswell Park Memorial Institute (RPMI)1640 nutrient medium supplemented with 0.5 mg/ml G418 and 10% heat-inactivated fetal calf serum (FCS) (pH 7.2).

MTT assay: Cytotoxicity of the newly-synthesized compounds was investigated by MTT assay, in comparison to cisplatin(CDDP). A549, HT29 and T24 cells were cultured in culture medium containing 10% fetal calf serum, and been in the logarithmic growth phase. The three cell types were seeded in 96-well culture platet at the cell density of 5×10^4 cells per well in 100 μ L of culture medium at 37 °C in 5% CO₂ incubator for 24 h seeding. The stock solutions of test compounds **3a-q** were prepared in DMSO. After incubation, the cells were treated with different concentrations of the tested compounds, made by serial dilution in culture medium, and incubated for 72 h with each concentration located three wells. Then the drug containing medium was removed and replaced by 100 μ L fresh medium with 0.5 mg/mL MTT solution. After 4 h incubation, the medium with MTT was removed and 100 μ L DMSO was added to each well. The plates were gently agitated until the color reaction was uniform. The OD values were measured using SPECTRA max 190 Cell microplate reader under 490 nm (for absorbance of MTT formazan) and 630 nm (for the reference wave length). Cell growth inhibition rate formula is $(AC - AT) / AC \times 100\%$. AC, absorbance value of the blank control group; AT, absorbance value of the experimental group. The average 50% inhibitory concentration (IC₅₀) was calculated using GraphPadPrism version 6.00 software from the non-linear curve.