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SUPPLEMENTARY MATERIAL TO

Antidiabetic potential of simple carbamate derivatives: Comparative experimental and computational study

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SPECTROSCOPIC DATA AND YIELDS OF SYNTHESIZED COMPOUNDS 1-5

Methyl dec-9-en-1-ylcarbamate [**1**] Yield: 0.30 g (92 %); pale yellow oil. ^{1}H NMR (200 MHz, $CDCl_3$): δ= 5.81 (ddt, J = 16.9, 10.1, 6.6 Hz, 1H), 5.08 – 4.87 (m, 2H), 4.80 (br s, 1H), 3.66 (s, 3H), 3.16 (dd, J = 13.1, 6.5 Hz, 2H), 2.13 – 1.94 (m, 2H), 1.61 – 1.17 (m, 12H) ppm. ^{13}C NMR (50 MHz, $CDCl_3$): δ=157.1, 139.1, 114.1, 51.9, 41.0, 33.7, 29.9, 29.2, 29.1, 28.9, 28.8, 26.6 ppm. (+)ESI-ToF-HRMS m/z: calculated for [$C_{12}H_{23}NO_2$ + H+] 214.18016, observed 214.17992.

The spectra are in accordance with the previously reported data.[1]

Methyl benzylcarbamate [**2**] Yield: 0.25 g (86 %); white amorphous solid; mp: 65 °C. ^{1}H NMR (200 MHz, $CDCl_3$): δ= 7.46 – 7.10 (m, 5H), 5.19 (br s, 1H), 4.34 (d, J = 6.0 Hz, 2H), 3.67 (s, 3H) ppm. ^{13}C NMR (50 MHz, $CDCl_3$): δ= 157.1, 138.5, 128.5, 127.4, 52.0, 44.9 ppm. (+)ESI-ToF-HRMS m/z: calculated for [$C_9H_{11}NO_2$ + H+] 166.08626, observed 166.08596.

The spectra are in accordance with the previously reported data.[1]

Methyl phenylcarbamate [**3**] Yield 0.52 g (90 %); white powder; mp: 47 °C. ^{1}H NMR (200 MHz, $CDCl_3$): δ= 7.67 (br. s, 1H), 7.37 (ddd, J = 4.4, 3.3, 1.8 Hz, 2H), 7.30 – 7.12 (m, 2H), 7.03 – 6.90 (m, 1H), 3.63 (s, 3H) ppm. ^{13}C NMR (50 MHz, CD_3CN): δ= 155.6, 140.2, 130.2, 124.3, 119.9, 52.9 ppm. (+)ESI-ToF-HRMS m/z: calculated for [$C_8H_9NO_2$ + H+] 152.07060, observed 152.07036.

The spectra are in accordance with the previously reported data.[1]

Methyl m-tolylcarbamate [**4**] Yield 0.33 g (92 %); Yield: 0.33 g (89 %); pale yellow solid; mp: 57-58°C. ^{1}H NMR (500 MHz, CD_3CN) δ = 7.67 (d; J = 0.7 Hz; 1H); 7.29 – 7.21 (m, 2H); 7.17 (t; J = 7.8 Hz; 1H); 6.91 – 6.82 (m; 1H); 3.69 (s; 3H); 2.30 (s; 3H) ppm. ^{13}C NMR (126 MHz, CD_3CN) δ = 155.6 (C=O); 140.2 (C); 140.1 (C); 130.1 (CH); 125.0 (CH);

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120.5 (CH); 117.1 (CH); 53.0 (CH_3); 21.9 (CH_3) ppm. (+)ESI-ToF-HRMS m/z: calculated for [$C_9H_{11}NO_2$ + H+] 166.08626, observed 166.08653.

The spectra are in accordance with the previously reported data.[1]

Methyl (2-ethoxyphenyl)carbamate [**5**] Yield: 0.08 g (85 %); colorless oil. ^{1}H NMR (200 MHz, $CDCl_3$) δ = 8.20 – 7.95 (m; 1H); 7.26 (d; J = 2.2 Hz; 1H); 7.07 – 6.70 (m; 3H); 4.06 (q; J = 7.0 Hz; 2H); 3.78 (s; 3H); 1.42 (t; J = 7.0 Hz; 3H) ppm. ^{13}C NMR (50 MHz, $CDCl_3$) δ = 153.9 (C=O); 146.8 (C), 127.6 (C); 122.6 (CH); 120.9 (CH); 118.0 (CH); 110.8 (CH); 64.0 (CH_2); 52.1 (CH_3); 14.7 (CH_3) ppm. (+)ESI-ToF-HRMS m/z: calculated for [$C_{10}H_{13}NO_3$ + H+] 196.09682, observed 196.09680.

The spectra are in accordance with the previously reported data.[1]

NMR SPECTRA OF COMPOUNDS **1**–**5**

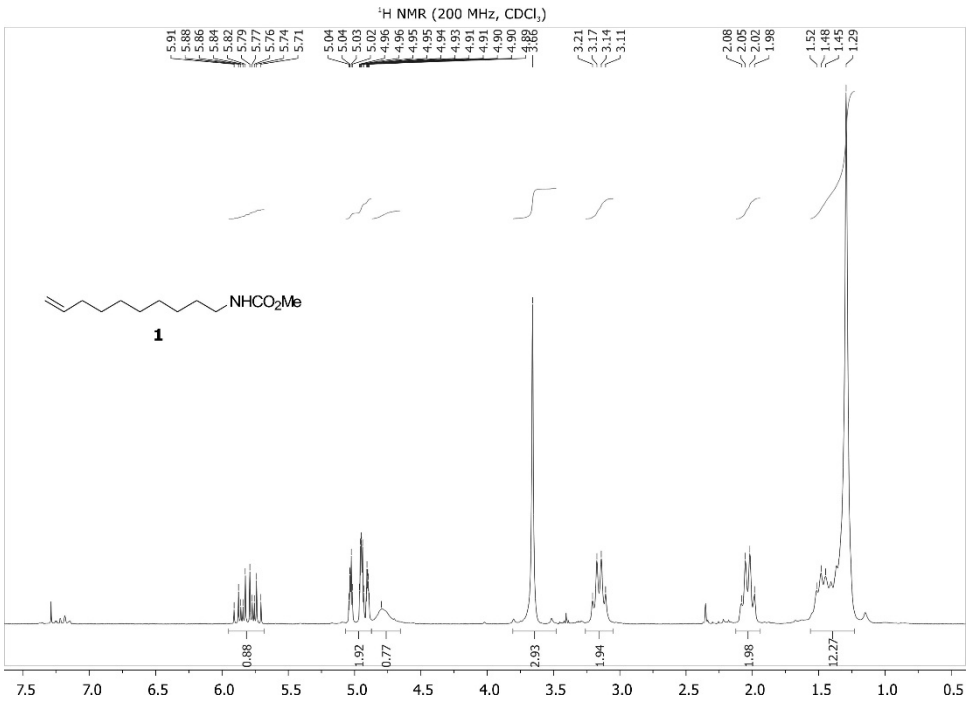

Figure S-1. ^{1}*H NMR of* methyl dec-9-en-1-ylcarbamate **[1]**

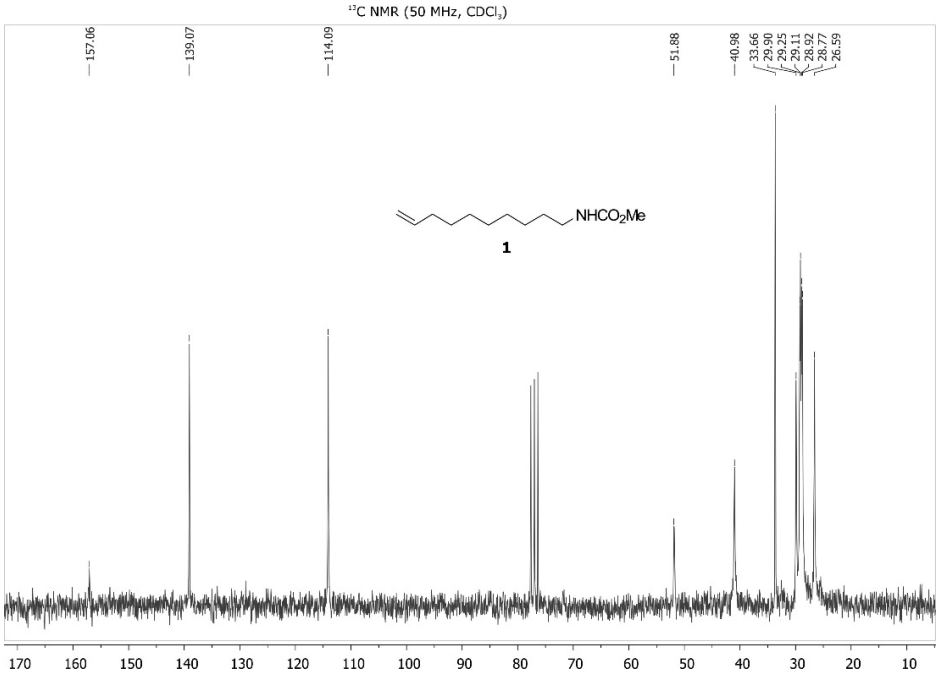

Figure S-2. ^{13}C NMR of methyl dec-9-en-1-ylcarbamate **[1]**

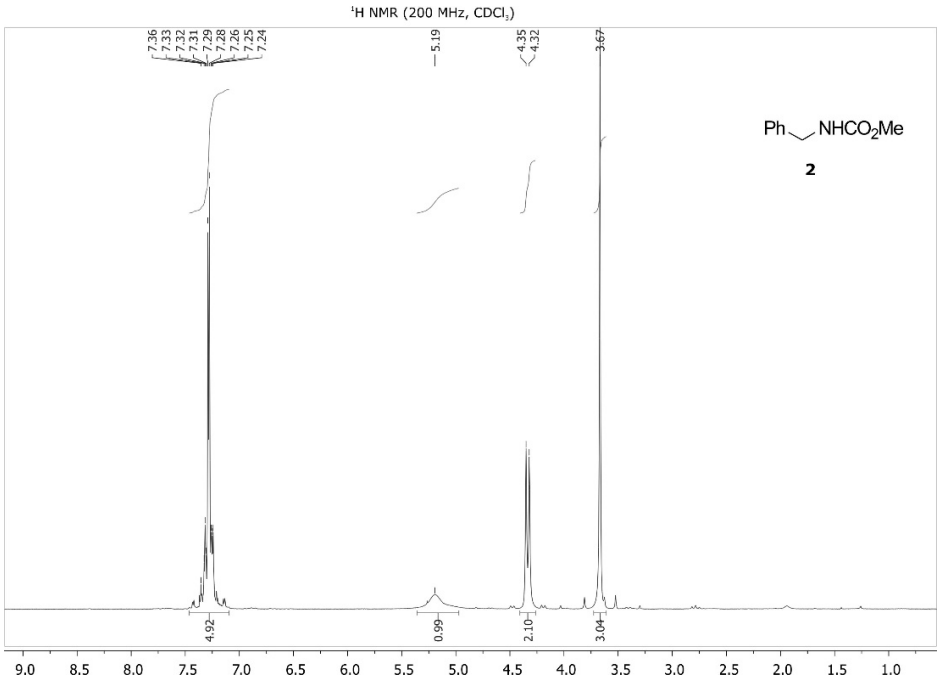

Figure S-3. ^{1}H NMR of methyl benzylcarbamate **[2]**

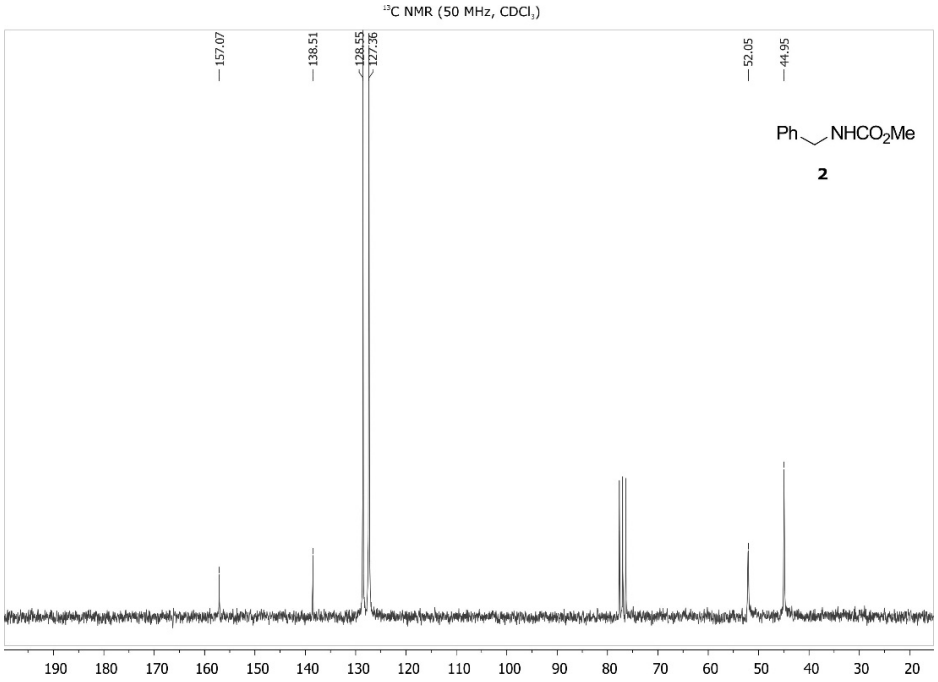

Figure S-4. ^{13}C NMR of methyl benzylcarbamate **[2]**

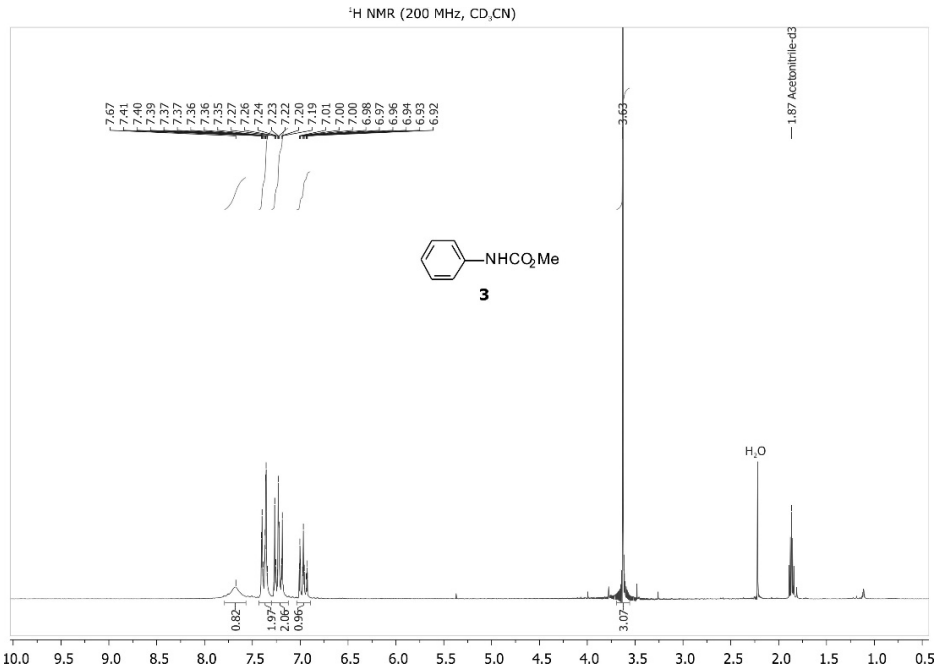

Figure S-5. ^{1}H NMR of methyl phenylcarbamate **[3]**

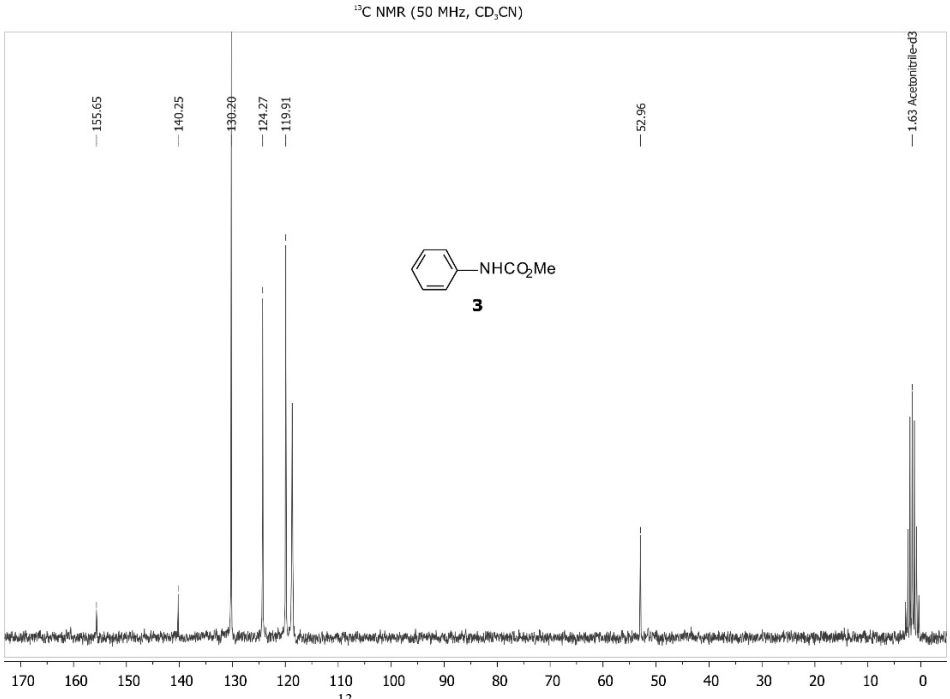

Figure S-6. ^{13}C NMR of methyl phenylcarbamate **[3]**

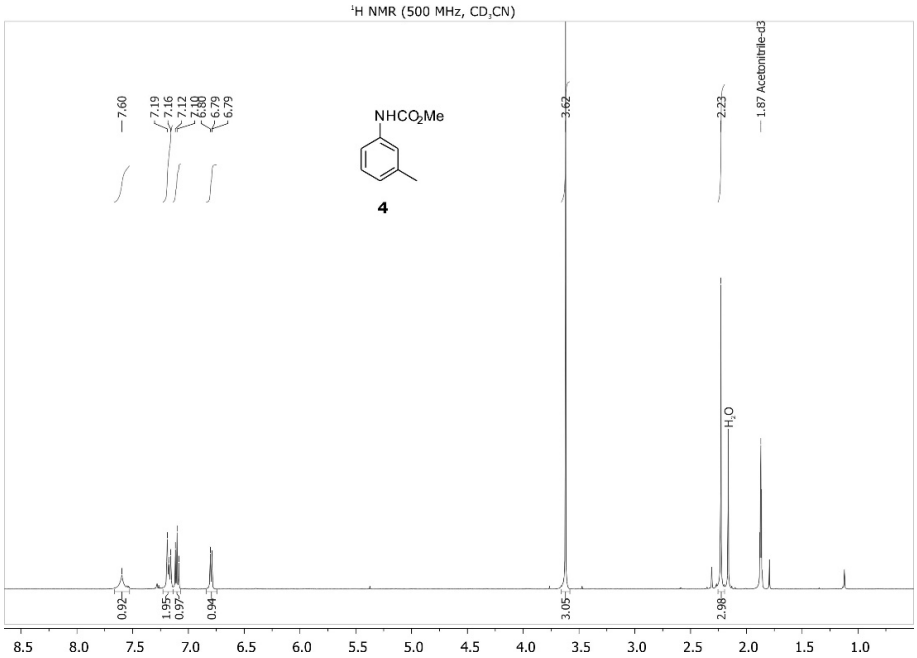

Figure S-7. ^{1}H NMR of methyl m-tolylcarbamate **[4]**

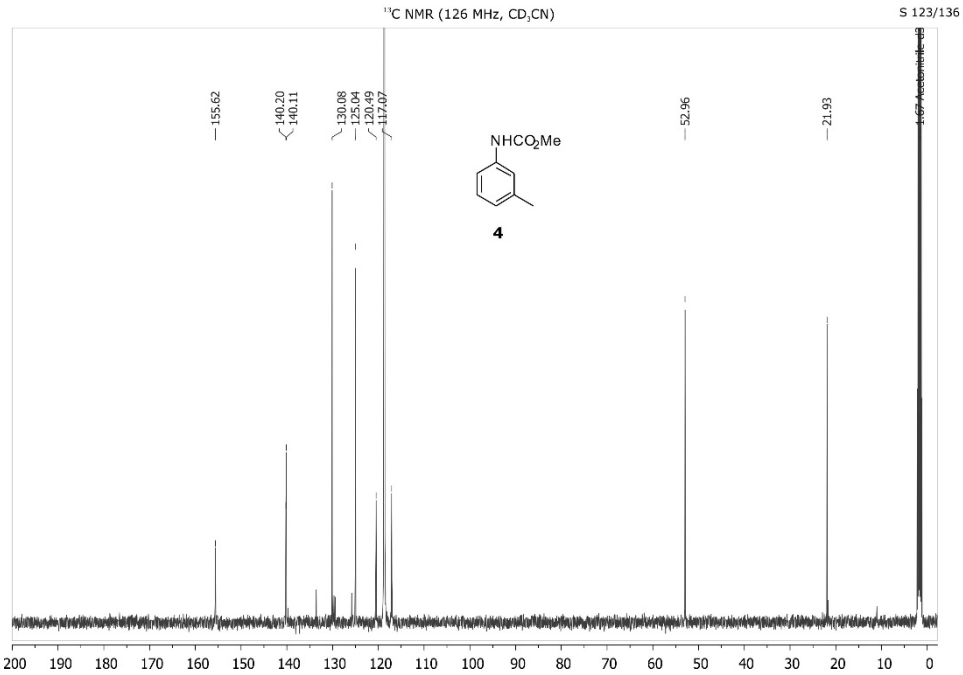

Figure S-8. ^{13}C NMR of methyl m-tolylcarbamate **[4]**

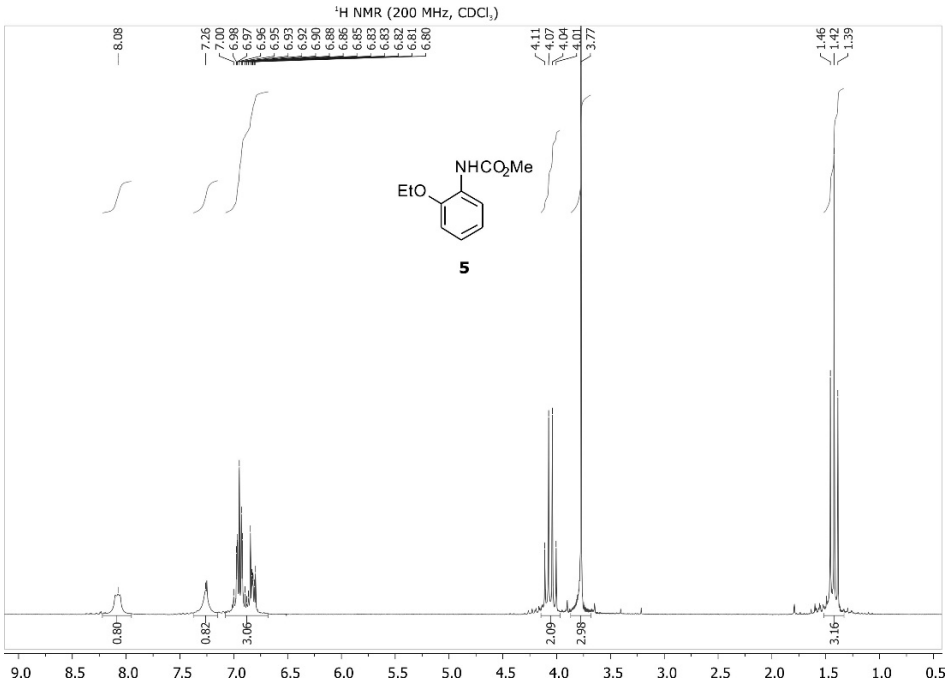

Figure S-9. ^{1}H NMR of methyl (2-ethoxyphenyl)carbamate **[5]**

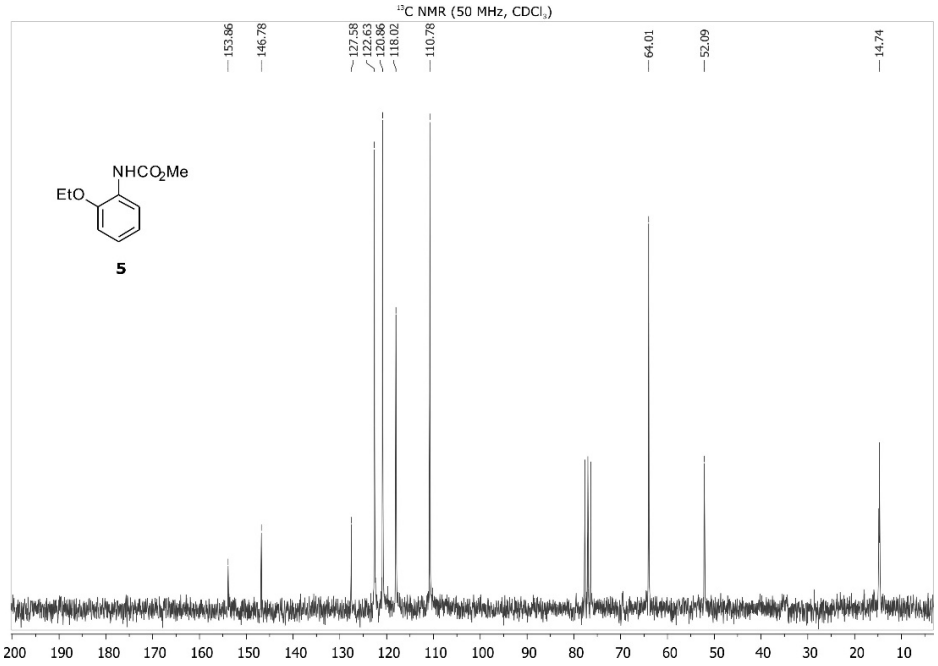

Figure S-10. ^{13}C NMR of methyl (2-ethoxyphenyl)carbamate **[5]**.

REFERENCES

1. I. I. Jevtić, Lj. Došen-Mićović, E. R. Ivanović, M. D. Ivanović, *Synthesis* **48** (2016) 1550 (https://doi.org/10.1055/s-0036-1588985).