

2,4-Diamino-1,3,5-triazine-Enabled Cu-Catalyzed Direct Sulfonamidation of Aromatic C–H Bonds

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[†]College of Pharmaceutical Science, Zhejiang University of Technology, Hangzhou 310014, China

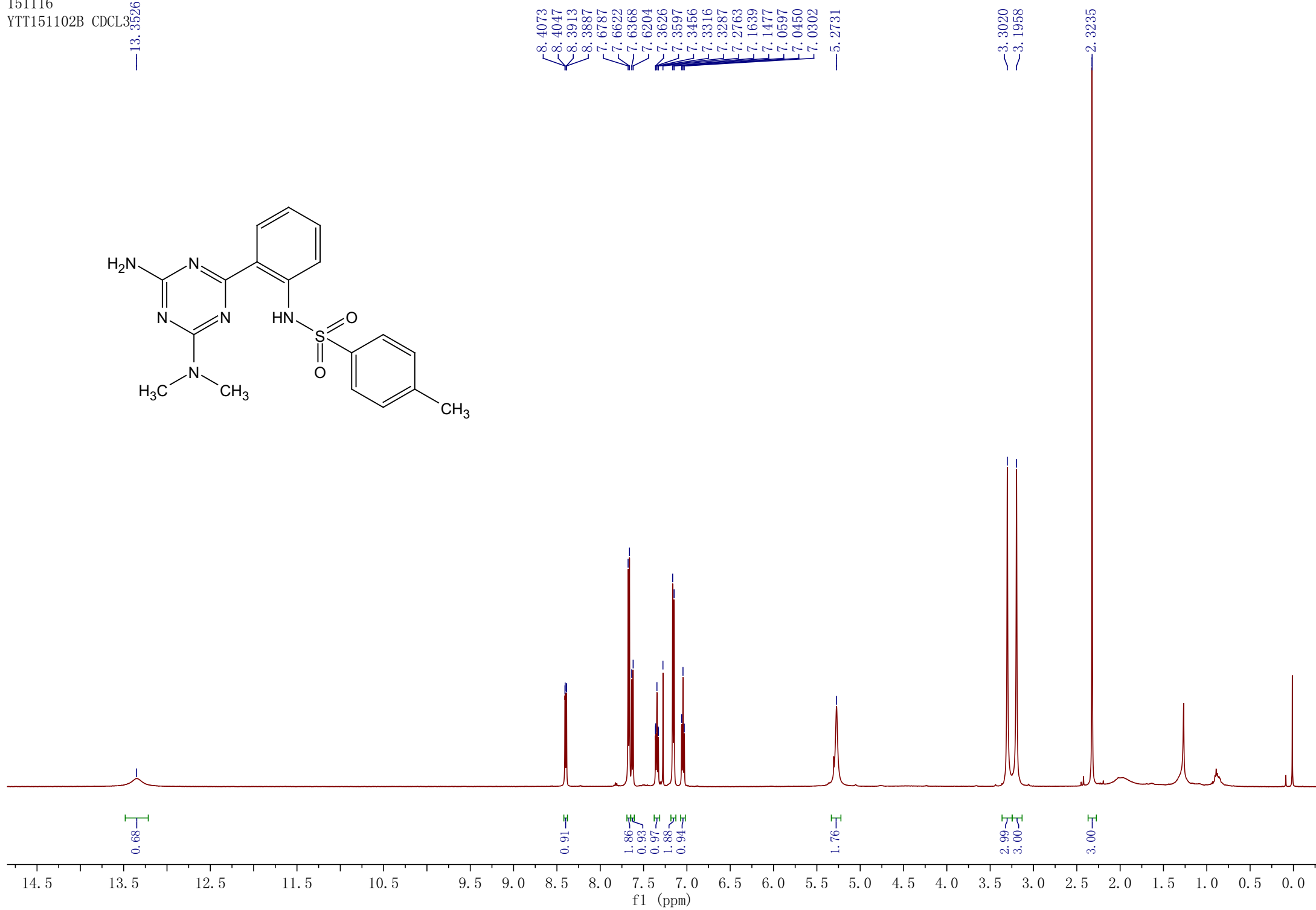
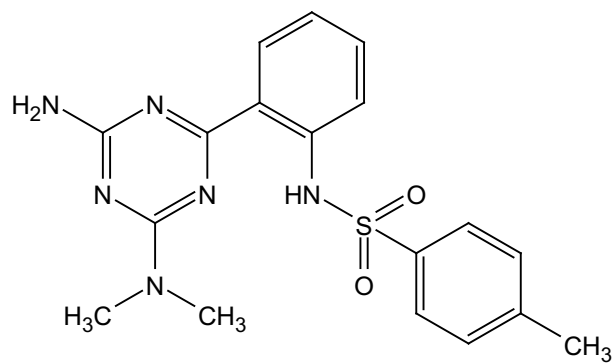
[‡]School of Pharmaceutical Sciences, Zhejiang University, Hangzhou 310058, China

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1. Copies of NMR spectra

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YTT151102B CDCL₃



151117
YTT151102B CDC13

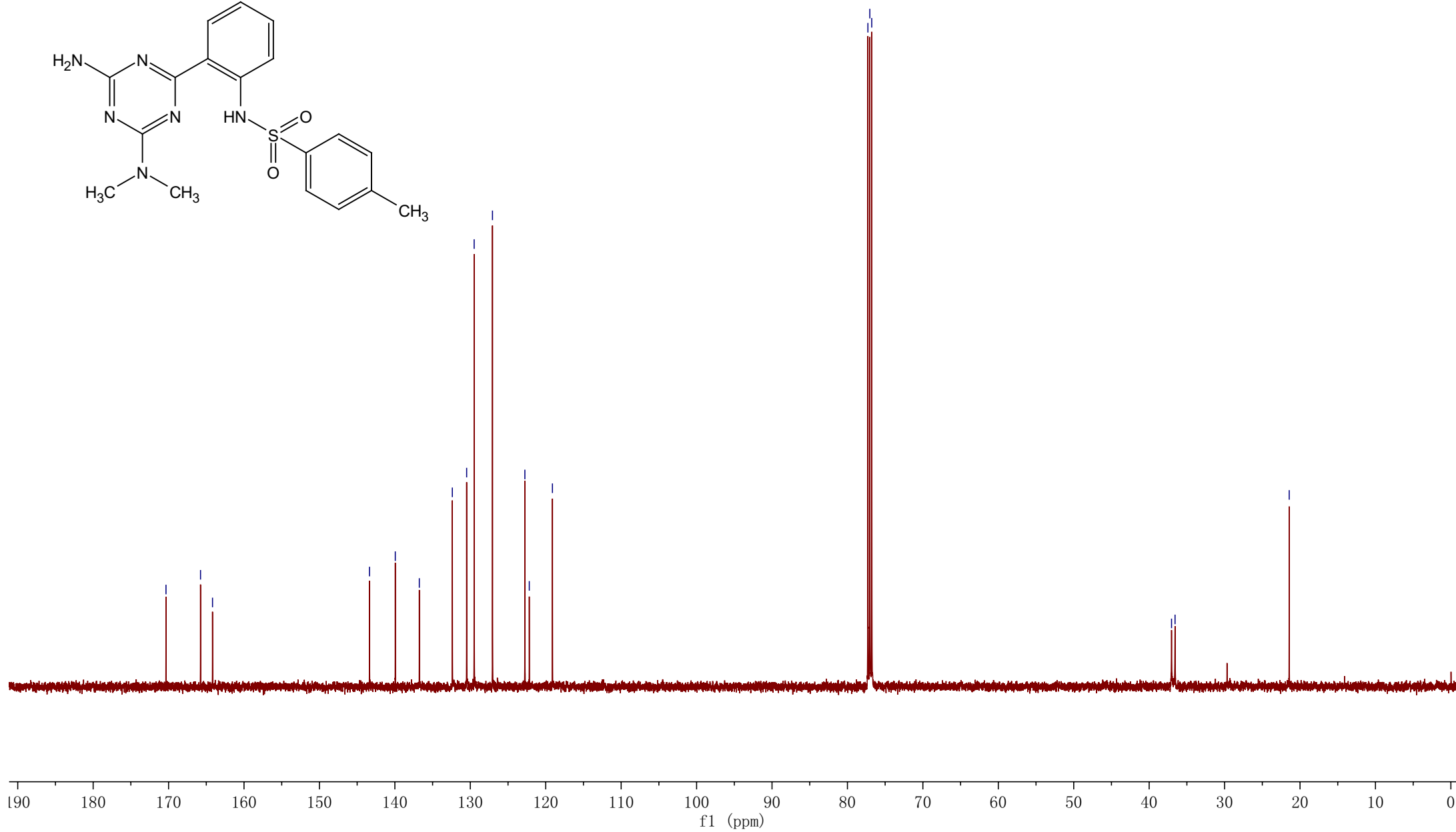
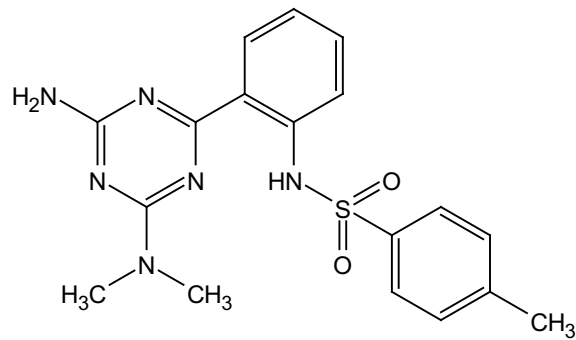
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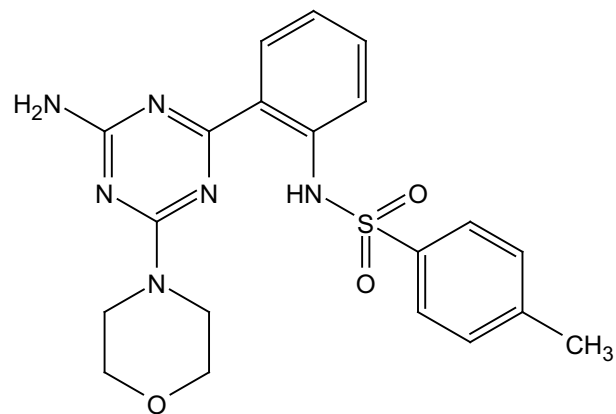
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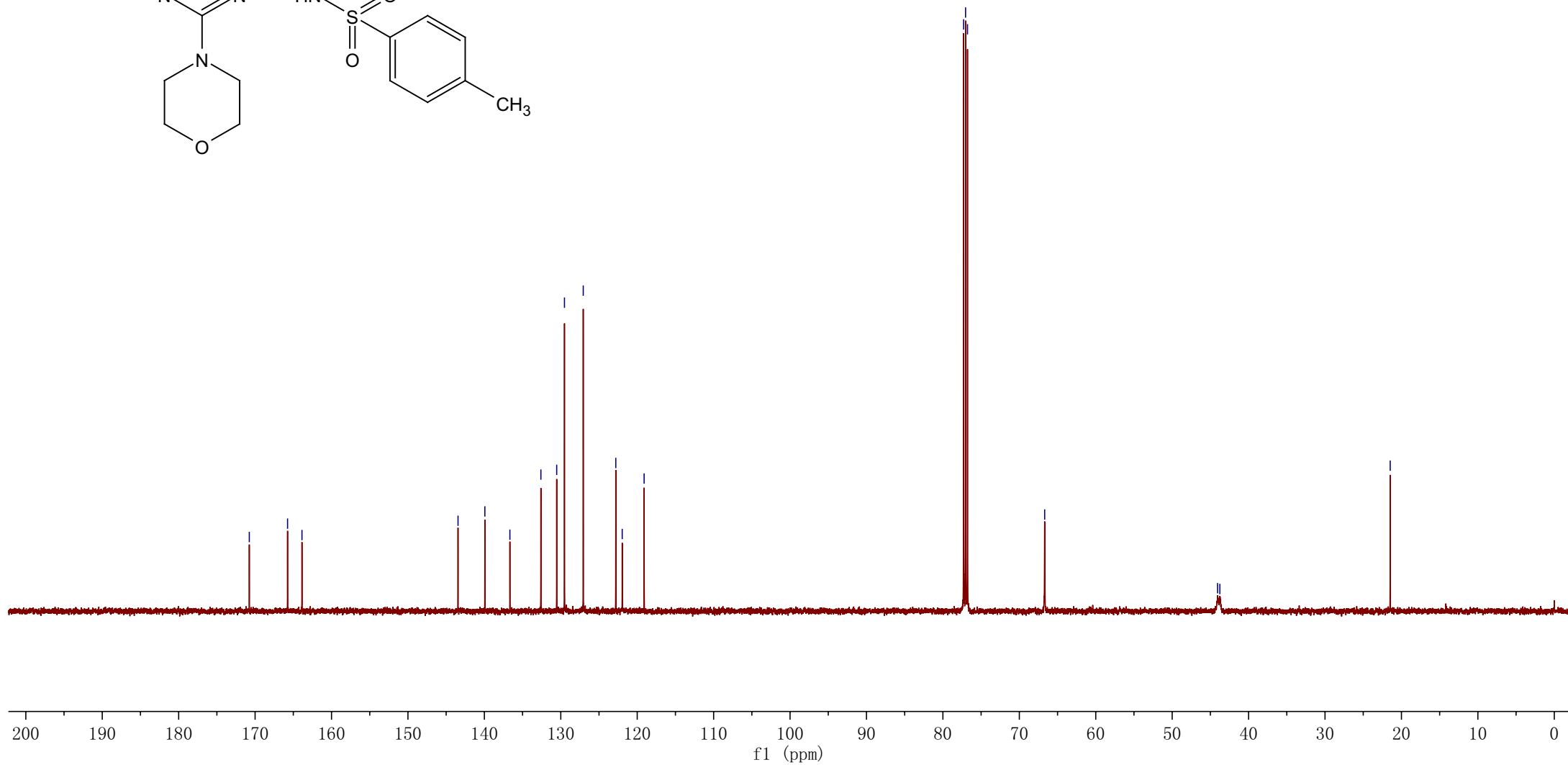


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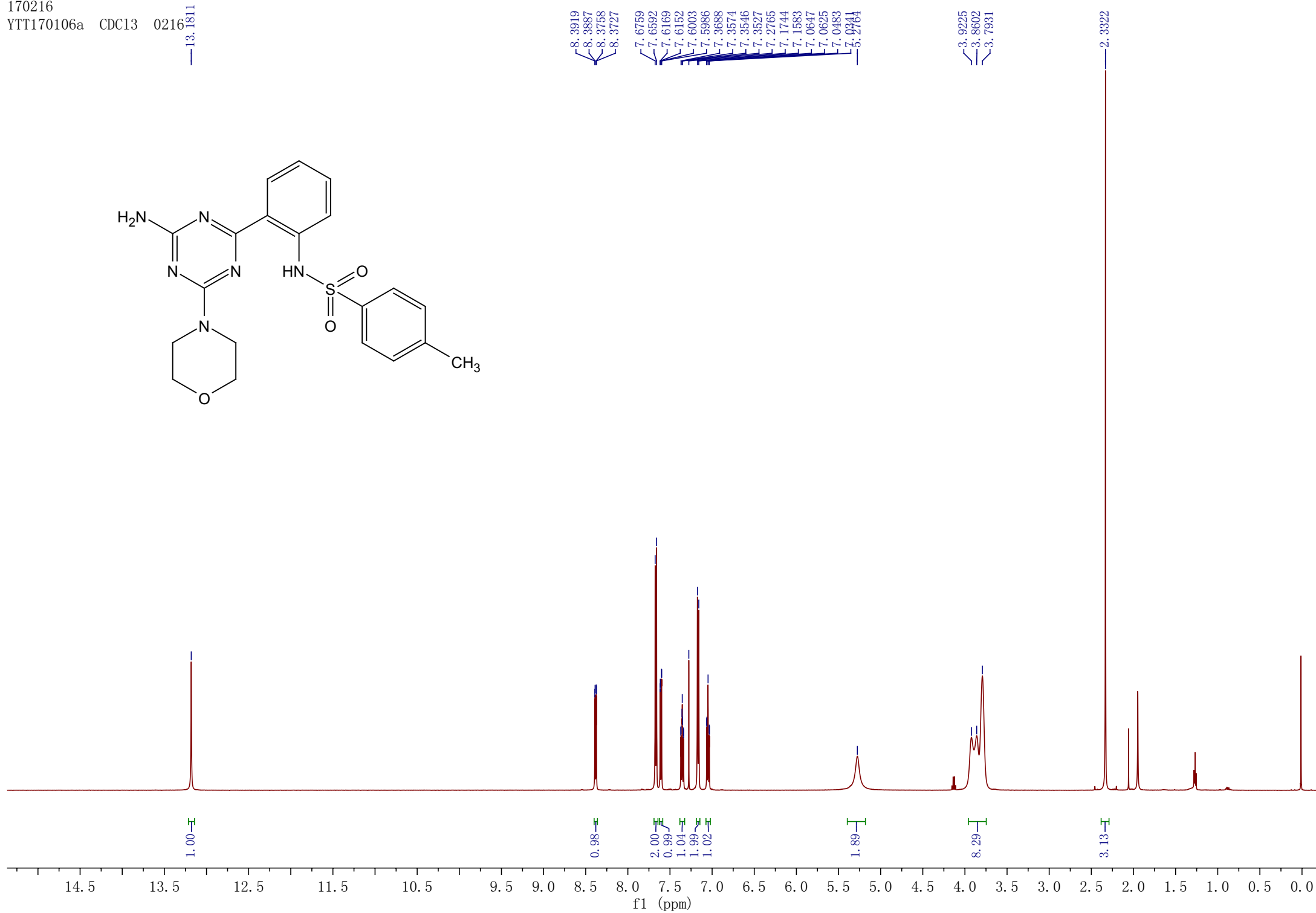
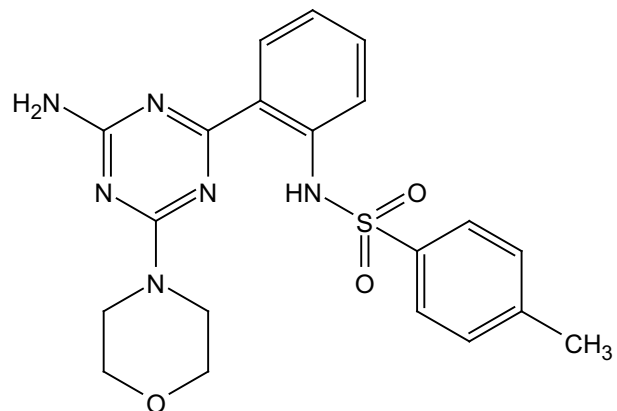
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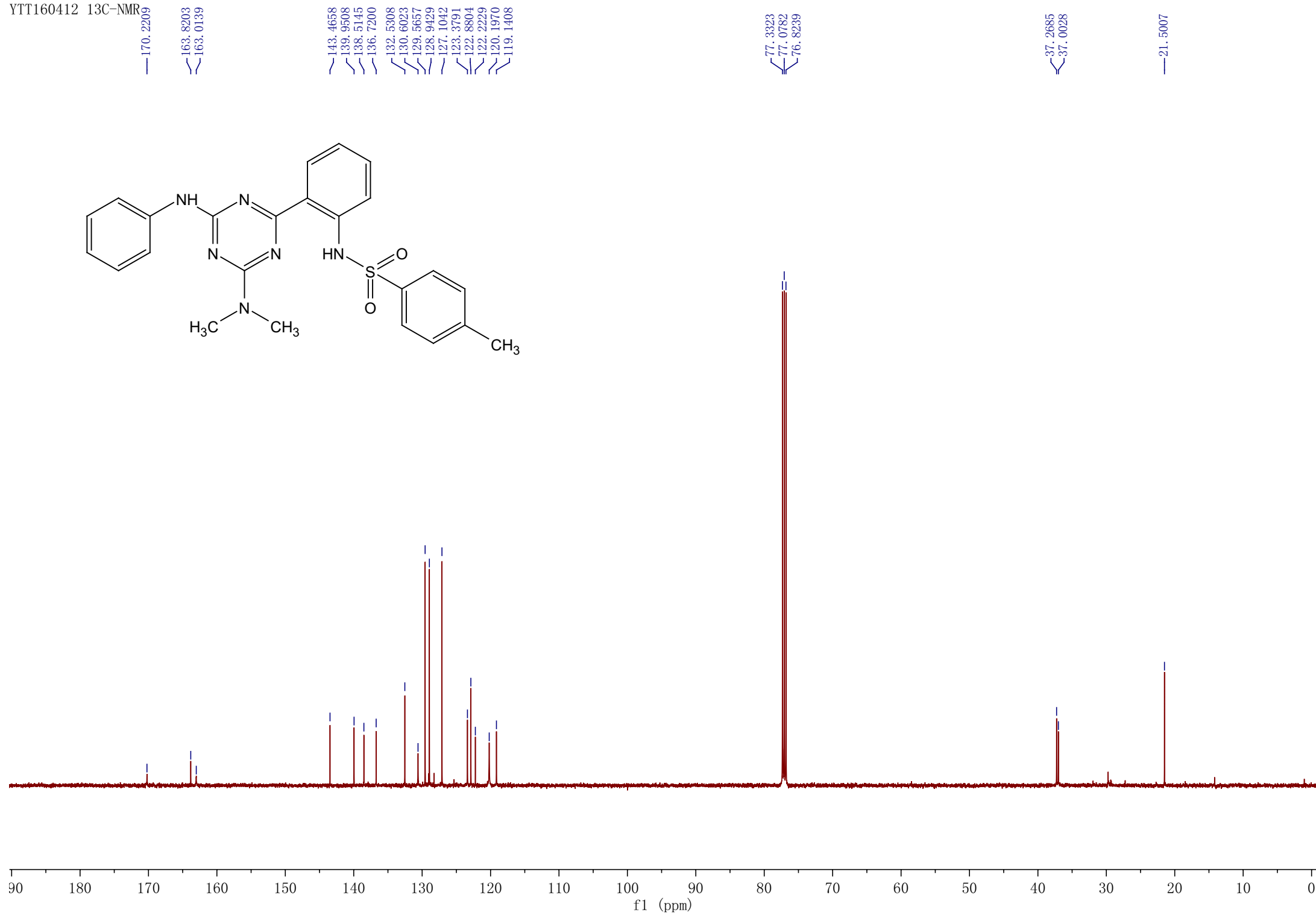
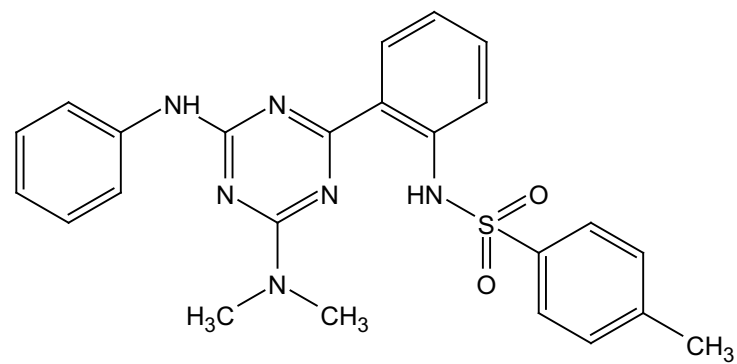


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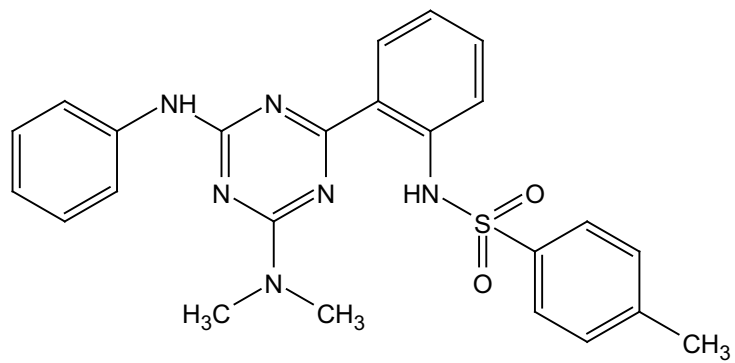
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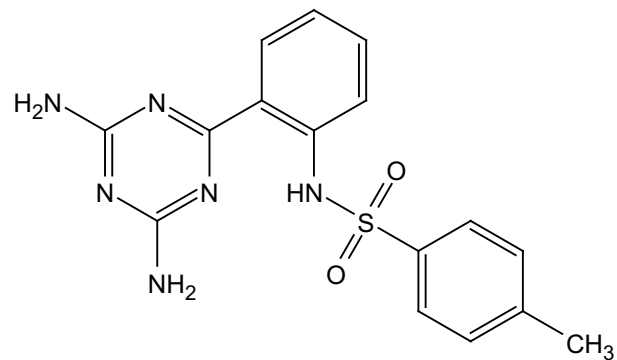
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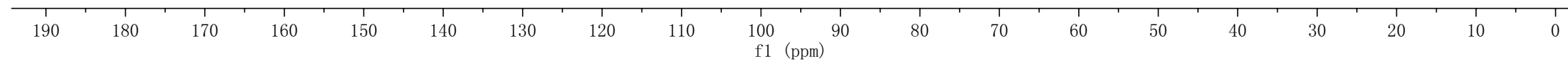


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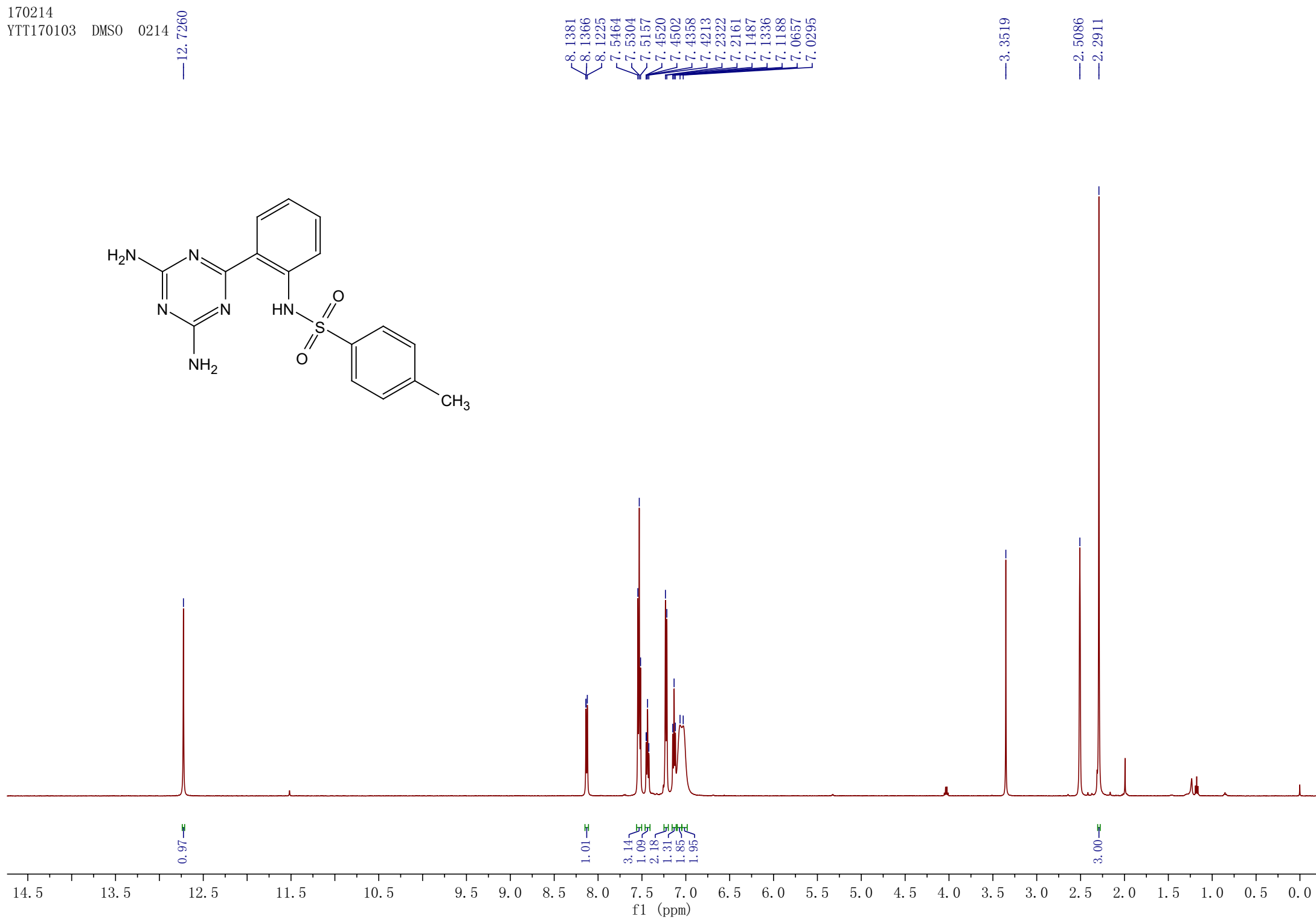
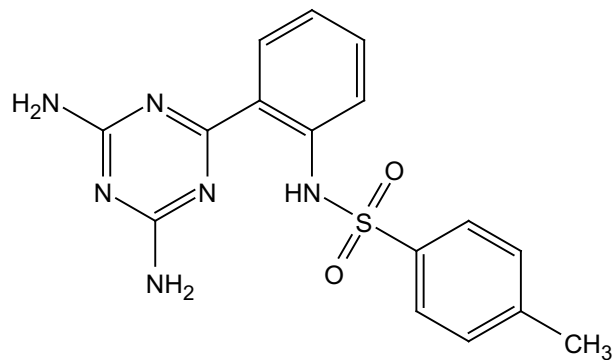
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— 120.9047

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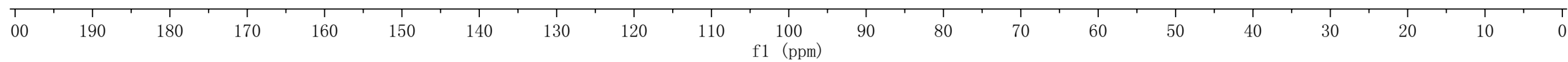
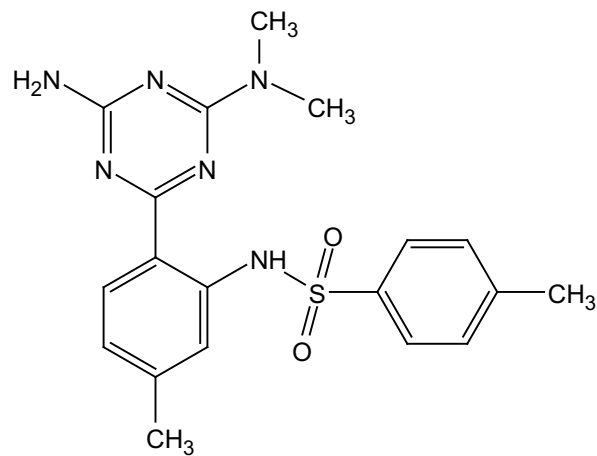
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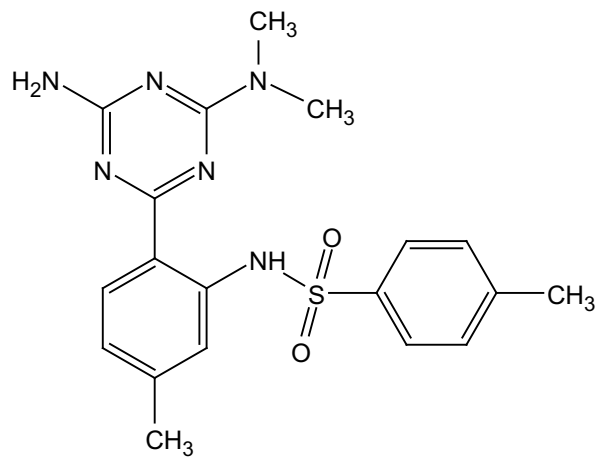
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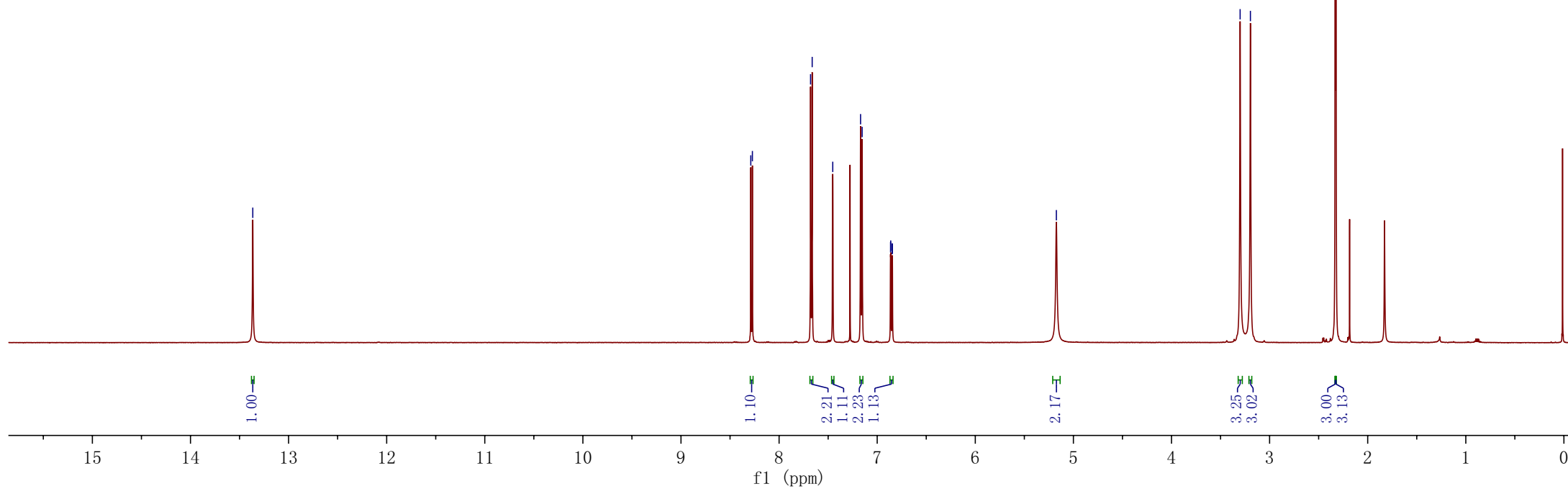


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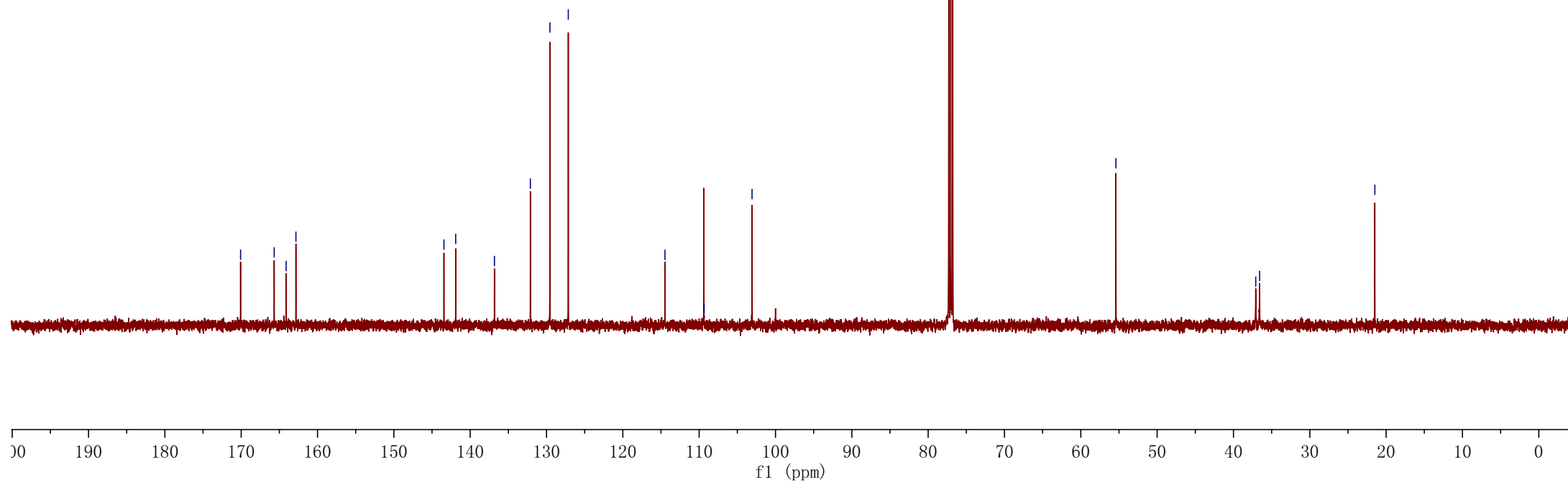
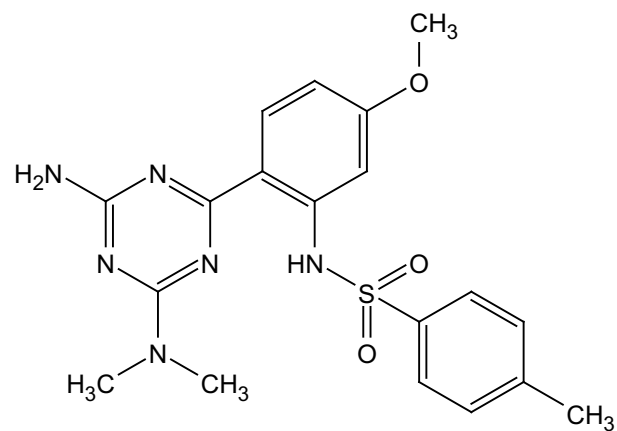
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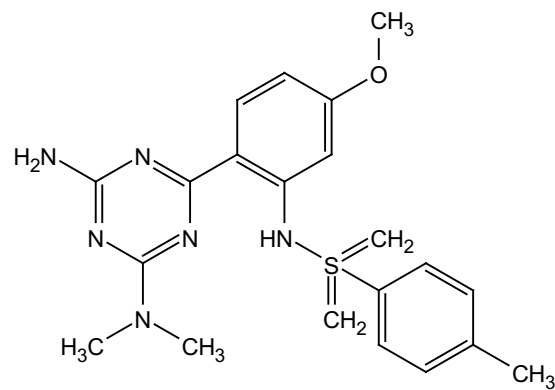
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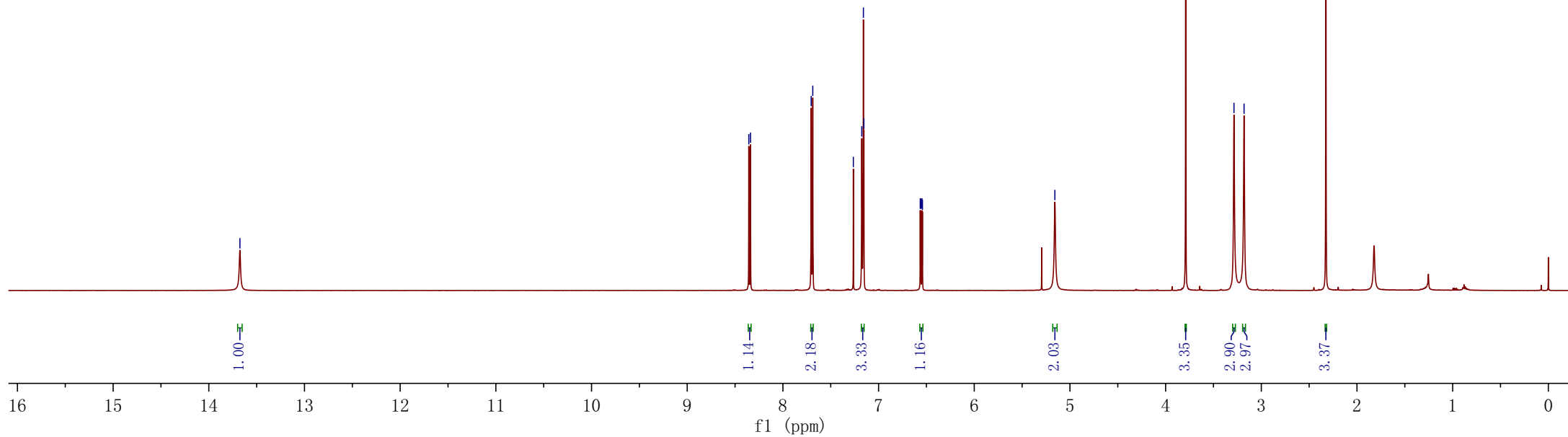
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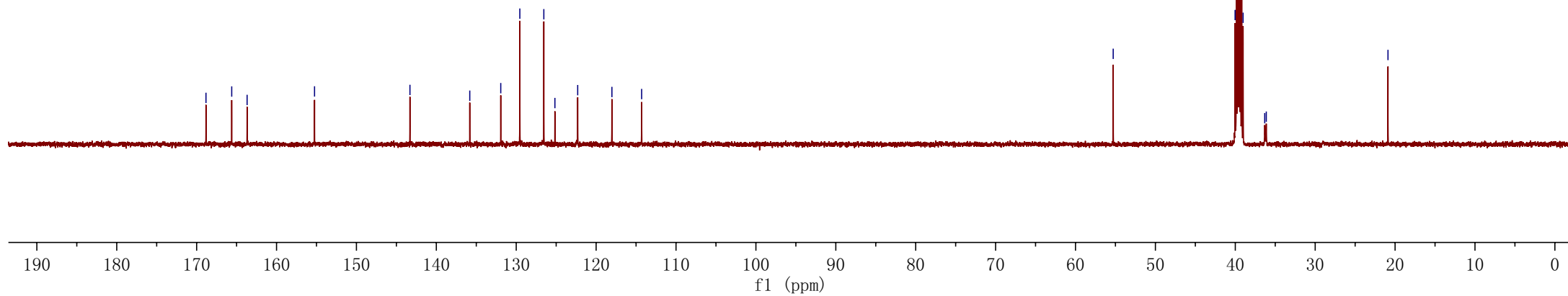
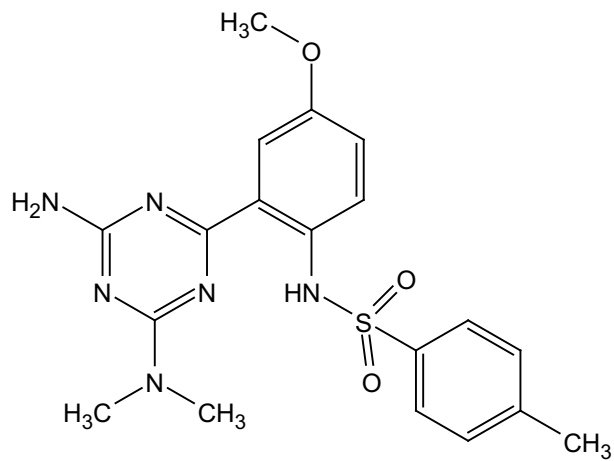
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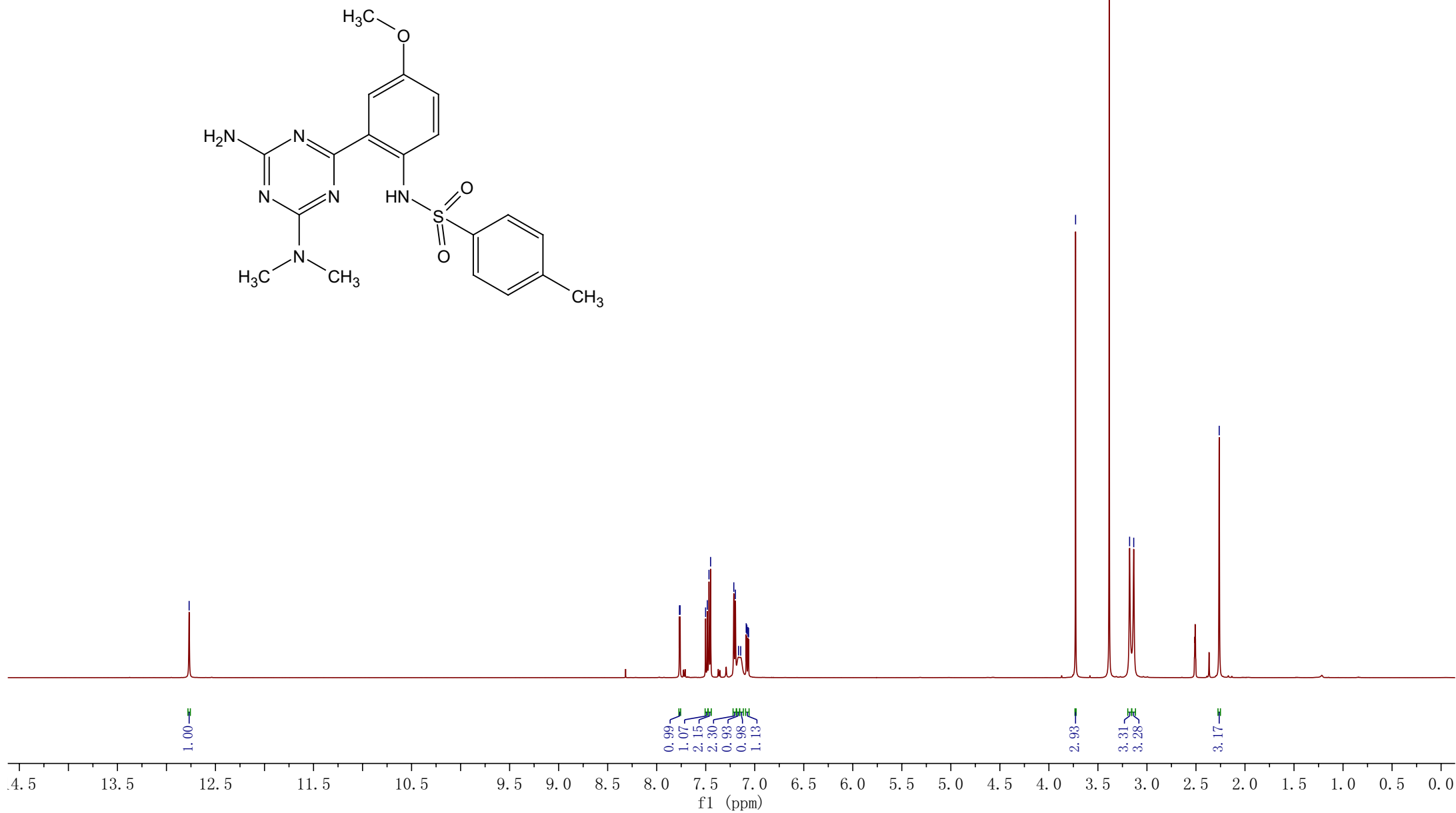
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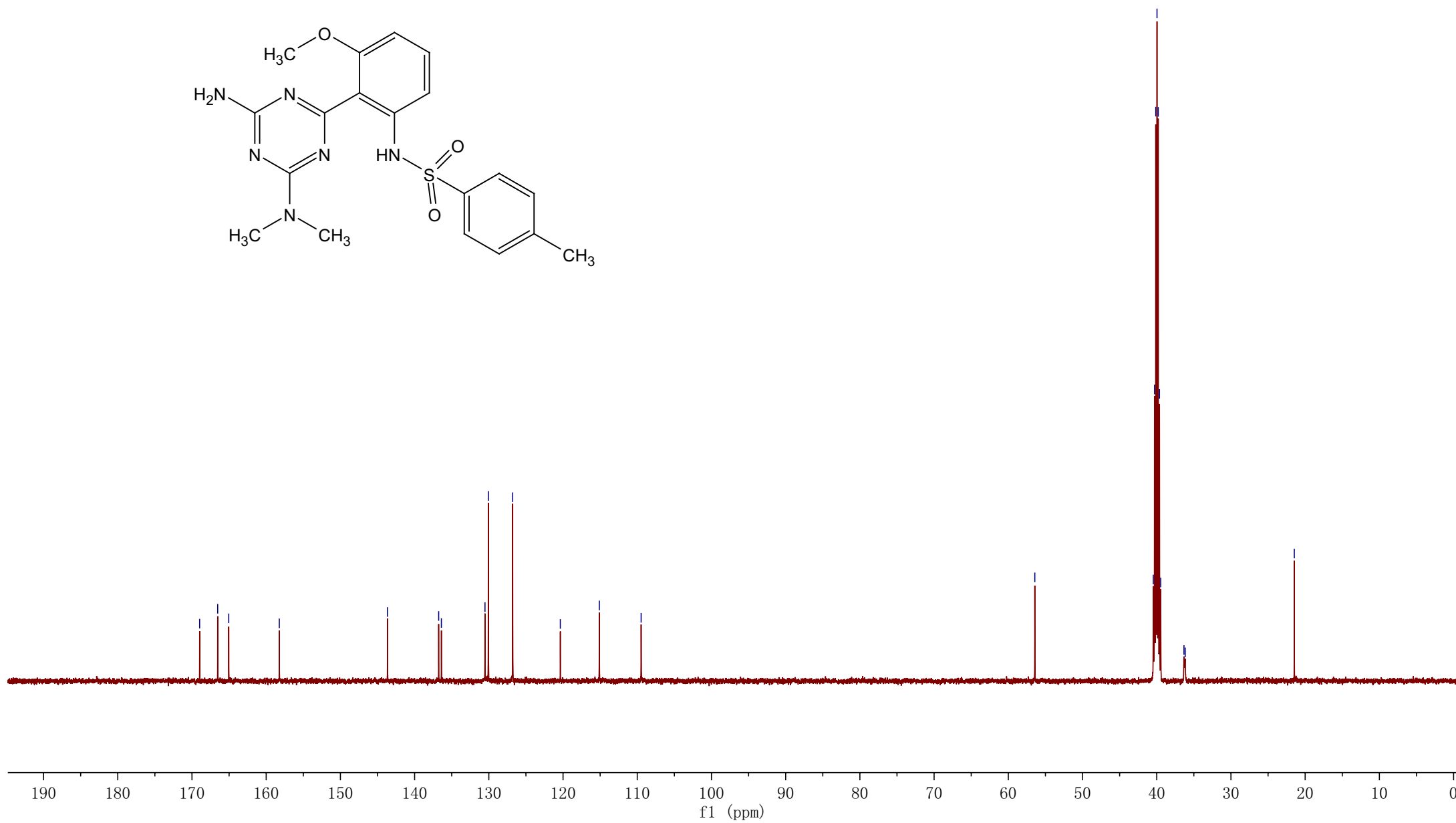
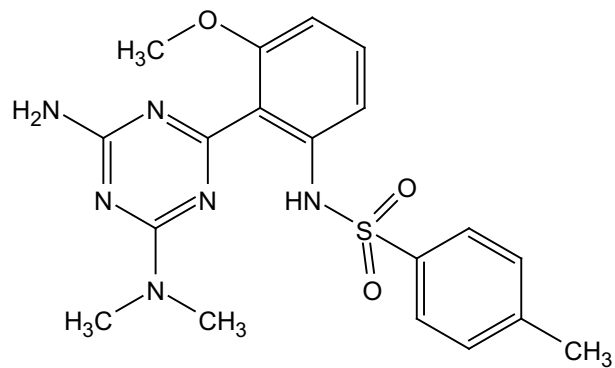
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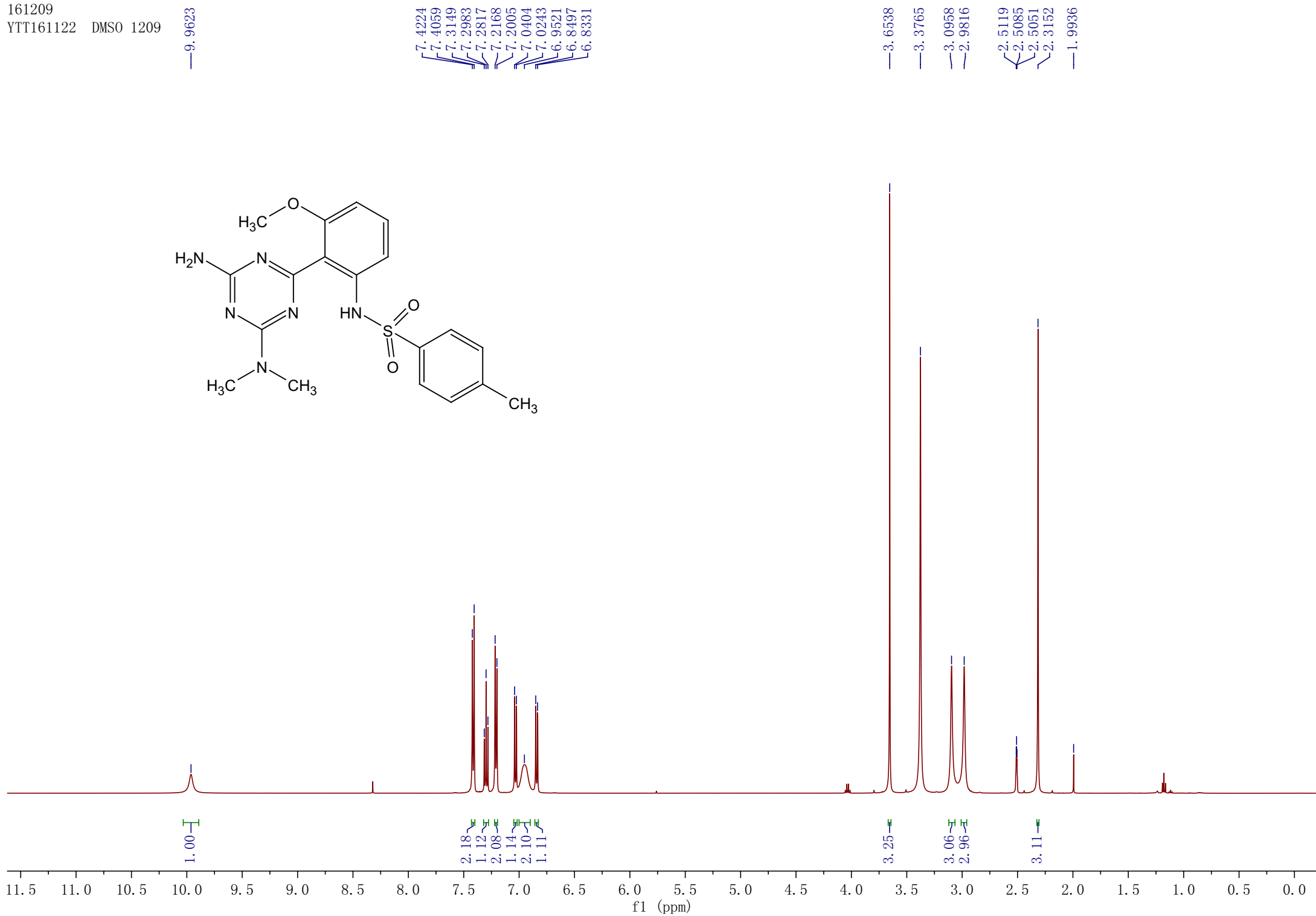
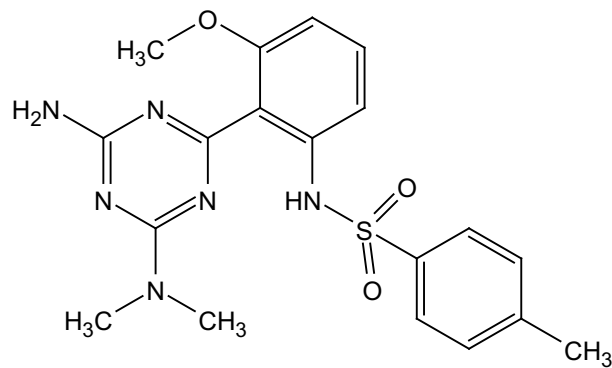
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—151.2796
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—113.6272

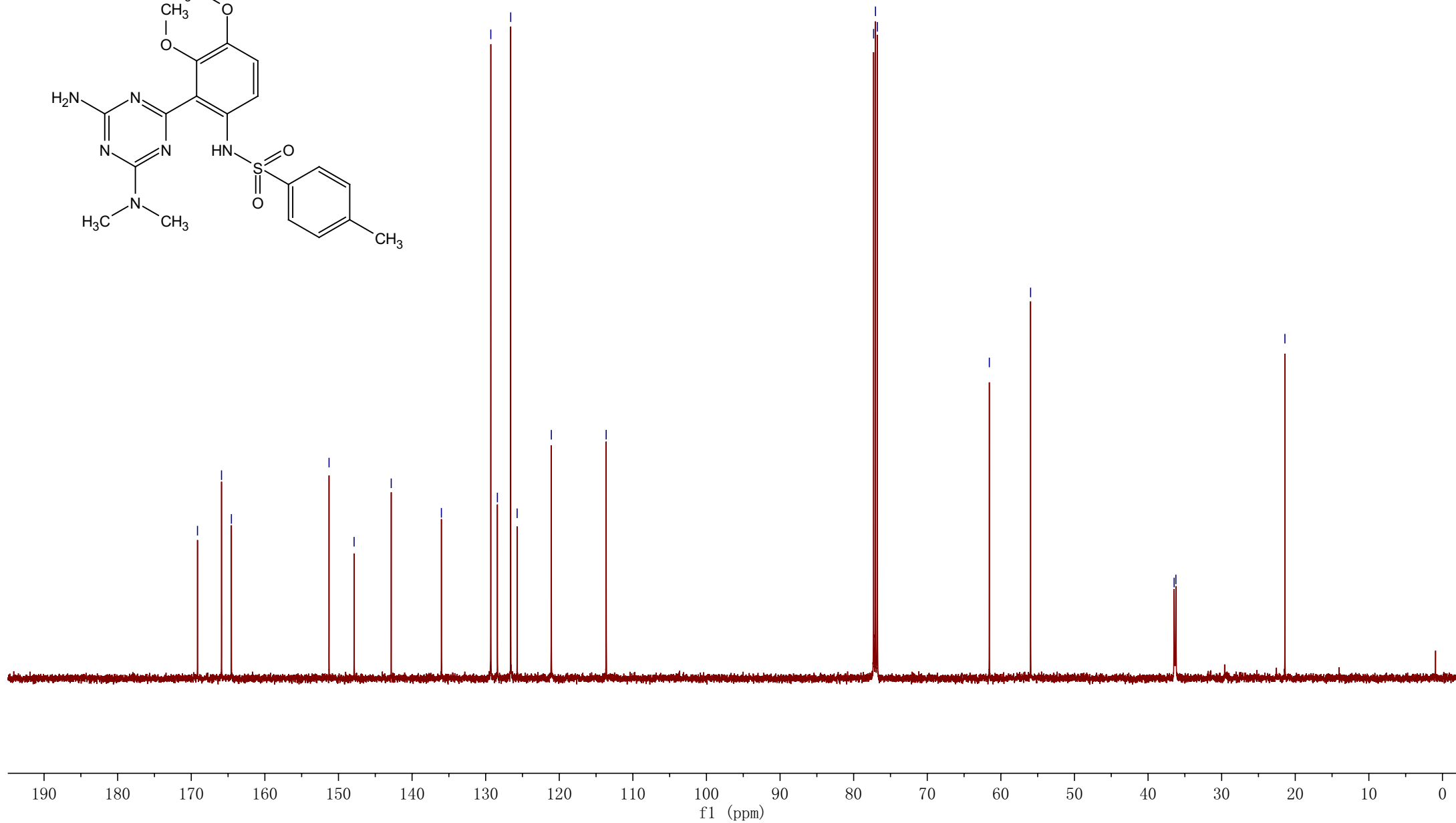
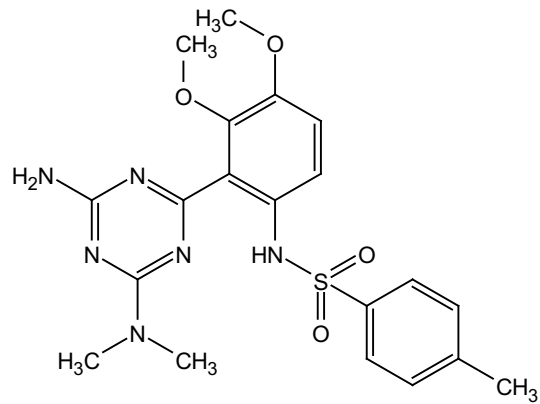
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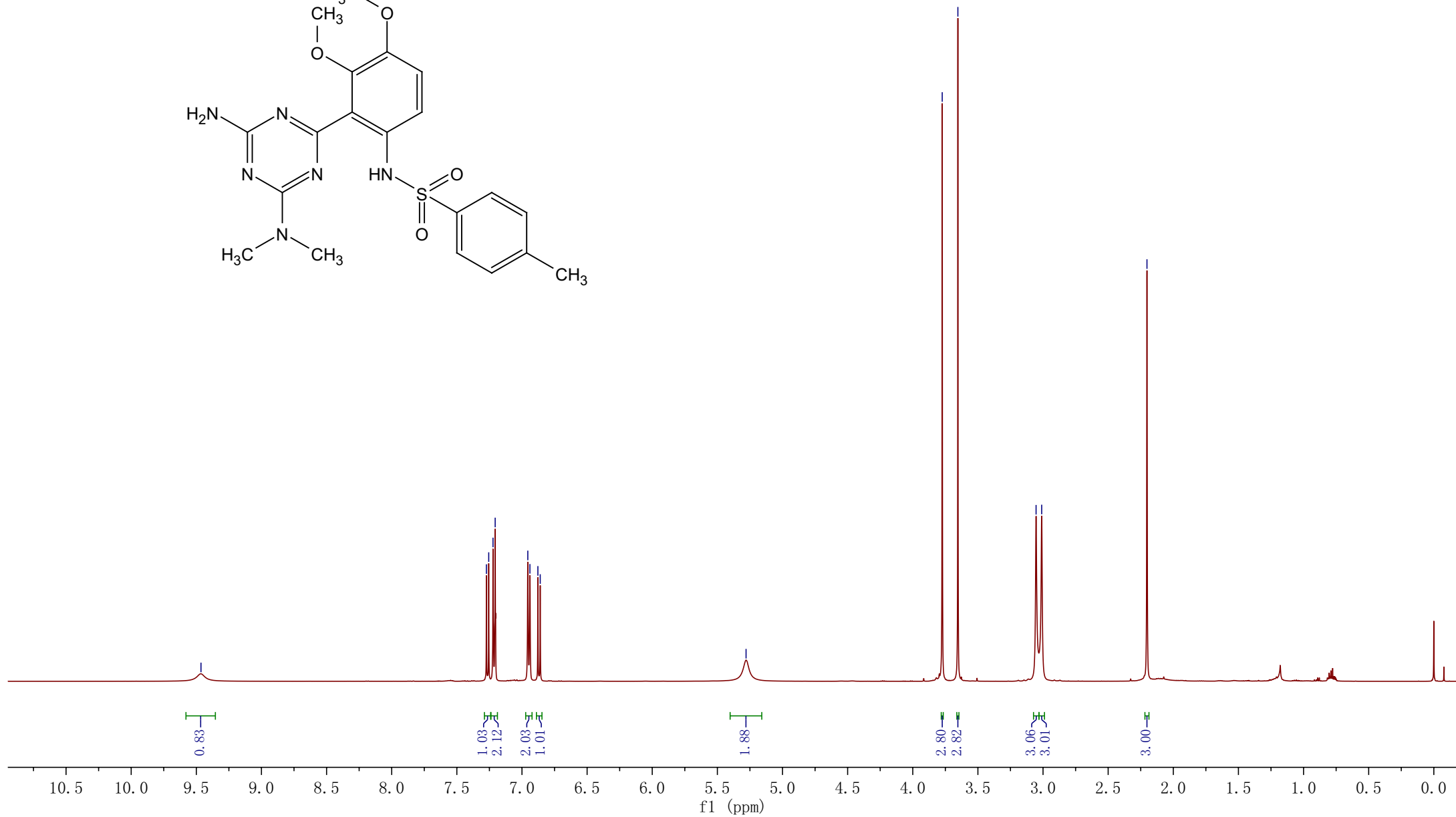
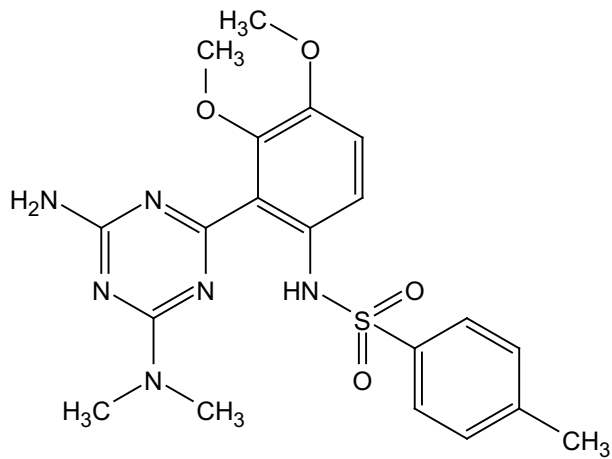
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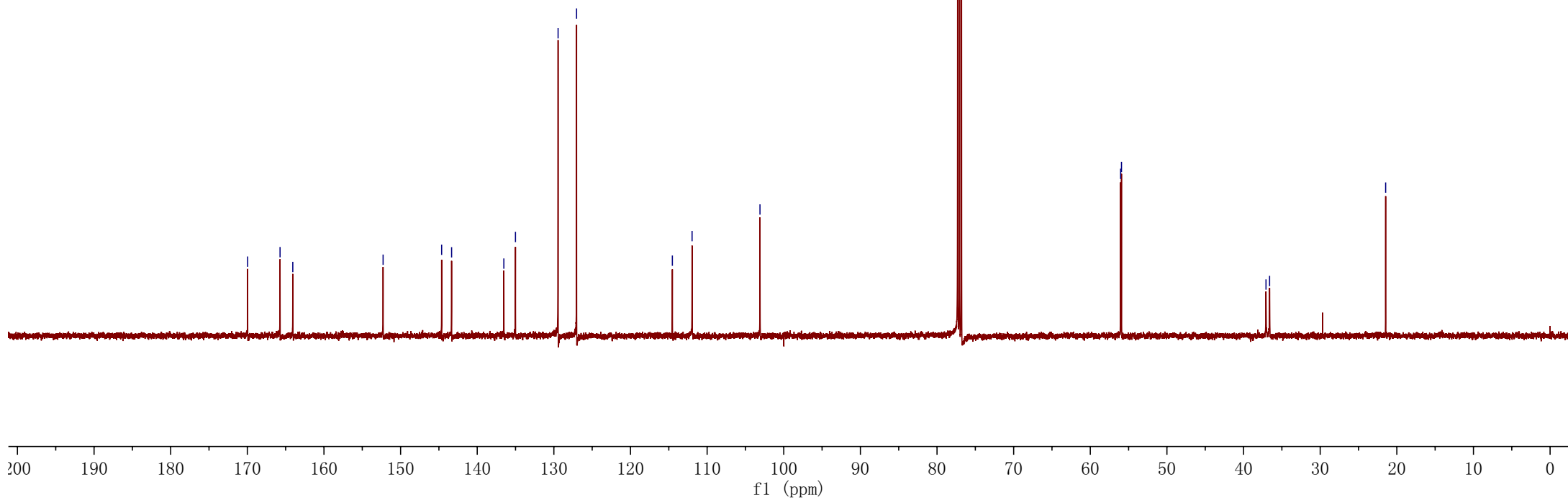
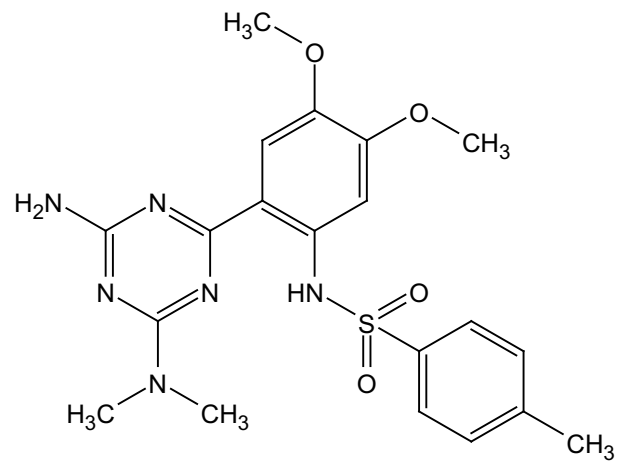
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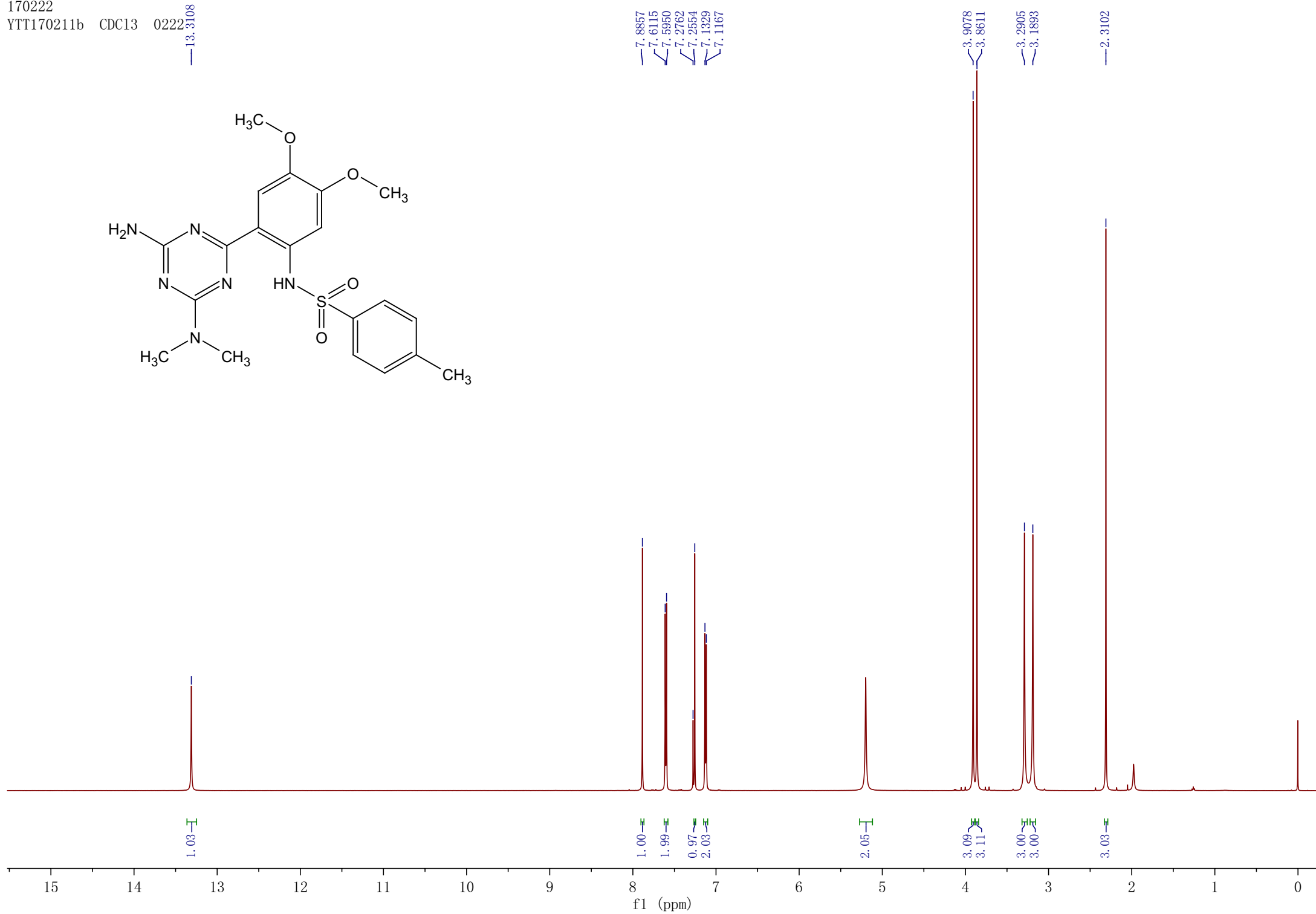
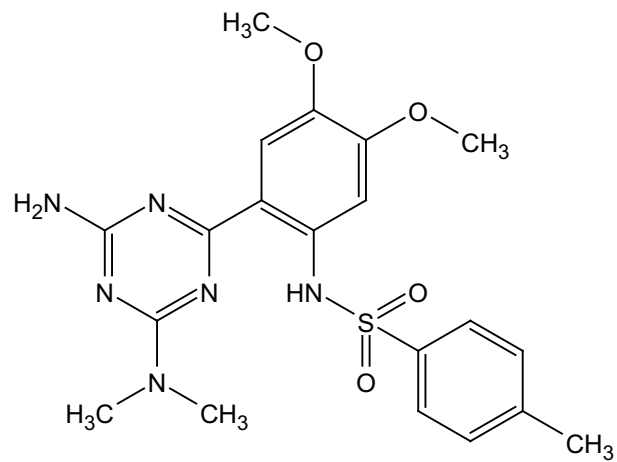


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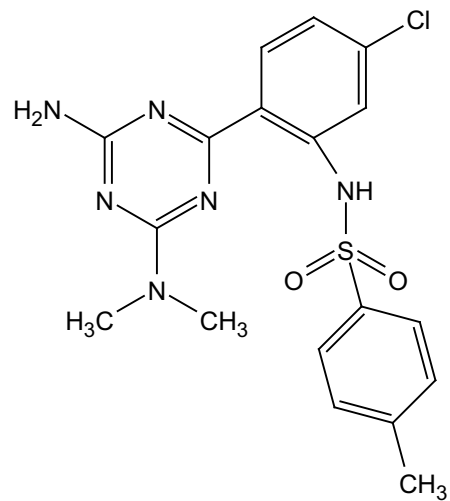


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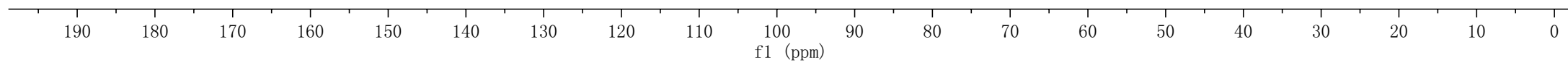


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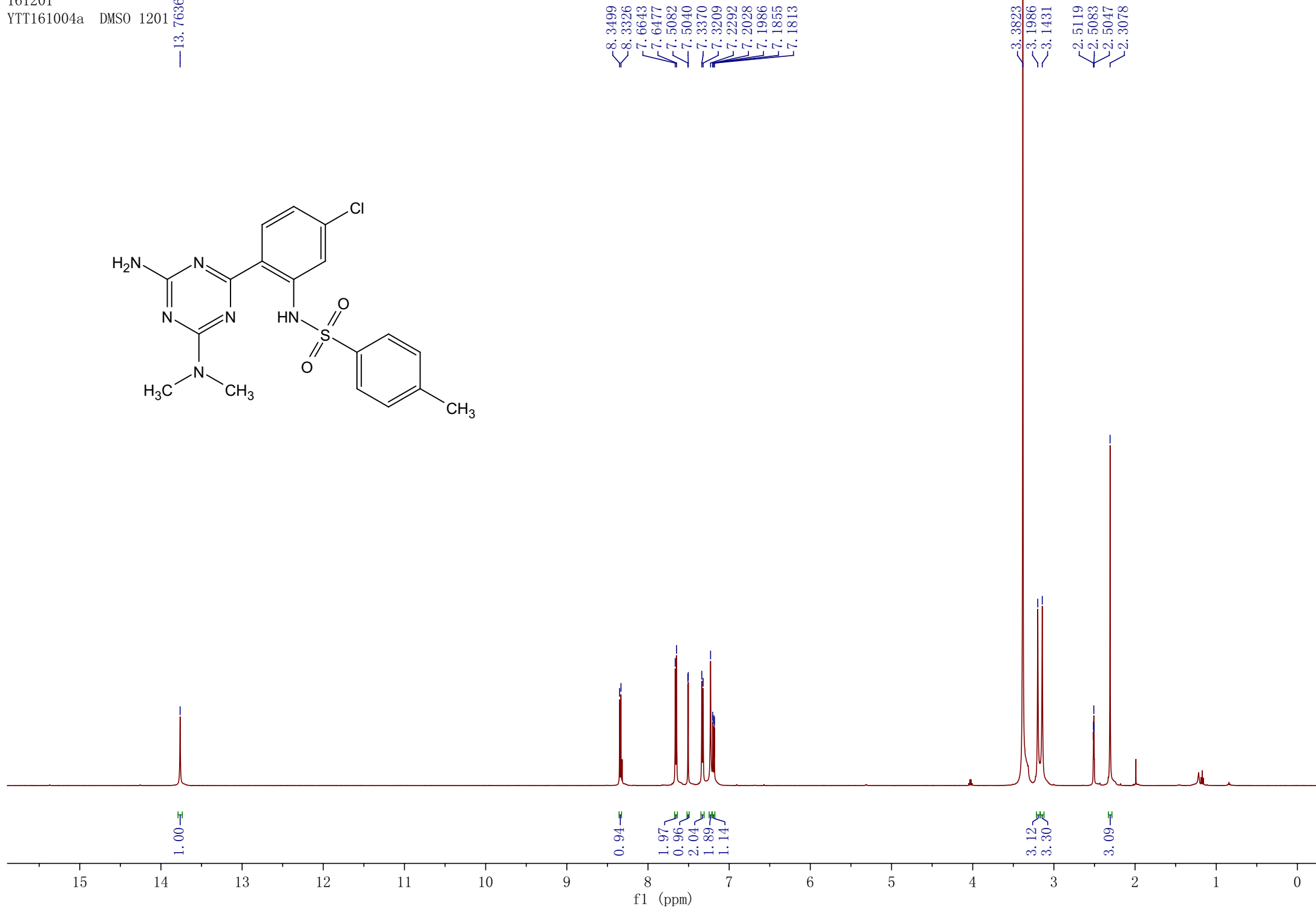
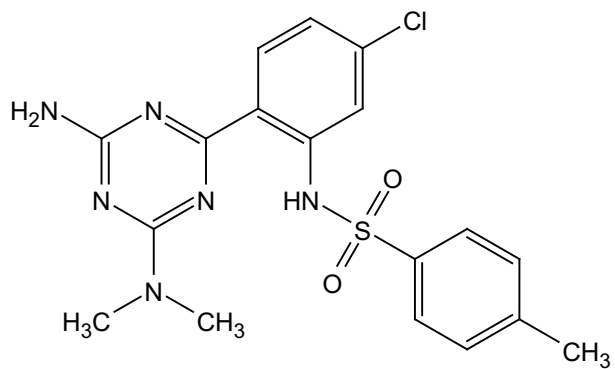
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161207

YTT161123 DMSO 1207

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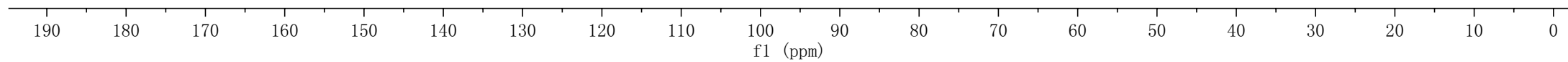
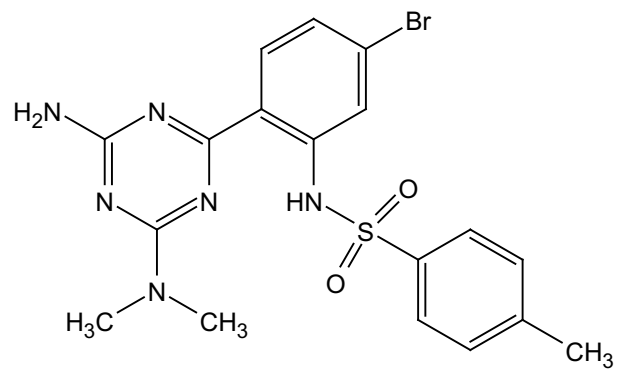
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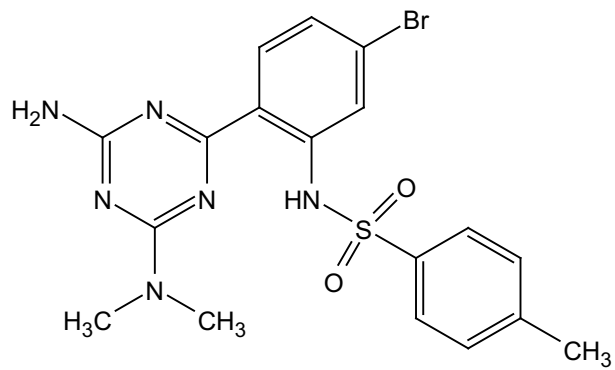
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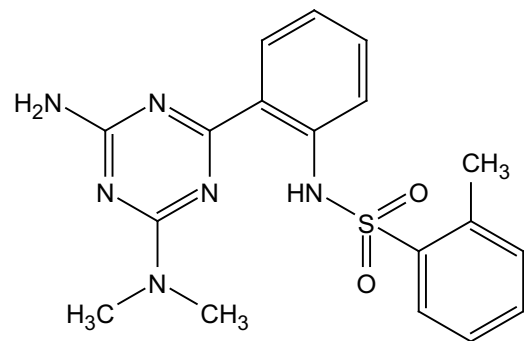
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170227

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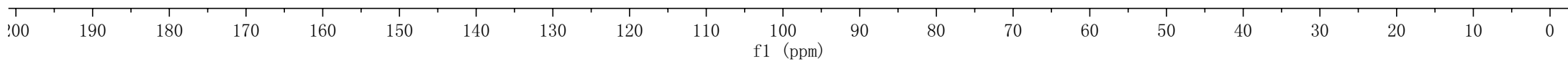
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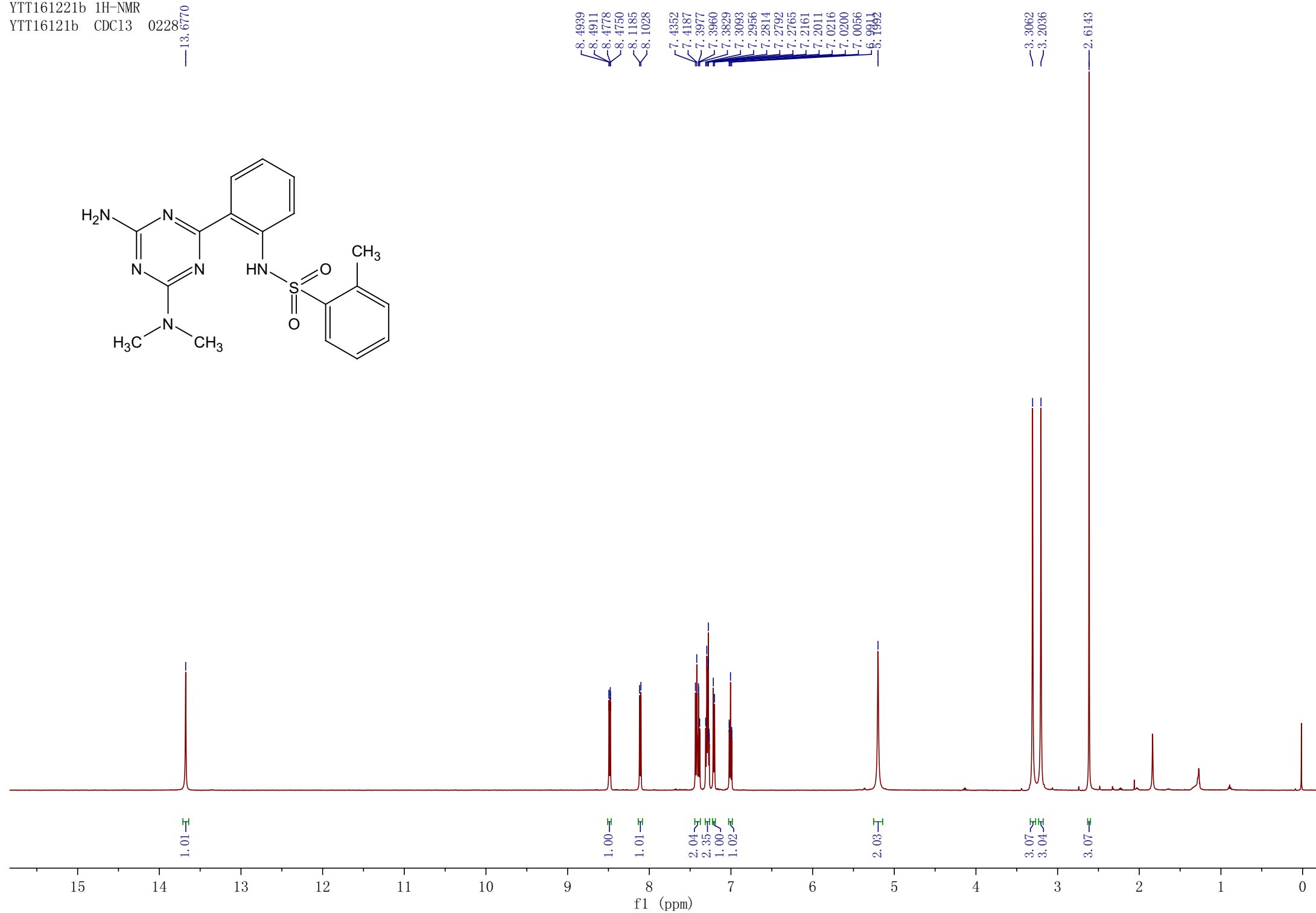
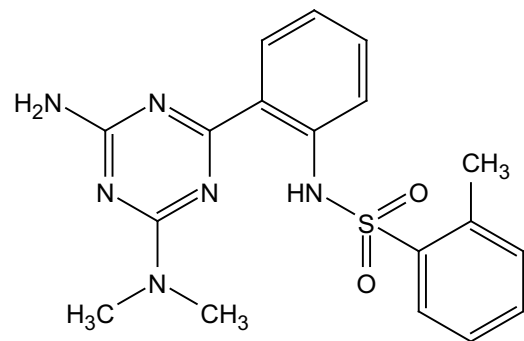
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YTT161221b 1H-NMR
YTT16121b CDC13 0228



170227

YTT1611226a

CDC13

0227

170.3574

165.7693

164.1748

139.8626

139.7171

132.5963

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122.8793

122.1815

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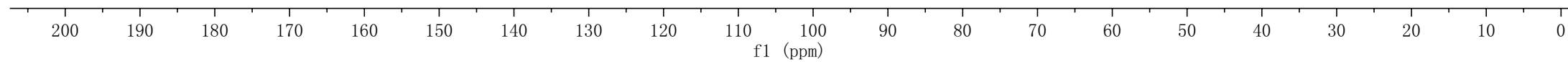
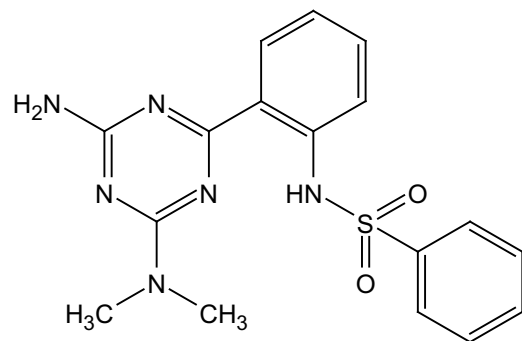
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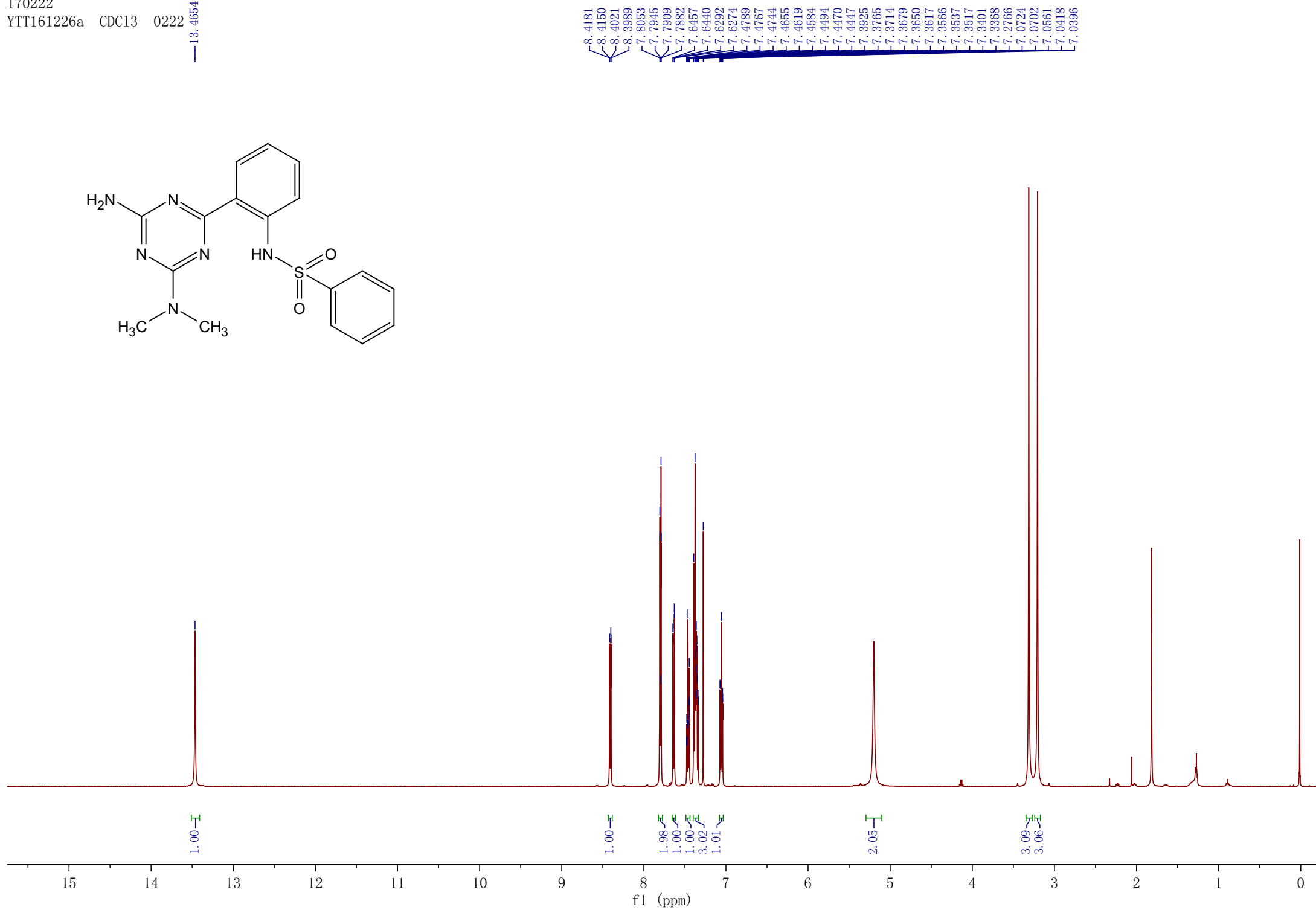
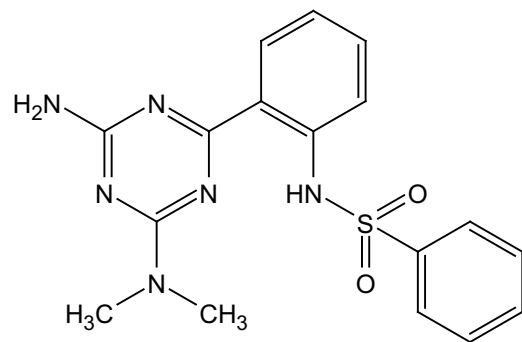
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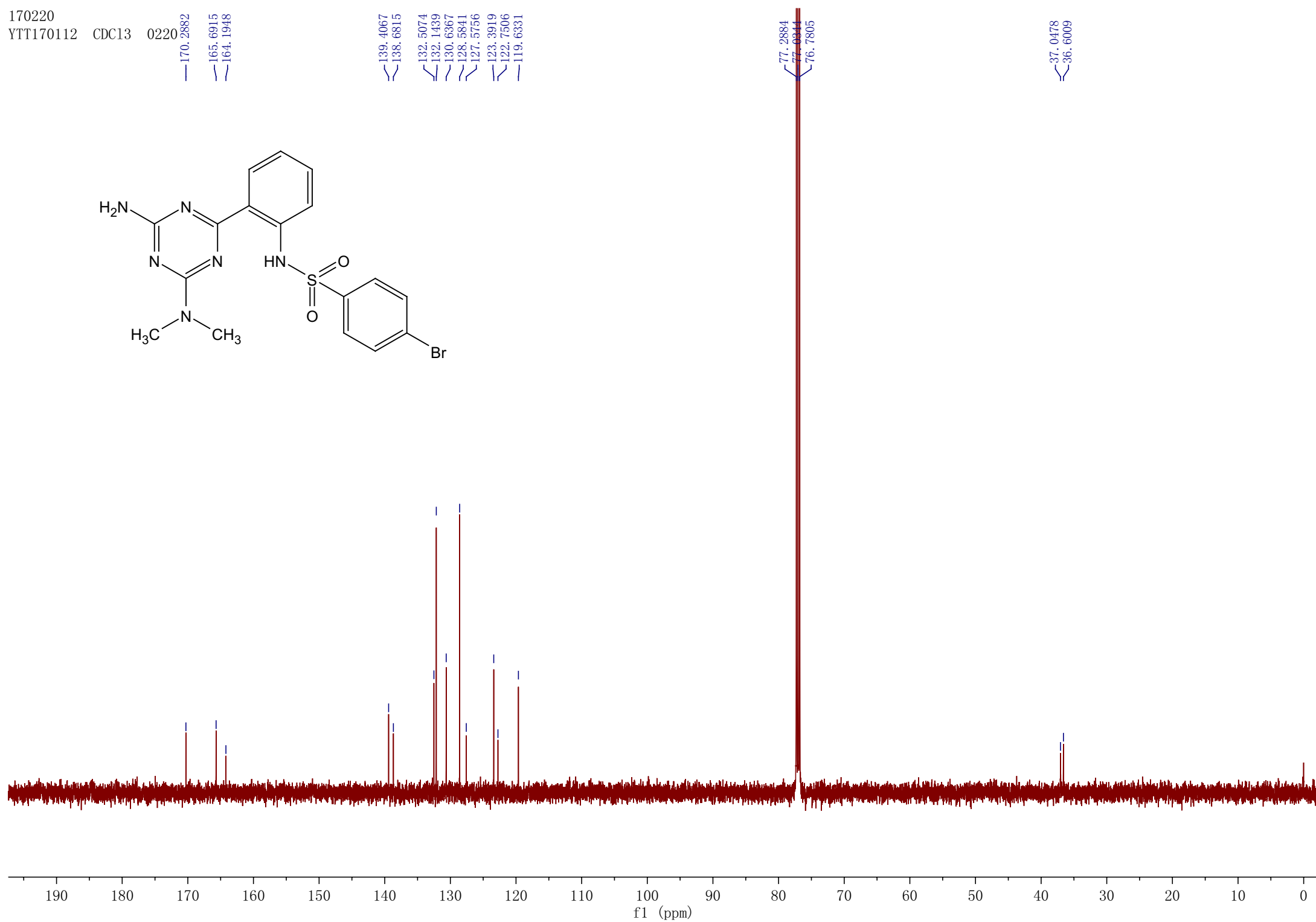
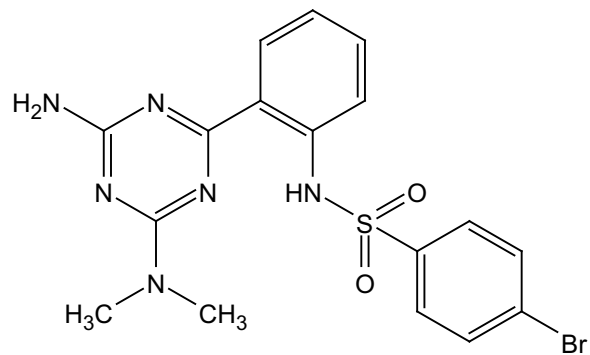
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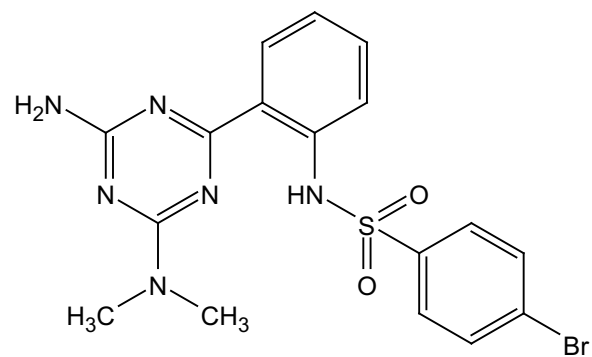
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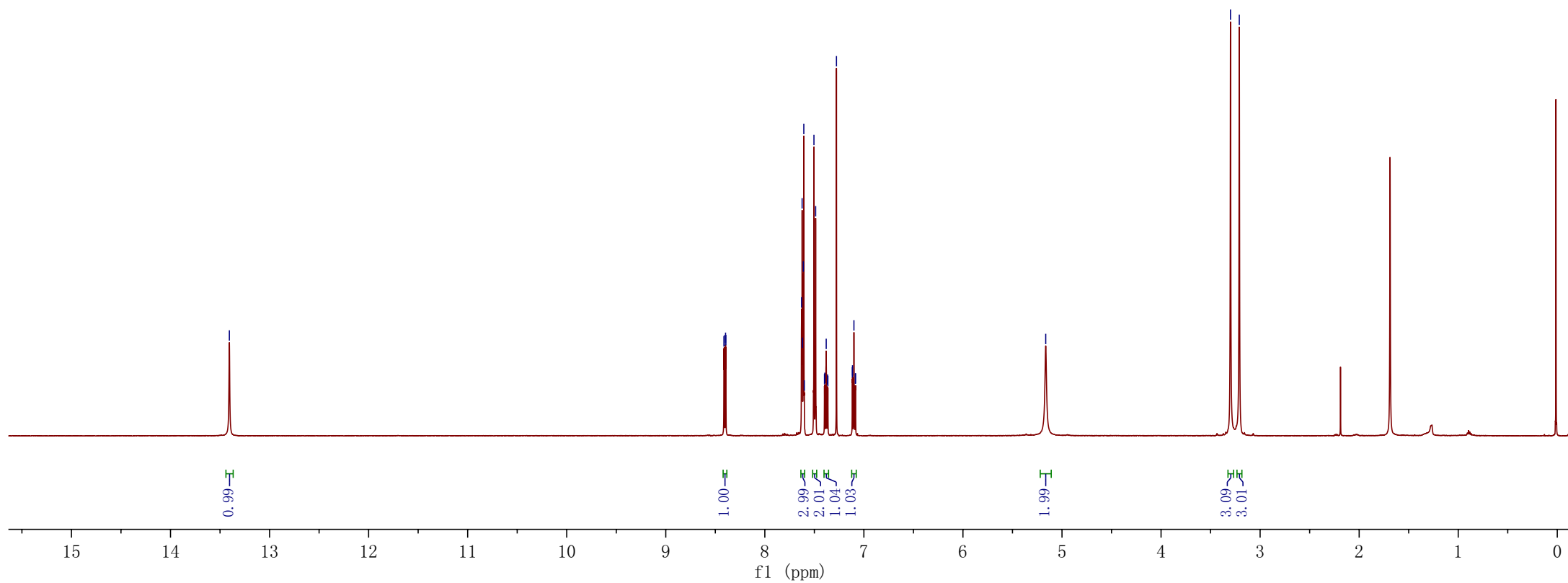
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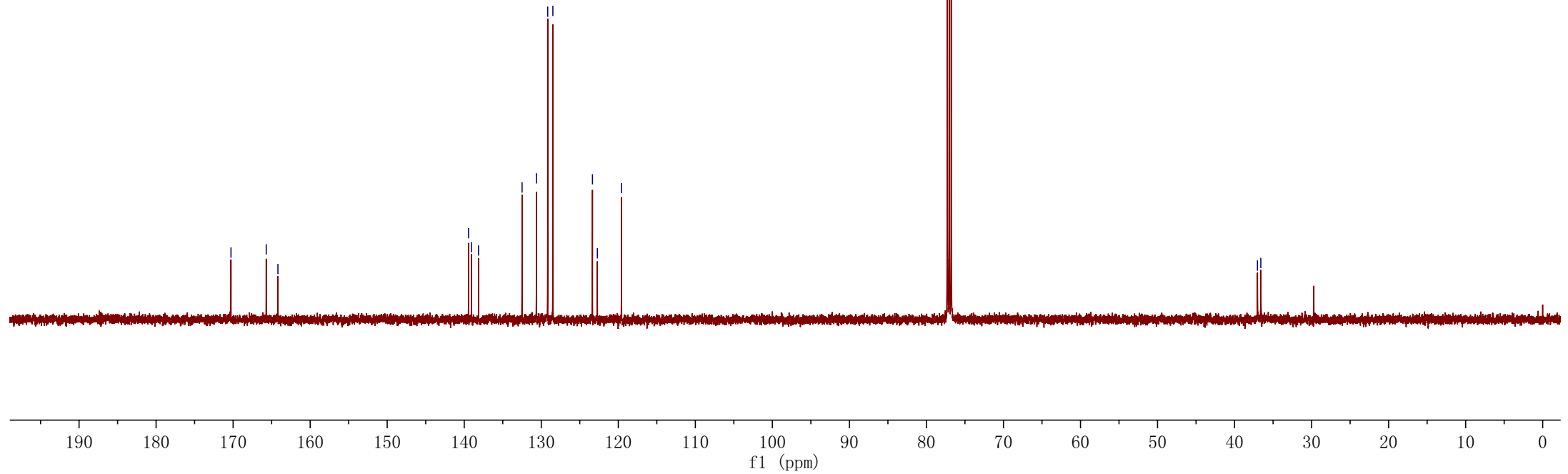
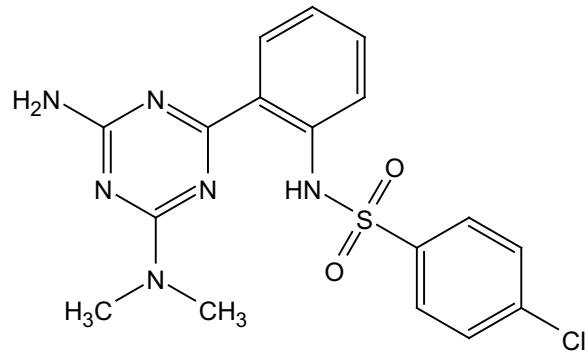
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3.2101



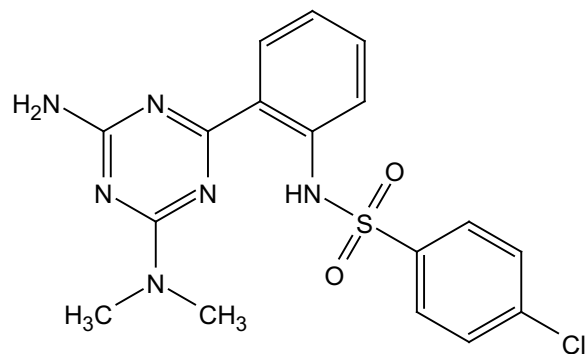
170216
YTT170110 CDC13 0216

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139.4328
139.0577
138.1419
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129.1623
128.4925
123.3544
122.7176
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77.0358
76.7818
37.0275
36.5907



170214
YTT170110 CDC13 0214

—13.4096

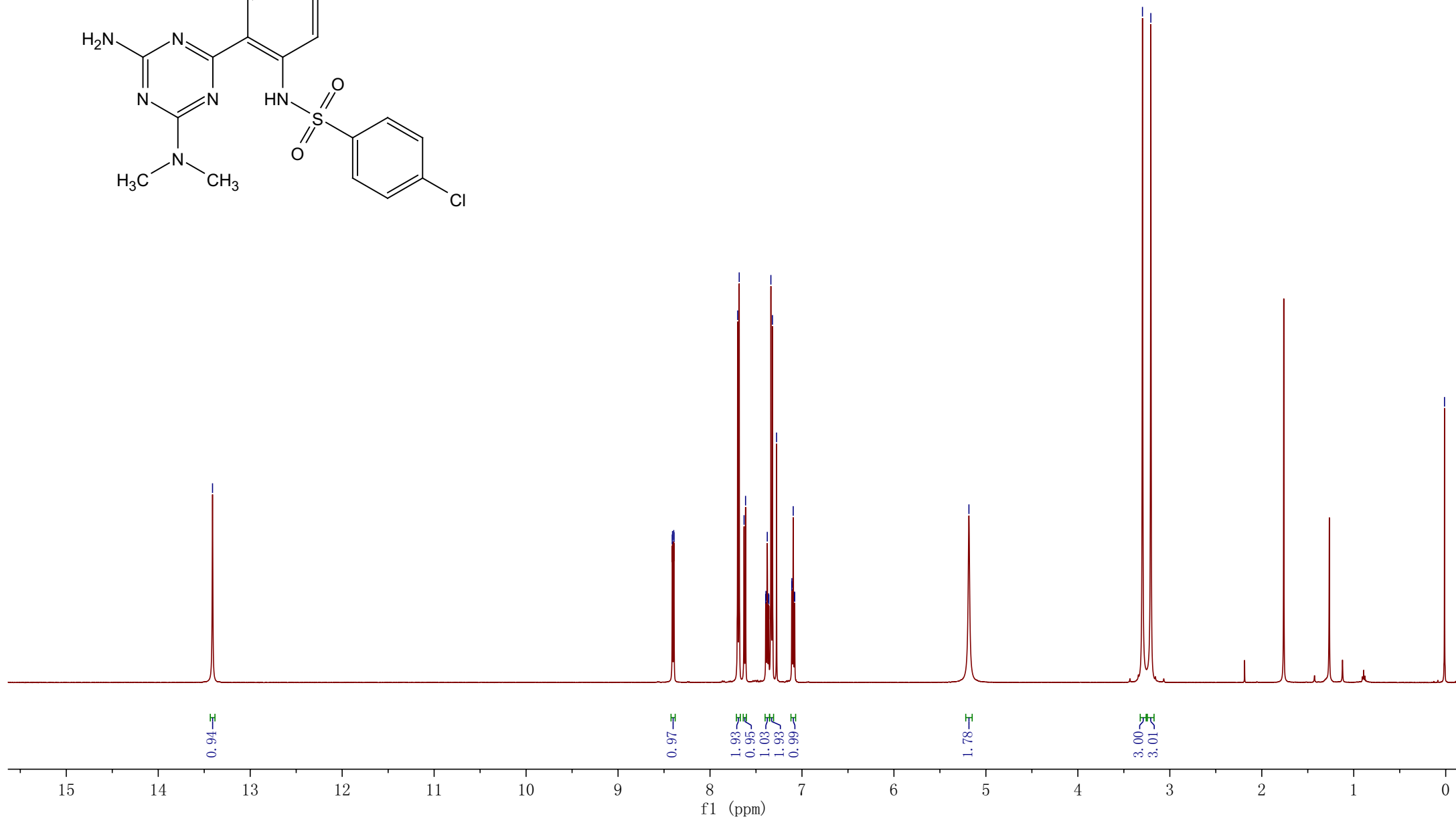


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8.3945
8.3916

7.6996
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7.3915
7.3774
7.3636
7.3380
7.3208
7.2765
7.1111
7.1097
7.0952
7.0806
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3.2974
3.2063

—0.0129



170307
YTT170116 DMSO 0307

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163.6226

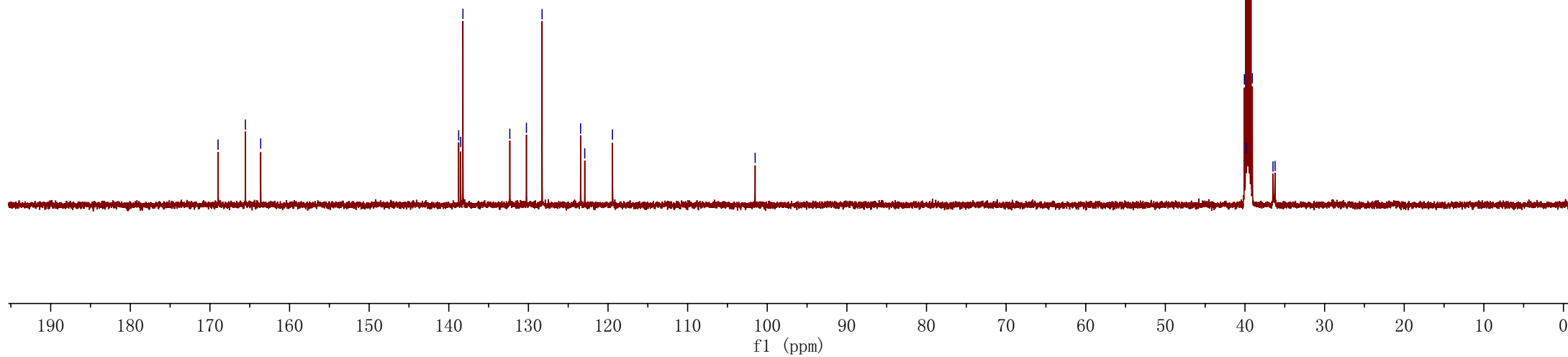
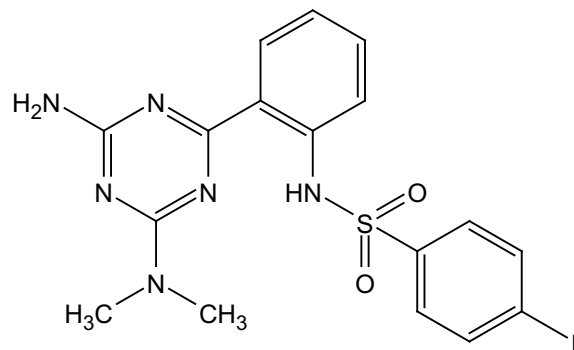
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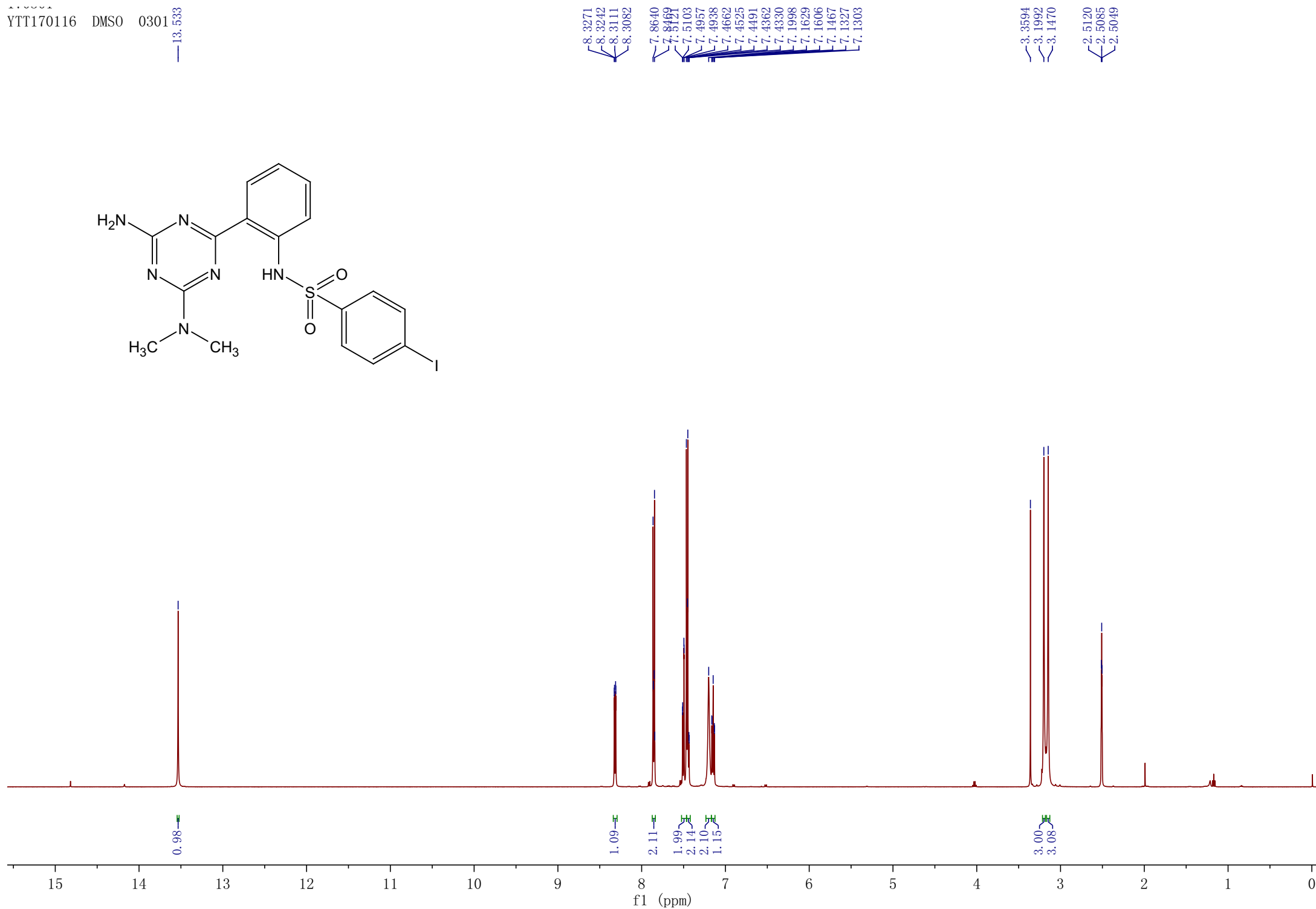
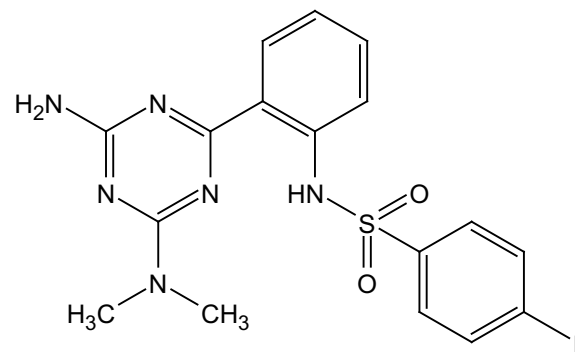
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39.0763
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36.2201



YTT170116 DMSO 0301

13.533



170428

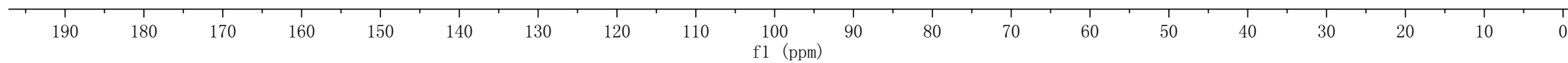
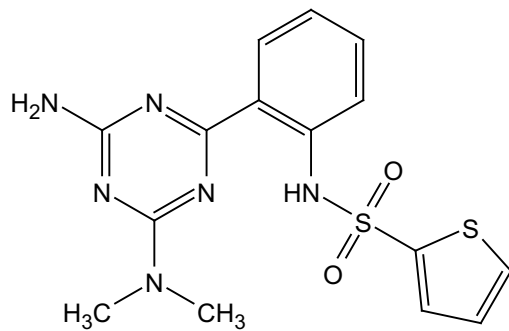
YTT170106b

DMSO

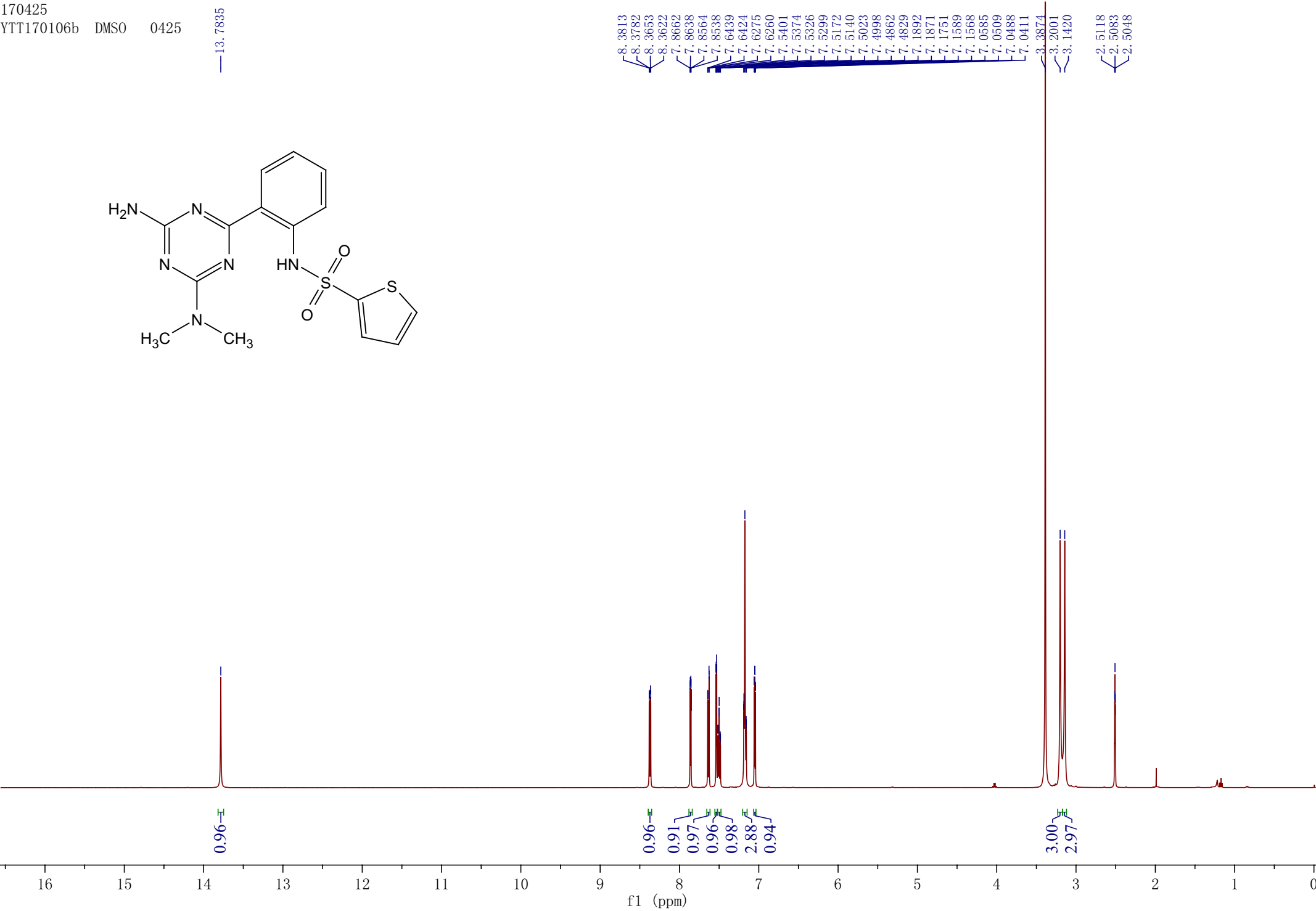
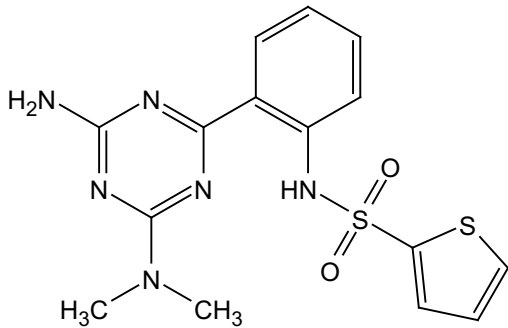
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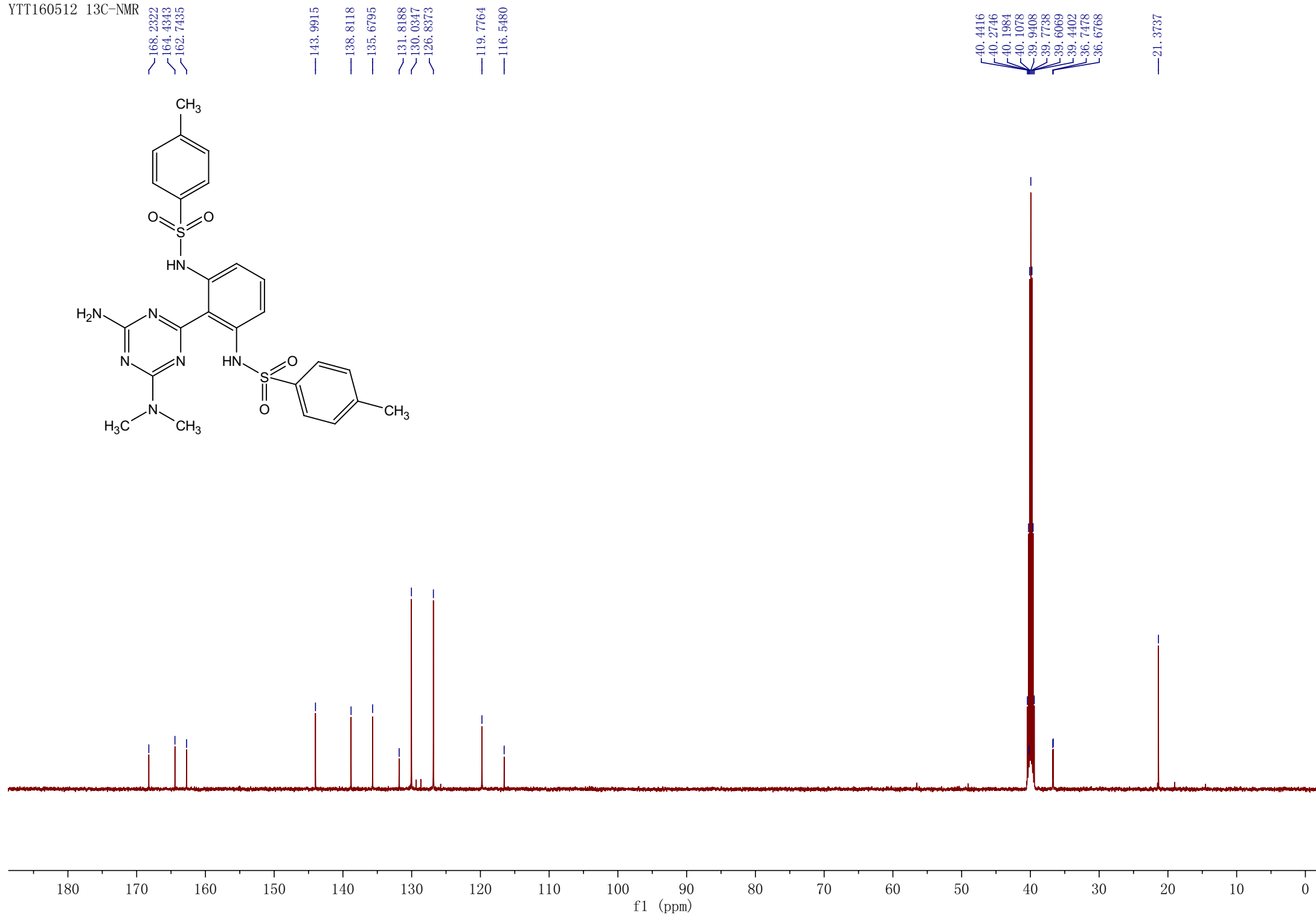
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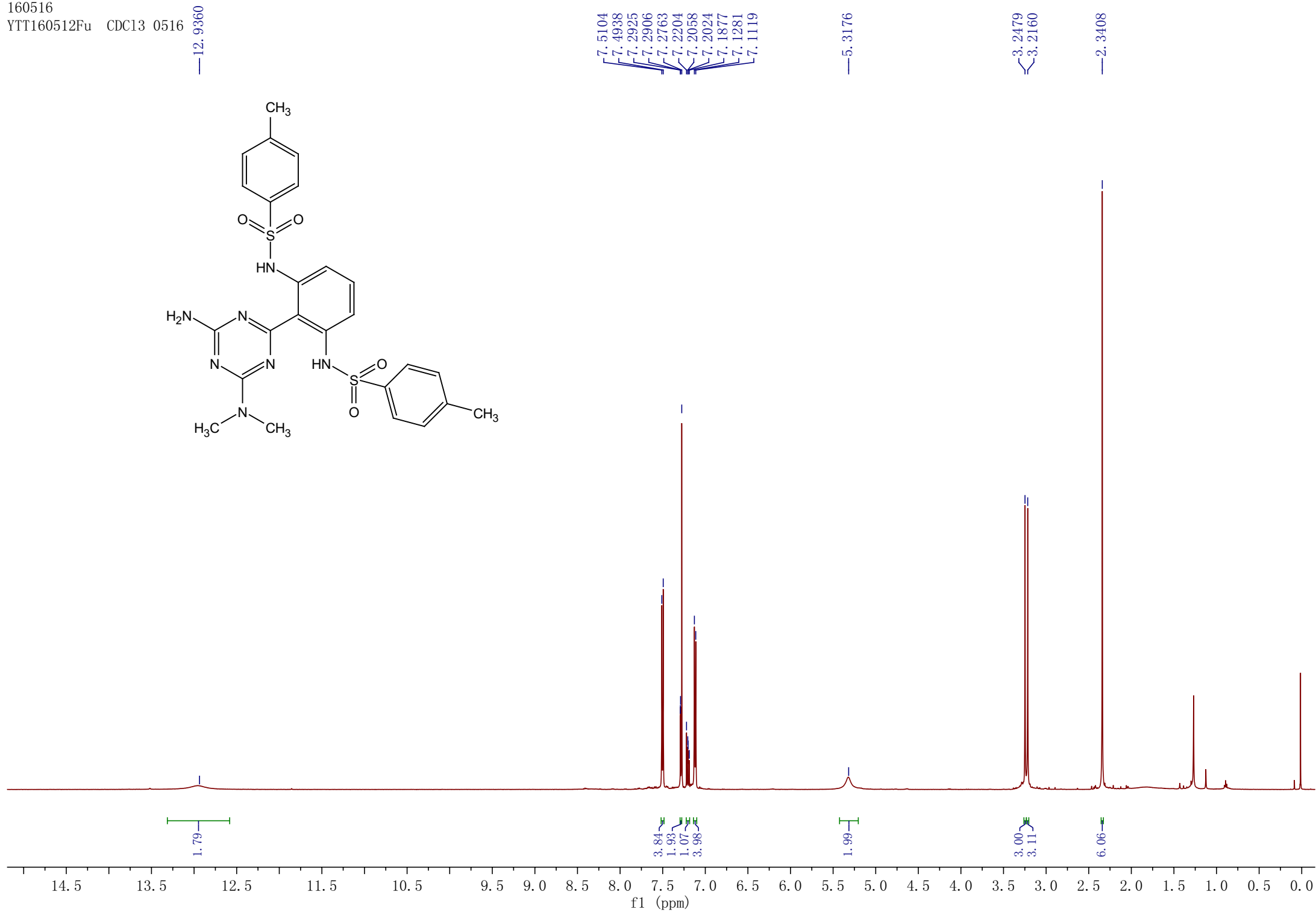
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YTT170106b DMSO 0425
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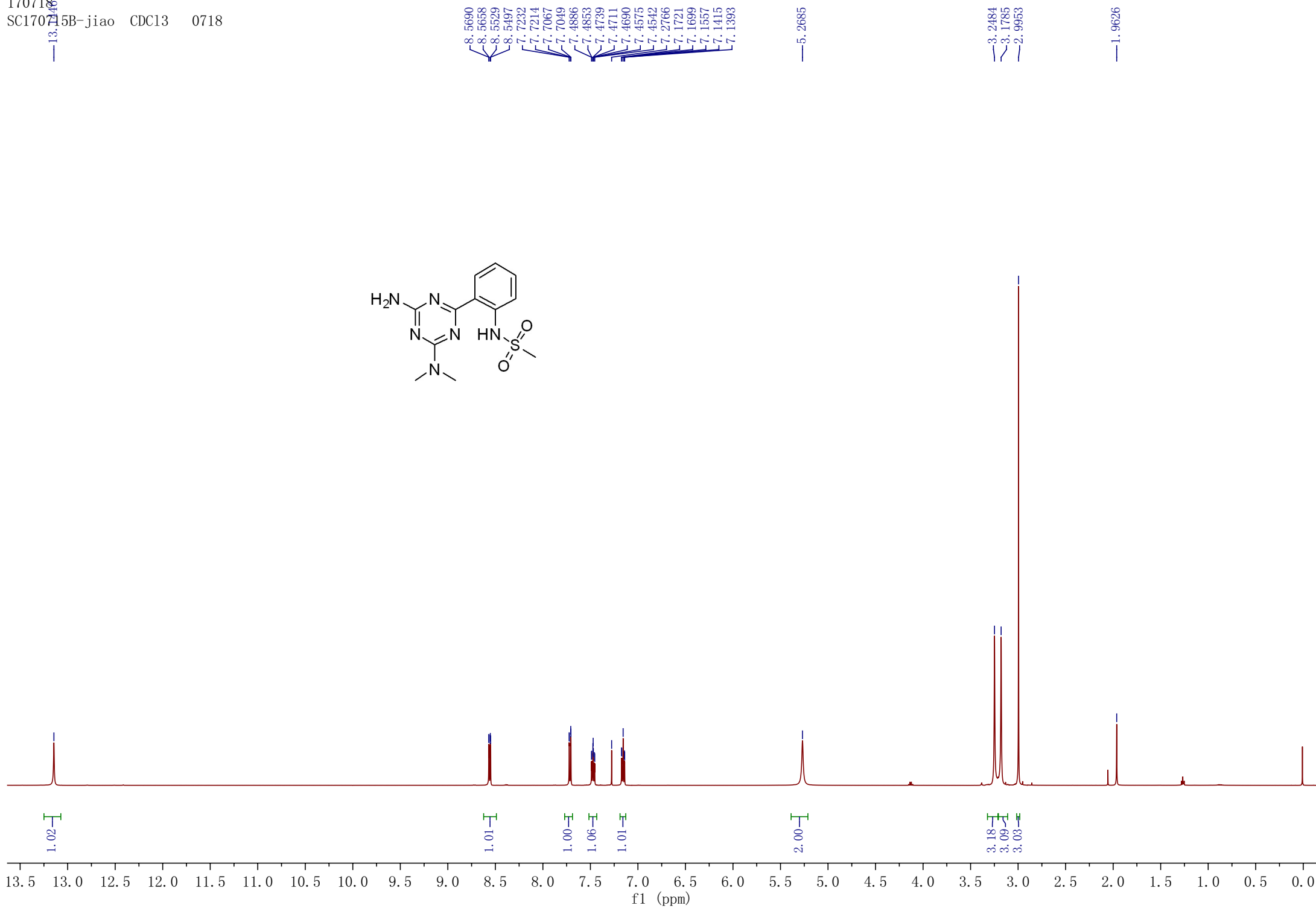
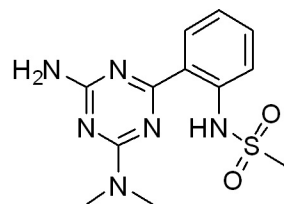
YTT160512 13C-NMR



160516
YTT160512Fu CDC13 0516



170718
SC170715B-jiao CDC13 0718



170720
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