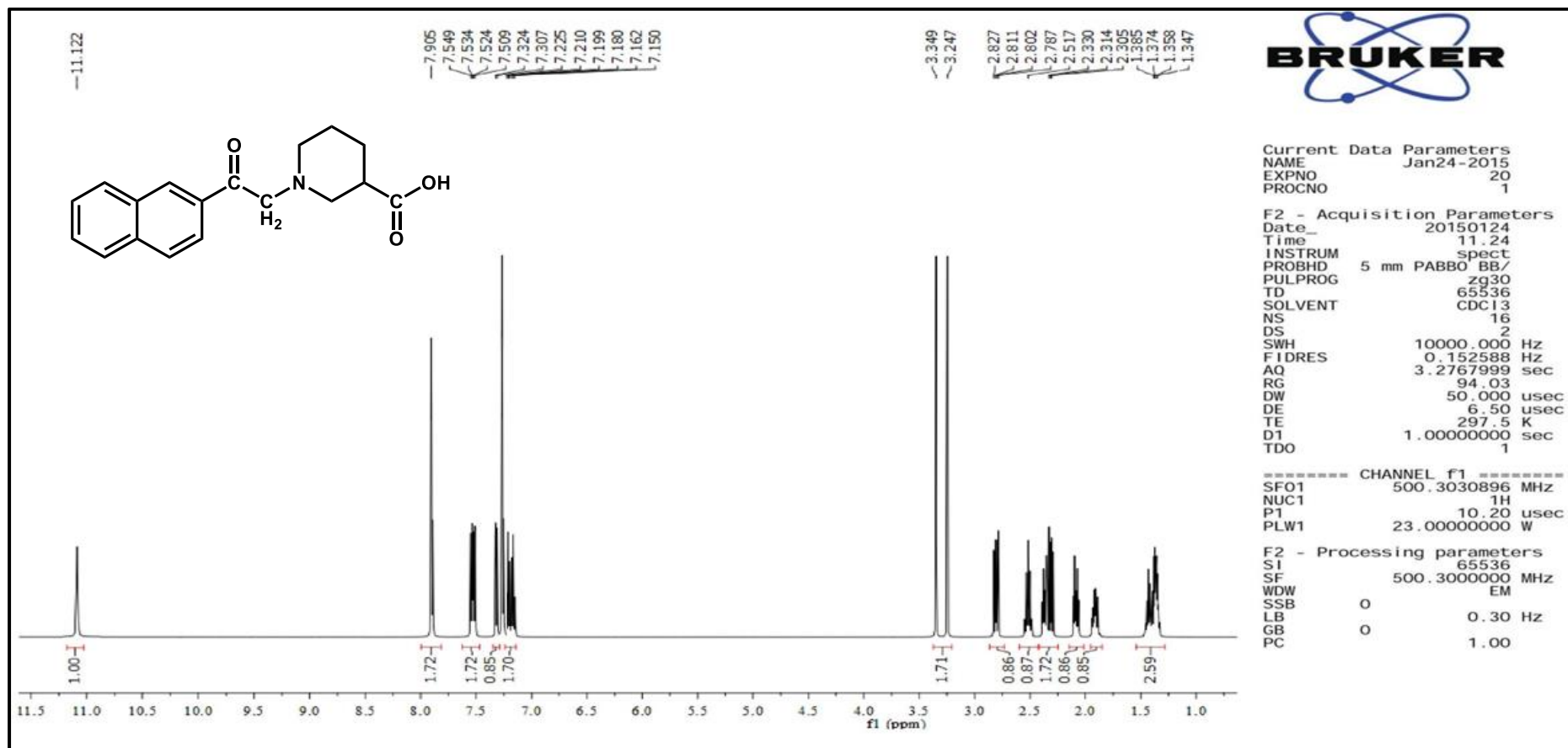
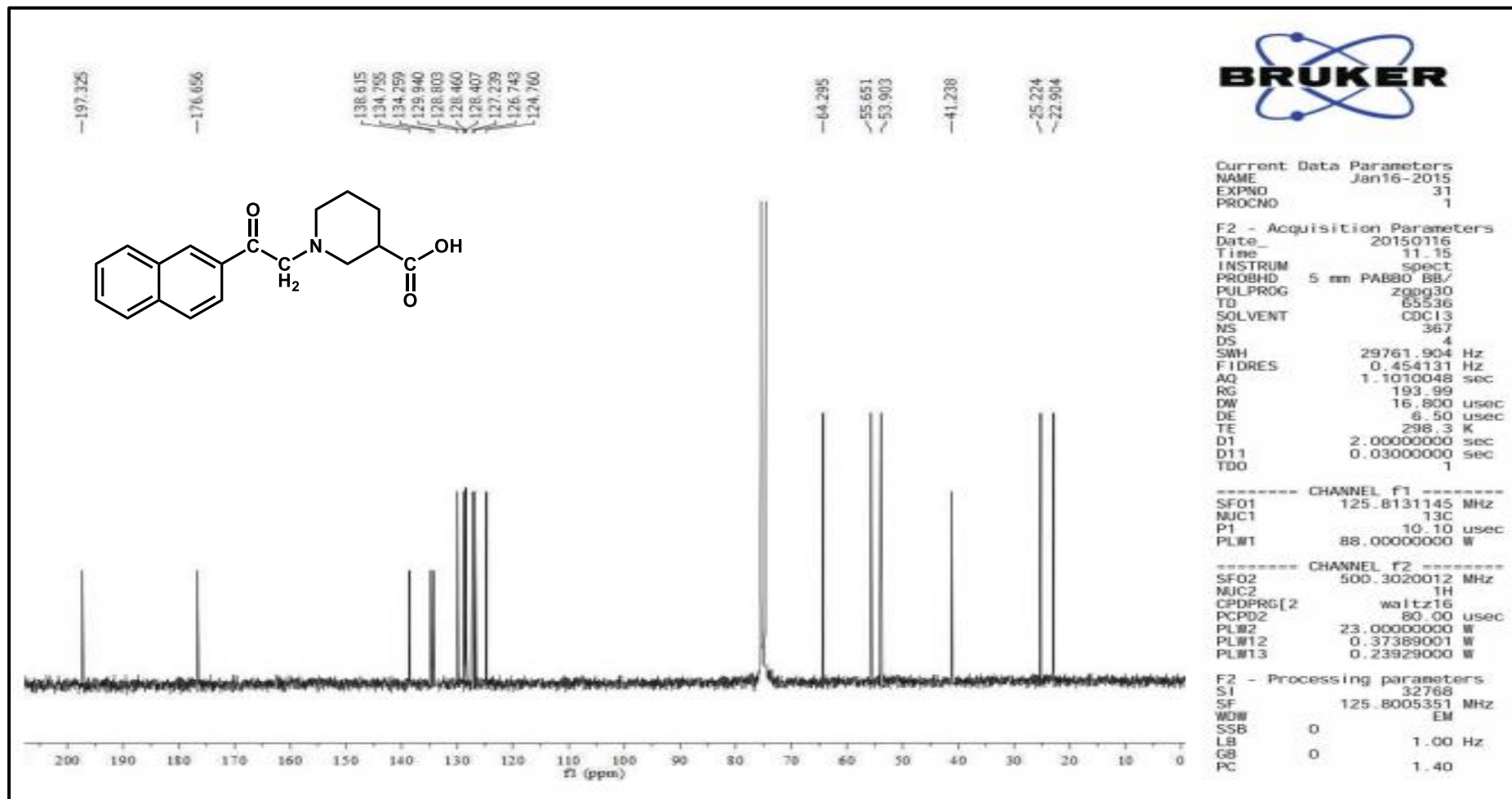
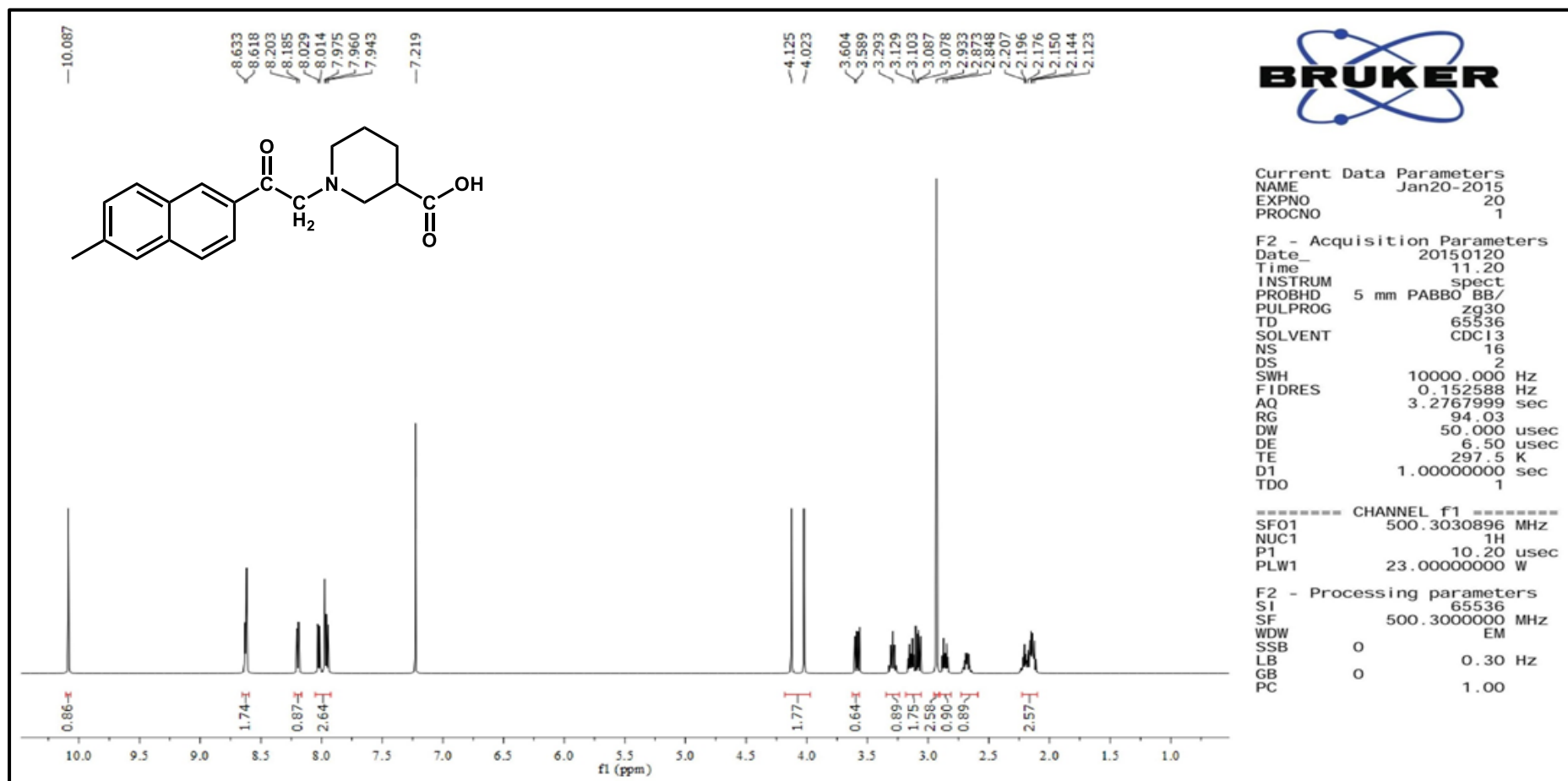


APPENDIX A:  $^1\text{H}$  AND  $^{13}\text{C}$  NMR SPECTRA OF REPRESENTATIVE COMPOUNDS FROM SERIES 1 $^1\text{H}$  NMR spectra of 1-(2-(Naphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1a)

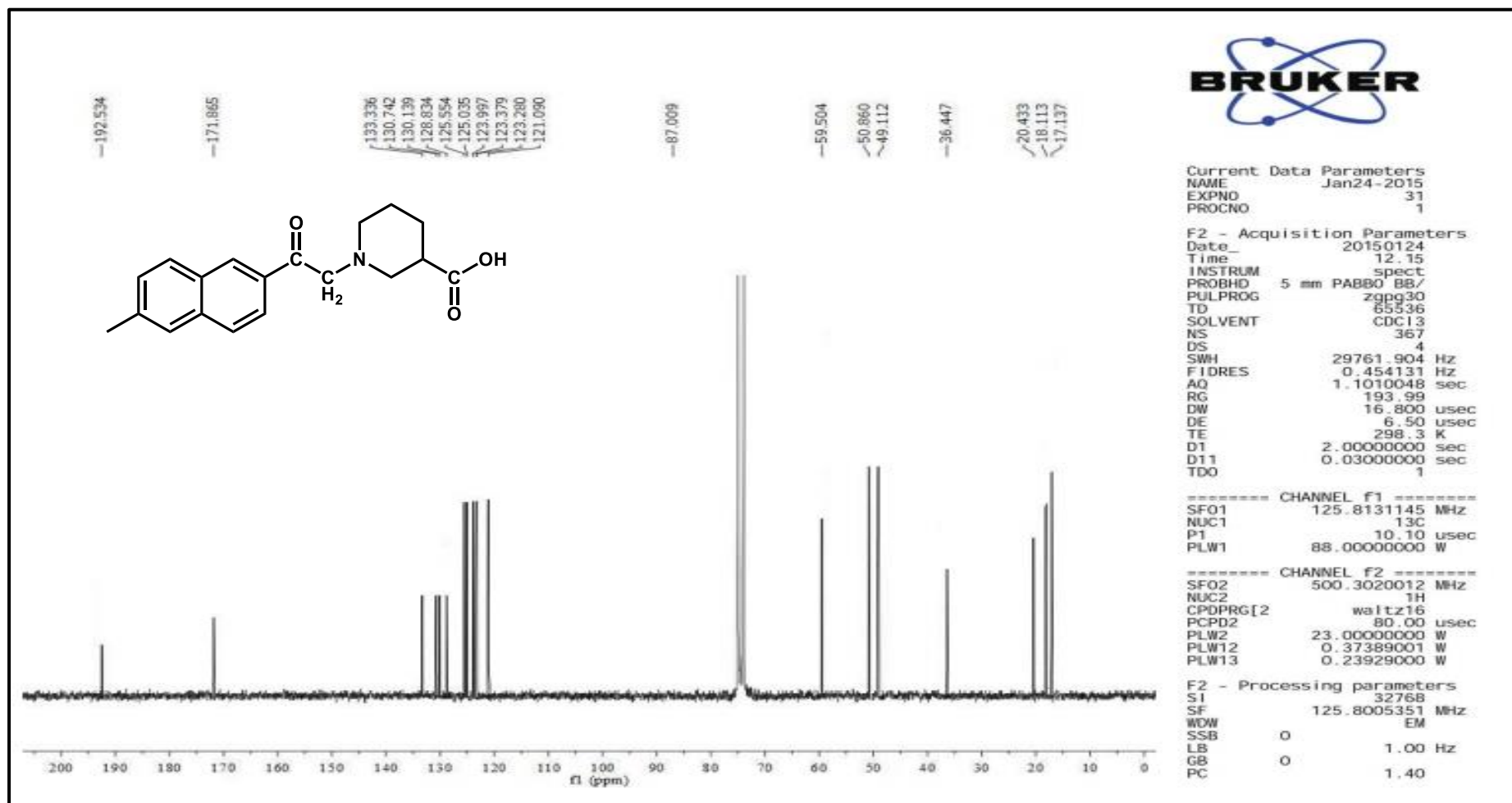
$^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ )  $\delta$  ppm: 11.12 (s, 1H, COOH), 7.90-7.15 (m, 7H, naphthalene), 3.29 (s, 2H,  $\text{NCH}_2$ ), 2.82-2.06 (m, 5H, piperidine), 1.95-1.34 (m, 4H, piperidine).

$^{13}\text{C}$  NMR spectra of 1-(2-(Naphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1a)

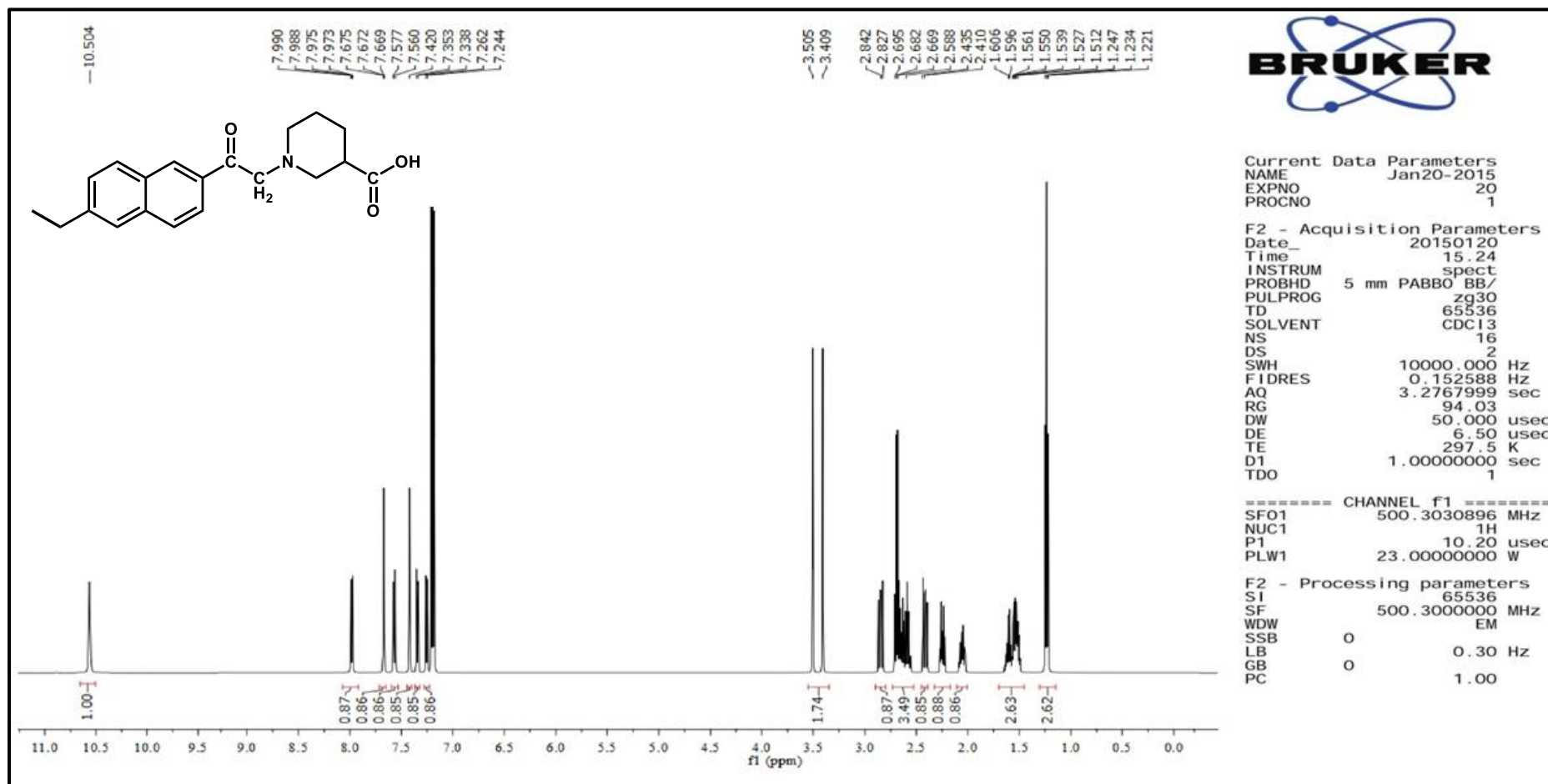
$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  ppm: 197.3, 176.6, 138.6, 134.7, 129.9, 128.4, 127.2, 126.7, 124.7, 64.29, 55.6, 53.9, 41.2, 25.2, 22.9.

**<sup>1</sup>H NMR spectra of 1-(2-(6-Methylnaphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1b)**

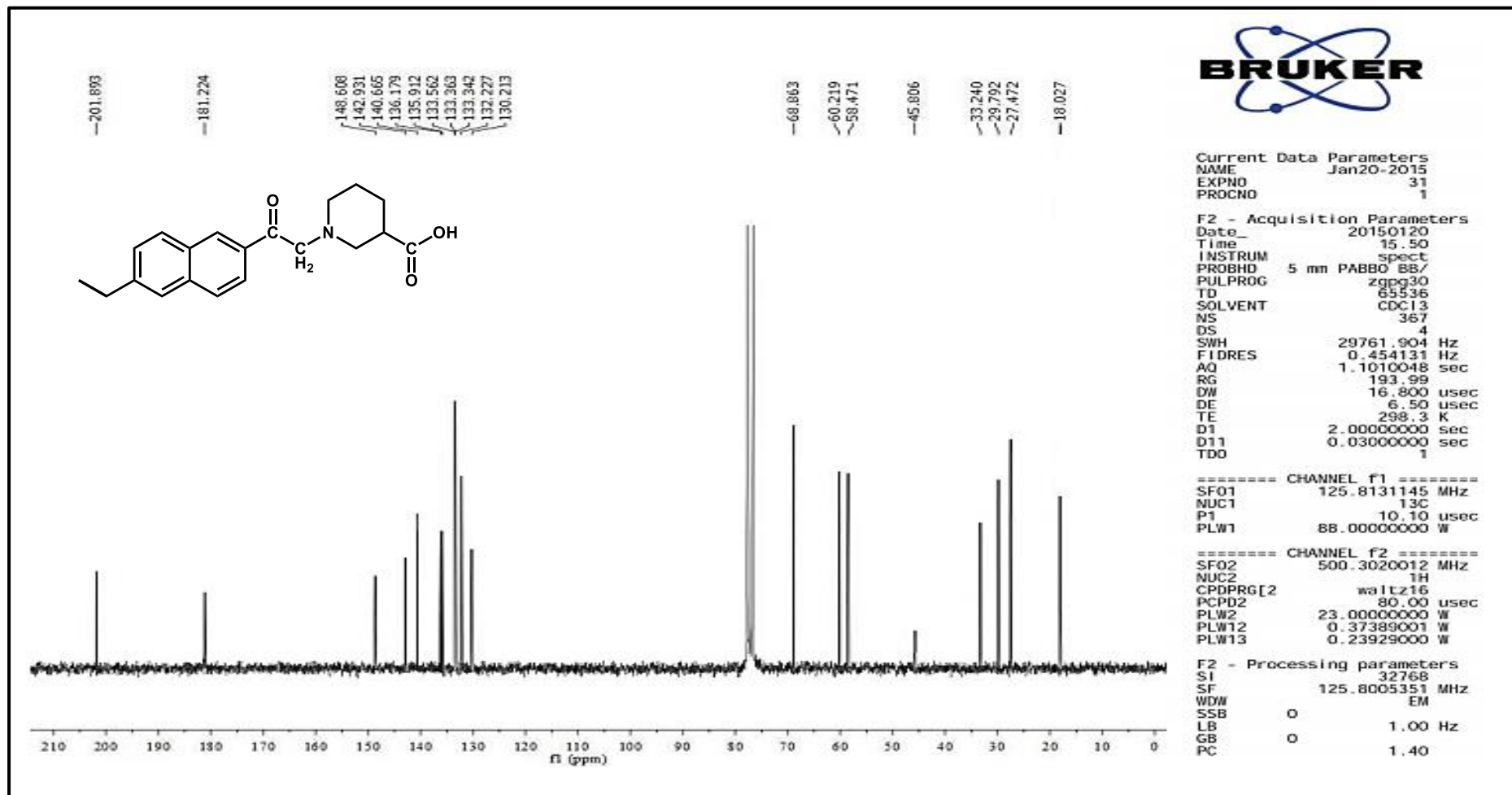
<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) 10.08 (s, 1H, COOH), 8.62-7.94 (m, 6H, naphthalene), 4.07 (s, 2H, NCH<sub>2</sub>), 3.60-3.07 (m, 5H, piperidine), 2.87-2.12 (m, 4H, piperidine).

$^{13}\text{C}$  NMR spectra of 1-(2-(6-Methylnaphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1b)

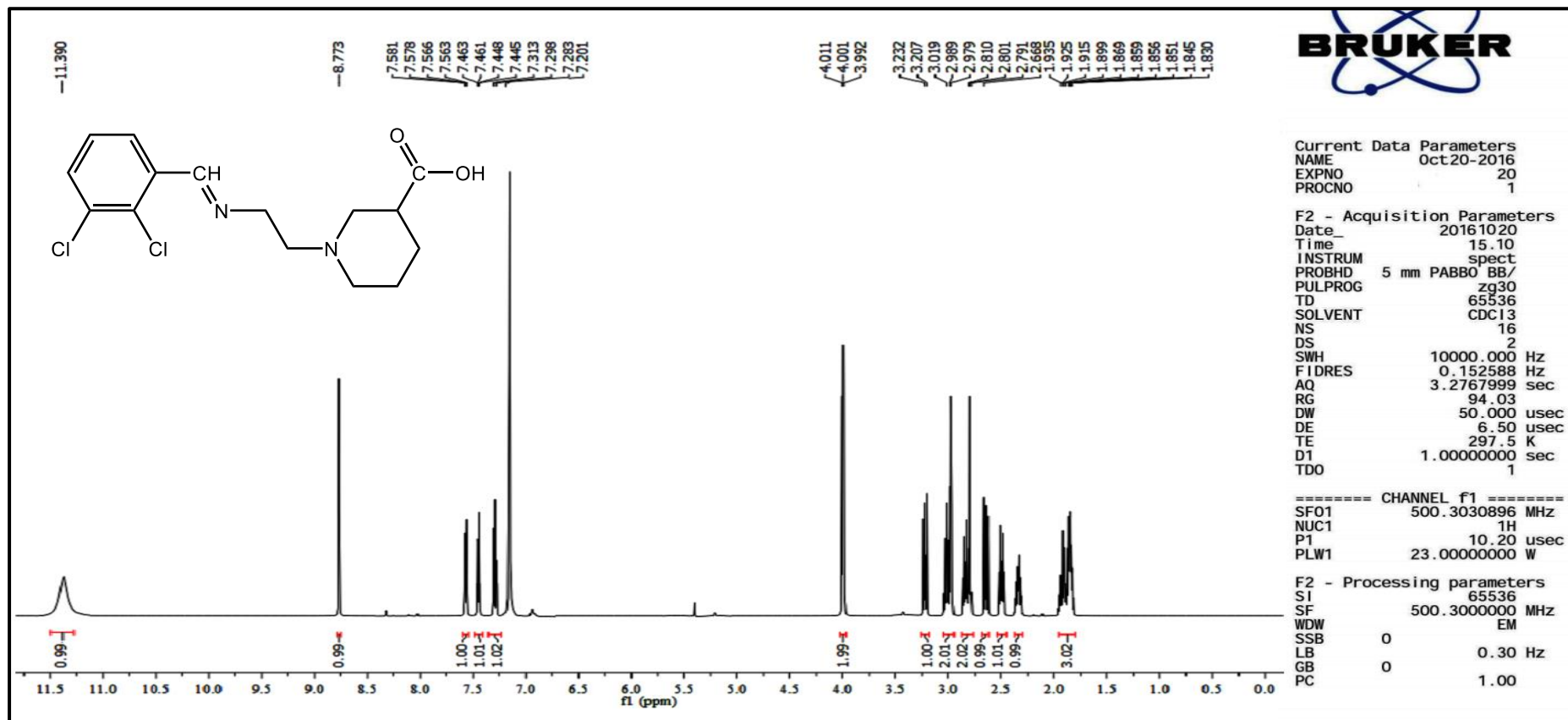
$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  ppm: 192.5, 171.8, 133.3, 130.7, 130.1, 128.8, 125.5, 123.9, 123.2, 121.1, 59.5, 50.8, 49.1, 36.4, 20.4, 18.1, 17.1.

**<sup>1</sup>H NMR spectra of 1-(2-(6-Ethyl-naphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1i)**

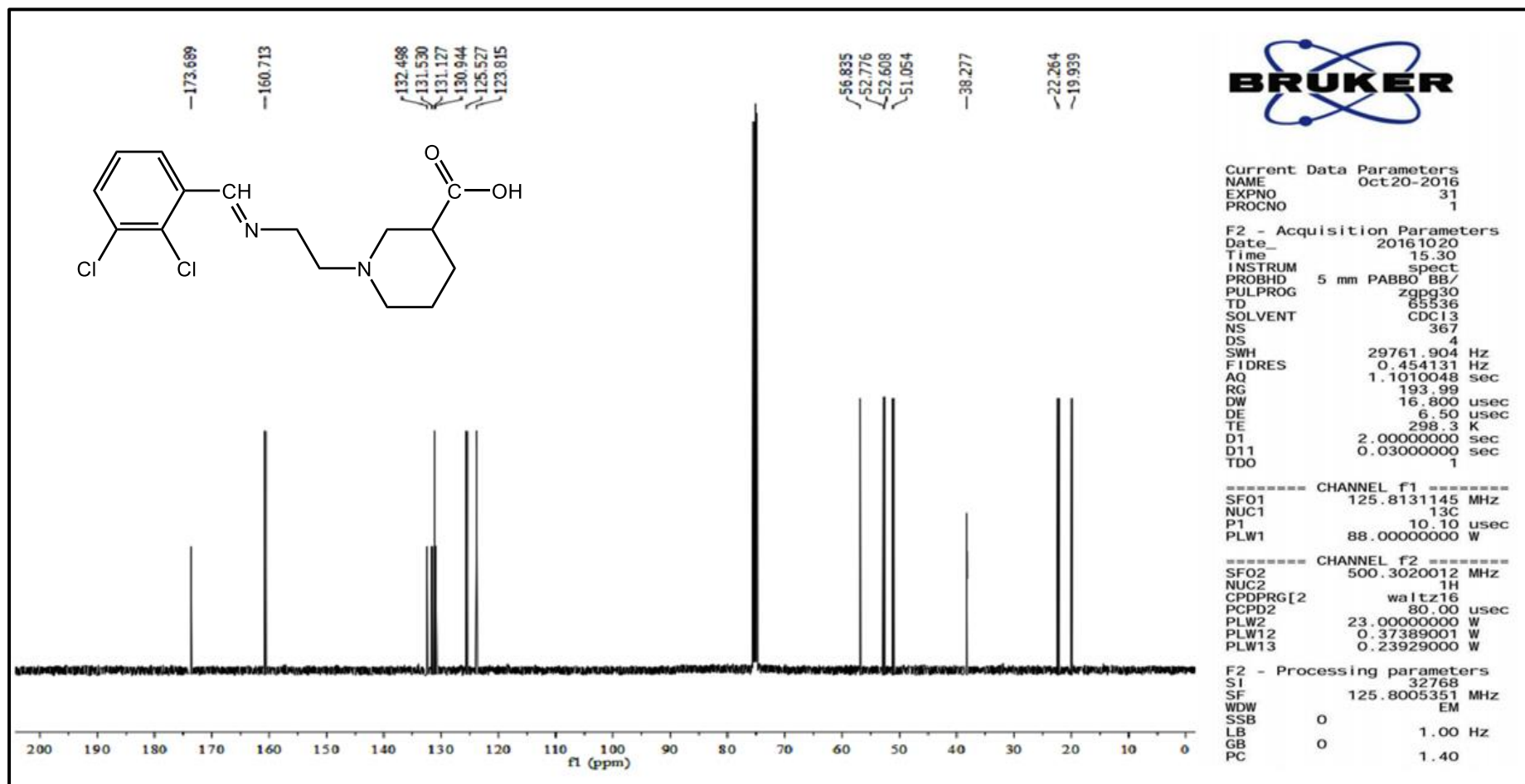
<sup>1</sup>H NMR (500 MHz, CdCl<sub>3</sub>) δ ppm: 10.50 (s, 1H, COOH), 8.50-7.33 (m, 6H, naphthalene), 3.46 (s, 2H, NCH<sub>2</sub>), 2.84-2.41 (m, 6H, piperidine), 2.67 (m, 2H, naphthalene, CH<sub>2</sub>), 1.60-1.51 (m, 3H, piperidine), 1.23 (s, 3H, naphthalene, CH<sub>3</sub>).

$^{13}\text{C}$  NMR spectra of 1-(2-(6-Ethynaphthalen-2-yl)-2-oxoethyl)piperidine-3-carboxylic acid (4S1i)

$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  ppm: 201.8, 181.2, 148.6, 142.9, 140.6, 136.1, 133.4, 132.2, 130.2, 68.8, 60.2, 58.4, 45.8, 33.2, 29.7, 27.4, 18.0.

APPENDIX B: <sup>1</sup>H AND <sup>13</sup>C NMR SPECTRA OF REPRESENTATIVE COMPOUNDS FROM SERIES 2<sup>1</sup>H NMR spectra of 1-(2-((2,3-dichlorobenzylidene)amino)ethyl)piperidine-3-carboxylic acid (5S2d)

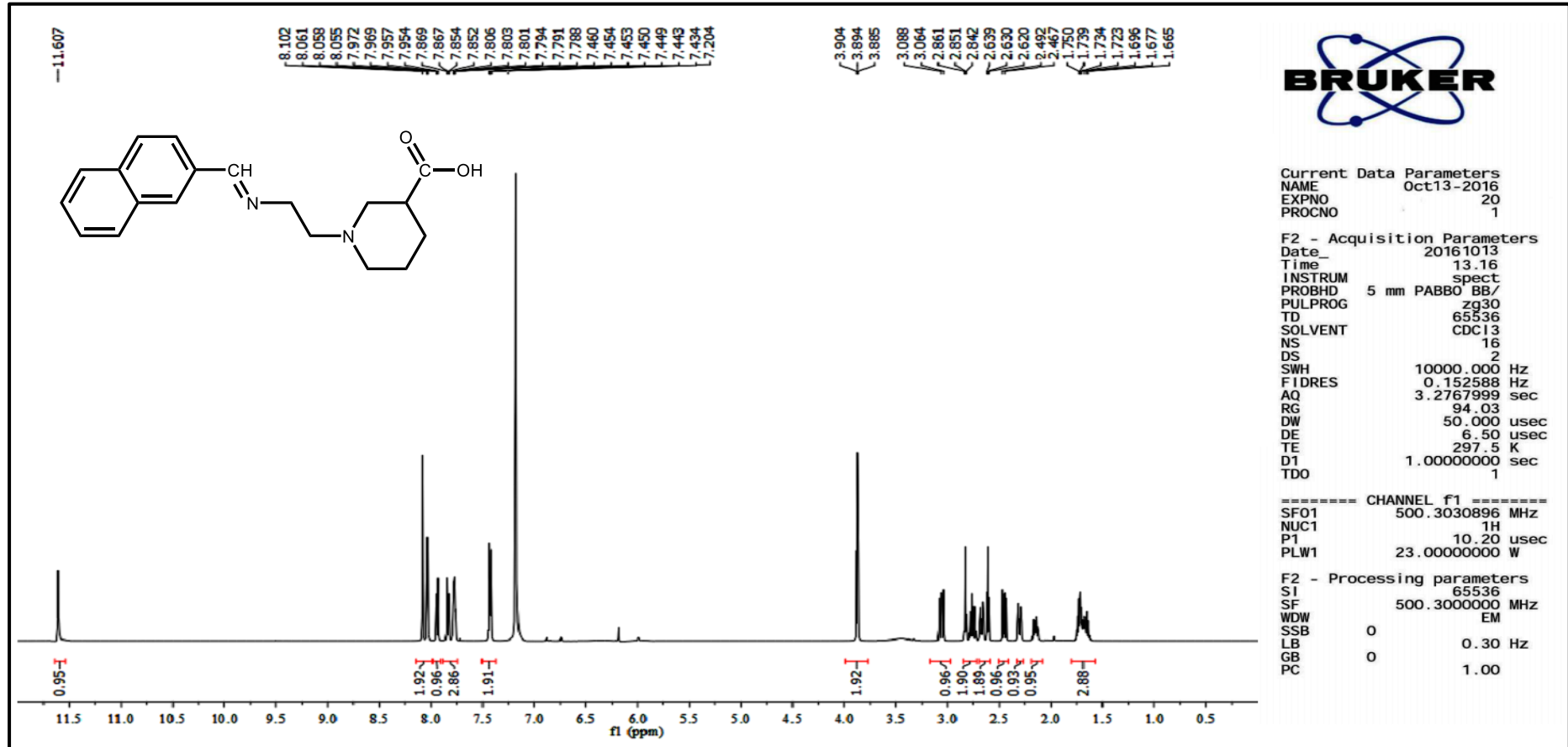
<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) δ = 11.39 (s, 1H, COOH), 8.77 (s, 1H, imine CH=N), 7.58-7.20 (m, 3H, phenyl), 4.00 (t, *J* = 4.8 Hz, 2H, C=NCH<sub>2</sub>), 3.23 (dd, *J* = 12.3, 7.7 Hz, 1H, piperidine), 3.05-2.96 (m, 2H, NCH<sub>2</sub>), 2.86-2.79 (m, 2H, piperidine), 2.65 (dd, *J* = 12.3, 7.7 Hz, 1H, piperidine), 2.52-2.47 (m, 1H, piperidine), 2.37-2.31 (m, 1H, piperidine), 1.92-1.83 (m, 3H, piperidine).

$^{13}\text{C}$  NMR spectra of 1-(2-((2,3-dichlorobenzylidene)amino)ethyl)piperidine-3-carboxylic acid (5S2d)

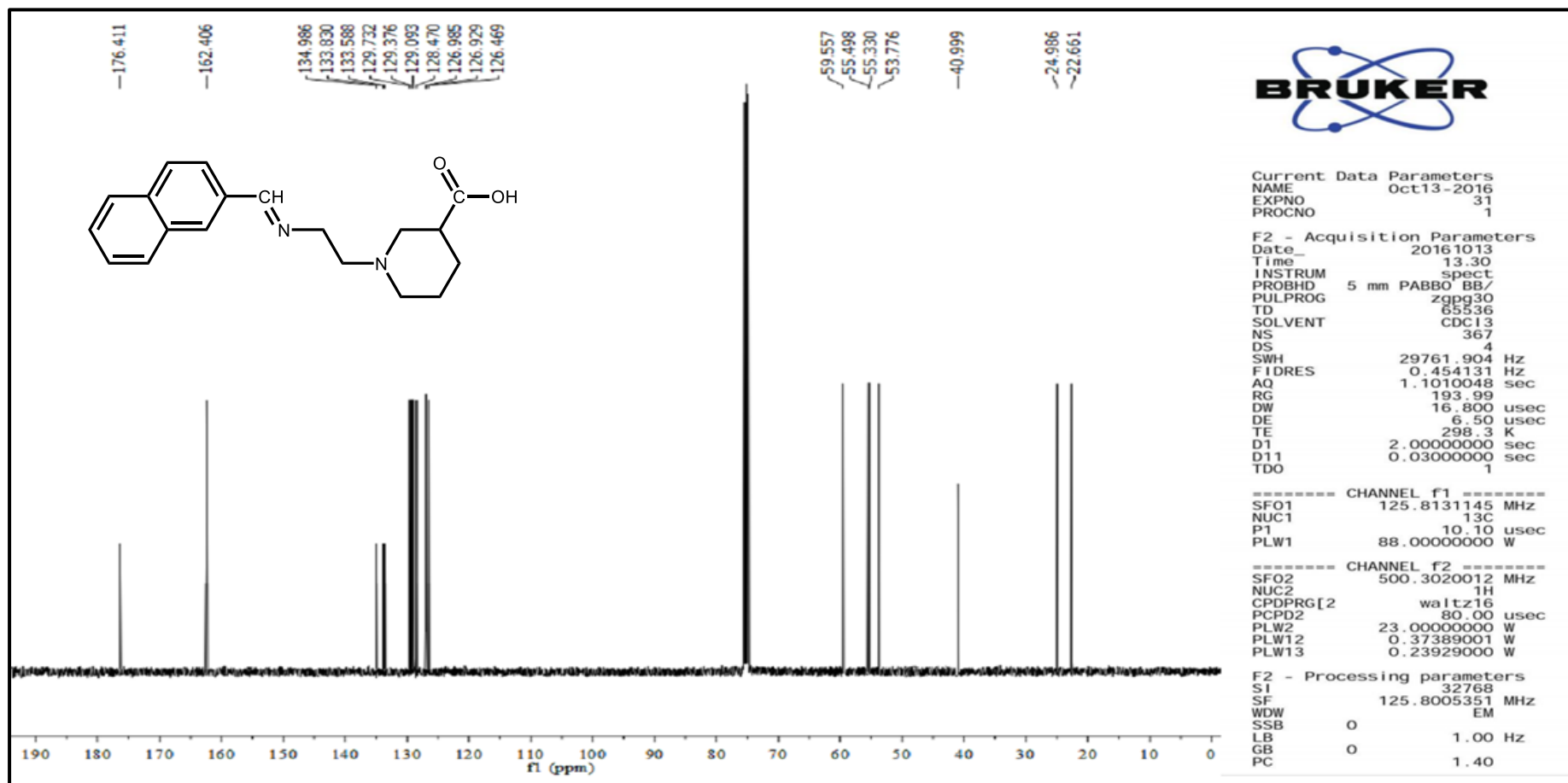
$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  = 173.68, 160.7, 132.4, 131.5, 131.1, 130.9, 125.5, 123.8, 56.8, 52.7, 52.6, 51.0, 38.2, 22.2, 19.9.



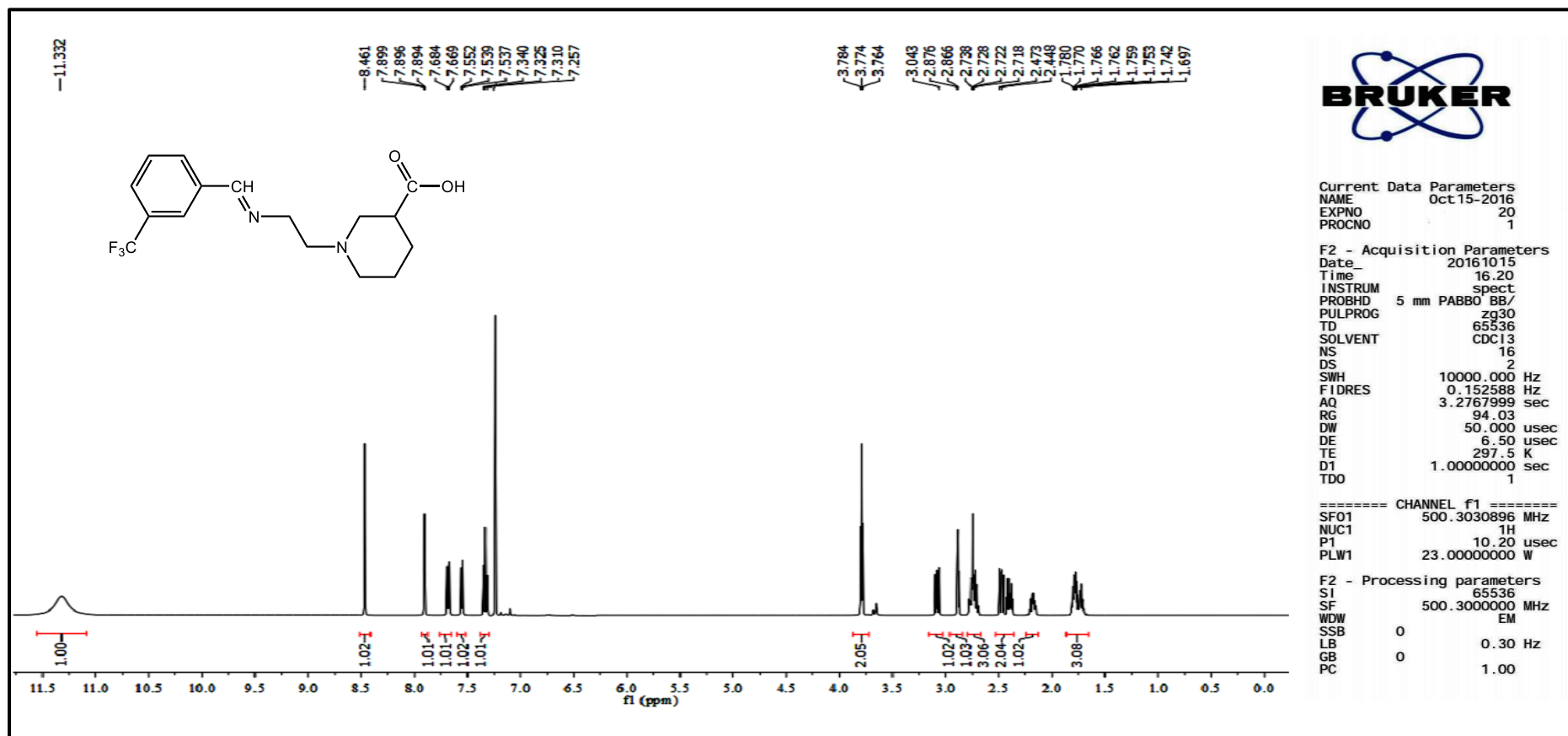
<sup>1</sup>H NMR spectra of 1-(2-((naphthalen-2-ylmethylene)amino)ethyl)piperidine-3-carboxylic acid (5S2w)



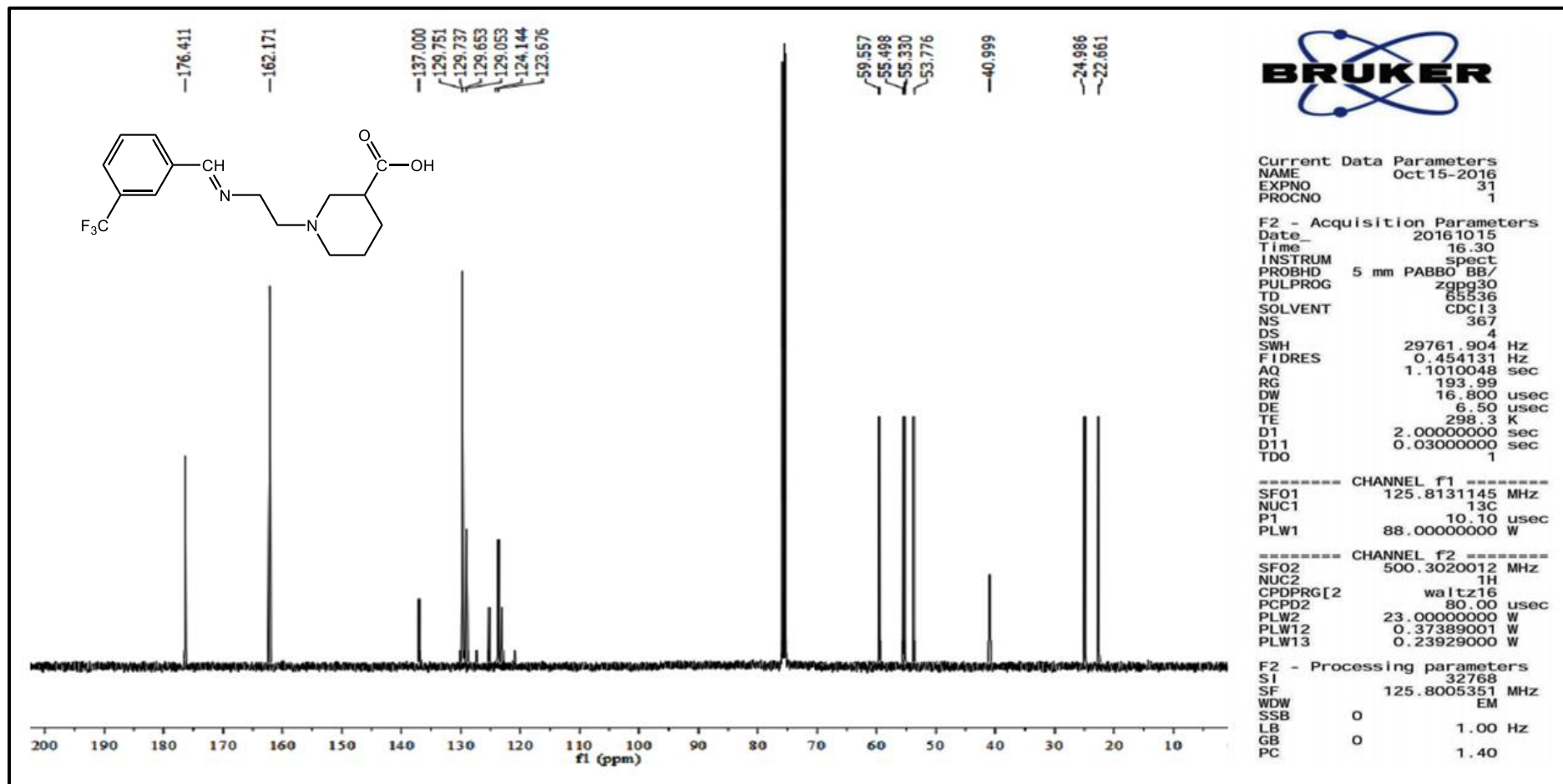
<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) δ = 11.6 (s, 1H, COOH), 8.10 (s, 1H, imine CH=N), 8.08-7.26 (m, 7H, naphthyl H), 3.89 (t, *J* = 4.8 Hz, 2H, C=NCH<sub>2</sub>), 3.08 (dd, *J* = 12.3, 7.7 Hz, 1H, piperidine), 2.81 (m, 2H, NCH<sub>2</sub>), 2.74-2.57 (m, 2H, piperidine), 2.47 (dd, *J* = 12.5, 7.7 Hz, 1H, piperidine), 2.38-2.30 (m, 1H, piperidine), 2.25-2.12 (m, 1H, piperidine), 1.87-1.60 (m, 3H, piperidine).

**$^{13}\text{C}$  NMR spectra of 1-(2-((naphthalen-2-ylmethylene)amino)ethyl)piperidine-3-carboxylic acid (5S2w)**

$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  = 176.4, 162.4, 134.9, 133.8, 133.5, 129.7, 129.3, 129.0, 128.4, 126.98, 126.92, 126.4, 59.5, 55.4, 55.3, 53.7, 40.9, 24.9, 22.6.

**<sup>1</sup>H NMR spectra of 1-(2-((3-(trifluoromethyl)benzylidene)amino)ethyl)piperidine-3-carboxylic acid (5S2y)**

<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  = 11.33 (s, 1H, COOH), 8.46 (s, 1H, imine CH=N), 7.89-7.25 (m, 4H, phenyl), 3.77 (t,  $J$  = 5.1 Hz, 2H, C=NCH<sub>2</sub>), 3.06 (dd,  $J$  = 12.5, 7.7 Hz, 1H, piperidine), 2.87 (t,  $J$  = 5.0 Hz, 1H, NCH<sub>2</sub>), 2.81-2.65 (m, 3H, NCH<sub>2</sub>, piperidine), 2.53-2.29 (m, 2H, piperidine), 2.23-2.07 (m, 1H, piperidine), 1.88-1.64 (m, 3H, piperidine).

$^{13}\text{C}$  NMR spectra of 1-(2-((3-(trifluoromethyl)benzylidene)amino)ethyl)piperidine-3-carboxylic acid (5S2y)

$^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$ )  $\delta$  = 176.4, 162.1, 137.0, 129.75, 129.73, 129.6, 129.0 (q,  $J_{\text{C,F}}$  = 33.2 Hz, phenyl C-3), 124.1, 123.6 (q,  $J_{\text{C,F}}$  = 272.5 Hz,  $\text{CF}_3$ ), 59.5, 55.4, 55.3, 53.7, 40.9, 24.9, 22.6.