# Supporting Information

# Sulfonic acid-functionalized polypropylene fiber: Highly efficient and recyclable heterogeneous Brønsted acid catalyst

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**List of Contents:**

**Detailed Procedure for the Base Exchange Capacity of the Fiber Catalyst**

Dried fiber catalyst (0.250 g) was immersed into 20 mL of 7.025 mmol·$L^{-1}$ NaOH for 24 h. The treated fiber was then filtered out and washed three times with water. The concentration of the remaining NaOH solution was determined by titration with 4.108 mmol·$L^{-1}$ of HCl. The exchange capacity was calculated based on the amount of base consumed. The experiment was repeated three times and added extra blank control. The final result of the base exchange capacity of the fiber catalyst was 0.202 mmol·$g^{-1}$

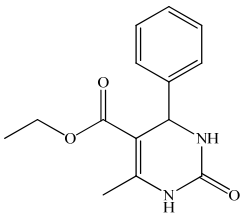
**The Preparation of Chlorinated Polypropylene Fiber (PPF-Cl)**

Dried PPF (1.00 g) and 10 wt% of NaClO (50.00 g) aqoeous solution were introduced into a three-necked flask. 15 wt% of HCl (10.00 g) was added dropwise for 1 h into the flask illuminated with sunlight. After the addition, the reaction mixture was further illuminated for 3 h. Then the fiber was filtered out and washed repeatedly with water until the pH of the washed water was 7. Finally, it was dried at 50 $^{o}$C under vacuum to constant weight. The weight gain of PPF-Cl was 15%.

Weight gain = $[(W_2-W_1)/W_1] \times 100\%$

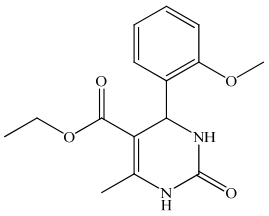
Where $W_1$ and $W_2$ are the weight of PPF and PPF-Cl, respectively.

## Physical Data and NMR Data of All Compounds



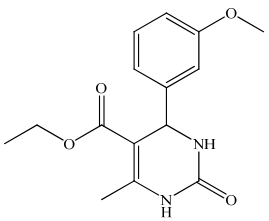
**5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4a).**

White solid; mp = 202-204 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.23 (s, 1H), 7.77 (s, 1H), 7.48 – 7.20 (m, 5H), 5.19 (d, $J$ = 2.9 Hz, 1H), 4.02 (q, $J$ = 7.0 Hz, 2H), 2.29 (s, 3H), 1.13 (t, $J$ = 7.1 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 165.81, 152.61, 148.77, 145.34, 128.83, 127.70, 126.71, 99.80, 59.63, 54.46, 18.23, 14.53.



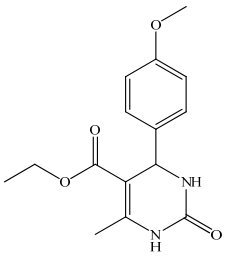
**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4b).**

White solid; mp = 256-258 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.15 (s, 1H), 7.30 (s, 1H), 7.26 (d, $J$ = 7.6 Hz, 1H), 7.09 (d, $J$ = 7.2 Hz, 1H), 7.02 (d, $J$ = 8.1 Hz, 1H), 6.91 (t, $J$ = 7.3 Hz, 1H), 5.54 (s, 1H), 3.96 (d, $J$ = 6.6 Hz, 2H), 3.83 (s, 3H), 2.32 (s, 3H), 1.06 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.21, 157.43, 153.02, 149.62, 132.53, 129.50, 127.94, 121.01, 112.05, 98.53, 59.80, 56.26, 49.83, 18.55, 14.87.



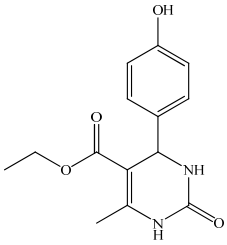
**5-Ethoxycarbonyl-4-(3-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4c).**

White solid; mp = 214-216 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.21 (s, 1H), 7.75 (s, 1H), 7.28 (t, $J$ = 7.8 Hz, 1H), 6.90 – 6.77 (m, 3H), 5.16 (d, $J$ = 2.2 Hz, 1H), 4.04 (q, $J$ = 7.0 Hz, 2H), 3.76 (s, 3H), 2.28 (s, 3H), 1.15 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.25, 160.13, 153.09, 149.28, 147.23, 130.41, 119.14, 113.30, 113.05, 100.10, 60.08, 55.86, 54.66, 18.64, 14.99.



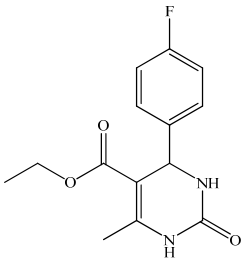
**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4d).**

White solid; mp = 199-200 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.19 (s, 1H), 7.70 (s, 1H), 7.19 (d, $J$ = 8.2 Hz, 2H), 6.91 (d, $J$ = 8.3 Hz, 2H), 5.14 (s, 1H), 4.02 (q, $J$ = 6.9 Hz, 2H), 3.83 (s, 1H), 3.76 (s, 3H), 2.28 (s, 3H), 1.14 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.25, 159.34, 153.03, 148.82, 137.95, 128.26, 114.59, 100.52, 59.99, 55.94, 54.25, 18.61, 14.96.



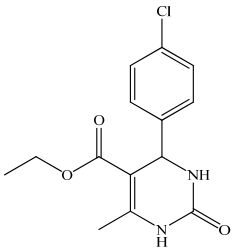
**5-Ethoxycarbonyl-4-(4-Hydroxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4e).**

Yellow solid; mp = 224-226 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.35 (s, 1H), 9.13 (s, 1H), 7.64 (s, 1H), 7.07 (d, $J$ = 8.2 Hz, 2H), 6.73 (d, $J$ = 8.2 Hz, 2H), 5.08 (s, 1H), 4.01 (q, $J$ = 6.9 Hz, 2H), 2.27 (s, 3H), 1.14 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.33, 157.44, 153.08, 148.61, 136.35, 128.29, 115.89, 100.70, 59.99, 54.36, 18.63, 15.00.



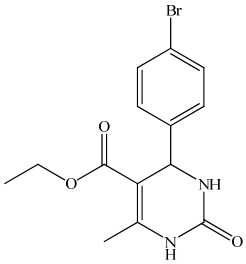
**5-Ethoxycarbonyl-4-(4-fluorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4f).**

White solid; mp = 174-176 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.26 (s, 1H), 7.78 (s, 1H), 7.29 (d, $J$ = 5.6 Hz, 2H), 7.19 (d, $J$ = 8.7 Hz, 2H), 5.19 (d, $J$ = 2.4 Hz, 1H), 4.02 (q, $J$ = 6.7 Hz, 2H), 2.29 (s, 3H), 1.13 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ =166.13, 163.41, 160.99, 152.84, 149.35, 142.03, 129.11, 116.07, 115.86, 100.07, 60.07, 54.25, 18.65, 14.93.



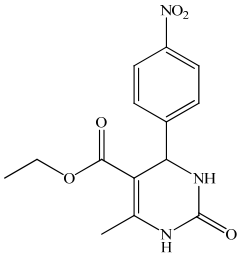

**4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4g).**

White solid; mp = 208-210 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.28 (s, 1H), 7.80 (s, 1H), 7.43 (d, $J$ = 8.3 Hz, 2H), 7.29 (d, $J$ = 8.3 Hz, 2H), 5.18 (d, $J$ = 2.8 Hz, 1H), 4.02 (q, $J$ = 7.0 Hz, 2H), 2.29 (s, 3H), 1.13 (t, $J$ = 7.1 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.29, 153.02, 149.77, 144.89, 132.87, 129.46, 129.27, 99.97, 60.33, 54.54, 18.88, 15.15.



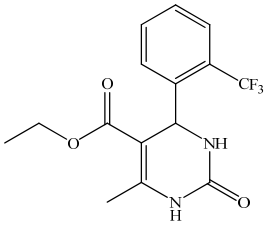

**4-(4-Bromophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4h).**

White solid; mp = 213-215 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.28 (s, 1H), 7.80 (s, 1H), 7.56 (d, $J$ = 8.2 Hz, 2H), 7.23 (d, $J$ = 8.2 Hz, 2H), 5.17 (d, $J$ = 2.2 Hz, 1H), 4.02 (q, $J$ = 7.0 Hz, 2H), 2.29 (s, 3H), 1.13 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.07, 152.79, 149.56, 145.08, 132.17, 129.41, 121.16, 99.70, 60.12, 54.39, 18.66, 14.94.



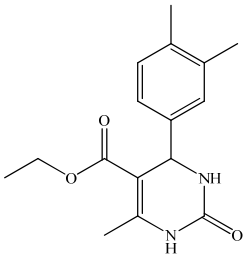

**5-Ethoxycarbonyl-6-methyl-4-(4-nitrophenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4i).**

White solid; mp = 208-210 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.38 (s, 1H), 8.25 (d, $J$ = 8.4 Hz, 2H), 7.92 (s, 1H), 7.55 (d, $J$ = 8.4 Hz, 2H), 5.32 (d, $J$ = 2.1 Hz, 1H), 4.03 (q, $J$ = 6.9 Hz, 2H), 2.31 (s, 3H), 1.13 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 165.95, 152.90, 152.64, 150.26, 147.63, 128.55, 124.70, 99.12, 60.27, 54.60, 18.75, 14.93.



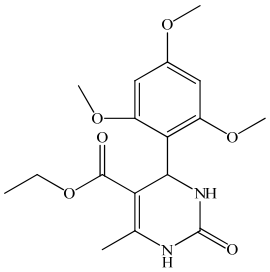
**5-Ethoxycarbonyl-6-methyl-4-(2-trifluoromethylphenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4j).**

White solid; mp = 200-202 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.38 (s, 1H), 7.71 (t, $J$ = 7.4 Hz, 2H), 7.52 (dd, $J$ = 15.0, 7.5 Hz, 2H), 7.34 (s, 1H), 5.62 (s, 1H), 3.89 (q, $J$ = 13.9, 6.9 Hz, 2H), 2.38 (s, 3H), 0.91 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): δ = 165.65, 151.90, 150.58, 144.02, 134.24, 129.42, 128.93, 126.56, 99.03, 59.86, 51.48, 18.61, 14.61.



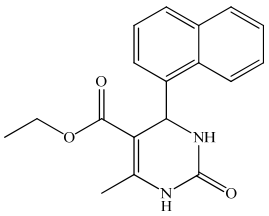
**4-(3,4-Dimethylphenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4k).**

White solid; mp = 229-231 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.16 (s, 1H), 7.68 (s, 1H), 7.10 (d, $J$ = 7.7 Hz, 1H), 7.04 (s, 1H), 6.98 (d, $J$ = 7.6 Hz, 1H), 5.12 (d, $J$ = 2.7 Hz, 1H), 4.02 (q, $J$ = 7.0 Hz, 2H), 2.36 – 2.13 (m, 9H), 1.15 (t, $J$ = 7.1 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.29, 153.10, 148.89, 143.26, 136.76, 135.95, 130.30, 128.32, 124.47, 100.39, 60.03, 54.58, 20.46, 19.89, 18.66, 15.00.



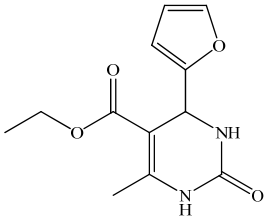
**5-Ethoxycarbonyl-6-methyl-4-(2,4,6-trimethoxyphenyl)-3,4-dihydro-pyrimidin-2(1*H*)-one (4l).**

White solid; mp = 243-245 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 8.96 (s, 1H), 6.92 (s, 1H), 6.20 (s, 2H), 5.79 (s, 1H), 3.88 (dd, $J$ = 14.3, 7.5 Hz, 2H), 3.78 (s, 3H), 3.74 (s, 6H), 2.19 (s, 3H), 1.03 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 166.49, 160.64, 159.66, 152.75, 148.85, 114.22, 97.03, 91.56, 59.04, 56.24, 55.79, 45.67, 18.42, 14.60.



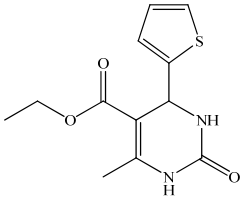
**5-Ethoxycarbonyl-6-methyl-4-(1-naphthalenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4m).**

White solid; mp = 246-248 °C; $^1$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.29 (s, 1H), 8.35 (d, $J$ = 7.8 Hz, 1H), 8.04 – 7.74 (m, 3H), 7.72 – 7.37 (m, 4H), 6.11 (s, 1H), 3.84 (dd, $J$ = 12.4, 7.0 Hz, 2H), 2.41 (s, 3H), 0.85 (t, $J$ = 6.9 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 165.95, 152.30, 149.30, 141.10, 134.15, 130.76, 129.09, 128.52, 126.65, 126.33,126.25, 124.88, 124.30, 99.87, 59.64, 50.55, 18.41, 14.45.



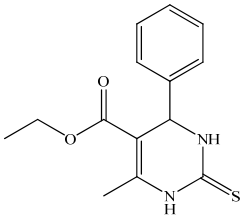
**5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4n).**

White solid; mp = 202-204 °C; $^1$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.27 (s, 1H), 7.78 (s, 1H), 7.59 (s, 1H), 6.39 (s, 1H), 6.13 (d, $J$ = 2.8 Hz, 1H), 5.25 (d, $J$ = 3.0 Hz, 1H), 4.06 (q, $J$ = 9.6, 4.3 Hz, 2H), 2.27 (s, 3H), 1.17 (t, $J$ = 7.1 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 165.91, 156.87, 153.30, 150.21, 143.01, 111.23, 106.16, 97.68, 60.11, 48.65, 18.62, 15.04.



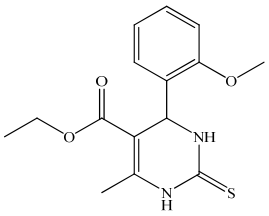
**5-Ethoxycarbonyl-6-methyl-4-(2-thienyl)-3,4-dihydropyrimidin-2(1*H*)-one (4o).**

White solid; mp = 206-208 °C; $^1$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.34 (s, 1H), 7.93 (s, 1H), 7.39 (d, $J$ = 5.0 Hz, 1H), 6.95 (dd, $J$ = 15.9, 3.8 Hz, 2H), 5.46 (d, $J$ = 3.3 Hz, 1H), 4.10 (q, $J$ = 7.1 Hz, 2H), 2.26 (s, 3H), 1.21 (t, $J$ = 7.1 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 165.92, 153.13, 149.70, 149.51, 127.54, 125.49, 124.39, 100.72, 60.23, 50.28, 18.56, 15.04.



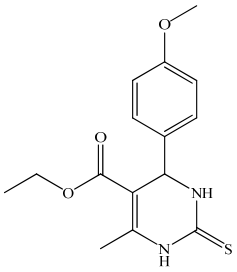
**5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4p).**

White solid; mp = 204-205 °C; $^{1}$H NMR (400 MHz, DMSO): $\delta$ = 10.35 (s, 1H), 9.67 (s, 1H), 7.43 – 7.22 (m, 5H), 5.21 (d, $J$ = 2.8 Hz, 1H), 4.04 (q, $J$ = 13.8, 6.8 Hz, 2H), 2.33 (s, 3H), 1.13 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO): $\delta$ = 175.17, 166.01, 145.87, 144.38, 129.41, 128.53, 127.25, 101.65, 60.44, 54.94, 18.02, 14.88.



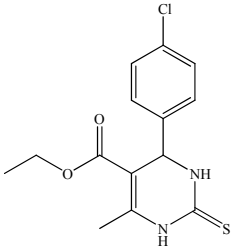
**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4q).**

White solid; mp = 199-200 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.25 (s, 1H), 9.26 (s, 1H), 7.30 (t, $J$ = 7.5 Hz, 2H), 7.11 – 7.04 (m, 2H), 6.92 (d, $J$ = 7.3 Hz, 1H), 5.54 (s, 1H), 3.98 (q, $J$ = 13.4, 6.4 Hz, 2H), 3.83 (s, 3H), 2.33 (s, 3H), 1.08 (t, $J$ = 6.8 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 184.65, 174.90, 165.84, 157.32, 145.72, 131.28, 129.78, 128.42, 120.86, 112.02, 100.14, 60.00, 56.15, 50.16, 17.67, 14.60.



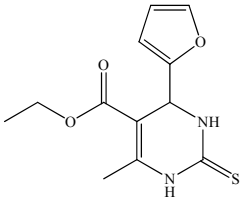
**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4r).**

White solid; mp = 153-155 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.32 (s, 1H), 9.63 (s, 1H), 7.17 (d, $J$ = 8.3 Hz, 2H), 6.94 (d, $J$ = 8.3 Hz, 2H), 5.15 (d, $J$ = 2.6 Hz, 1H), 4.04 (q, $J$ = 6.9 Hz, 2H), 3.76 (s, 3H), 2.32 (s, 3H), 1.14 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 174.97, 166.05, 159.64, 145.58, 136.60, 128.48, 114.77, 101.91, 60.41, 55.99, 54.35, 18.01, 14.91.



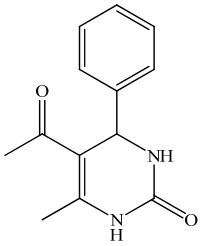
**4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4s).**

White solid; mp = 185-186 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.45 (s, 1H), 9.74 (s, 1H), 7.50 (s, 2H), 7.32 (s, 2H), 5.25 (s, 1H), 4.09 (s, 2H), 2.37 (s, 3H), 1.17 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 174.98, 165.68, 146.04, 143.07, 132.95, 129.26, 128.99, 101.03, 60.33, 54.16, 17.86, 14.68.



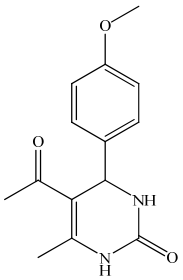
**5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4t).**

White solid; mp = 196-197 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.42 (s, 1H), 9.67 (s, 1H), 7.61 (s, 1H), 6.41 (s, 1H), 6.18 (d, $J$ = 2.7 Hz, 1H), 5.27 (d, $J$ = 3.3 Hz, 1H), 4.08 (dd, $J$ = 7.0, 3.0 Hz, 2H), 2.31 (s, 3H), 1.17 (t, $J$ = 7.0 Hz, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 184.84, 175.82, 165.67, 143.49, 111.35, 107.10, 60.49, 48.59, 17.99, 14.94.



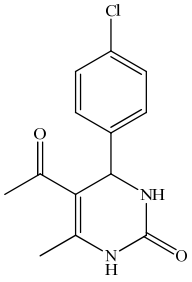
**5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4u).**

White solid; mp = 236-238 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.21 (s, 1H), 7.86 (s, 1H), 7.60 – 7.06 (m, 5H), 5.31 (s, 1H), 3.40 (d, $J$ = 7.4 Hz, 2H), 2.33 (s, 3H), 2.14 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 194.98, 152.84, 148.77, 144.95, 129.22, 128.04, 127.13, 110.33, 54.56, 30.99, 19.59.



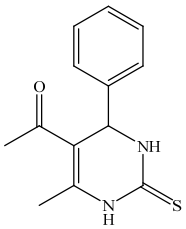
**5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4v).**

White solid; mp = 176-178 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.17 (s, 1H), 7.78 (s, 1H), 7.20 (d, $J$ = 8.2 Hz, 2H), 6.92 (d, $J$ = 8.2 Hz, 2H), 5.25 (s, 1H), 3.76 (s, 3H), 2.32 (s, 3H), 2.11 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 195.25, 159.42, 152.97, 148.61, 137.28, 128.53, 114.76, 110.54, 55.97, 54.26, 31.02, 19.70.



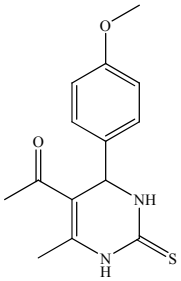
**5-Acetyl-4-(4-chlorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4w).**

White solid; mp = 220-222 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 9.26 (s, 1H), 7.89 (s, 1H), 7.43 (d, $J$ = 8.1 Hz, 2H), 7.30 (d, $J$ = 8.1 Hz, 2H), 5.30 (d, $J$ = 2.2 Hz, 1H), 2.33 (s, 3H), 2.16 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 194.75, 152.69, 149.04, 143.88, 132.50, 129.11, 128.97, 110.20, 53.79, 31.03, 19.60.




**5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4x).**

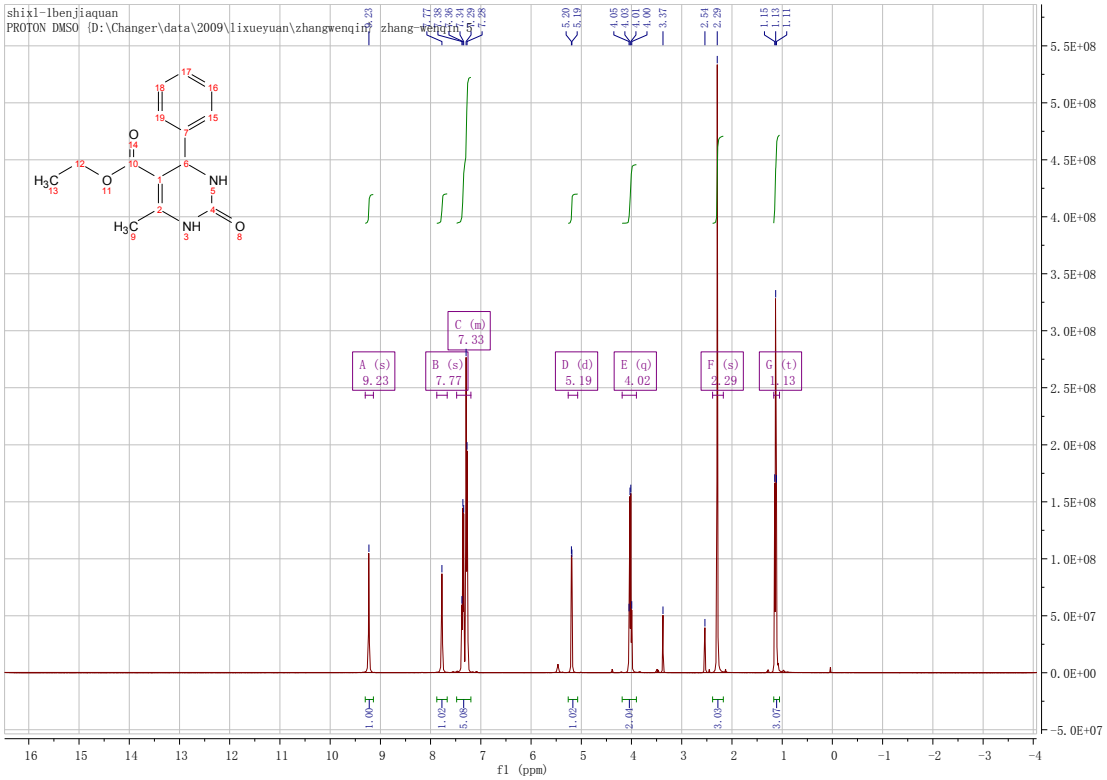
White solid; mp = 222-224 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.31 (s, 1H), 9.79 (s, 1H), 7.33 (d, $J$ = 39.1 Hz, 5H), 5.34 (s, 1H), 2.37 (s, 3H), 2.20 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 195.62, 175.01, 145.33, 143.79, 129.48, 128.54, 127.42, 111.38, 54.69, 31.24, 19.09.



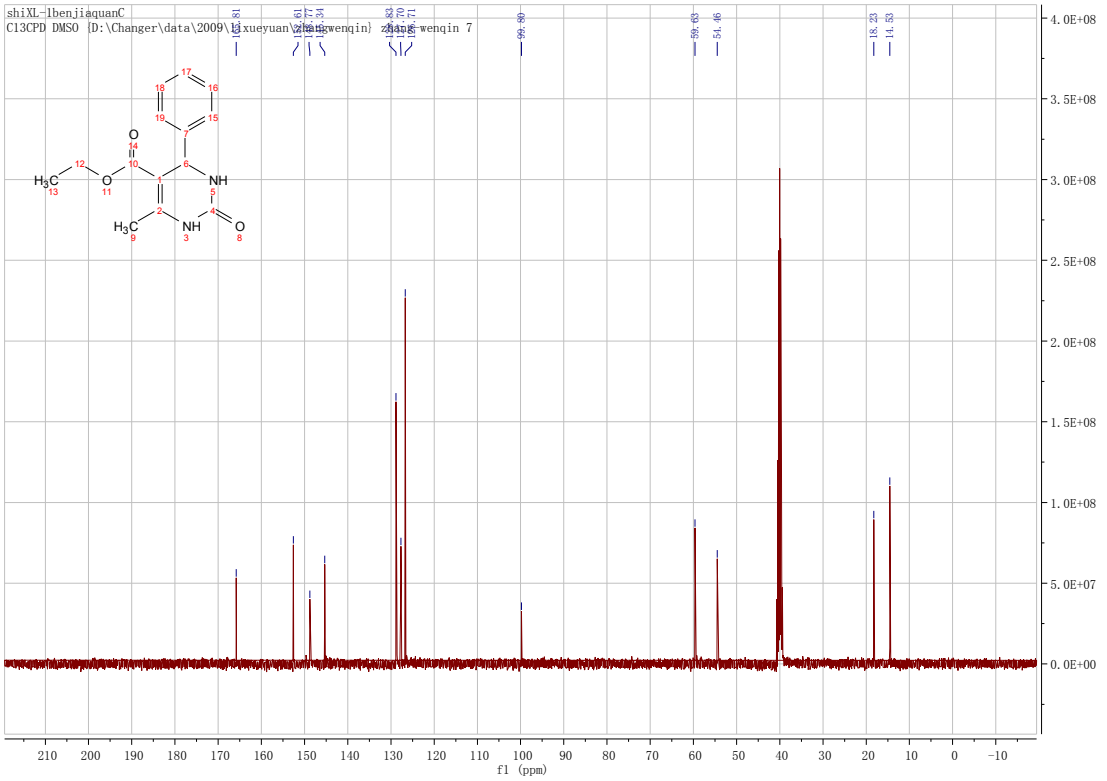

**5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4y).**

White solid; mp = 153-154 °C; $^{1}$H NMR (400 MHz, DMSO-$d_6$): $\delta$ = 10.26 (s, 1H), 9.73 (s, 1H), 7.19 (d, $J$ = 8.4 Hz, 2H), 6.94 (d, $J$ = 8.4 Hz, 2H), 5.27 (d, $J$ = 2.6 Hz, 1H), 3.76 (s, 3H), 2.36 (s, 3H), 2.16 (s, 3H); $^{13}$C NMR (101 MHz, DMSO-$d_6$): $\delta$ = 195.52, 174.54, 159.46, 144.80, 135.75, 128.50, 114.66, 111.16, 55.78, 54.04, 30.86, 18.80.

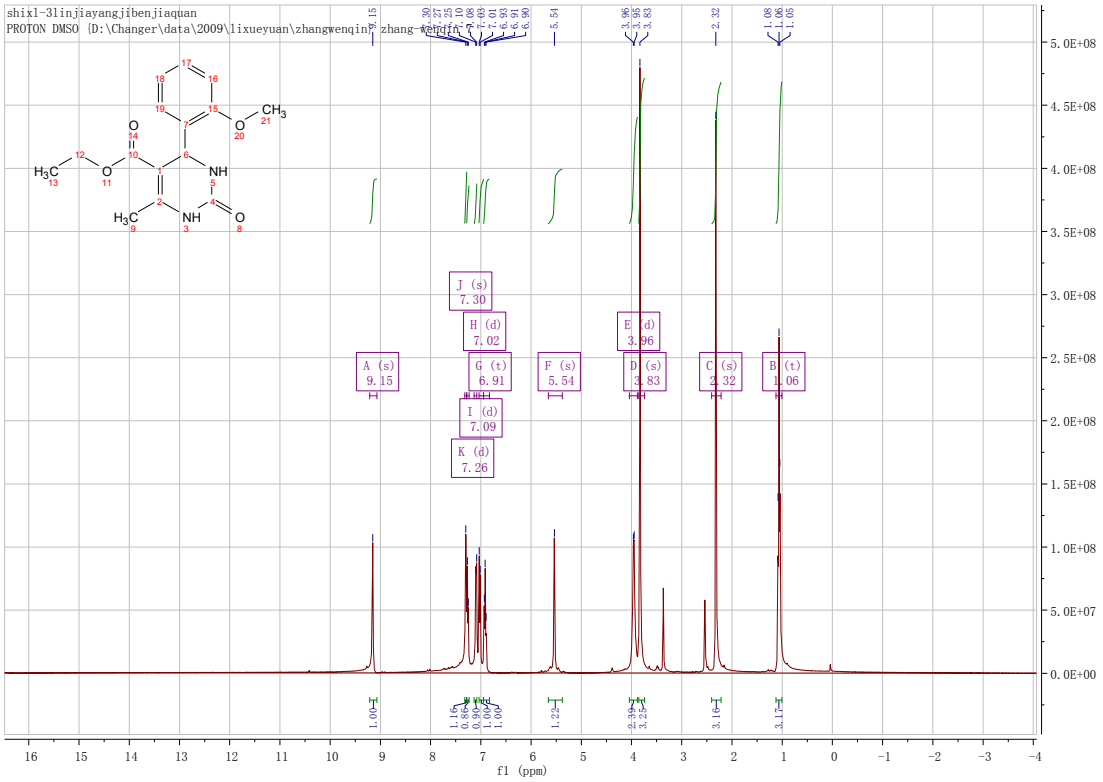
# $^{1}$H and $^{13}$C NMR spectra of all compounds




**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4a).**

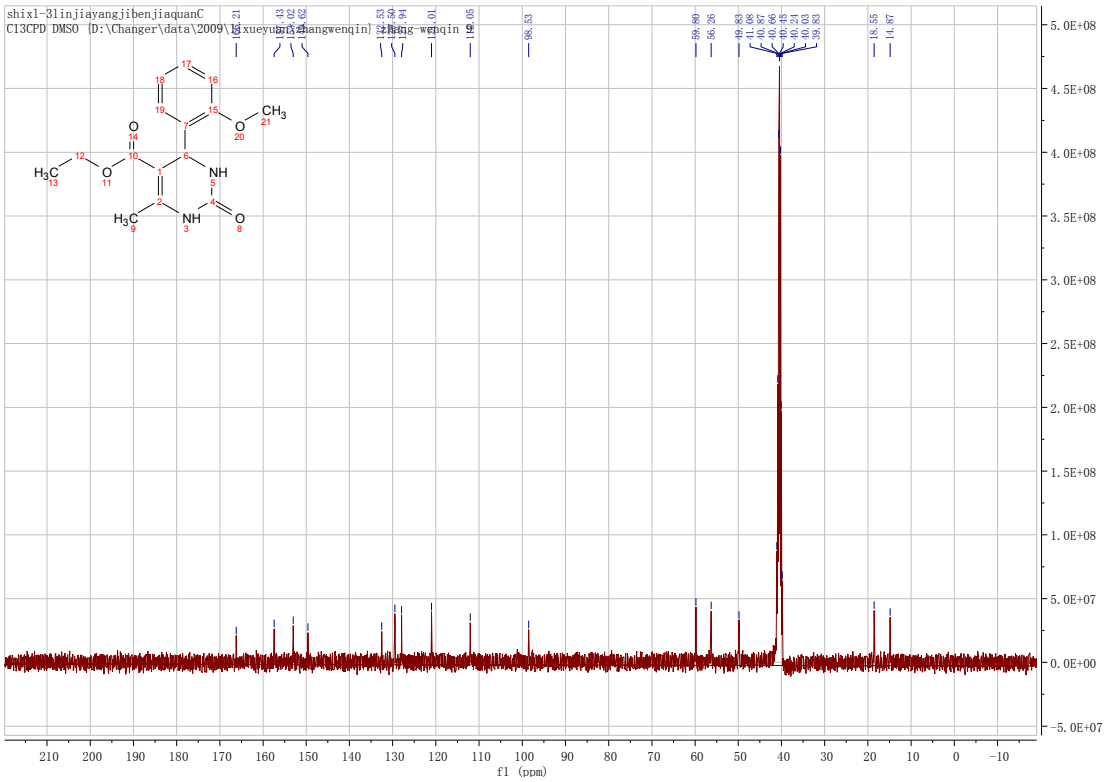



**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4a).**



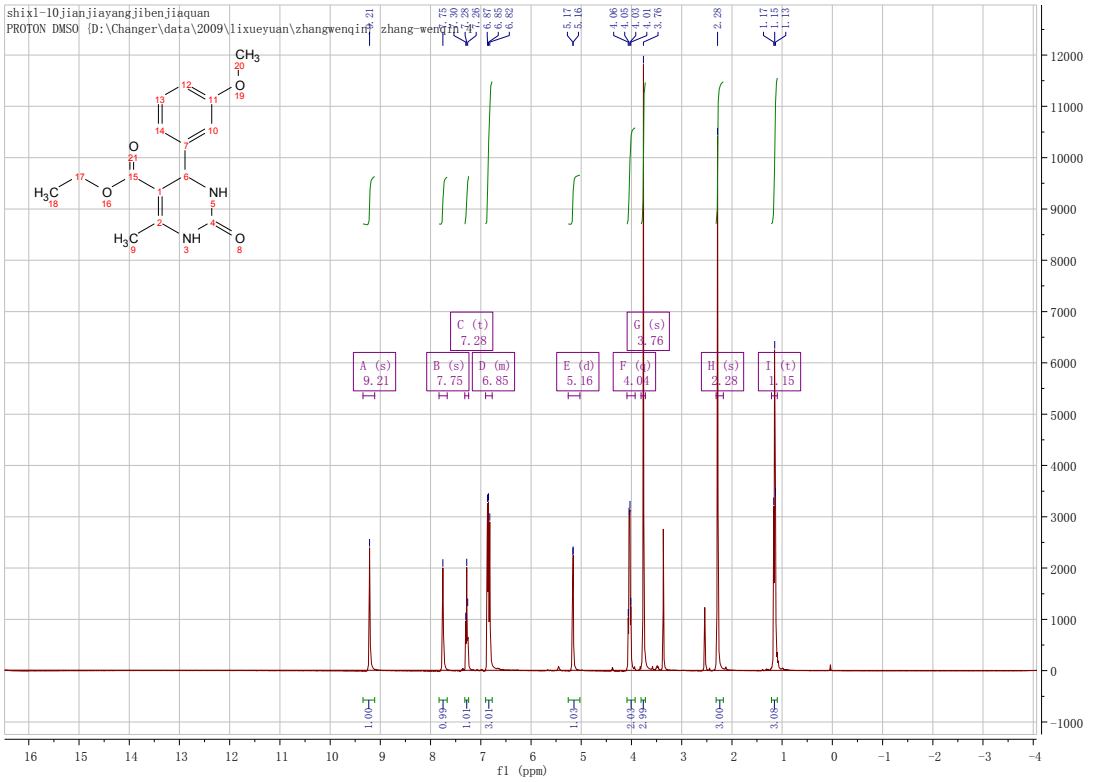

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4b).**



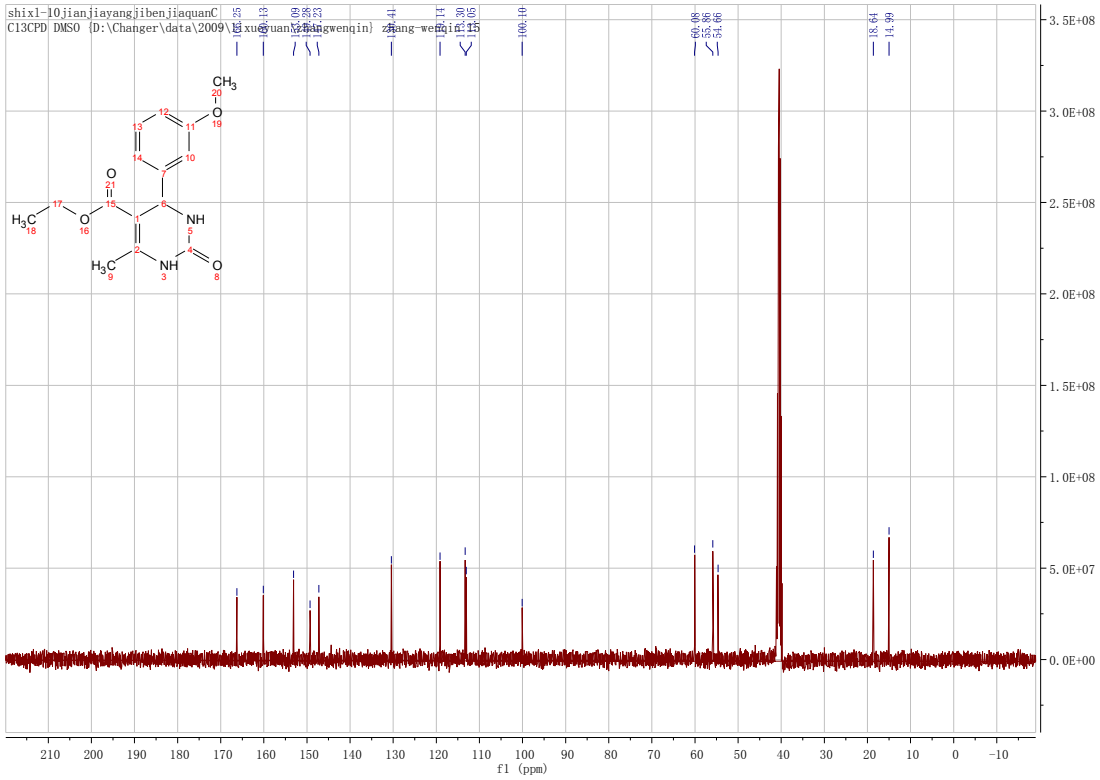

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4b).**



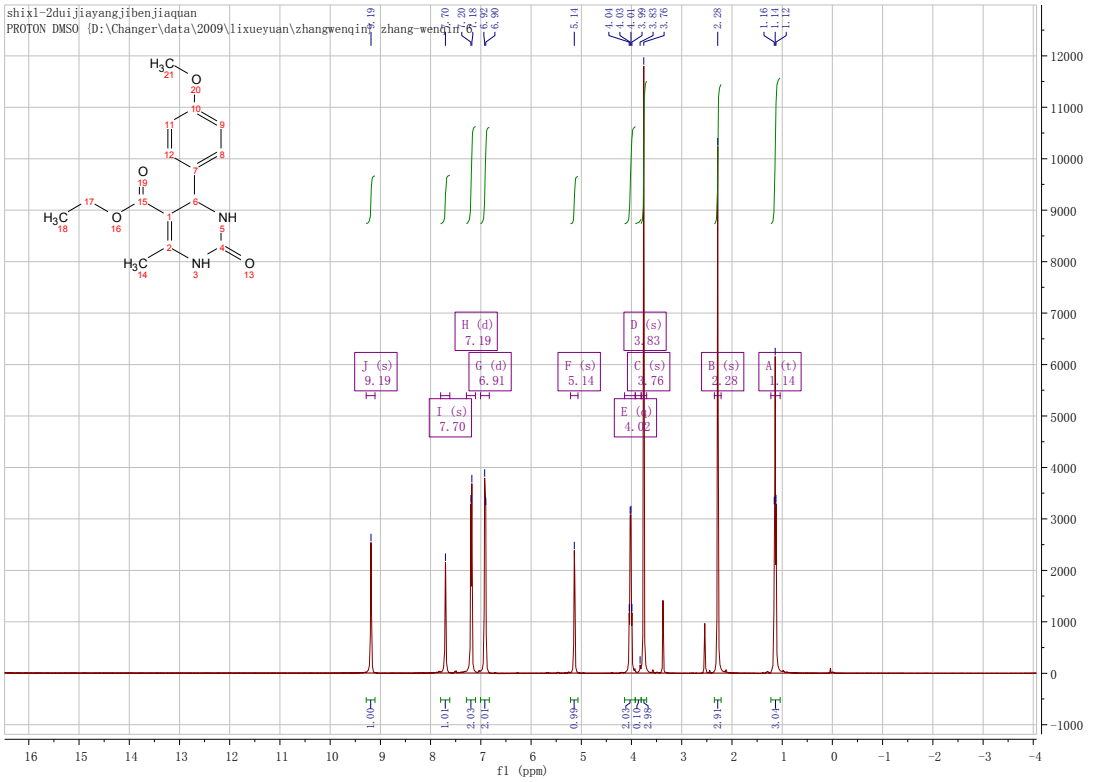

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(3-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4c).**



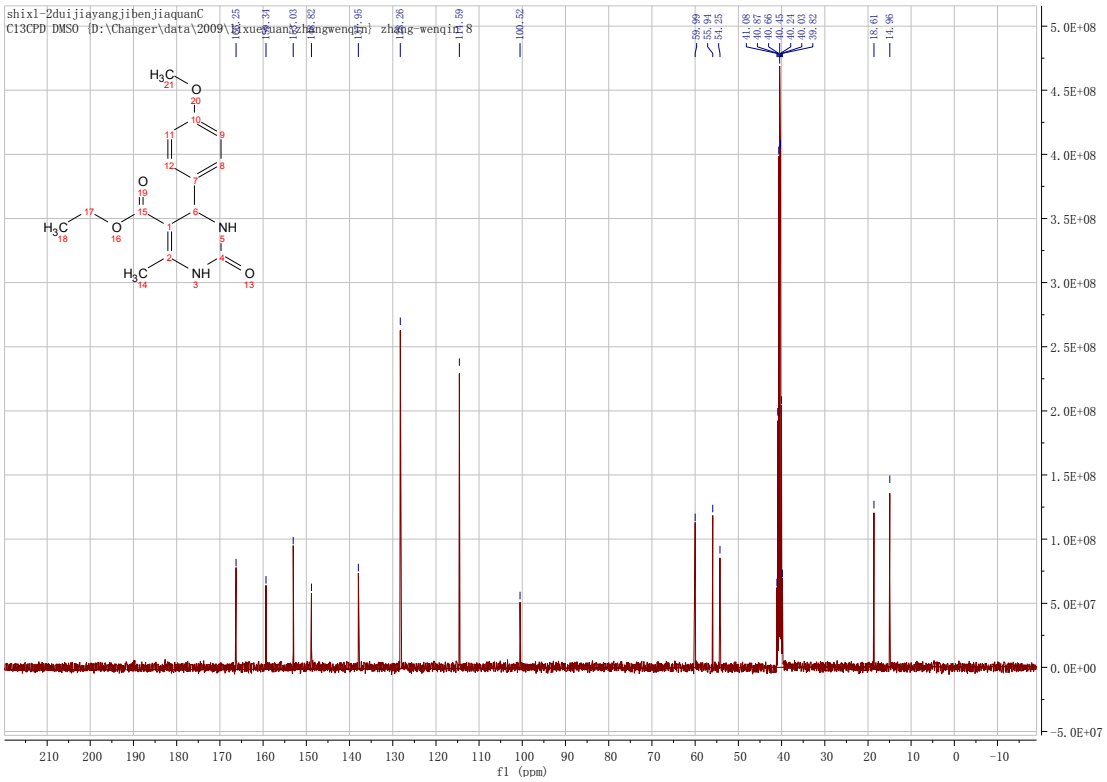

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-4-(3-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4c).**



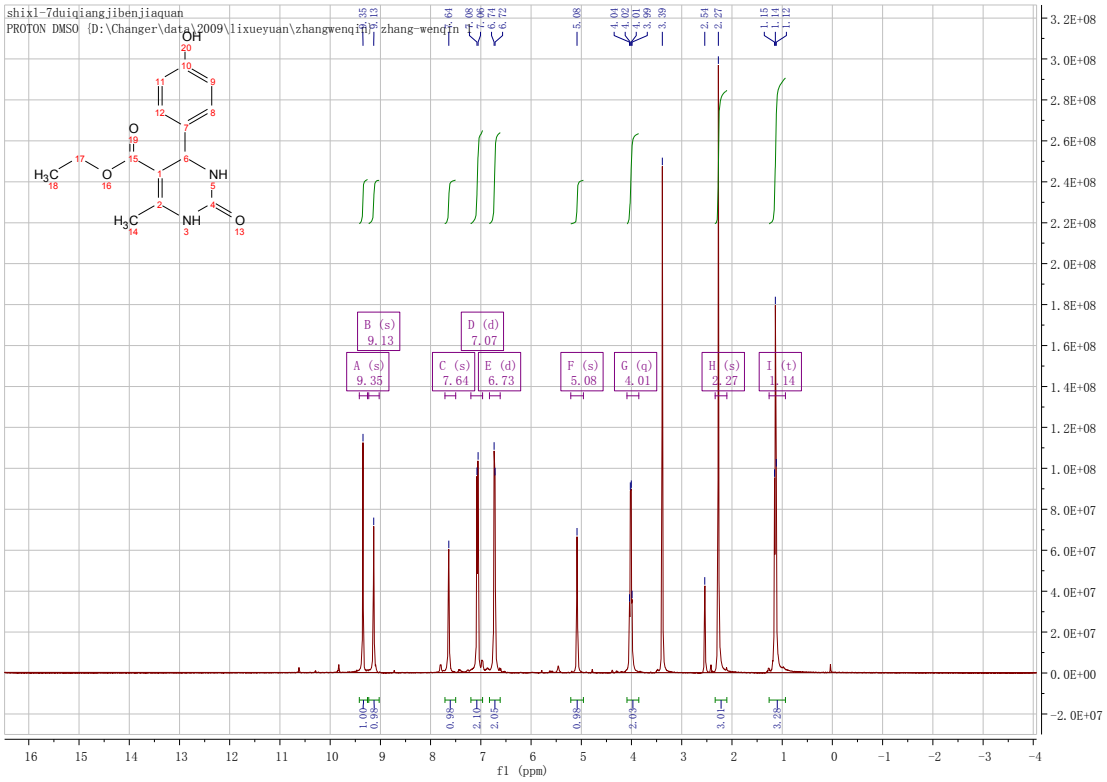

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4d).**



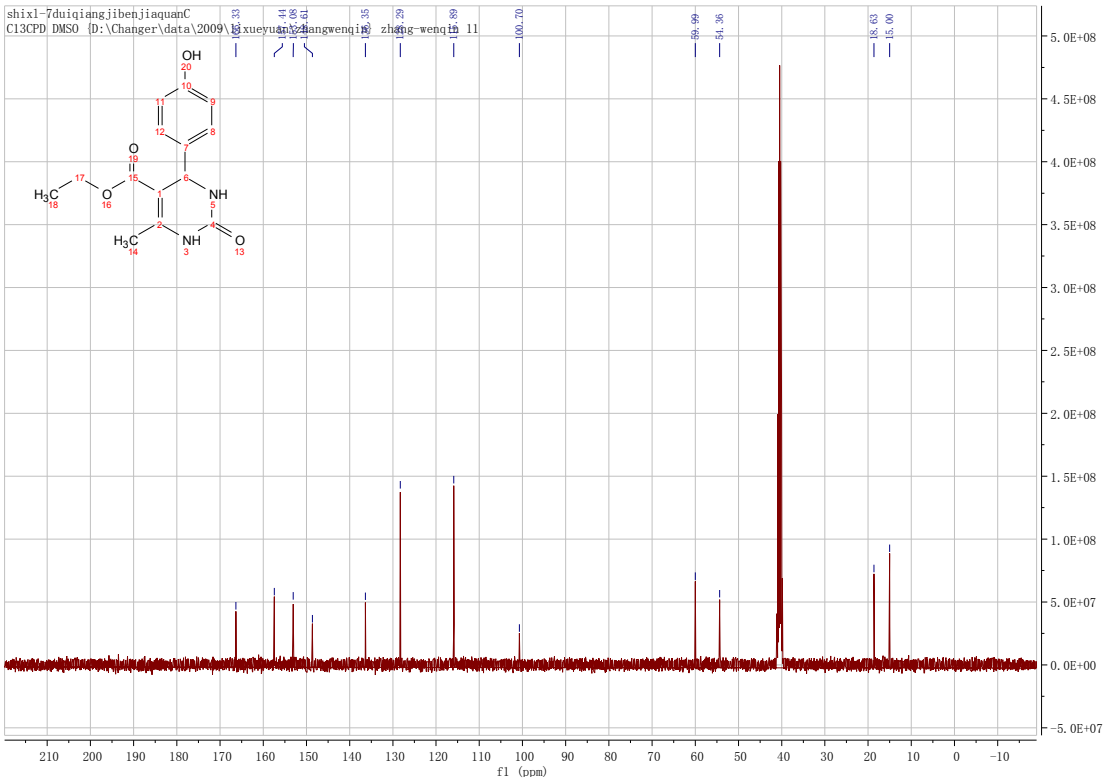

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4d).**



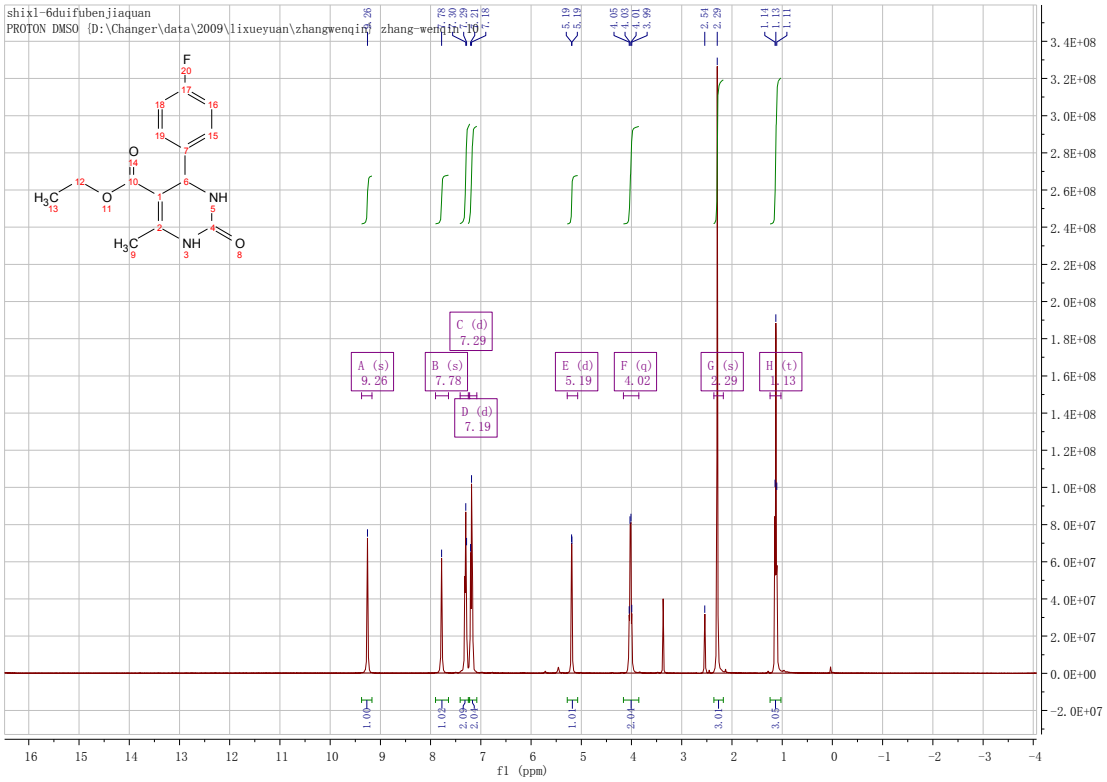

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(4-Hydroxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4e).**

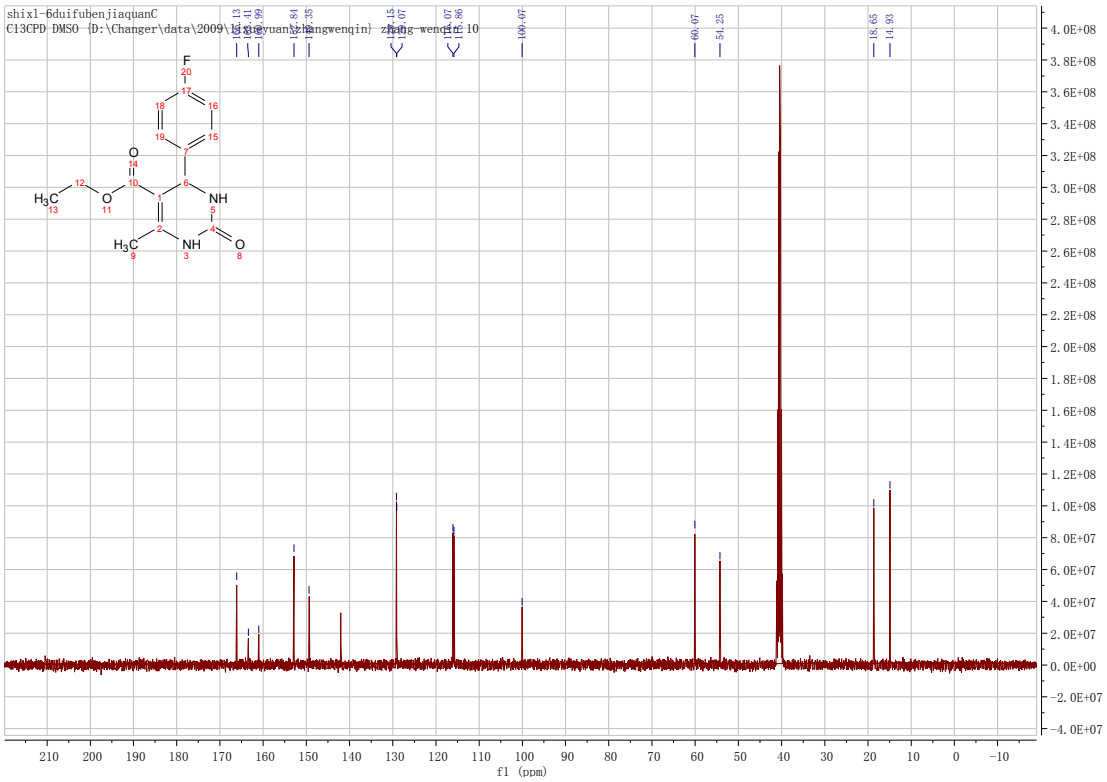



**The $^{13}$C NMR spectrum of**

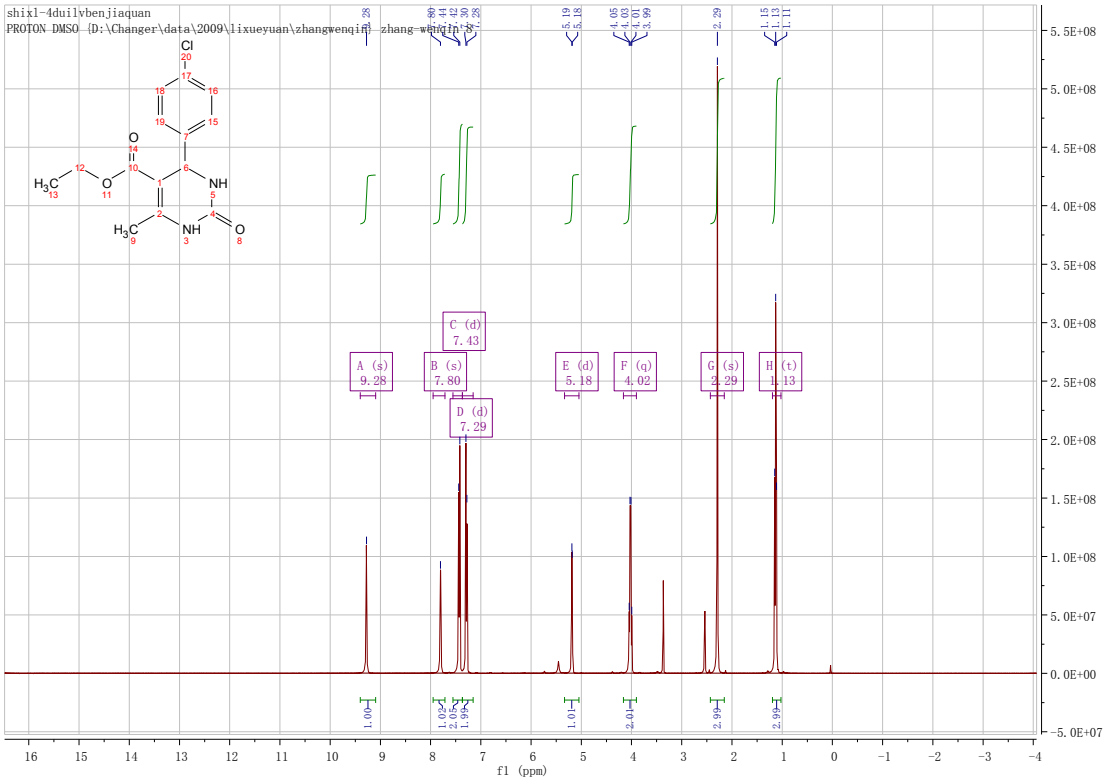
**5-Ethoxycarbonyl-4-(4-Hydroxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4e).**



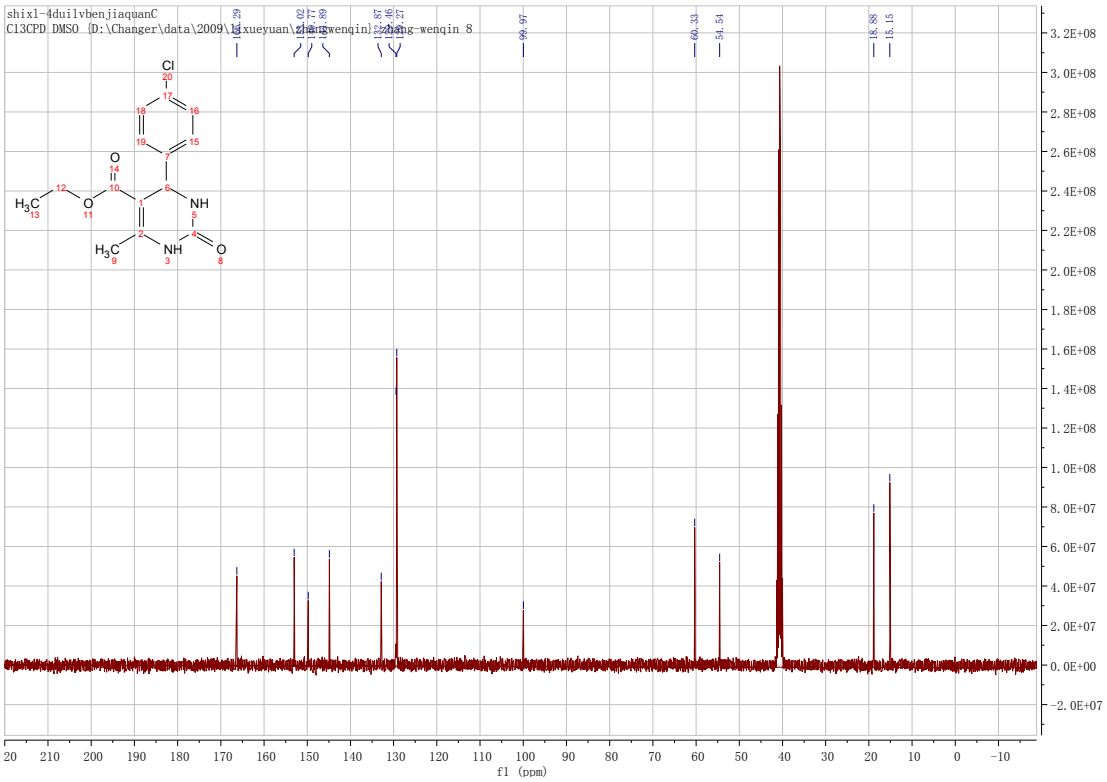

**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-4-(4-fluorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4f).**



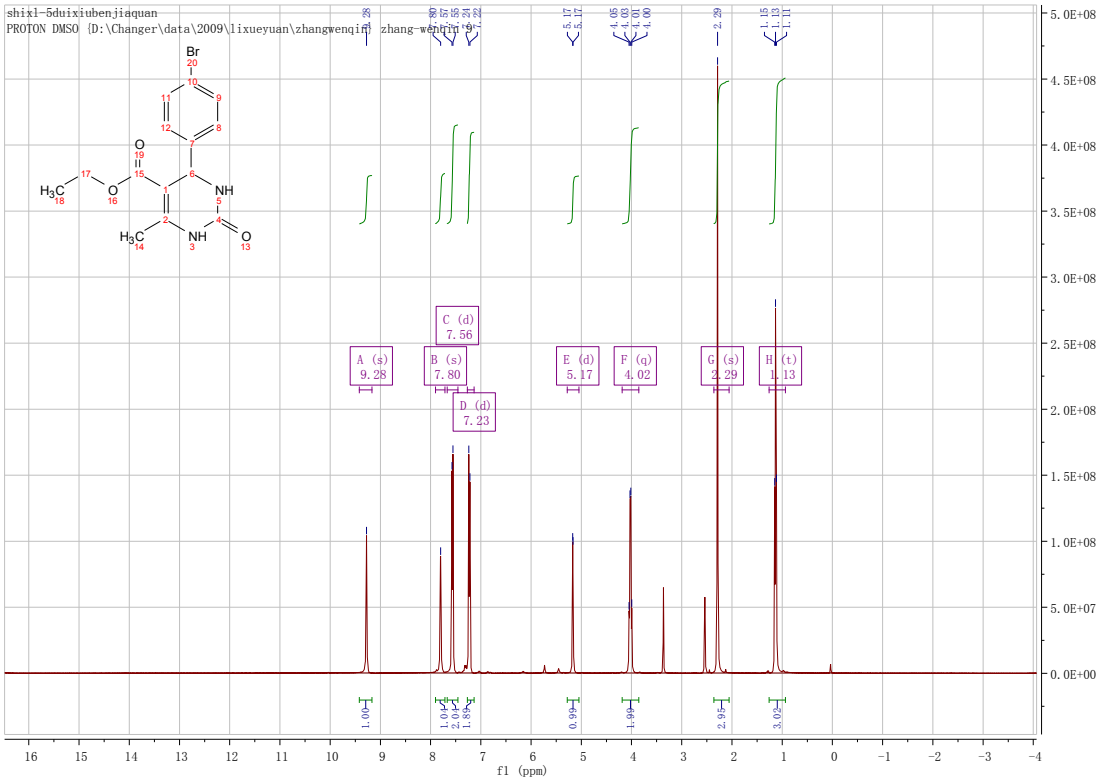

**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-4-(4-fluorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4f).**



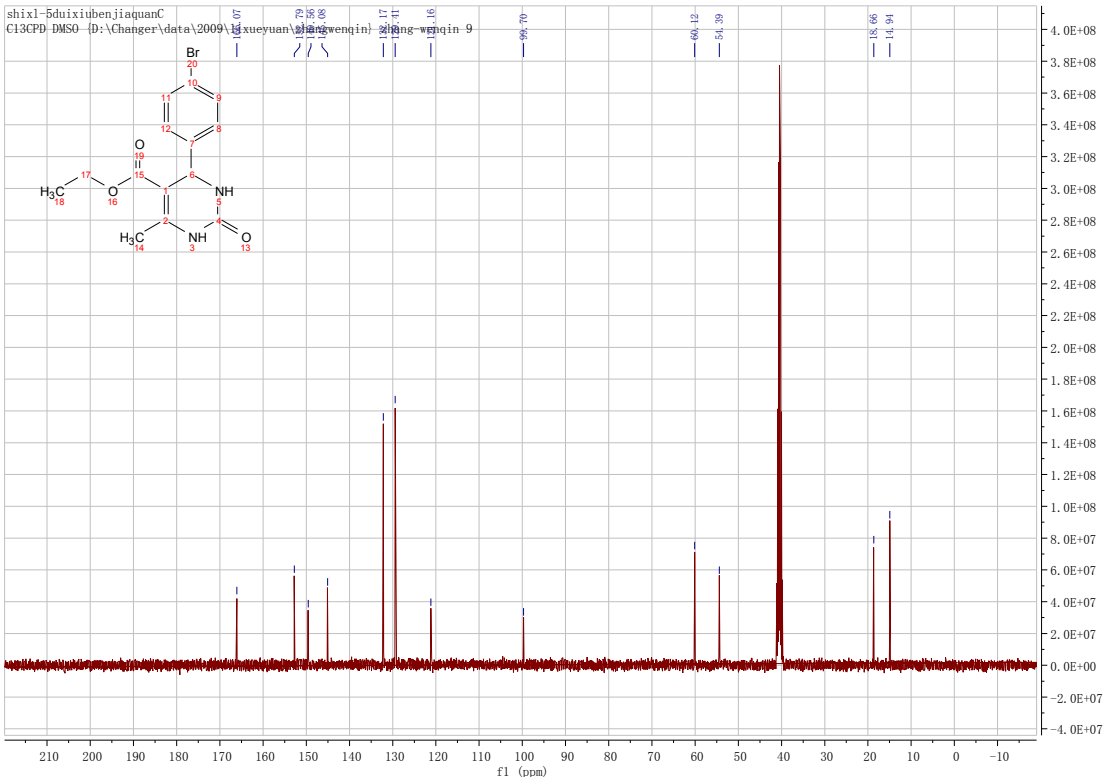

**The $^{1}$H NMR spectrum of 4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4g).**



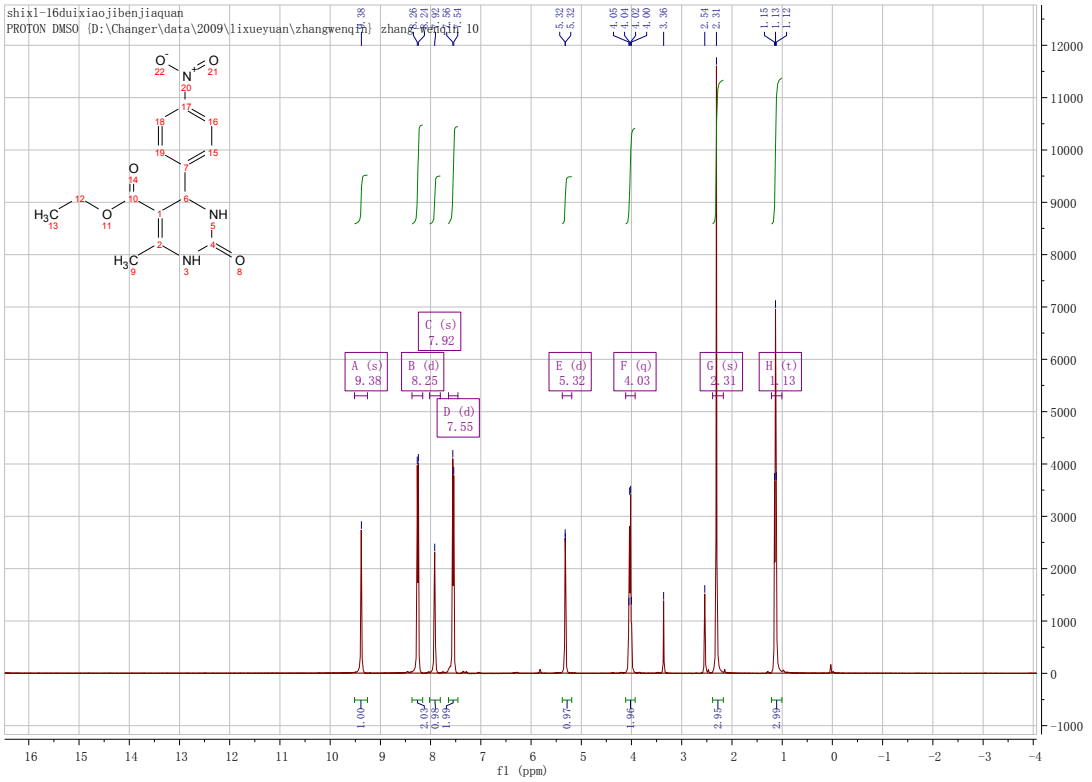

**The $^{13}$C NMR spectrum of 4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4g).**



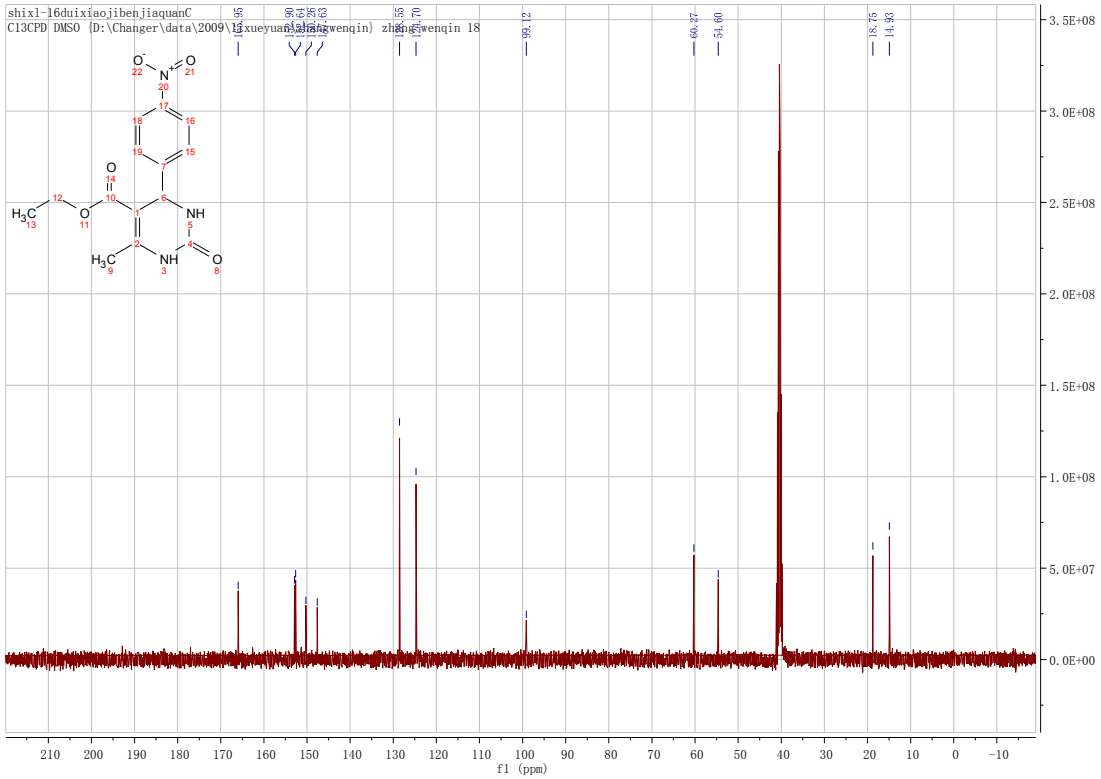

**The $^{1}$H NMR spectrum of 4-(4-Bromophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4h).**



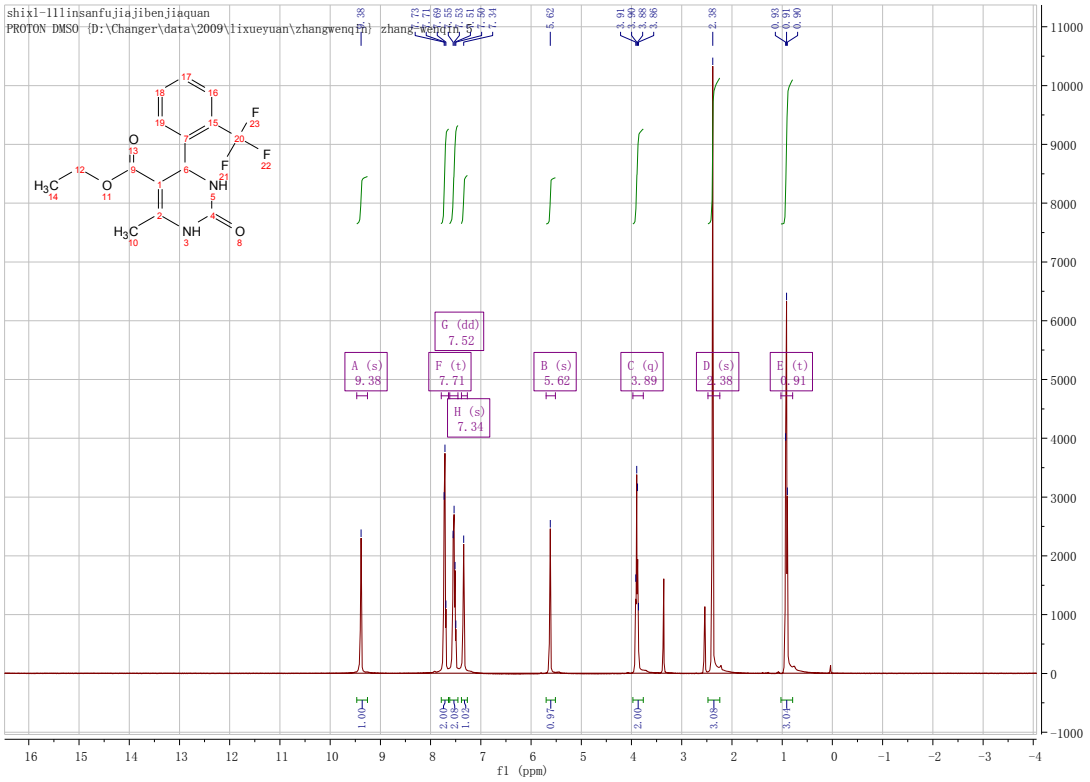

**The $^{13}$C NMR spectrum of 4-(4-Bromophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4h).**




**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(4-nitrophenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4i).**

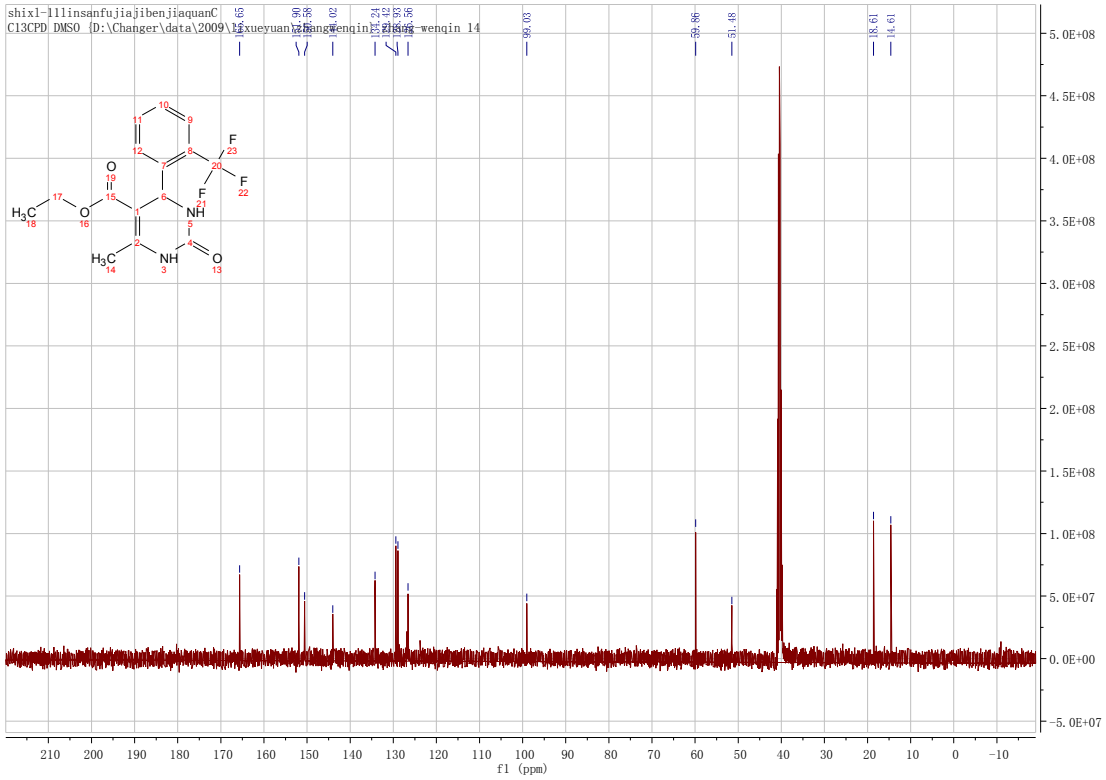



**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(4-nitrophenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4i).**



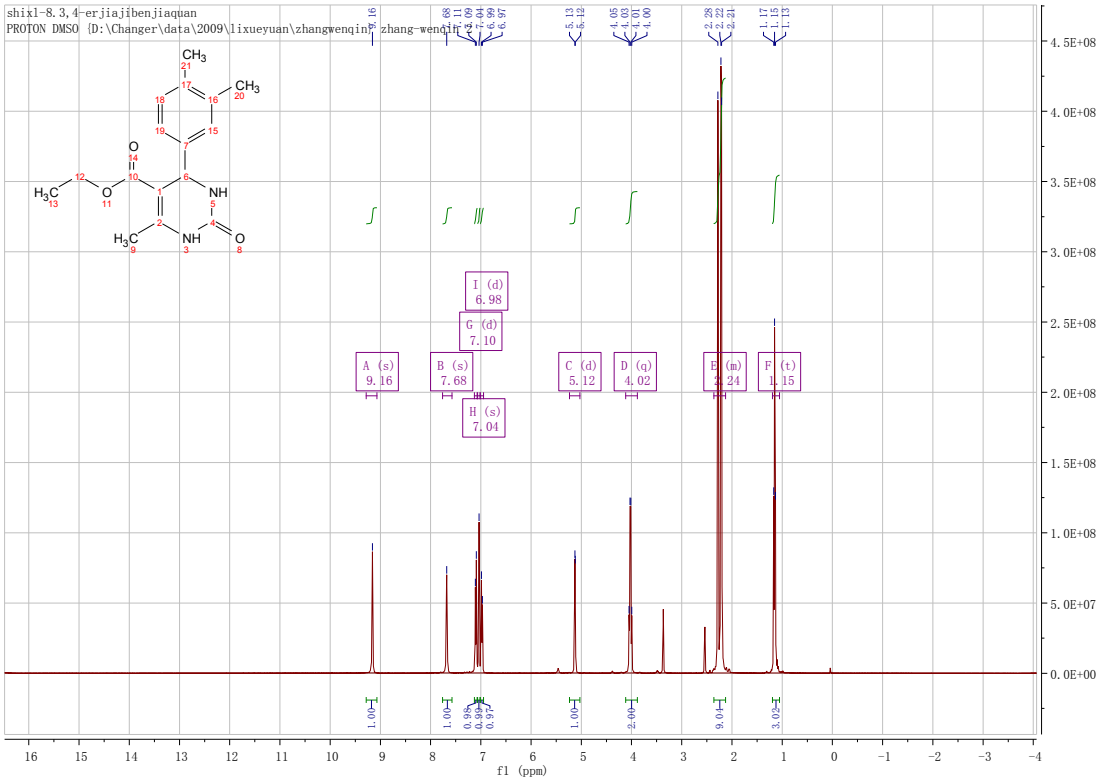

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-6-methyl-4-(2-trifluoromethylphenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4j).**



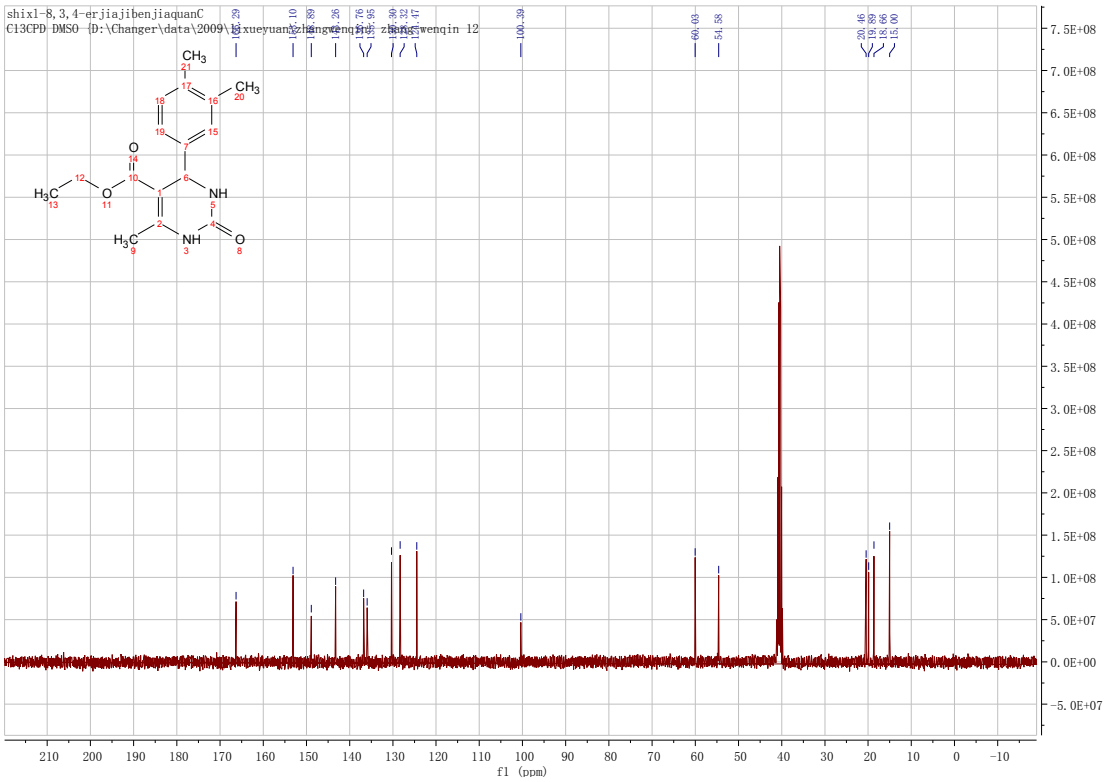

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-6-methyl-4-(2-trifluoromethylphenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4j).**



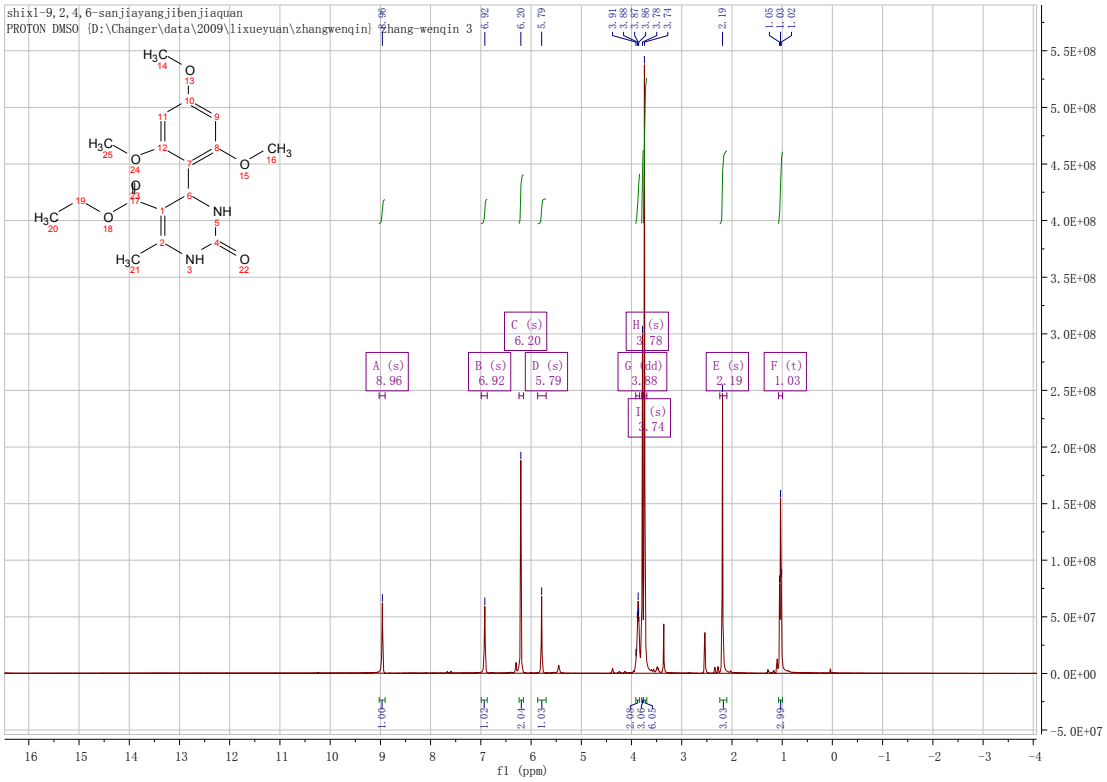

**The $^{1}$H NMR spectrum of**

**4-(3,4-Dimethylphenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4k).**



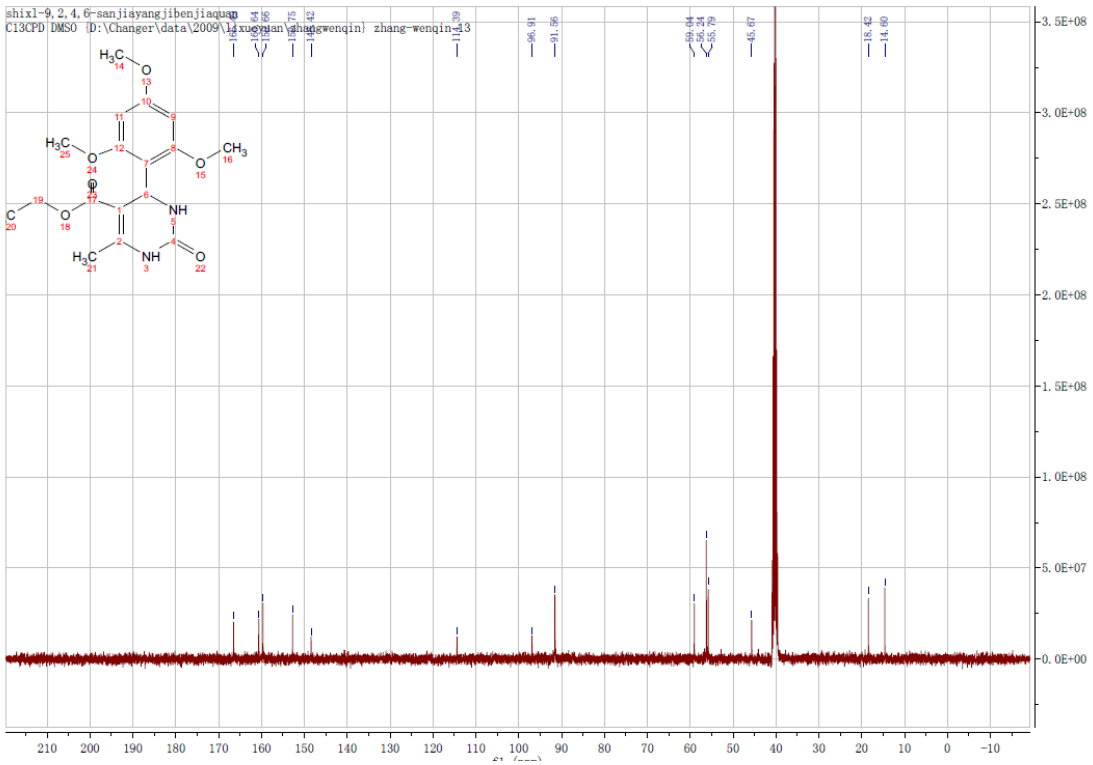

**The $^{13}$C NMR spectrum of**

**4-(3,4-Dimethylphenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4k).**



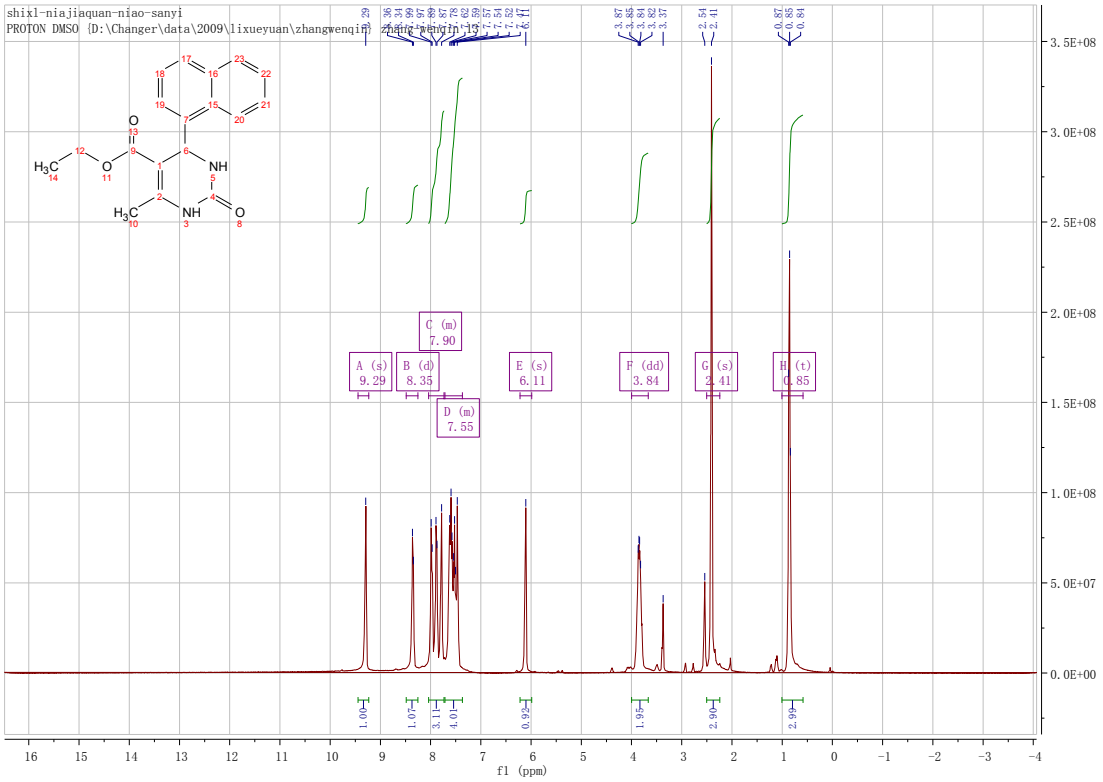

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-6-methyl-4-(2,4,6-trimethoxyphenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4l).**

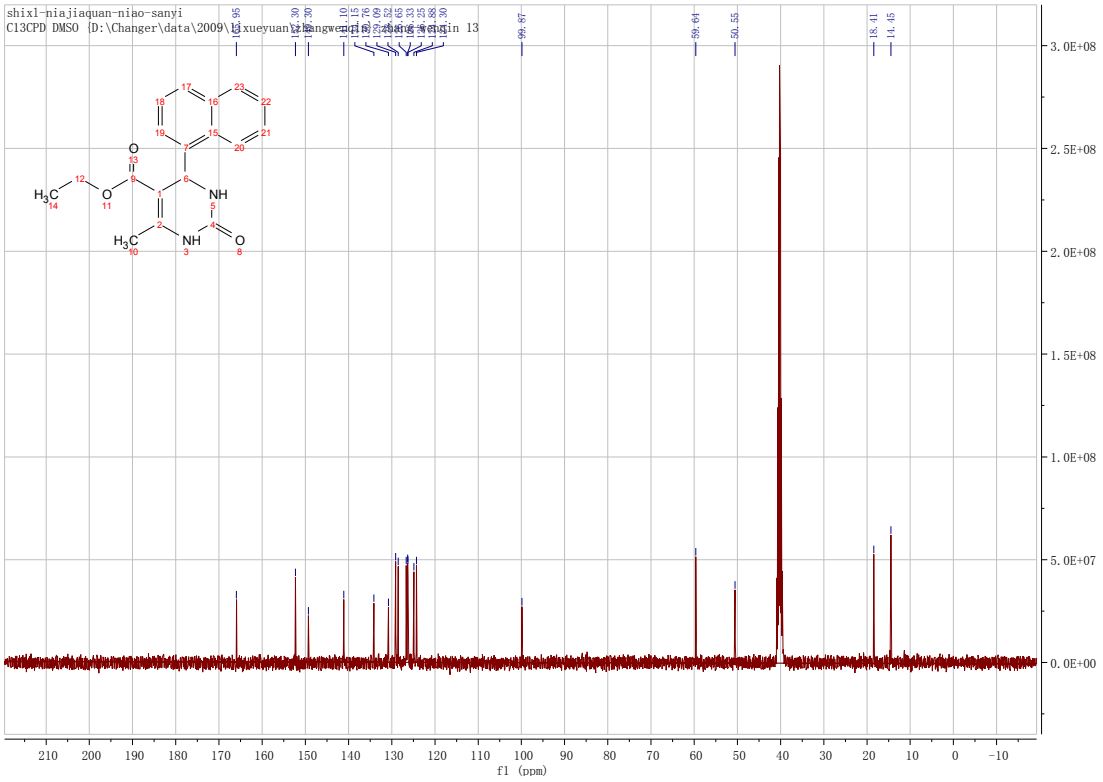



**The $^{13}$C NMR spectrum of**

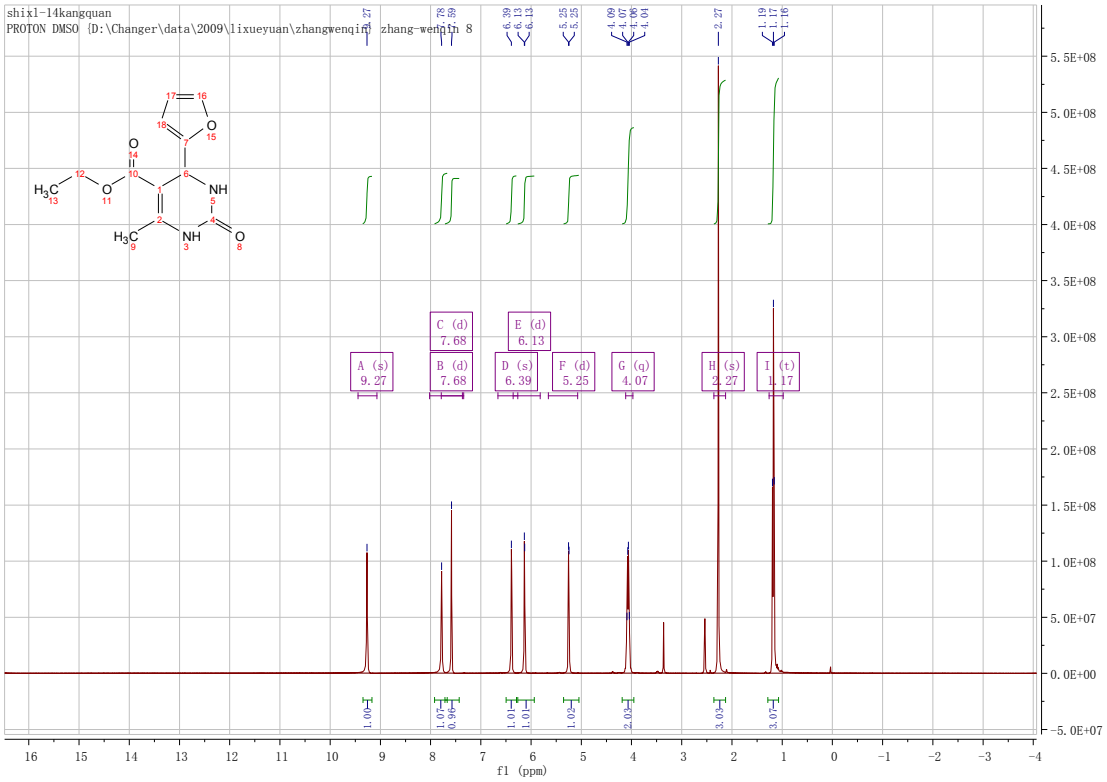
**5-Ethoxycarbonyl-6-methyl-4-(2,4,6-trimethoxyphenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4l).**



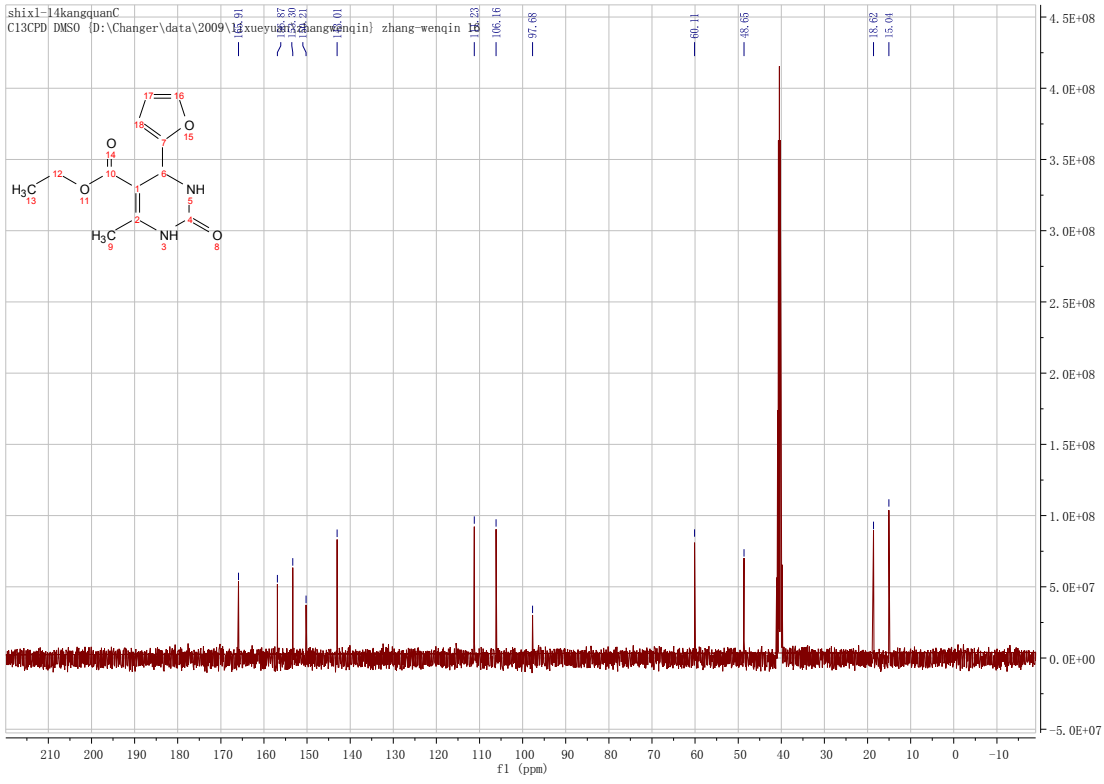

**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(1-naphthalenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4m).**



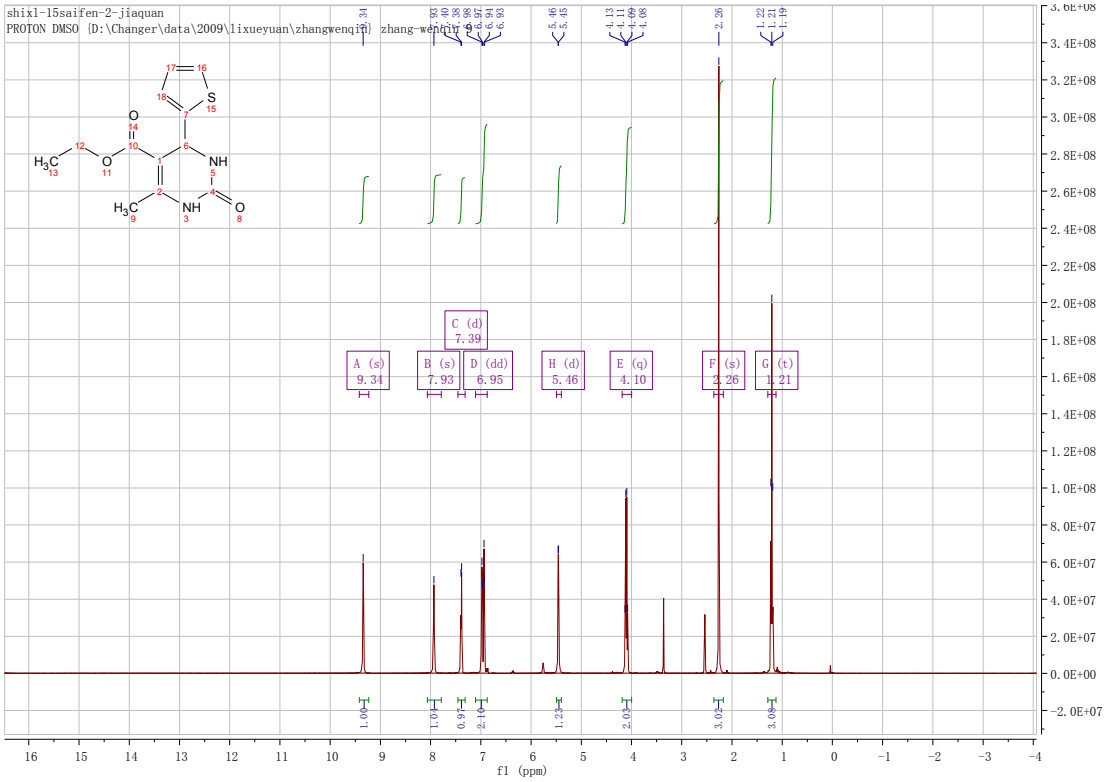

**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(1-naphthalenyl)-3,4-dihydropyrimidin-2(1*H*)-one (4m).**



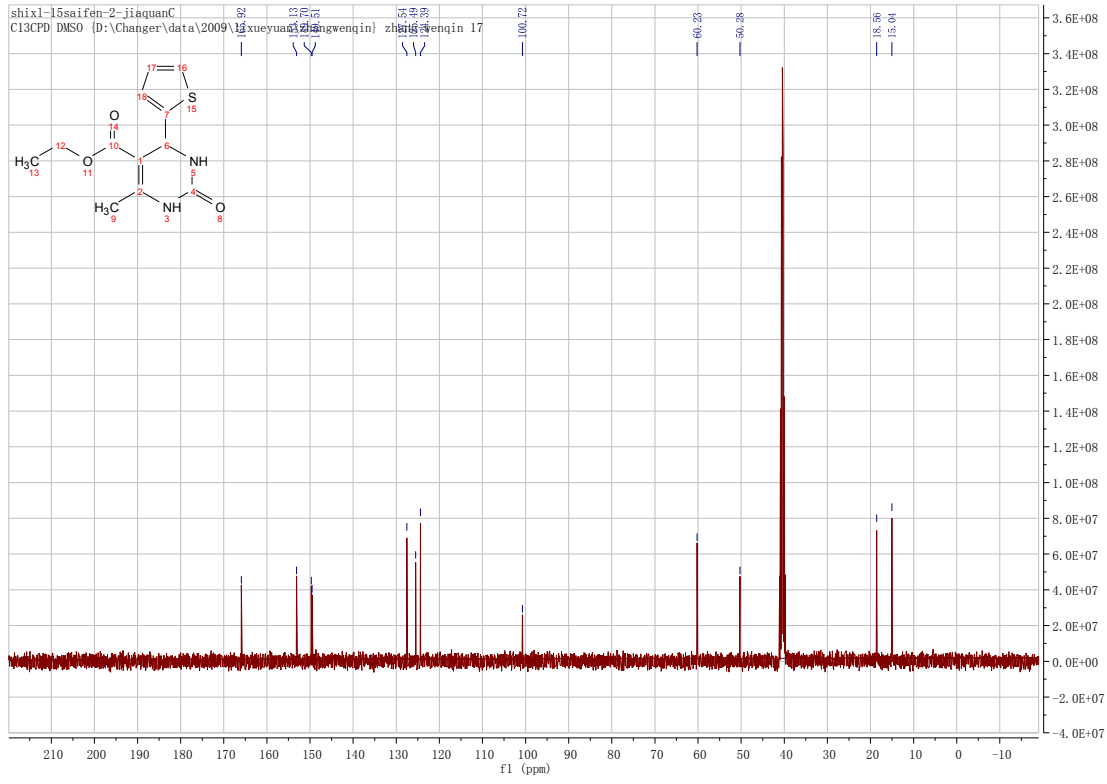

**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4n).**



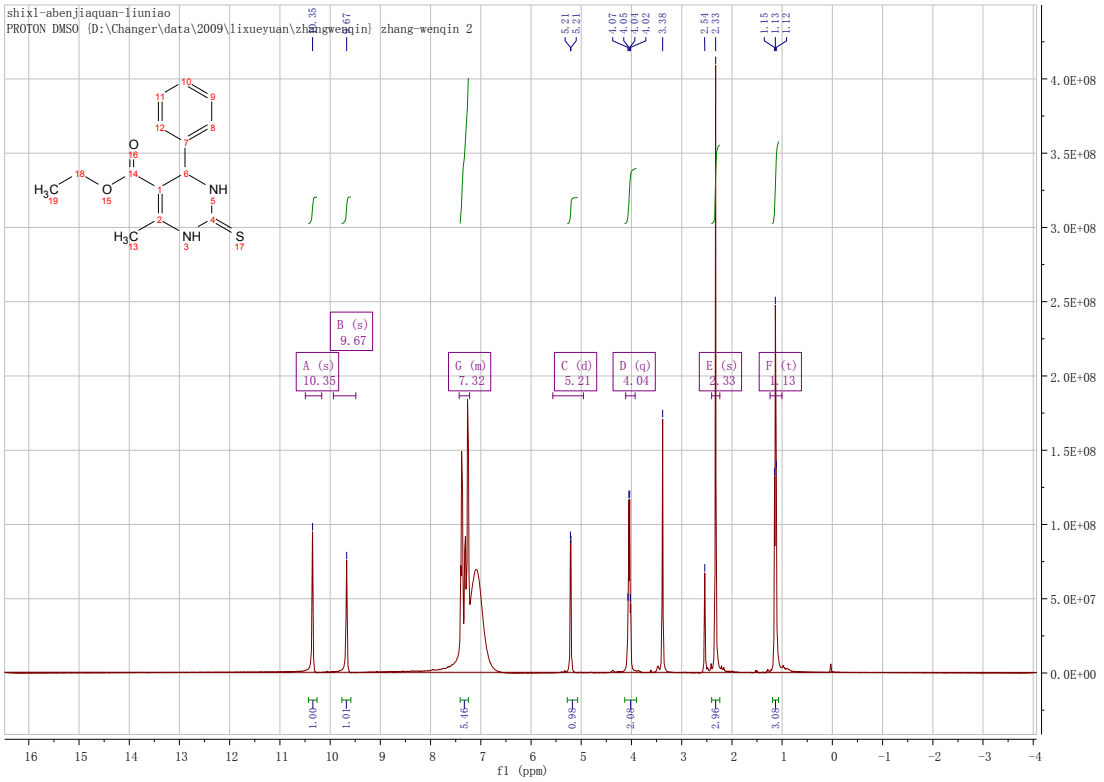

**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4n).**



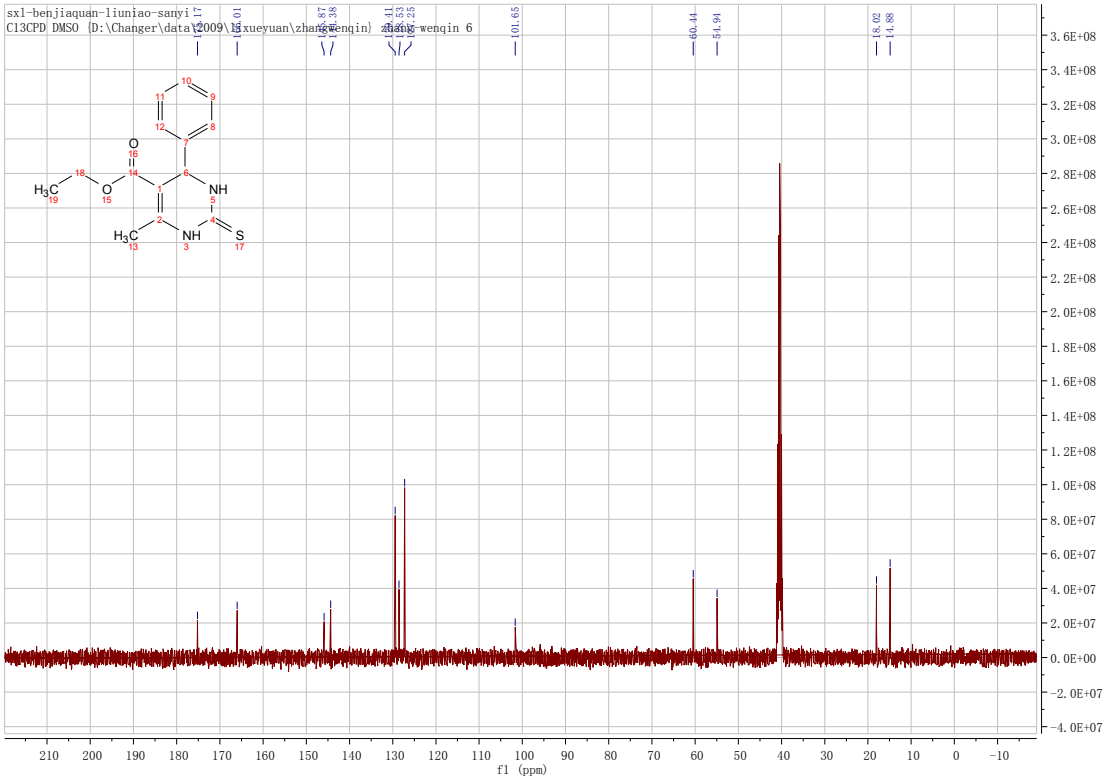

**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(2-thienyl)-3,4-dihydropyrimidin-2(1*H*)-one (4o).**



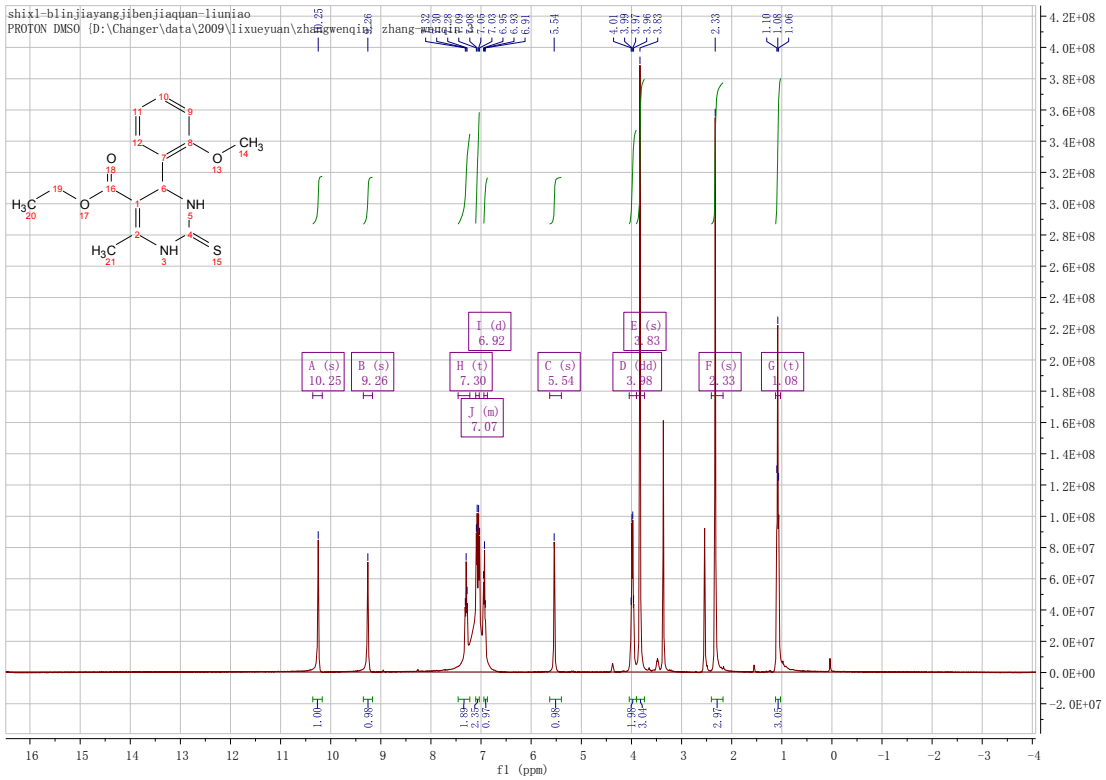

**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-(2-thienyl)-3,4-dihydropyrimidin-2(1*H*)-one (4o).**




**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4p).**

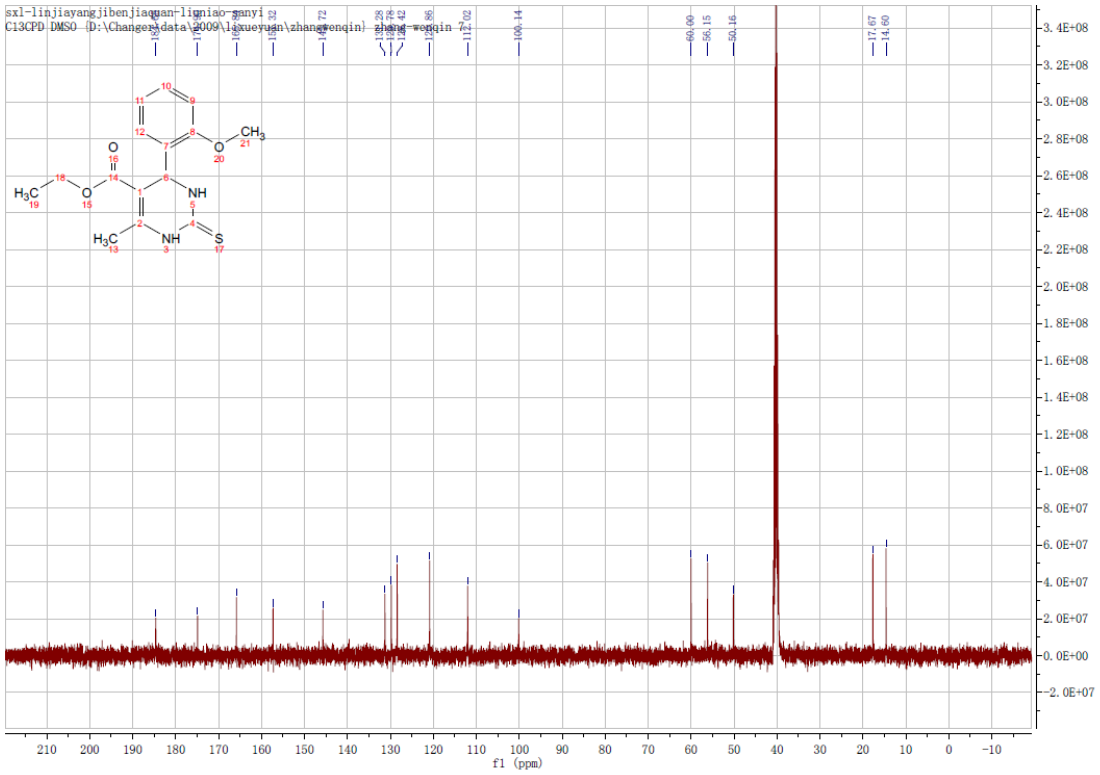



**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4p).**



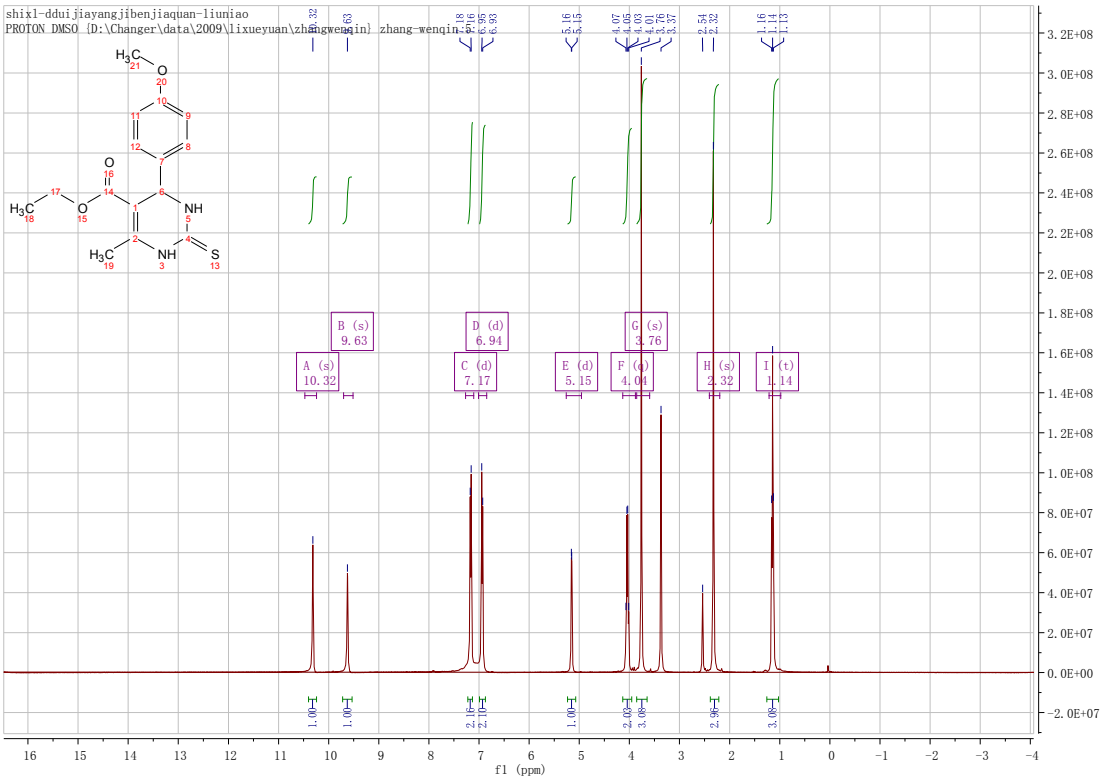

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4q).**



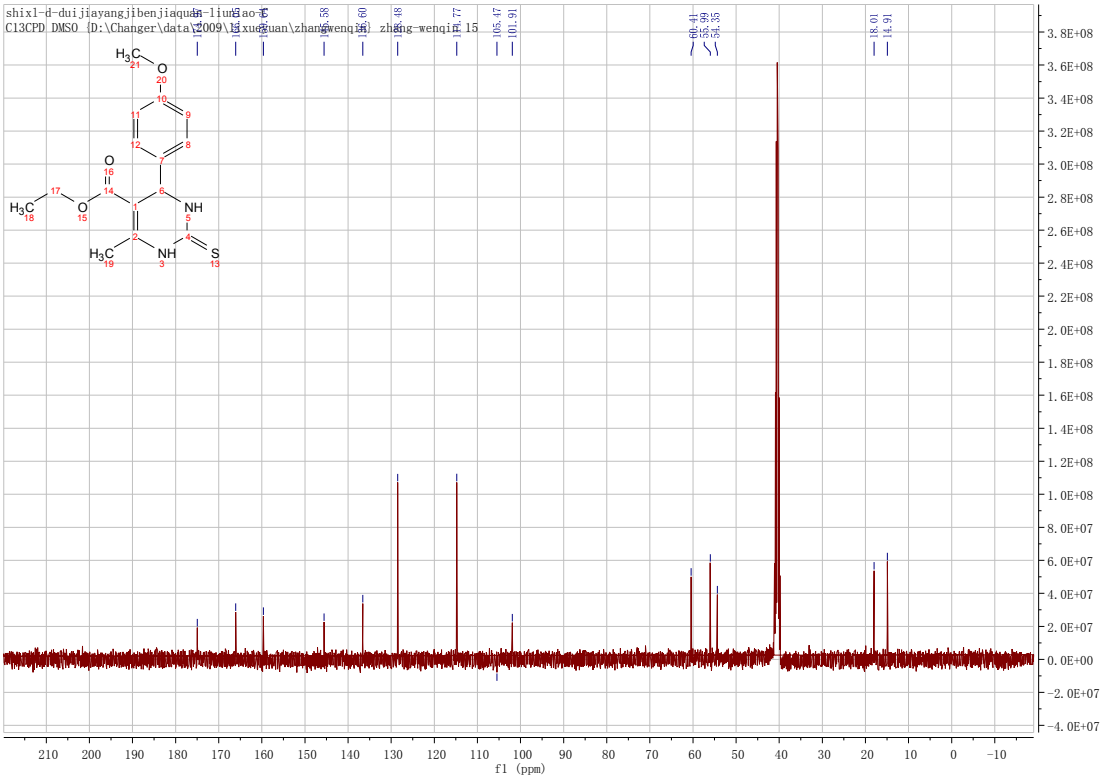

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-4-(2-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4q).**



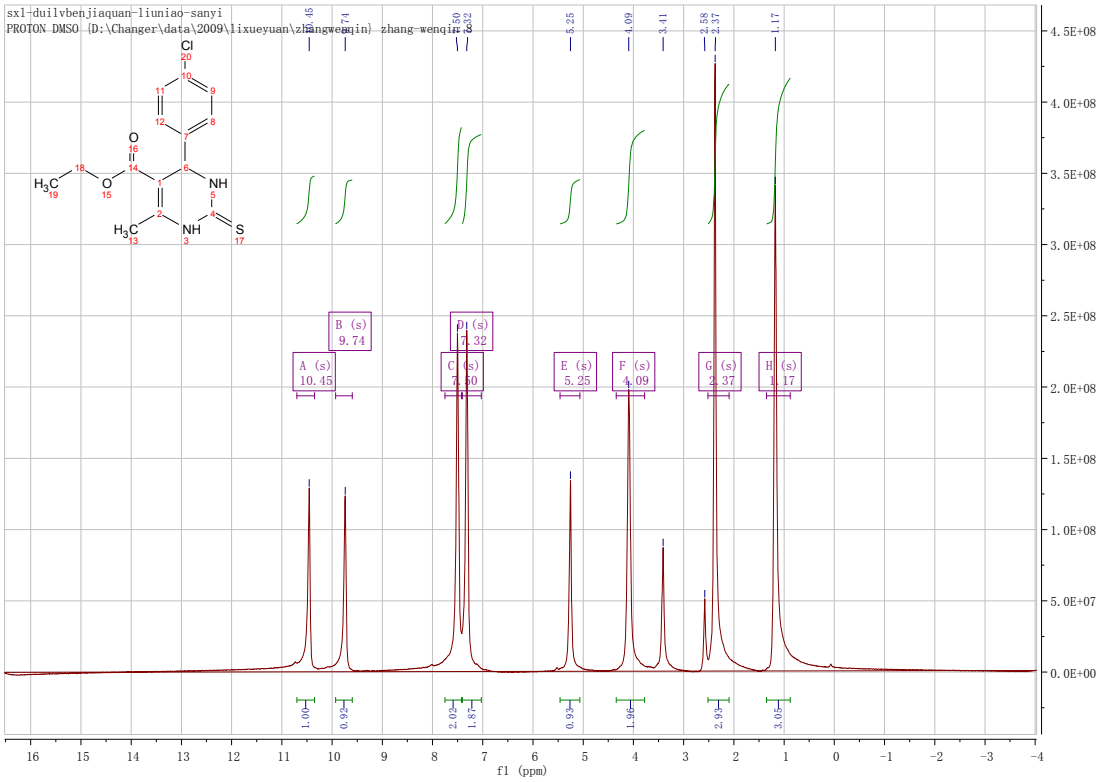

**The $^{1}$H NMR spectrum of**

**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4r).**



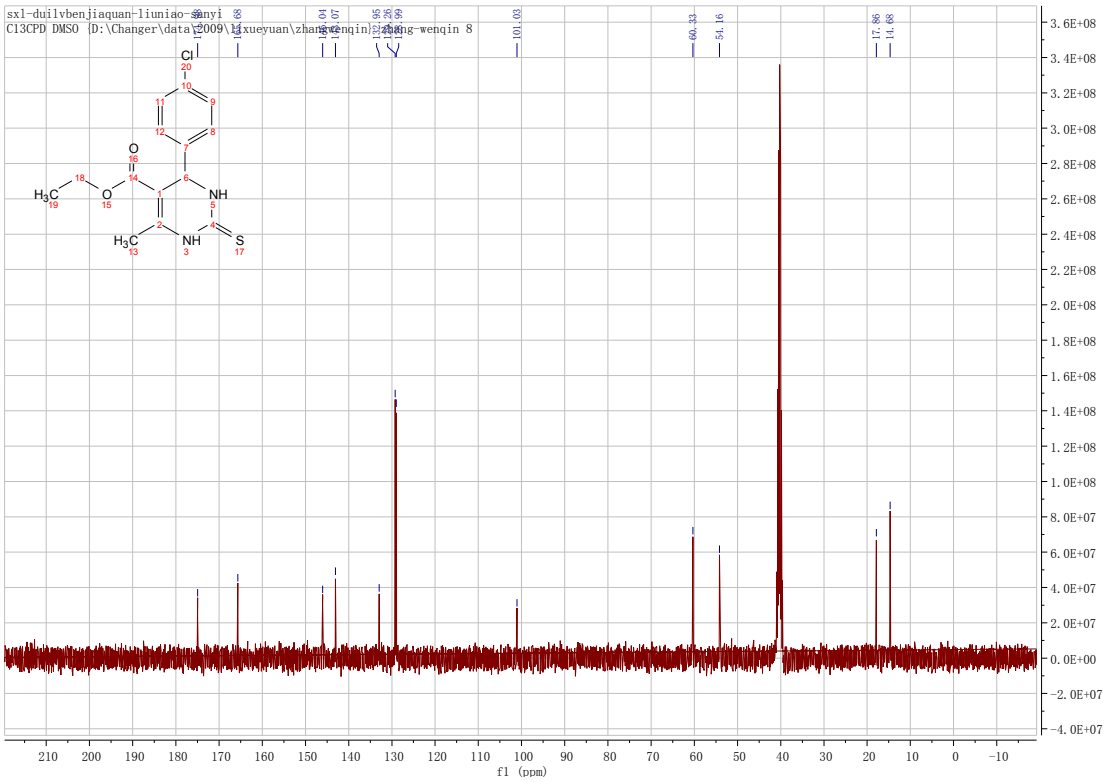

**The $^{13}$C NMR spectrum of**

**5-Ethoxycarbonyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4r).**



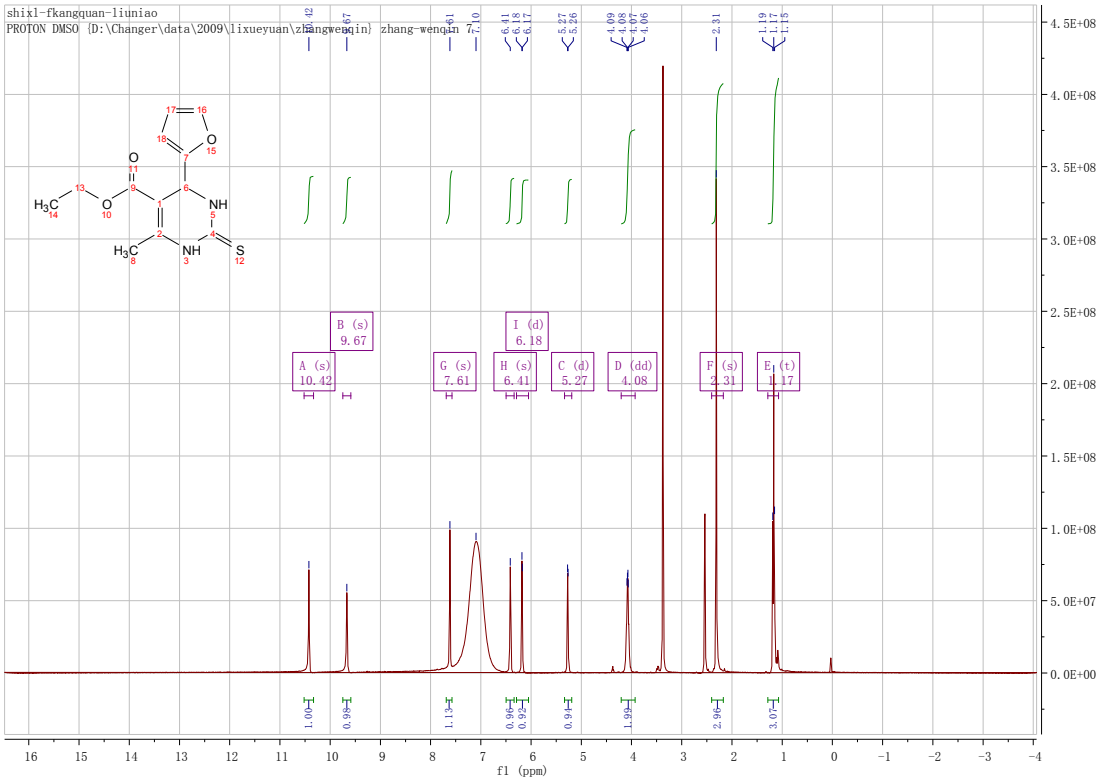

**The $^{1}$H NMR spectrum of**

**4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4s).**

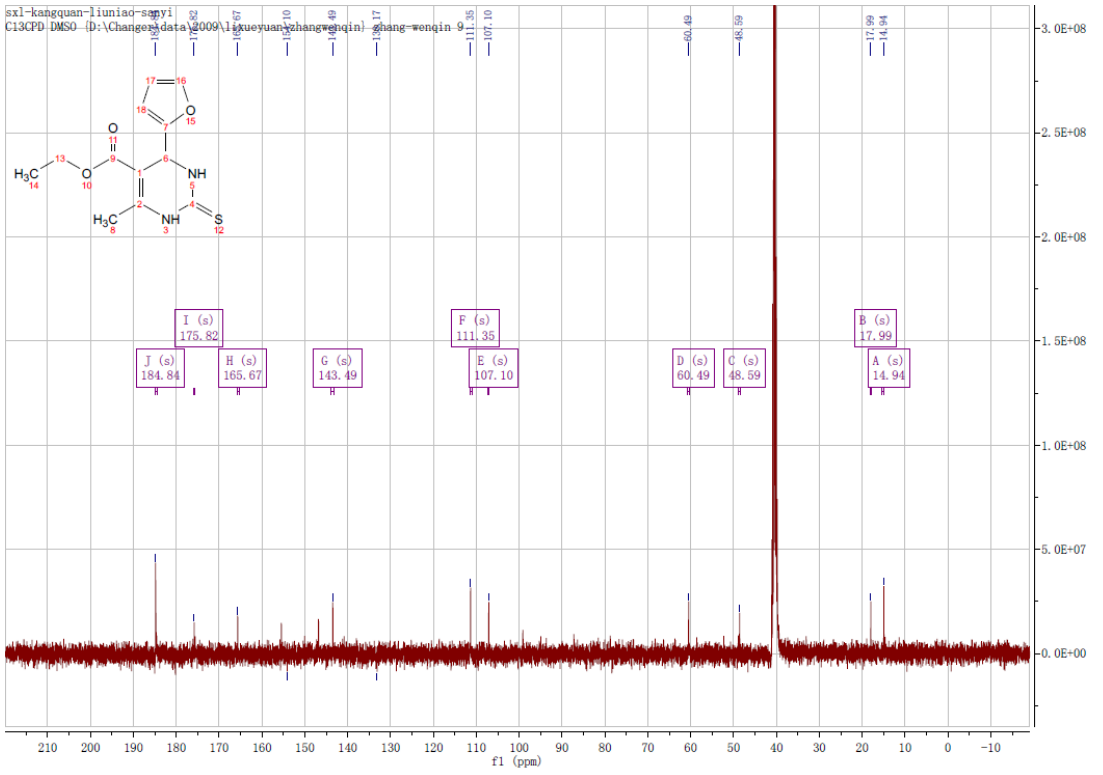



**The $^{13}$C NMR spectrum of**

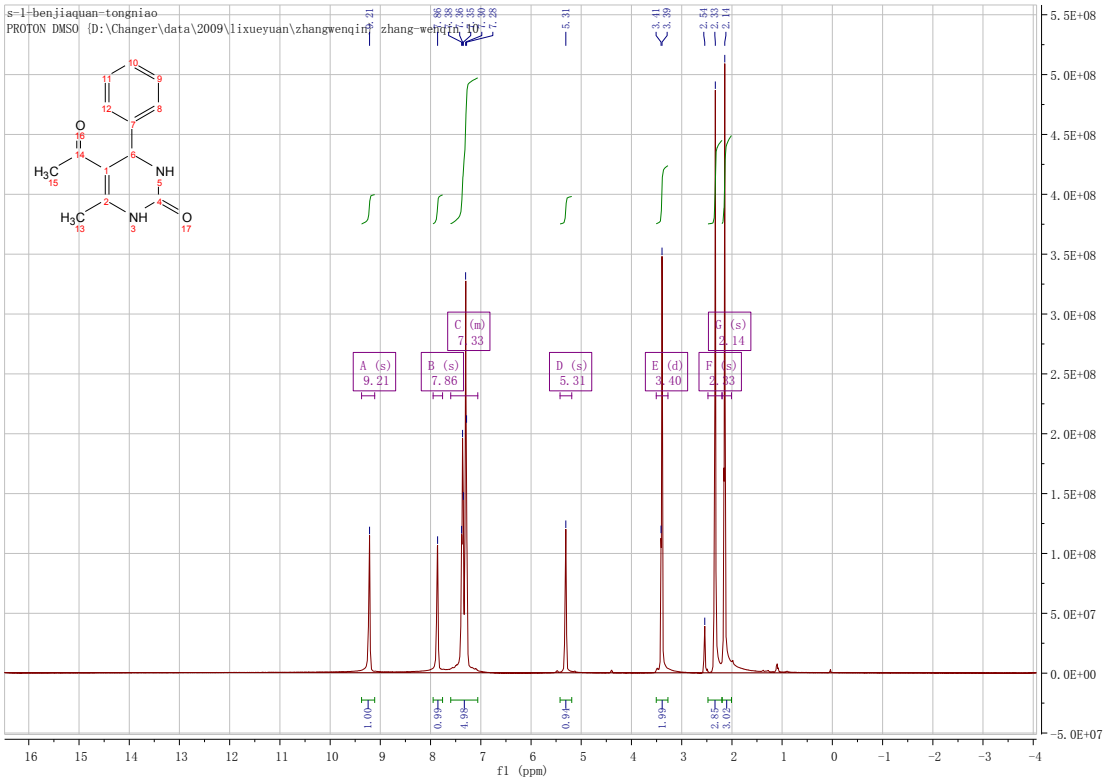
**4-(4-Chlorophenyl)-5-ethoxycarbonyl-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4s).**



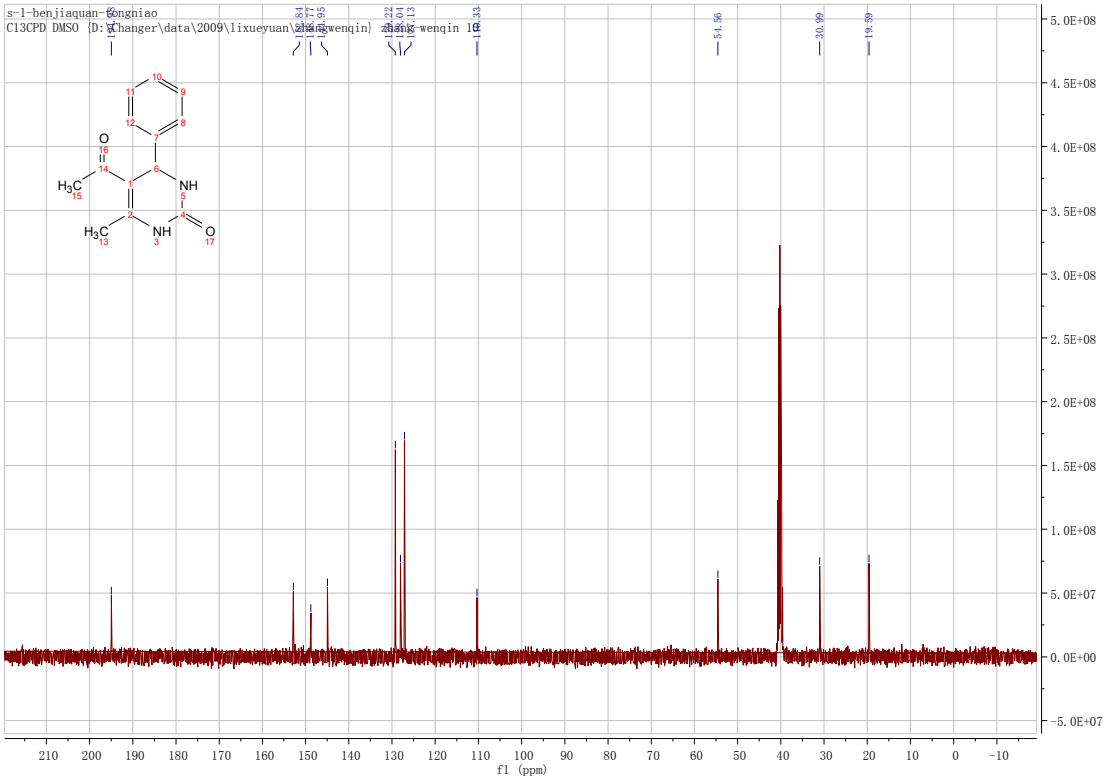

**The $^{1}$H NMR spectrum of 5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4t).**



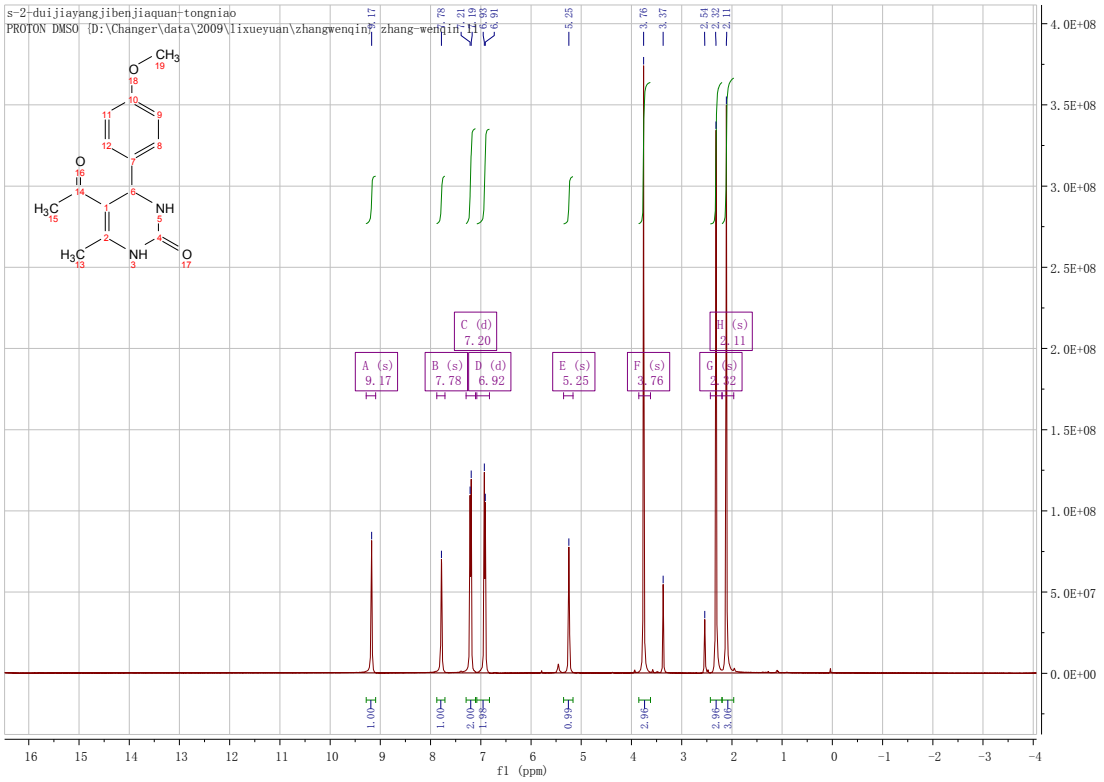

**The $^{13}$C NMR spectrum of 5-Ethoxycarbonyl-4-(2-furyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4t).**



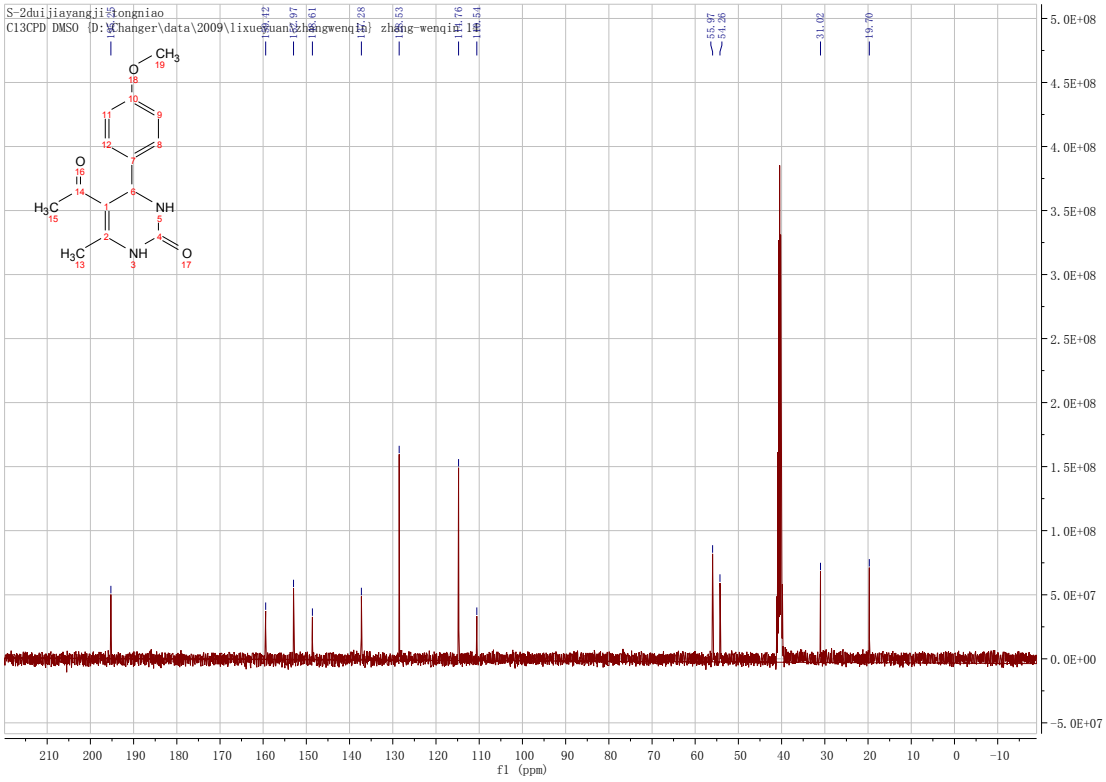

**The $^{1}$H NMR spectrum of 5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4u).**



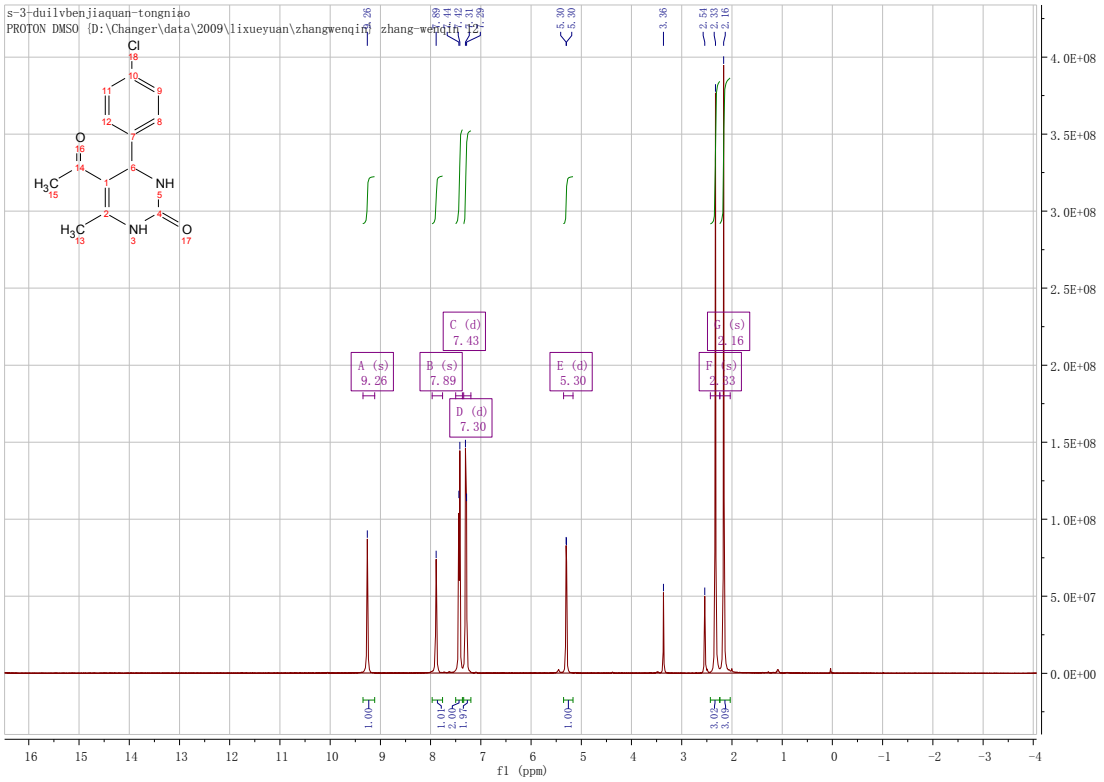

**The $^{13}$C NMR spectrum of 5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-one (4u).**



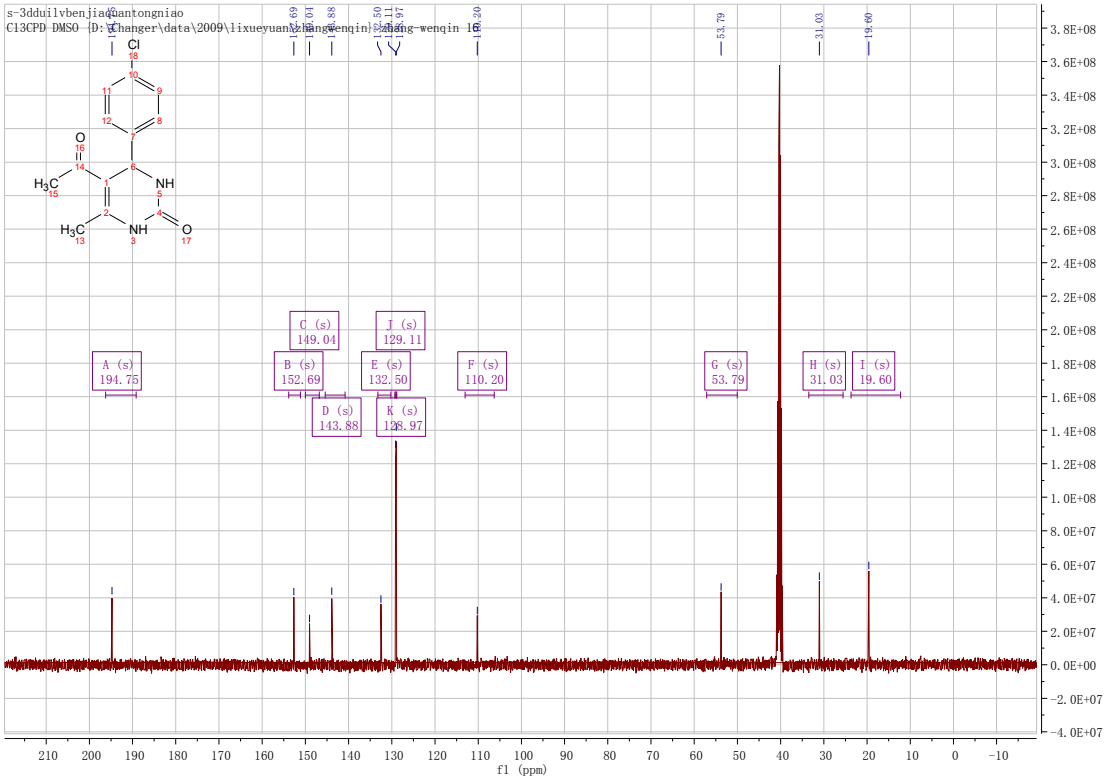

**The $^{1}$H NMR spectrum of 5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4v).**



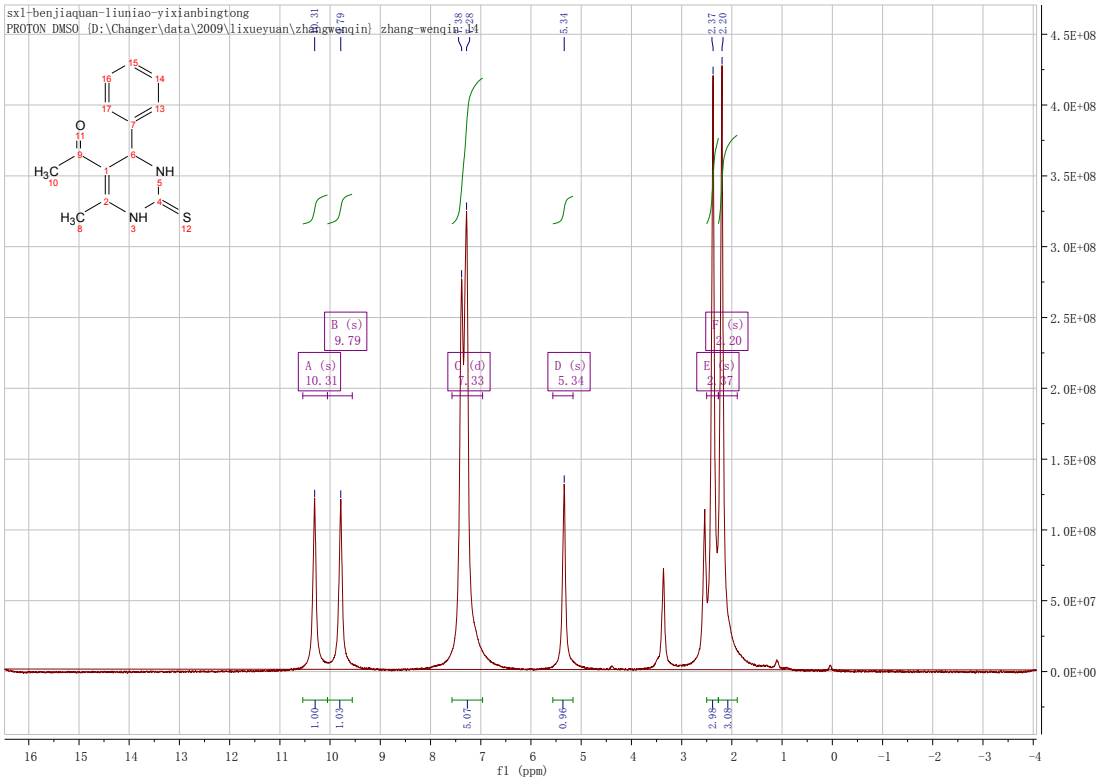

**The $^{13}$C NMR spectrum of 5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4v).**



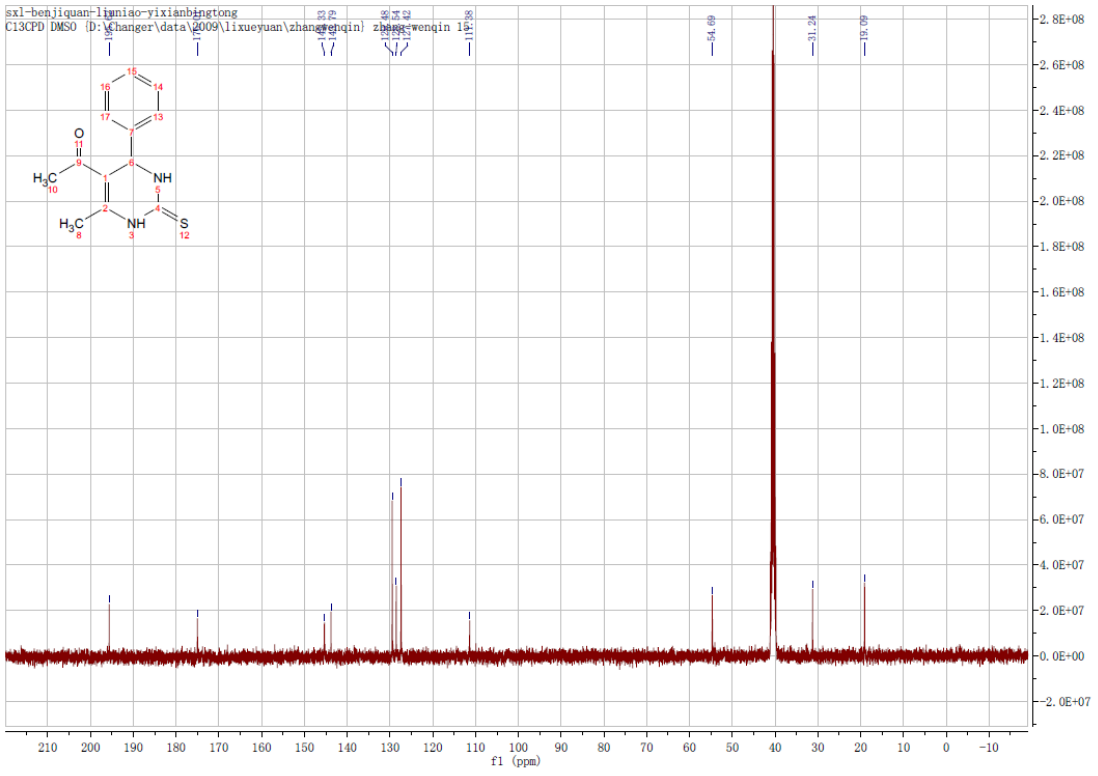

**The $^{1}$H NMR spectrum of 5-Acetyl-4-(4-chlorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4w).**



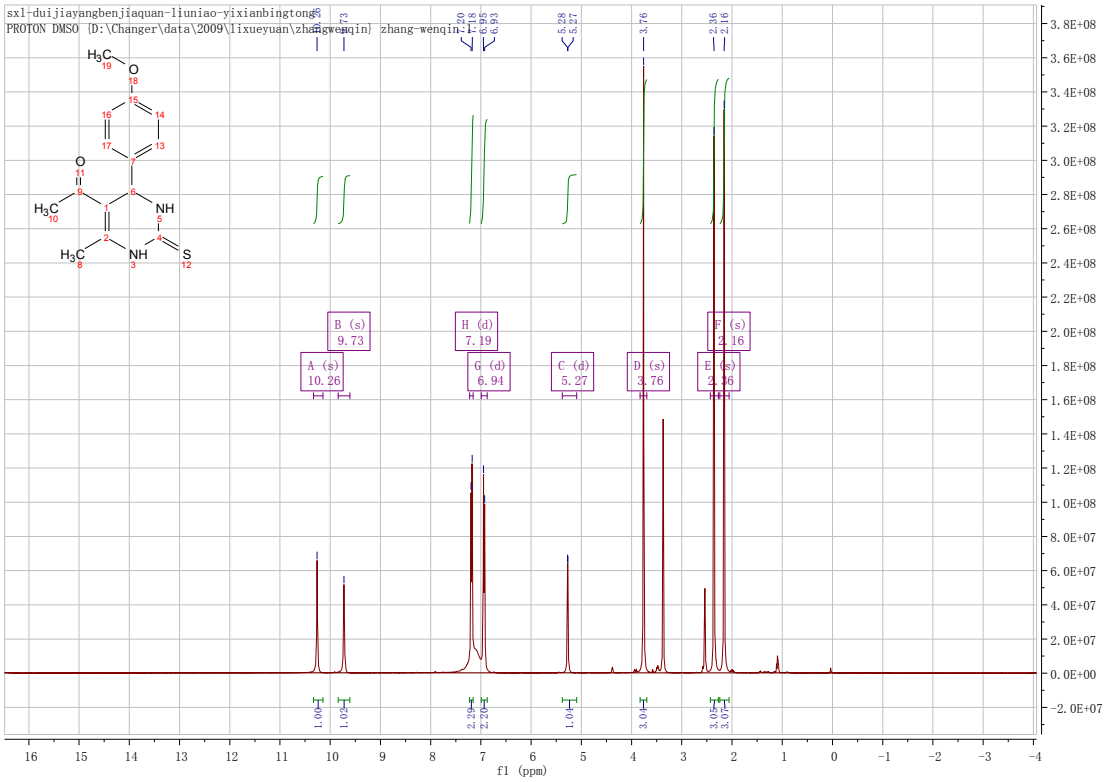

**The $^{13}$C NMR spectrum of 5-Acetyl-4-(4-chlorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-one (4w).**



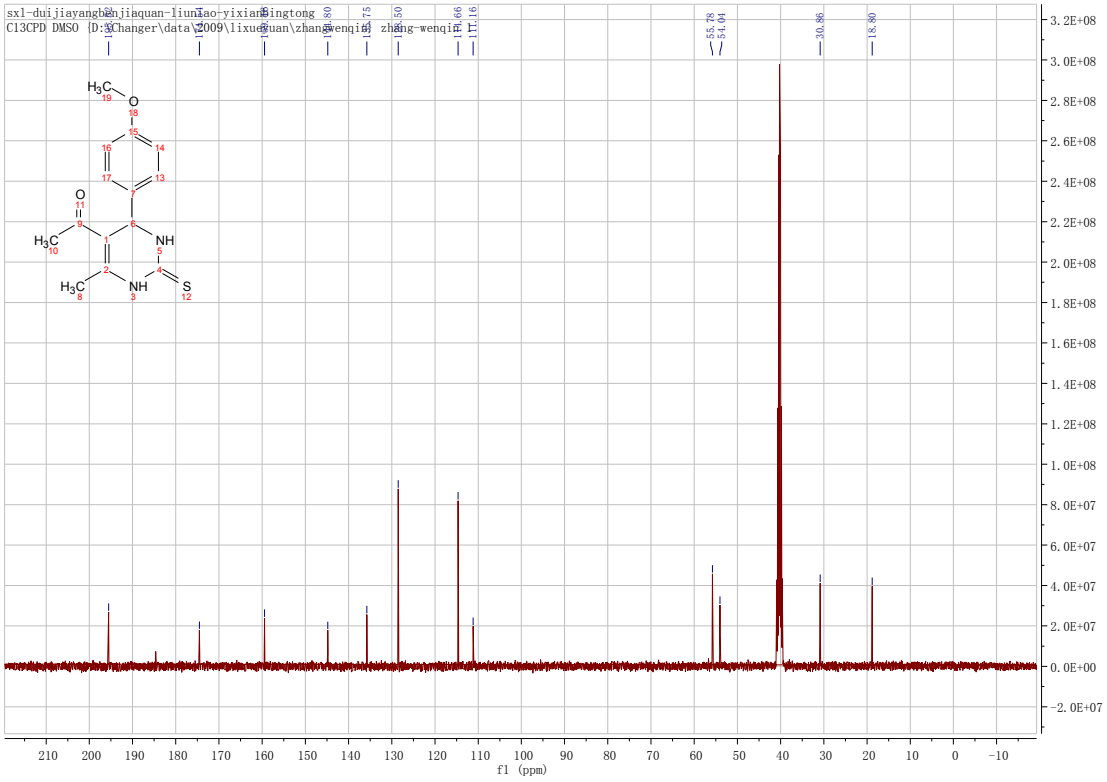

**The $^{1}$H NMR spectrum of 5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4x).**




**The $^{13}$C NMR spectrum of 5-Acetyl-6-methyl-4-phenyl-3,4-dihydropyrimidin-2(1*H*)-thione (4x).**




**The $^{1}$H NMR spectrum of 5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4y).**




**The $^{13}$C NMR spectrum of 5-Acetyl-4-(4-methoxyphenyl)-6-methyl-3,4-dihydropyrimidin-2(1*H*)-thione (4y).**