SUPPORTING INFORMATION

Palladium-Mediated Three-Component Synthesis of Furo[2,3-b]pyridones by One-Pot Coupling of 3-Iodopyridones, Alkynes, and Organic Halides.

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General remarks: Unless otherwise noted, all reactions were carried out under a nitrogen atmosphere using standard syringe, cannula, and septa techniques. Commercially available reagents were used as purchased. THF and MeCN were distilled over calcium hydride. TLC was carried out on Merck silica 60/F-254 aluminium-backed plates. Flash chromatography was performed using Merck silica gel 60 (40-63 μm). Melting points were determined on a Büchi and are uncorrected. NMR spectra were recorded either on a Brucker ALS 300 or a Brucker AMS 200 spectrometers in the solvent indicated. Chemical shifts δ are reported in ppm relative to the internal reference. High resolution mass spectra were obtained on a Thermofinnigan LCQ-advantage or on a Thermofinnigan MAT95XL.

Iodination, *general procedure*: The 4-alkoxy-2-pyridone derivative (1.0 mmol) and N-iodosuccinimide (400 mg, 1.8 mmol) were dissolved in MeCN (20 mL). The reaction mixture was left to stir for 18h at room temperature and then concentrated *in vacuo*. The residue was purified by column chromatography (silica gel, AcOEt/Petroleum Ether 50/50) to afford the corresponding 3-iodo-2-pyridone.

4-Benzyloxy-3-iodo-1-methyl-2-pyridone (2a): White solid, Mol. Wt.: 341.1 g/mol. Mp: 103°C (decomp.). ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.56 (s, 3H), 5.22 (s, 2H), 5.98 (d, *J* = 7.5 Hz, 1H), 7.26 (d, *J* = 7.5 Hz, 1H), 7.30-7.45 (m, 5H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 38.80; 71.53; 95.79; 127.18; 128.66; 129.12; 135.81; 139.35; 161.82; 167.01. HRMS (CI): MH^+, 341.9995; Calc. for $C_{13}H_{13}INO_2^+$: 341.9991.

4-Methoxy-3-iodo-1-methyl-2-pyridone (2b): Light yellow solid, Mol. Wt.: 265.0 g/mol. Mp: 108°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.60 (s, 3H), 3.93 (s, 3H), 6.01 (d, *J* = 7.5 Hz, 1H), 7.32 (d, *J* = 7.5 Hz, 1H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 38.88; 57.30; 76.01; 94.44; 139.29; 161.79; 167.88. HRMS (CI): MH^+, 265.9675; Calc. for $C_7H_9INO_2^+$: 265.9678.

1-Benzyl-4-benzyloxy-3-iodo-2-pyridone (2c): Yellow solid, Mol. Wt.: 417.2 g/mol. Mp: 119°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 5.13 (s, 2H), 5.19 (s, 2H), 6.01 (d, *J* = 7.5 Hz, 1H), 7.20-7.45 (m, 11H). ^{13}C NMR (50 MHz, $CDCl_3$): δ 53.08; 71.27; 76.74; 95.99; 127.02; 128.57, 128.70; 128.80; 129.16; 129.31; 135.49; 136.24; 138.40; 161.14; 166.61. HRMS (CI): MH^+, 418.0303; Calc. for $C_{19}H_{17}INO_2^+$: 418.0304.

Sonogashira reaction, *general procedure*: The iodopyridone derivative (0.6 mmol), the terminal alkyne (0.8 mmol), $Pd(PPh_3)_2Cl_2$ (21 mg, 0.03 mmol) and CuI (5 mg, 0.03 mmol) were dissolved in a mixture of MeCN (4 mL) and TEA (0.5 mL). The reaction mixture was left to stir at 60°C for 24h and then concentrated *in vacuo*. The residue was purified by column chromatography (silica gel, ethyl acetate) to afford the corresponding 3-alkynyl-2-pyridone.

4-(4-Benzyloxy-1-methyl-2-oxo-1,2-dihydro-pyridin-3-ylethynyl)-benzoic acid methyl ester (4a): White solid, Mol. Wt.: 373.4 g/mol. Mp: 165°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.56 (s, 3H), 3.93 (s, 3H), 5.29 (s, 2H), 6.08 (d, *J* = 7.5 Hz, 1H), 7.30 (d, *J* = 7.6 Hz, 1H), 7.45 (m, 5H), 7.59 (d, *J* = 8.3 Hz, 2H), 8.00 (d, *J* = 8.3 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 38.01; 52.54; 71.23; 85.85; 96.03; 98.22; 99.72; 127.16; 128.73; 129.12; 129.16; 129.37; 129.74; 131.79; 136.01; 139.33; 163.29; 167.09; 168.72. HRMS (CI): MH^+, 374.1316; Calc. for $C_{23}H_{20}NO_4^+$: 374.1314.

4-Benzyloxy-1-methyl-3-phenylethynyl-2-pyridone (4b): White solid, Mol. Wt.: 315.4 g/mol. Mp: 149.5°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.55 (s, 3H), 5.29 (s, 3H), 6.07 (d, *J* = 7.7 Hz, 1H), 7.24 (d, *J* = 7.7 Hz, 1H), 7.30-7.50 (m, 10H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.87; 71.04; 82.97; 96.13; 98.71; 99.65; 124.40; 127.17; 128.31; 128.56; 128.61; 129.02; 131.88; 136.19; 139.37; 163.39; 168.46. HRMS (CI): MH^+, 316.1339; Calc. for $C_{21}H_{18}NO_2^+$: 316.1338.

4-benzyloxy-3-hexynyl-1-methyl -2-pyridone (4c): Yellow oil, Mol. Wt.: 295.4 g/mol. ^{1}H NMR (300 MHz, $CDCl_3$): δ 0.89 (t, *J* = 7.3 Hz, 3H), 1.48 (m, 2H), 1.60 (m, 2H), 2.51 (t, *J* = 6.8 Hz, 2H), 3.49 (s, 3H), 5.21 (s, 2H), 5.98 (d, *J* = 7.6 Hz, 1H), 7.16 (d, *J* = 7.6 Hz, 1H), 7.40 (m, 5H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 14.06; 20.25; 22.31; 31.29; 37.86; 70.95; 72.99; 96.12; 100.24; 100.57; 127.20; 128.47; 128.94; 136.27; 138.02; 163.98; 167.98. Anal. Calcd. for $C_{19}H_{21}NO_2$: C 77.26%; H 7.17%; N 4.74%. Found: C 77.05%; H 7.00%; N 4.65%. HRMS (CI): MH^+, 296.1648; Calc. for $C_{19}H_{22}NO_2^+$: 296.1651.

4-(4-Methoxy-1-methyl-2-oxo-1,2-dihydro-pyridin-3-ylethynyl)-benzoic acid methyl ester (4d): Yellow solid, Mol. Wt.: 291.3 g/mol. Mp: 159°C. ^{1}H NMR (200 MHz, $CDCl_3$): δ 3.50 (s, 3H), 3.87 (s, 3H), 3.91 (s, 3H), 6.04 (d, *J* = 7.7 Hz, 1H), 7.33 (d, *J* = 7.7 Hz, 1H), 7.58 (d, *J* = 8.5 Hz, 2H), 7.94 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.57; 52.15; 56.65; 85.47; 94.19; 97.31; 98.15; 128.72; 129.01; 129.32; 131.46; 139.36; 162.89; 166.65; 169.07. HRMS (CI): MH^+, 298.1079; Calc. for $C_{17}H_{16}NO_4^+$: 298.1079.

4-(1-Benzyl-4-benzyloxy-2-oxo-1,2-dihydro-pyridin-3-ylethynyl)-benzoic acid methyl ester (4e): White solid, Mol. Wt.: 449.5 g/mol. ^{1}H NMR (300 MHz), $CDCl_3$): δ 3.85 (s, 3H), 5.05 (s, 2H), 5.14 (s, 2H), 6.03 (d, *J* = 7.7 Hz, 1H), 7.35 (m, 11H), 7.53 (d, *J* = 8.3 Hz, 2H), 7.94 (d, *J* = 8.3 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): 52.40; 52.53; 71.18; 86.44; 96.37; 98.07; 99.43; 127.23; 128.48; 128.61; 128.70; 129.05; 129.16; 129.26; 129.35; 129.77; 131.72; 135.96; 136.55; 139.05; 162.88; 166.93; 168.77. HRMS (CI): MH^+, 450.1707; Calc. for $C_{29}H_{24}NO_4^+$: 450.1705.

Cyclization of 3-alkynyl-2-pyridones, *general procedure*: *n*-BuLi (2.5 M in hexanes,) *w*as added dropwise to a suspension of $Pd(PPh_3)_2Cl_2$ (6.5 mg, 0.009 mmol) in THF (1 mL) until the mixture turned dark green. A heat gun was then used to gently heat the mixture and obtain a homogeneous dark red solution. MeCN (3 mL), the pyridone derivative (0.19 mmol) and the aromatic halide (0.27 mmol) were then successively added. The reaction mixture was left to stir for 48h at 60°C and concentrated *in vacuo*. The residue was purified by column chromatography (silica gel; acetone) to afford the corresponding furopyridone.

One pot coupling of 3-iodo-2-pyridones, terminal alkynes, and aryl halides, *general procedure*: The iodopyridone derivative (0.23 mmol), the terminal alkyne (0.28 mmol), $Pd(PPh_3)_2Cl_2$ (8.2 mg, 0.011 mmol) and CuI (2.8 mg, 0.011 mmol) were added to a MeCN (3.5 mL)/TEA (0.5 mL) mixture of solvents and the reaction mixture was left to stir at 60°C

for 24h. The aromatic halide (0.34 mmol) was then added, the heating was continued for 48h after which the reaction mixture was concentrated *in vacuo*. The residue was purified as described above.

2,3-Bis(4-methyloxycarbonylphenyl)-7-methyl-7*H*-furo[2,3-b]pyridin-4-one (7a): Yellow solid, Mol. Wt.: 417.41 g/mol. Mp: 288°C (decomp.). ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.90 (s, 3H), 3.92 (s, 3H), 3.96 (s, 3H), 6.29 (d, *J* = 7.7 Hz, 1H), 7.19 (d, *J* = 7.7 Hz, 1H), 7.49 (d, *J* = 8.7 Hz, 1H), 7.64 (d, *J* = 8.5 Hz, 2H), 7.98 (d, *J* = 8.7 Hz, 2H), 8.09 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.16, 52.54, 52.62, 112.62, 116.66, 122.09, 126.48, 129.94, 129.97, 130.22, 130.21, 130.92, 133.78, 135.90, 135.97, 144.61, 154.26, 166.80, 167.32, 175.78. Anal. Calcd. for $C_{24}H_{19}NO_6$: C 69.06%; H 4.59%; N 3.36%. Found: C 69.14%; H 4.53%; N 3.60%.

4-(7-Methyl-4-oxo-3-phenyl-4,7-dihydro-furo[2,3-b]pyridin-2-yl)-benzoic acid methyl ester (7b): Yellow solid, Mol. Wt.: 359.37 g/mol. Mp: 252°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.86 (s, 3H*),* 3.91 (s, 3H*),* 6.24 (d, *J* = 7.5 Hz, 1H*),* 7.16 (d, *J* = 7.5 Hz, 1H*),* 7.40 (m, 3H*),* 7.52 (m, 4H*),* 7.94 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.11; 52.57; 112.87; 116.61; 123.18; 126.20; 128.69; 128.76; 129.50; 130.11; 130.71; 131.04; 134.26; 135.73; 144.12; 154.19; 166.94; 175.90. HRMS (CI): MH+, 360.1235; Calc. for $C_{22}H_{18}NO_4^+$: 360.1235.

4-[3-(4-Iodo-phenyl)-7-methyl-4-oxo-4.7-dihydro-furo[2,3-b]pyridin-2-yl]-benzoic acid methyl ester (7c): Yellow solid, Mol. Wt.: 485.27 g/mol. Mp: 272°C (decomp.). ^{1}H NMR (300 MHz, DMSO-d_6, 323 K): δ 3.85 (s, 3H*),* 3.86 (s, 3H*),* 6.01 (d, *J* = 7.5 Hz, 1H*),* 7.25 (d, *J* = 8.3 Hz, 2H*),* 7.55 (d, *J* = 8.3 Hz, 2H*),* 7.62 (d, *J* = 7.5 Hz, 1H*),* 7.77 (d, *J* = 8.3 Hz, 2H*),* 7.92 (d, *J* = 8.3 Hz, 2H). ^{13}C NMR (75 MHz, DMSO-d_6): δ 37.23; 52.99; 95.24; 111.97; 115.43; 121.85; 126.81; 129.77; 130.42; 131.35; 133.25; 134.23; 137.85; 138.15; 143.52; 154.72; 166.51; 174.93. HRMS (CI): MH+, 486.0202; Calc. for $C_{22}H_{17}INO_4^+$: 486.0203

4-[7-Methyl-4-oxo-3-(3-trifluoromethyl-phenyl)-4,7-dihydro-furo[2,3-b]pyridin-2-yl]-benzoic acid methyl ester (7d): Yellow solid, Mol. Wt.: 427.37 g/mol. Mp: 242°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.89 (s, 3H*),* 3.92 (s, 3H*),* 6.25 (d, *J* = 7.5 Hz, 1H*),* 7.19 (d, *J* = 7.5 Hz, 1H*),* 7.49 (d, *J* = 8.5 Hz, 2H*),* 7.55 (t, *J* = 7.7 Hz, 1H*),* 7.65 (d, *J* = 7.7 Hz, 1H*),* 7.77 (d, *J* = 7.7 Hz, 1H*),* 7.83 (s, 1H*),* 7.97 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (125 MHz, $CDCl_3$): δ 37.22; 52.89; 111.39; 115.49; 121.31; (121.76, 123.93, 126.10, 128.26); (125.42, 125.45, 125.48, 126.1); 126.92; (127.83, 127.86, 127.89, 128.02); (129.59, 129.84, 130.09, 130.34); 129.95; 130.10; 130.29; 132.85; 134.02; 135.07; 138.17; 144.13; 154.78; 166.47; 174.95. NMR ^{19}F (188 MHz, $CDCl_3$): -63.12. HRMS (CI): MH+, 428.1106; Calc. for $C_{23}H_{17}F_3NO_4^+$: 428.1109

4-(7-Methyl-4-oxo-3-thiophen-2-yl-4,7-dihydro-furo[2,3-b]pyridin-2-yl)-benzoic acid methyl ester (7e): Yellow solid, Mol. Wt.: 365.40 g/mol. Mp: 252°C (decomp.). ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.84 (s, 3H*),* 3.92 (s, 3H*),* 6.23 (d, *J* = 7.5 Hz, 1H*),* 7.13 (m, 2H*),* 7.36 (d, *J* = 4.7 Hz, 1H*),* 7.41 (d, *J* = 4.7 Hz, 1H*),* 7.59 (d, *J* = 8.5 Hz, 2H*),* 7.98 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.10; 52.61; 112.97; 116.01; 116.74; 126.74; 127.57; 127.71; 129.94; 130.03; 130.12; 131.18; 133.86; 135.81; 145.19; 154.08; 166.91; 175.71. HRMS (CI): MH+, 366.0800; Calc. for $C_{20}H_{16}NO_4S^+$: 366.0800.

4-[3-(4-Methoxy-phenyl)-7-methyl-4-oxo-4,7-dihydro-furo[2,3-b]pyridin-2-yl]-benzoic acid methyl ester (7f): Yellow solid, Mol. Wt.: 389.40 g/mol. Mp: 292°C (decomp.). ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.86 (s, 6H*),* 3.91 (s, 3H*),* 6.23 (d, *J* = 7.5 Hz, 1H*),* 6.95 (d, *J* =

8.5 Hz, 2H), 7.14 (d, *J* = 7.7 Hz, 1H), 7.46 (d, *J* = 8.5 Hz, 2H), 7.54 (d, *J* = 8.3 Hz, 2H), 7.94 (d, *J* = 8.3 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.32; 52.89; 55.98; 113.12; 114.98; 117.32; 123.74; 123.80; 126.92; 130.17; 130.93; 132.81; 135.29; 136.50; 144.76; 155.16; 161.03; 168.02; 177.12 . HRMS (CI): MH+, 390.1339; Calc. for $C_{23}H_{20}NO_5^+$: 390.1341

4-[7-Methyl-3-(4-nitrophenyl)-4-oxo-4.7-dihydrofuro[2,3-b]pyridin-2-yl]-benzoic acid methyl ester (7g): Light yellow solid, Mol. Wt.: 404.37 g/mol. Mp: 293°C (decomp.). ^{1}H NMR (300 MHz, DMSO-d_6, 383 K): δ 3.87 (s, 6H), 6.03 (d, *J* = 7.6 Hz, 1H), 7.52 (d, *J* = 8.5 Hz, 2H), 7.69 (d, *J* = 7.8 Hz, 1H), 7.74 (d, *J* = 8.5 Hz, 2H), 7.92 (d, *J* = 8.3 Hz, 2H), 8.22 (d, *J* = 7.2 Hz, 2H). ^{13}C NMR (75 MHz, DMSO-d_6, 363 K): δ 36.87; 52.35; 111.90; 116.42; 120.53; 123.53; 126.43; 130.06; 130.12; 131.62; 132.95; 135.73; 137.73; 144.74; 147.65; 154.00; 166.31; 175.34. HRMS (CI): MH+, 405.1083; Calc. for $C_{22}H_{17}N_2O_6^+$: 405.1087

4-(7-Methyl-4-oxo-2-phenyl-4,7-dihydro-furo[2,3-b]pyridin-3-yl)-benzoic acid methyl ester (7h): Yellow solid, Mol. Wt.: 359.37 g/mol. Mp: 238°C. ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.81(s, 3H), 3.92 (s, 3H), 6.21 (d, *J* = 7.5 Hz, 1H), 7.12 (d, *J* = 7.5 Hz, 1H), 7.28 (m, 3H), 7.40 (m, 2H), 7.63 (d, *J* = 8.1 Hz, 2H), 8.02 (d, *J* = 8.1 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 37.10; 52.50; 112.47; 116.38; 119.90; 127.10; 128.95; 129.01; 129.58; 129.76; 131.08; 135.66; 136.47; 145.92; 154.00; 167.47; 175.82. HRMS (CI): MH+, 360.1236; Calc. for $C_{22}H_{18}NO_4^+$: 360.1235

3-(4-Fluoro-phenyl)-7-methyl-2-phenyl-7*H*-furo[2,3-b]pyridin-4-one (7i): Yellow solid, Mol. Wt.: 319.33 g/mol. Mp: 170°C.^{1}H NMR (300 MHz, CD_2Cl_2): δ 3.74 (s, 3H), 6.07 (d, *J* = 7.7 Hz, 1H), 7.01 (t, *J* = 8.6 Hz, 2H), 7.08 (d, *J* = 7.5 Hz, 1H), 7.23 (m, 3H), 7.42 (m, 2H). ^{13}C NMR (50 MHz, $CDCl_3$): δ 36.71; 112.40; (115.02, 115.45); 116.11; 119.61; 126.57; (126.89, 126,96); 128.34; 128.61; 129.54; (132.29, 132.45); 135.08; 145.10; 153.57; (160.20, 165.10); 175.61. NMR ^{19}F (188 MHz, $CDCl_3$): -114.85. HRMS (CI): MH+, 320.1089; Calc. for $C_{20}H_{15}FNO_2^+$: 320.1087

4-(2-Butyl-7-methyl-4-oxo-4,7-dihydro-furo[2,3-b]pyridin-3-yl)-benzoic acid methyl ester (7j): Yellow oil, Mol. Wt.: 339.39 g/mol. ^{1}H NMR (200 MHz, $CDCl_3$): δ 0.89 (t, *J* = 7.1 Hz, 3H), 1.39 (hexuplet, *J* = 7.0 Hz, 2H), 1.68 (quintuplet, *J* = 7.1 Hz, 2H), 2.75 (t, *J* = 7.0 Hz, 2H), 3.77 (s, 3H), 3.92 (s, 3H), 6.21 (d, *J* = 7.5 Hz, 1H), 7.09 (d, *J* = 7.6 Hz, 1H), 7.60 (d, *J* = 8.1 Hz, 2H), 8.06 (d, *J* = 8.0 Hz, 2H). ^{13}C NMR (50 MHz, $CDCl_3$): δ 13.73; 22.33; 25.91; 30.53; 36.68; 52.07; 110.82; 115.86; 119.16; 128.77; 129.13; 130.20; 134.70; 136.09; 149.85; 153.37; 167.16; 175.25. HRMS (CI): MH+, 340.1550; Calc. for $C_{20}H_{22}NO_4^+$: 340.1548

2,3-bis(4-methyloxycarbonylphenyl)-7-benzyl-7H-furo[2,3-b]pyridin-4-one (7k): Light yellow solid, Mol. Wt.: 493.5 g/mol. Mp: 205°C (decomp.). ^{1}H NMR (300 MHz, $CDCl_3$): δ 3.89 (s, 3H), 3.92 (s, 3H), 5.30 (s, 2H), 6.23 (d, *J* = 7.5 Hz, 1H), 7.25 (d, *J* = 7.5 Hz, 1H), 7.45 (m, 7H), 7.60 (d, *J* = 8.1 Hz, 2H), 7.91 (d, *J* = 8.5 Hz, 2H), 8.05 (d, *J* = 8.5 Hz, 2H). ^{13}C NMR (75 MHz, $CDCl_3$): δ 52.55; 52.62; 54.06; 112.68; 116.87; 122.01; 126.44; 128.21; 129.41; 129.74; 129.97; 130.24; 130.92; 133.75; 134.56; 135.09; 135.97; 144.58; 153.97; 166.78; 167.30; 175.76. HRMS (CI): MH+, 494.1609; Calc. for $C_{30}H_{24}NO_6^+$: 494.1603

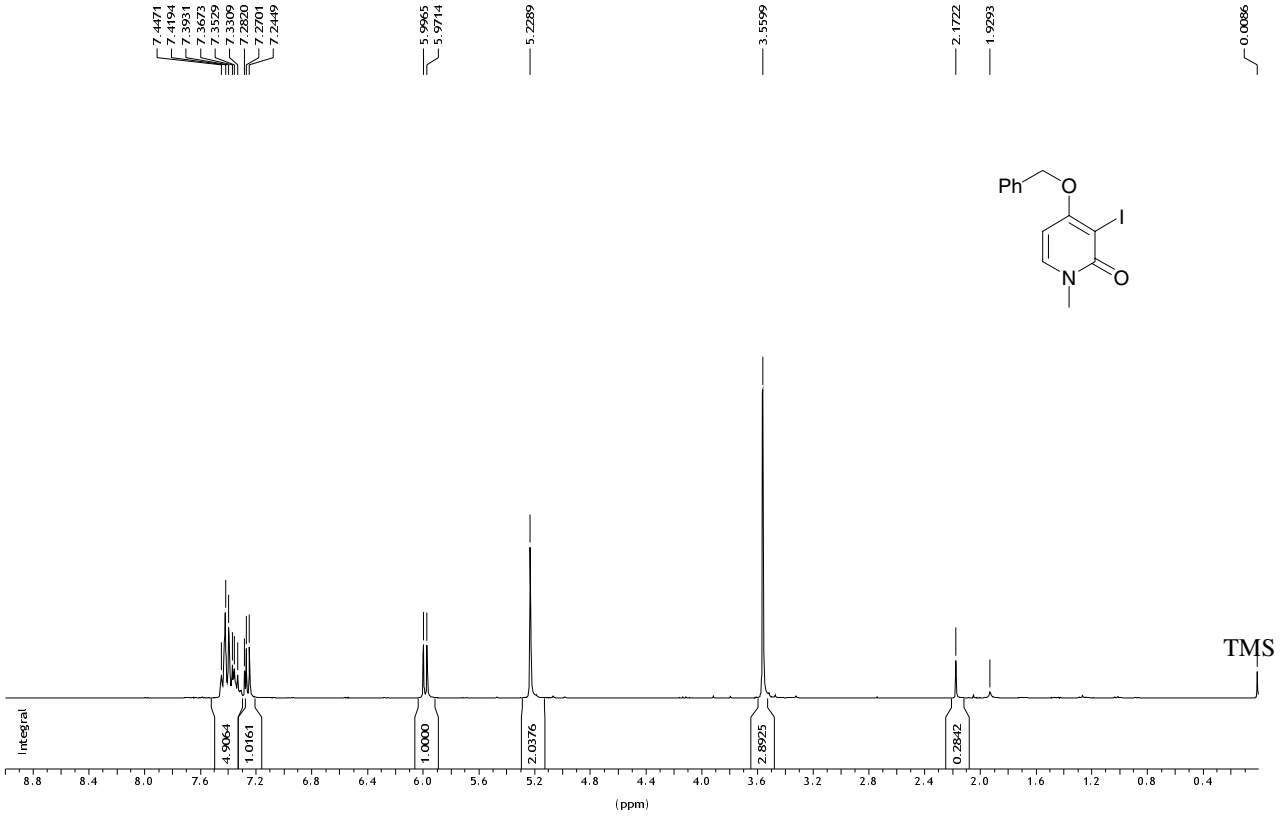
4-Benzyloxy-2,3-bis-(4-methoxycarbonyl-phenyl)-7-methyl-furo[2,3-b]pyridin-7-ium iodide (6a): Compound **6a** was isolated from cyclization of pyridone **4a** with methyl 4-iodobenzoate using the conditions described above. In this case the reaction mixture was concentrated after only 16h heating and purified by column chromatography (silica gel) using

ethanol as eluent. Yellow solid, Mol. Wt.: 635.45 g/mol. ^{1}H NMR (300 MHz, DMSO-d_6): δ 3.85 (s, 3H), 3.93 (s, 3H), 4.40 (s, 3H), 5.46 (s, 2H), 7.05 (d, *J* = 7.2 Hz, 2H), 7.19-7.37 (m, 3H), 7.62 (d, *J* = 8.1 Hz, 2H), 7.71 (d, *J* = 8.1 Hz), 8.01 (d, *J* = 6.9 Hz, 2H), 8.86 (d, *J* = 7.8 Hz, 1H). ^{13}C NMR (50 MHz, DMSO-d_6): δ 39.73; 52.31; 52.37; 72.36; 106.01; 113.52; 117.83; 126.93; 127.25; 128.15; 128.32; 129.61; 129.84; 130.41; 130.00; 130.69; 131.13; 133.92; 133.97; 142.43; 148.81; 153.90; 1165.32; 165.76. M+, 508.1764; calc. for $C_{31}H_{26}NO_6^+$: 508.1760.

Crystal data for 7i : ($C_{20}H_{14}FNO_2$)

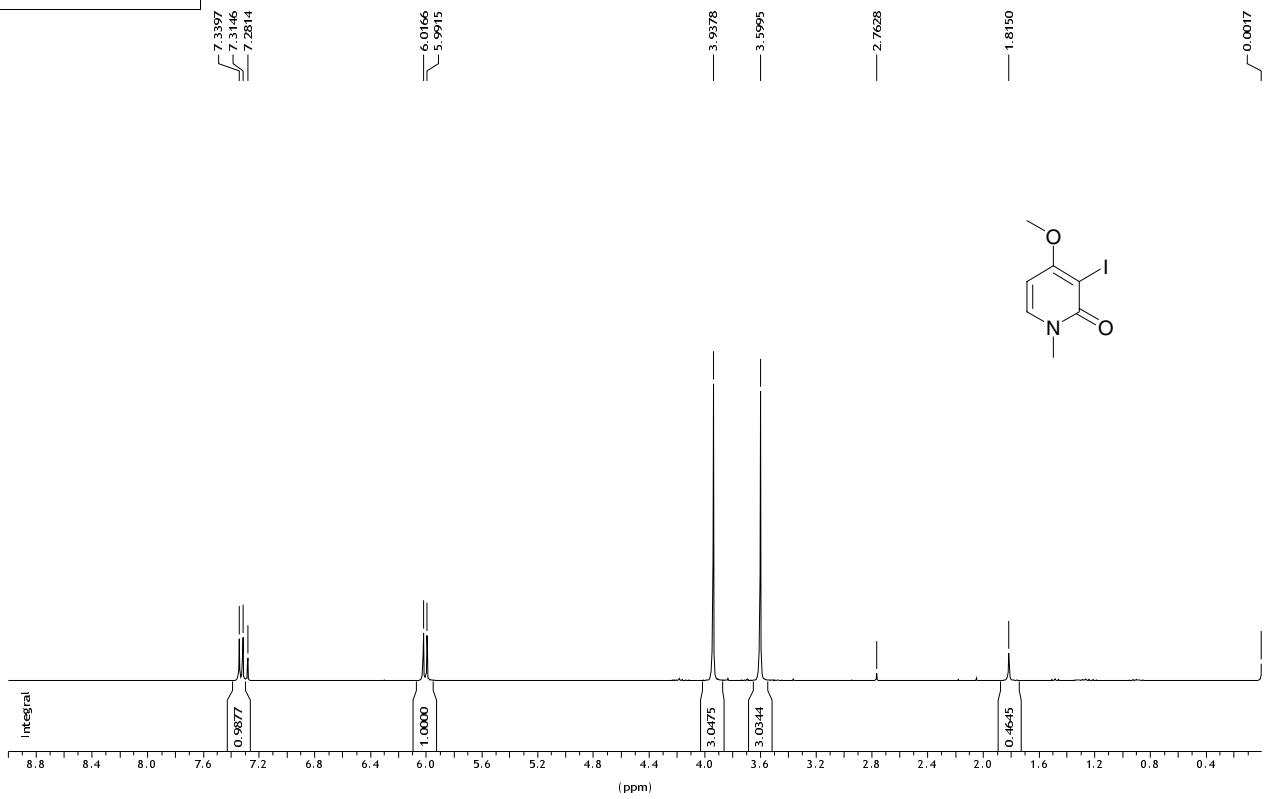
A suitable crystal was obtained from a solution of **7i** in CH_2Cl_2/EtOH. M=319,32 g/mol for $C_{20}H_{14}FNO_2$, monoclinic, P2(1)/c, a=12,532(3) Å, b=12,935(3) Å, c=9,831(2) Å, α=90°, β=92,51(3)°, γ=90°, V=1592.1(6) Å^3, Z=4, $R_{gt}(F)$=0.0664, $wR_{all}(F^2)$=0.1897, *T*=293 K.

2a - $CDCl_3$



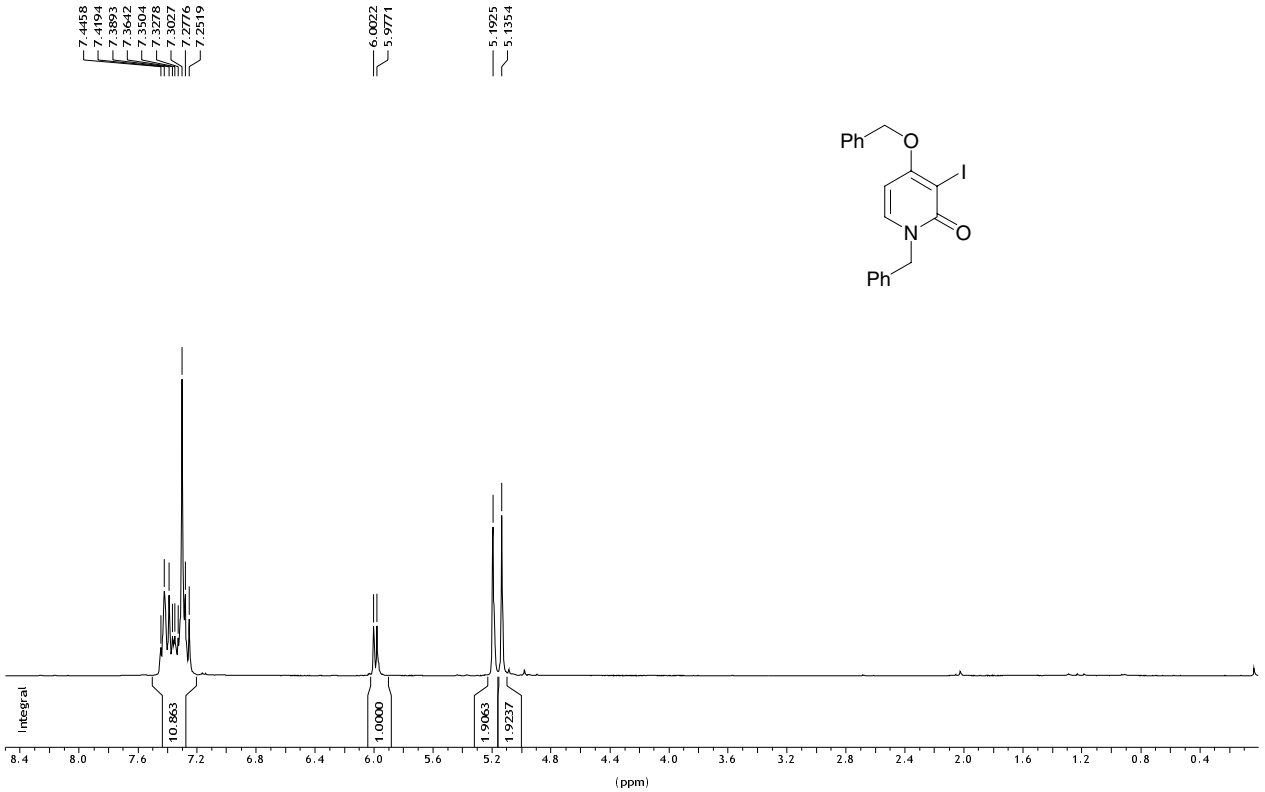
PROTONα

2b - $CDCl_3$



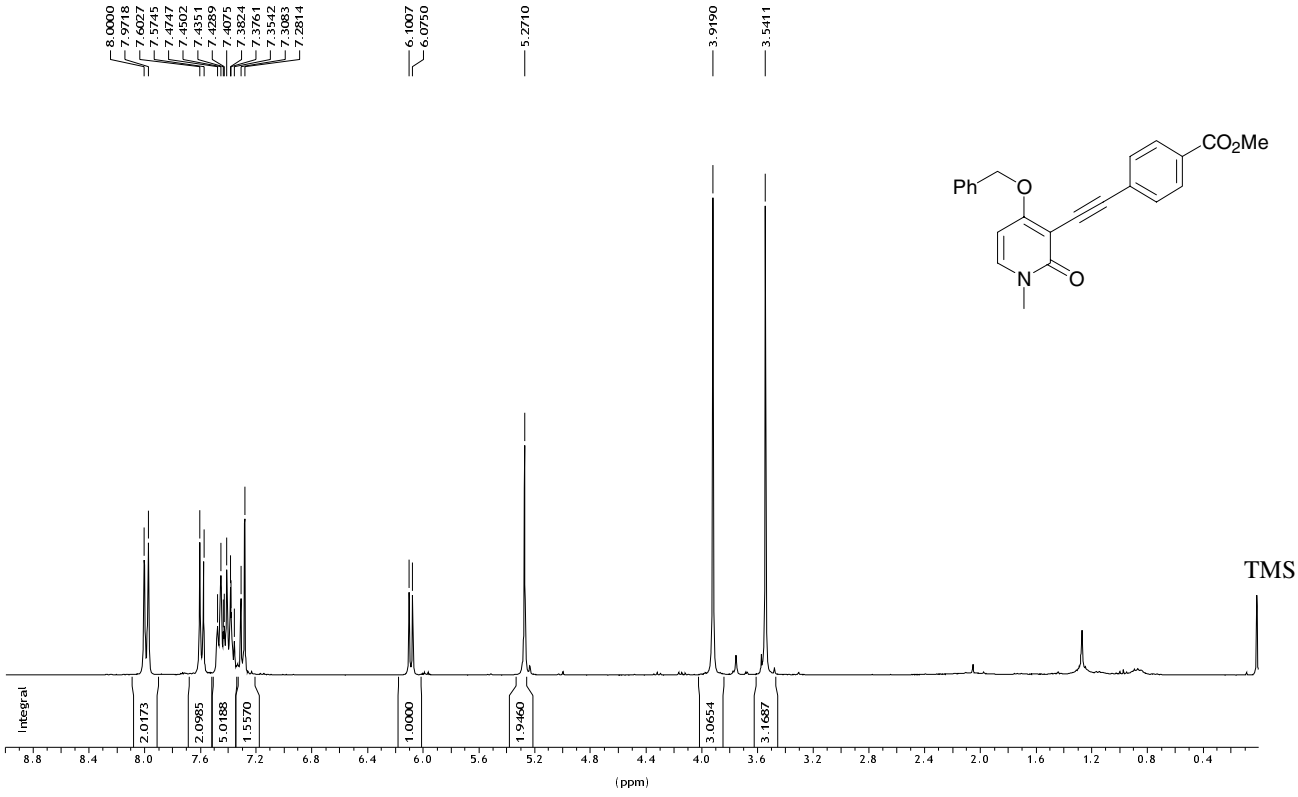
PROTON¤

2c - $CDCl_3$



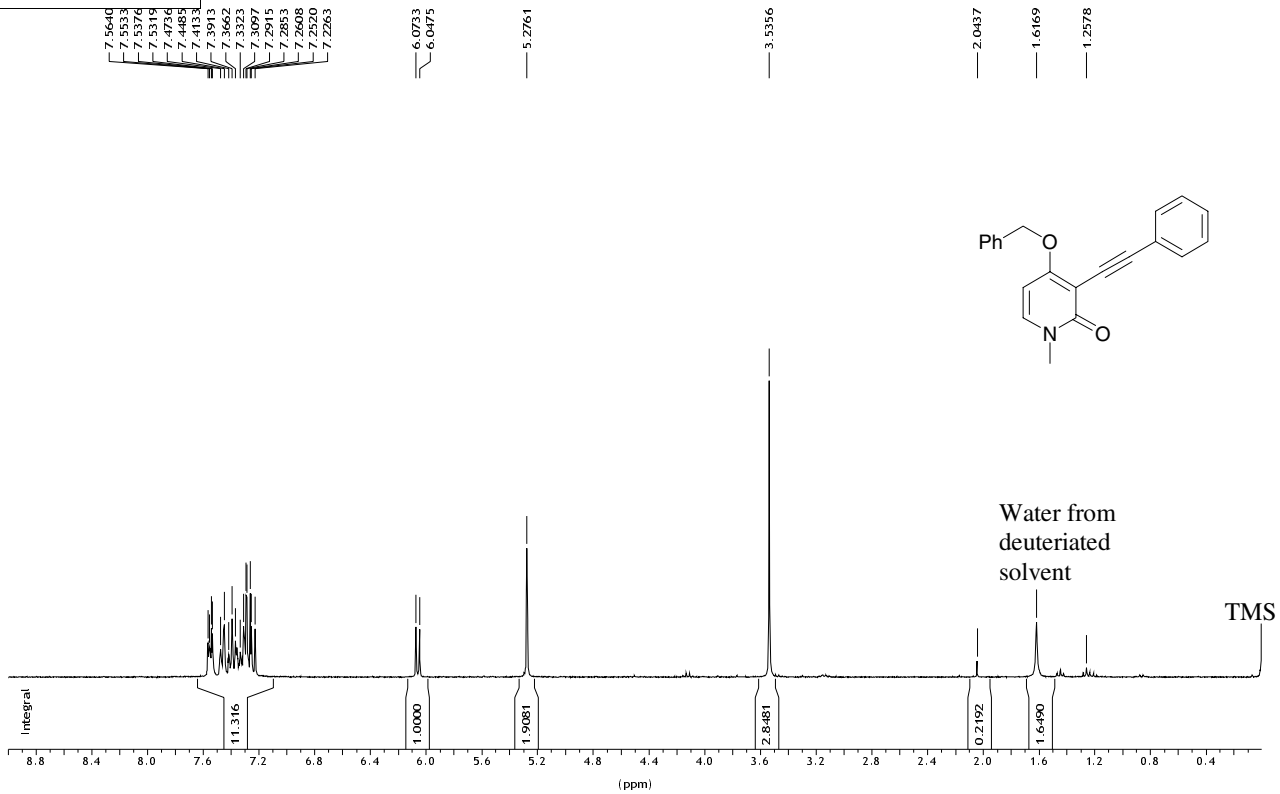
PROTON¤

4a - $CDCl_3$



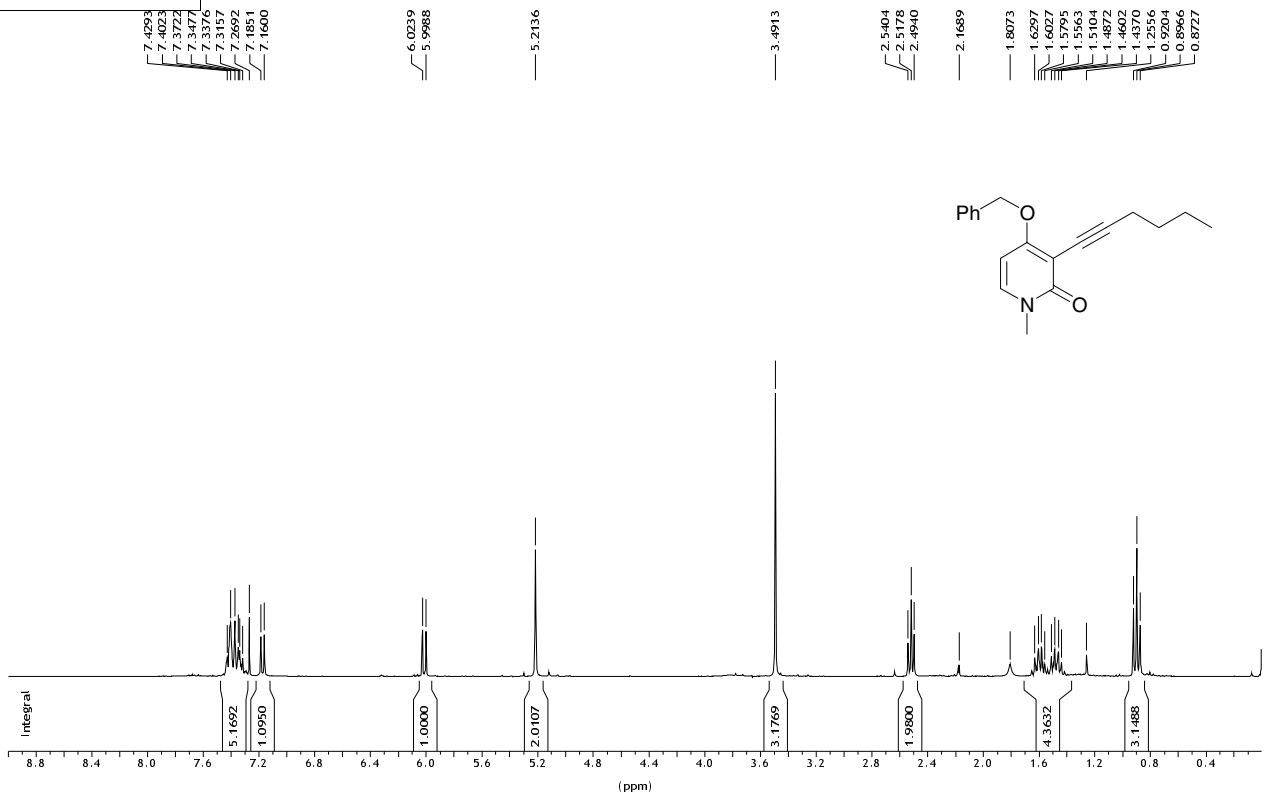
PROTON¤

4b - $CDCl_3$



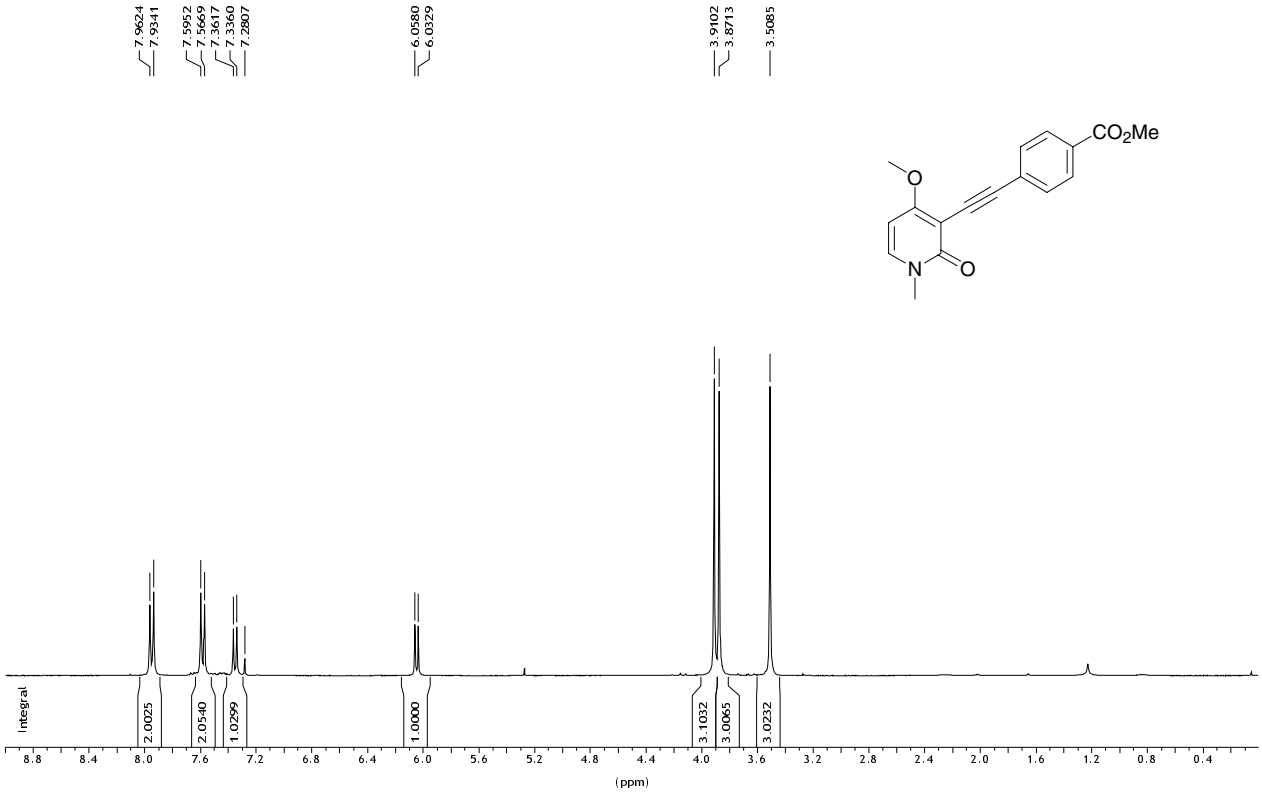
PROTON¤

4c - $CDCl_3$



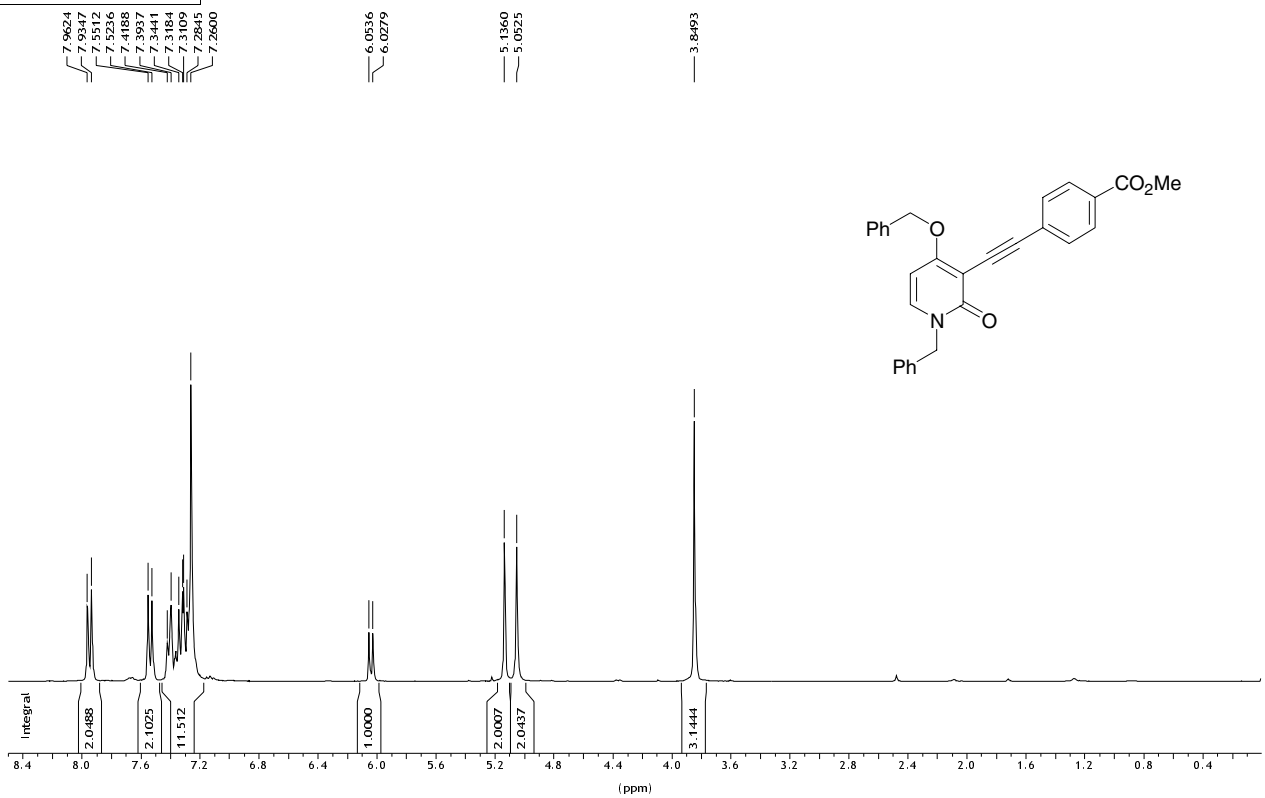
PROTON¤

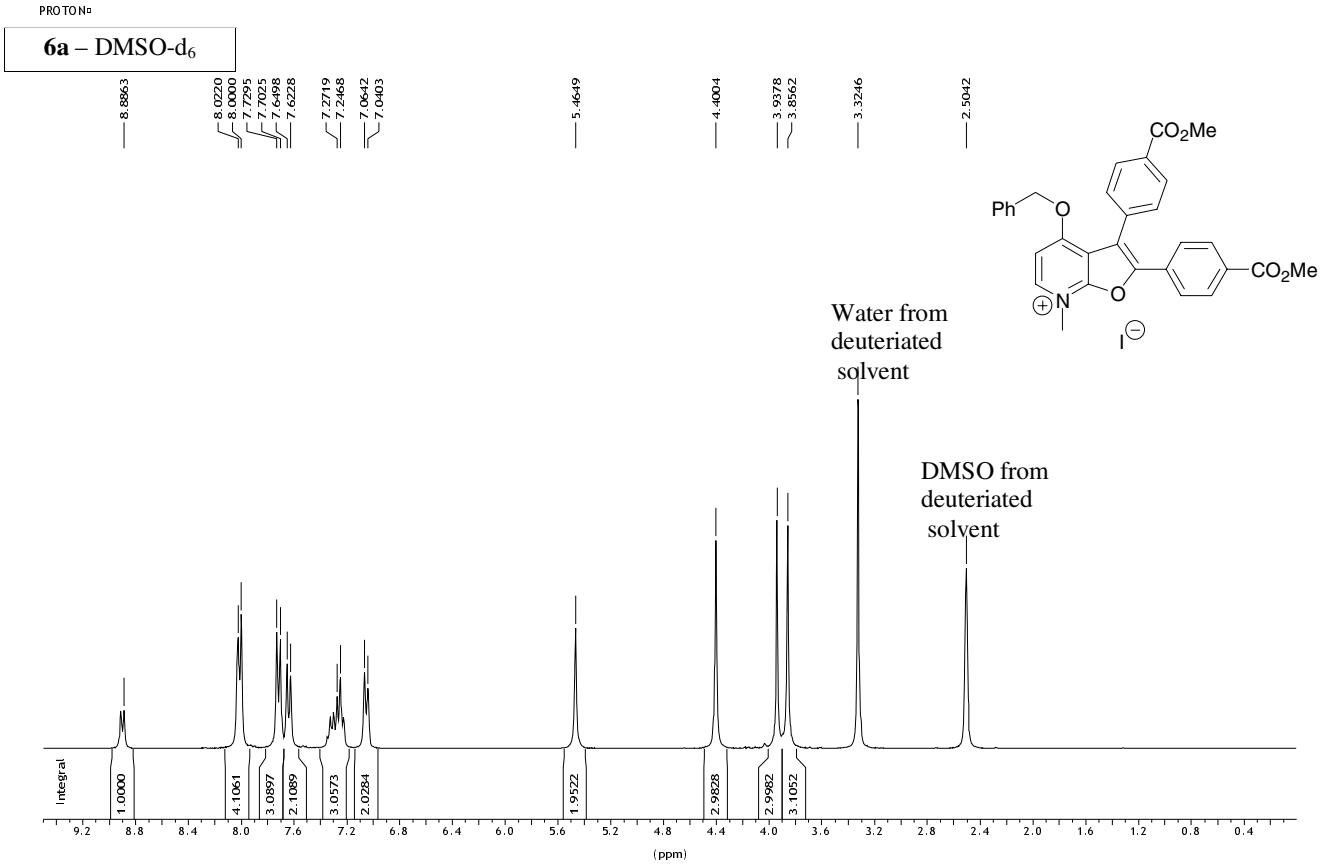
4d - $CDCl_3$

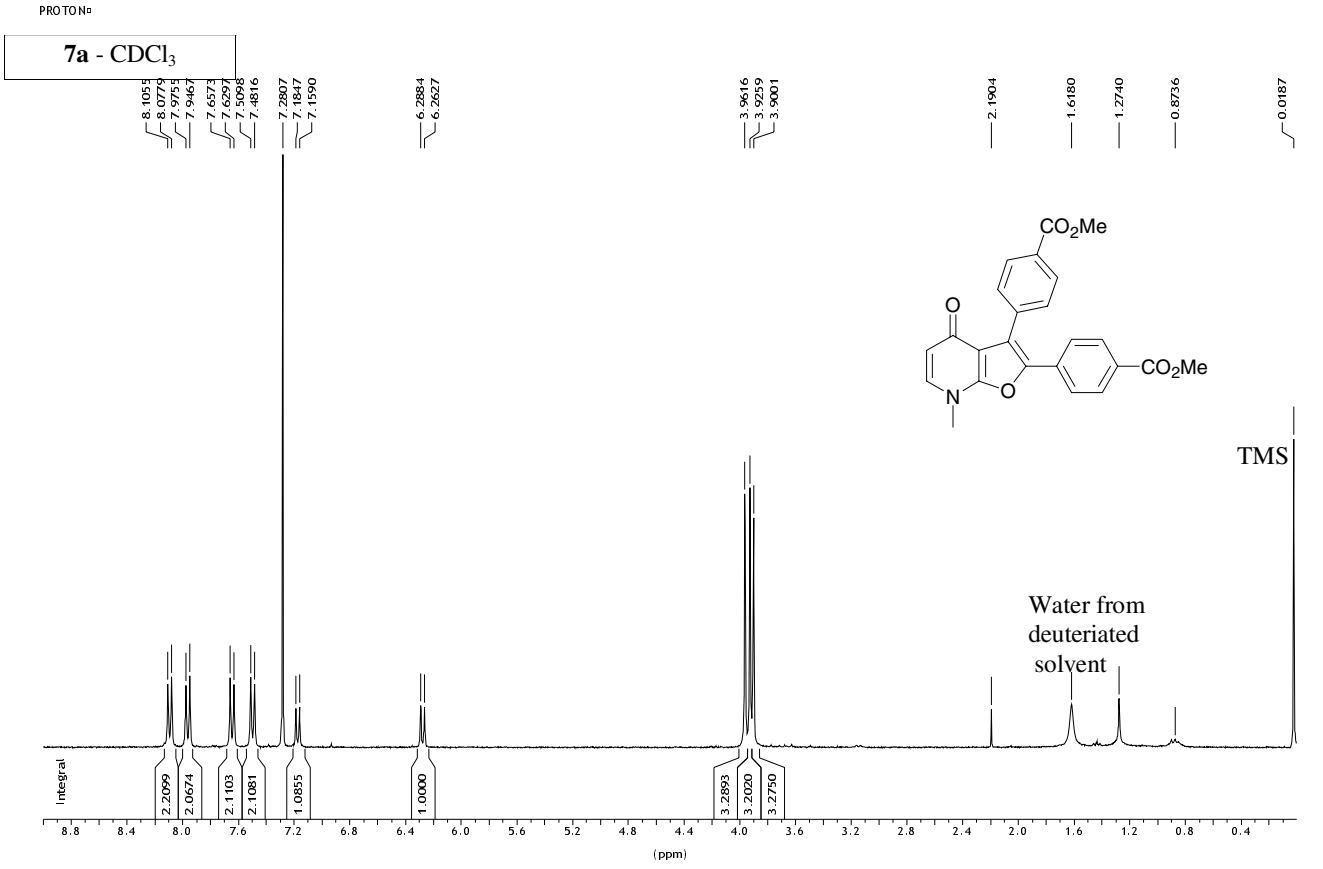


PROTON¤

4e - $CDCl_3$

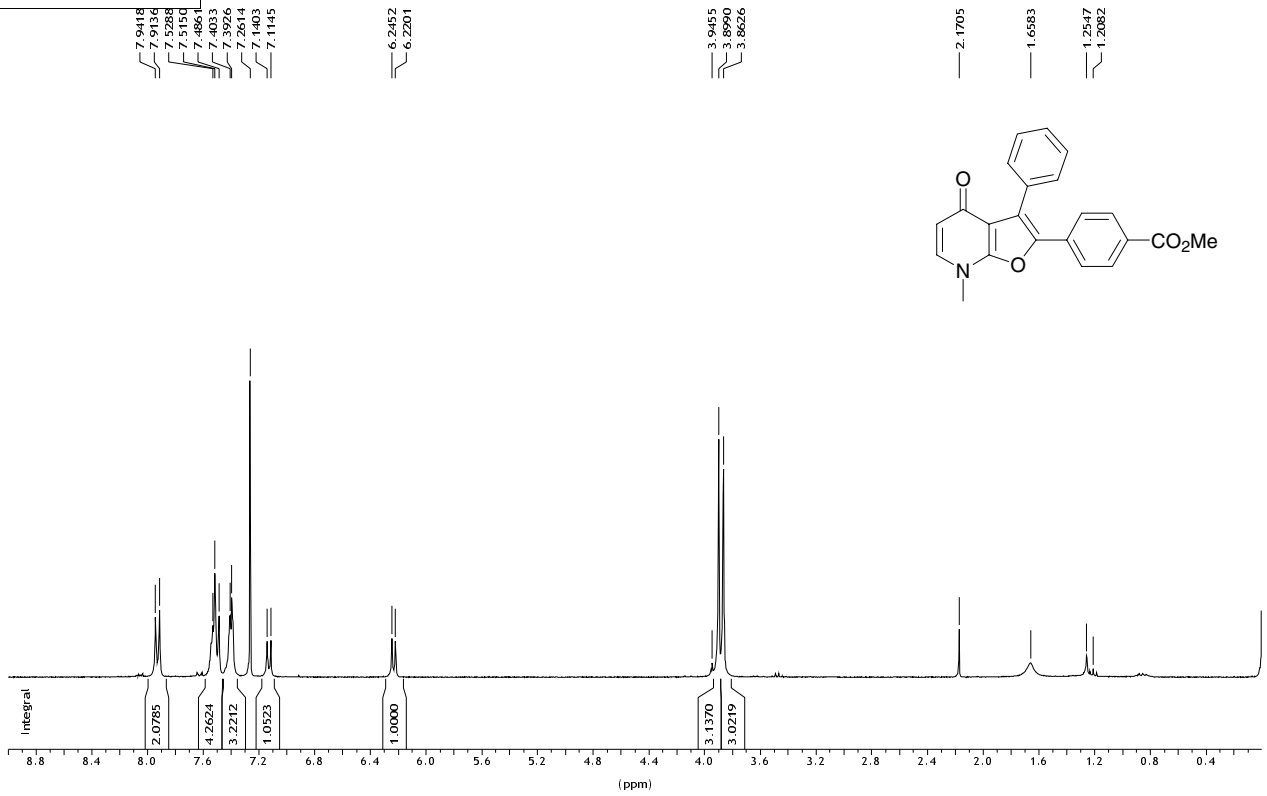



PROTON¤
6a – DMSO-d6
8.8863
8.0220
8.0000
7.7295
7.7025
7.6498
7.6228
7.2719
7.2468
7.0642
7.0403
5.4649
4.4004
3.9378
3.8562
3.3246
2.5042
CO2Me
Ph
O
CO2Me
N
O
I
Water from deuteriated solvent
DMSO from deuteriated solvent
Integral
1.0000
4.1061
3.0897
2.1089
3.0573
2.0284
1.9522
2.9828
2.9982
3.1052
(ppm)


PROTON¤
7a - CDCl3
8.1055
8.0779
7.9751
7.9467
7.6573
7.6297
7.5098
7.4816
7.2807
7.1847
7.1590
6.2884
6.2627
3.9616
3.9259
3.9001
2.1904
1.6180
1.2740
0.8736
0.0187
CO2Me
O
CO2Me
N
O
TMS
Water from deuteriated solvent
Integral
2.2099
2.0674
2.1103
2.1081
1.0855
1.0000
3.2893
3.2020
3.2750
(ppm)

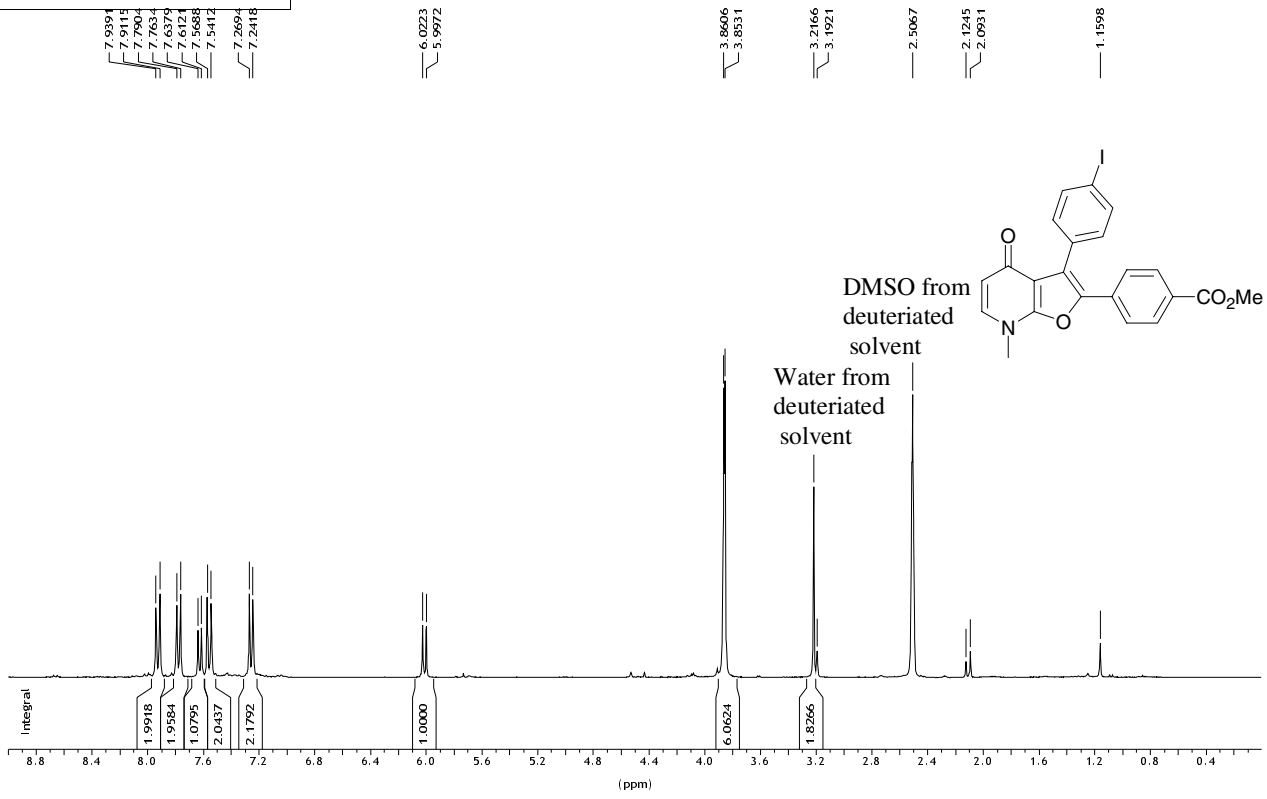
PROTON¤

7b - $CDCl_3$



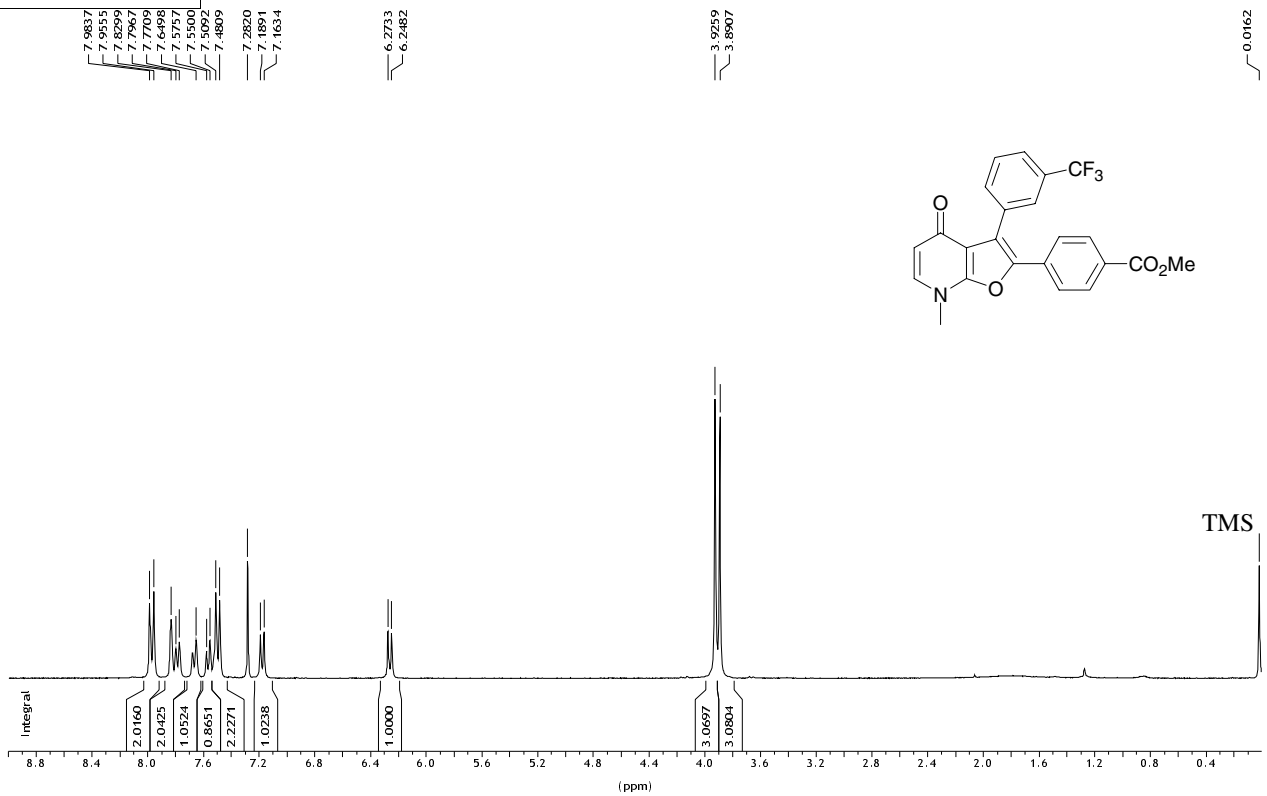
spectre proton de EB332F3 a 50 degres ¤

7c – DMSO-d_6 at 323 K



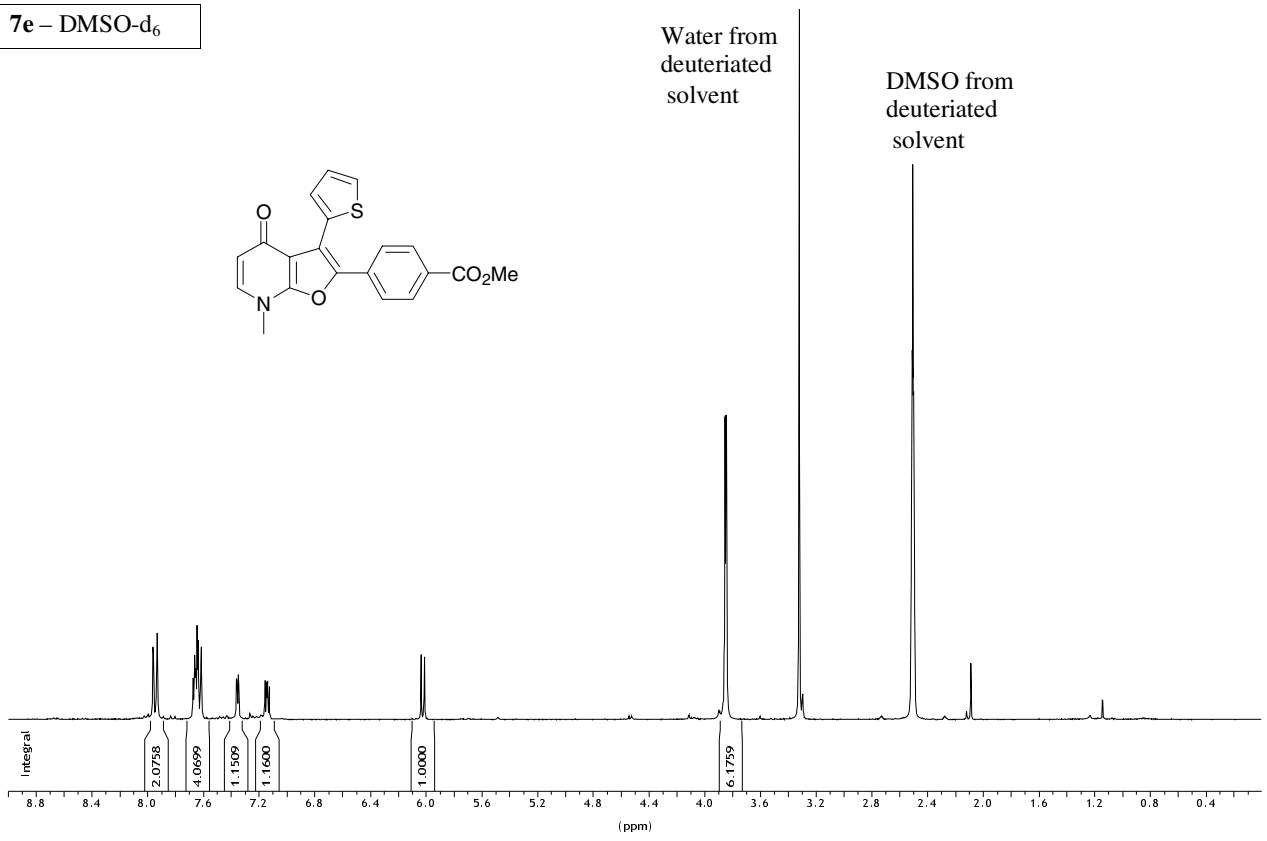
PROTON¤

7d - $CDCl_3$



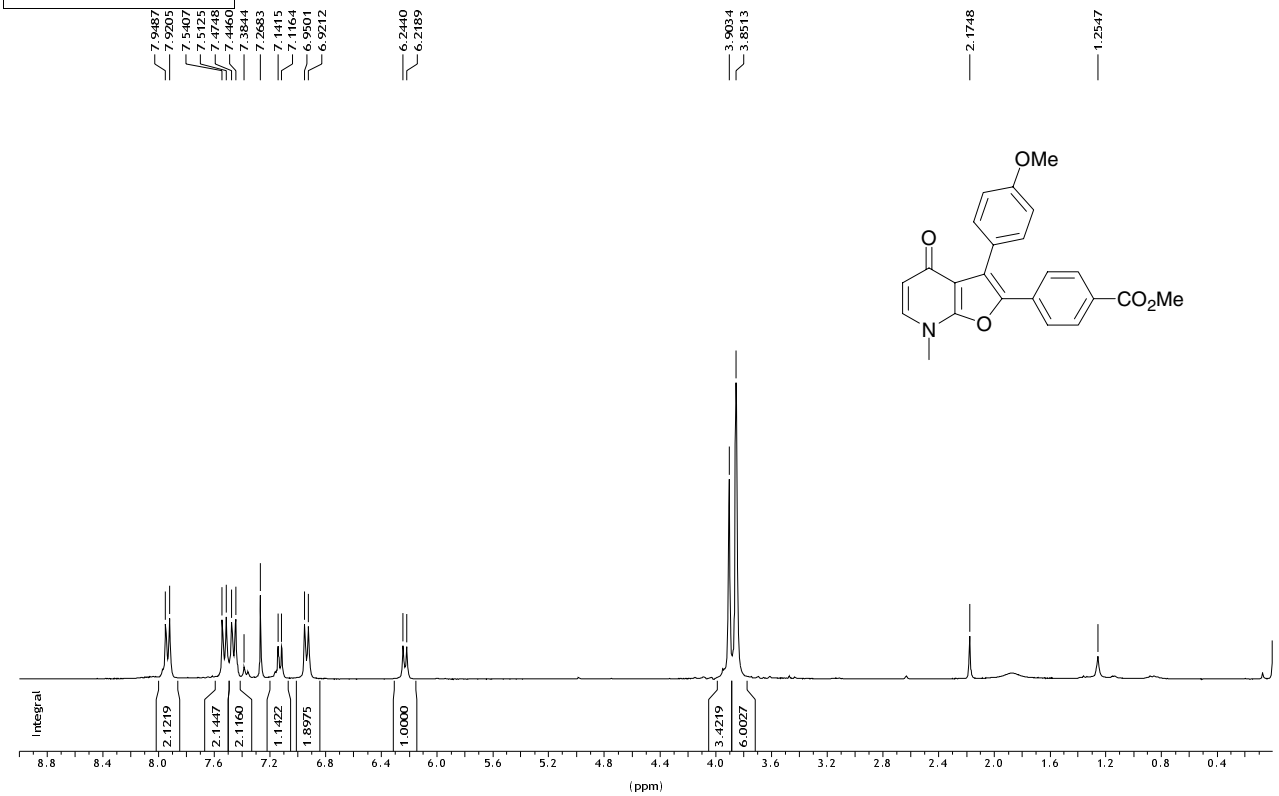
PROTON¤

7e – DMSO-d_6

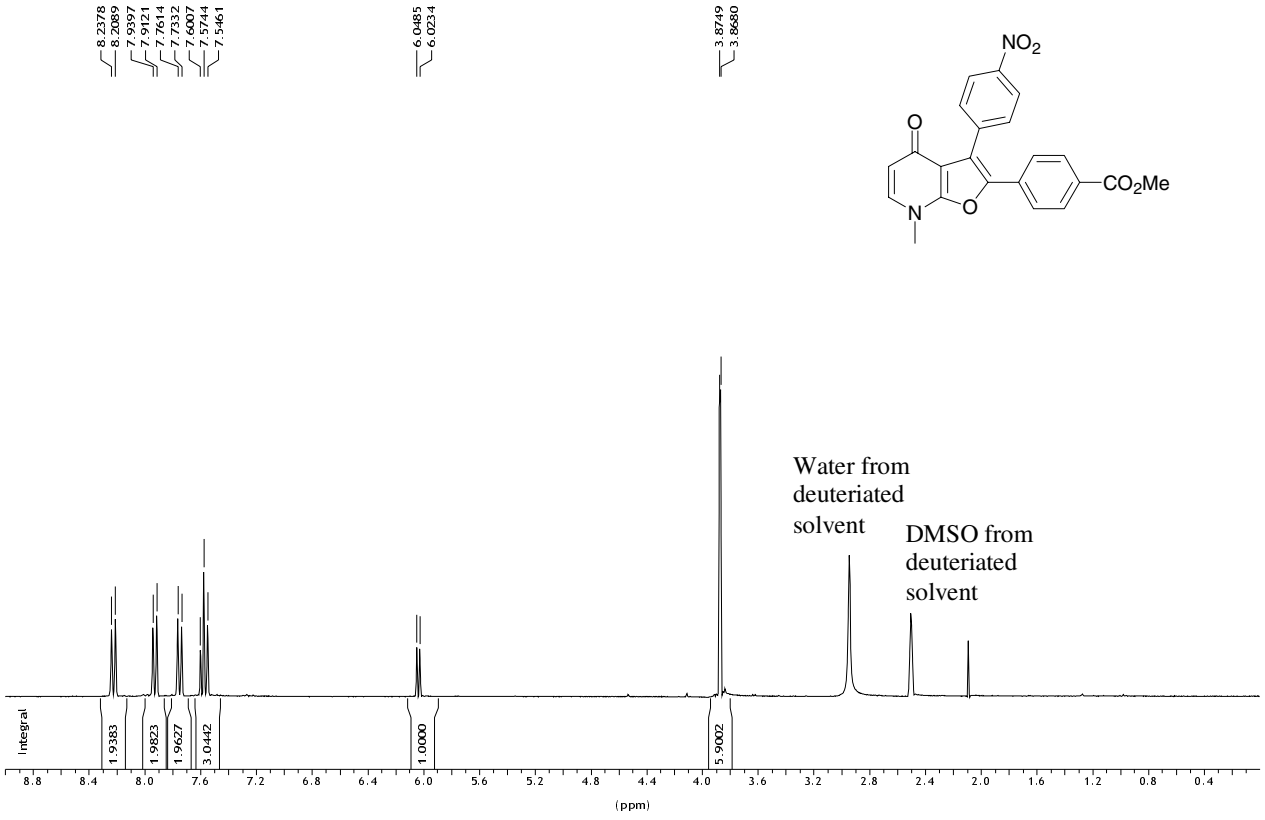


PROTON¤

7f - $CDCl_3$

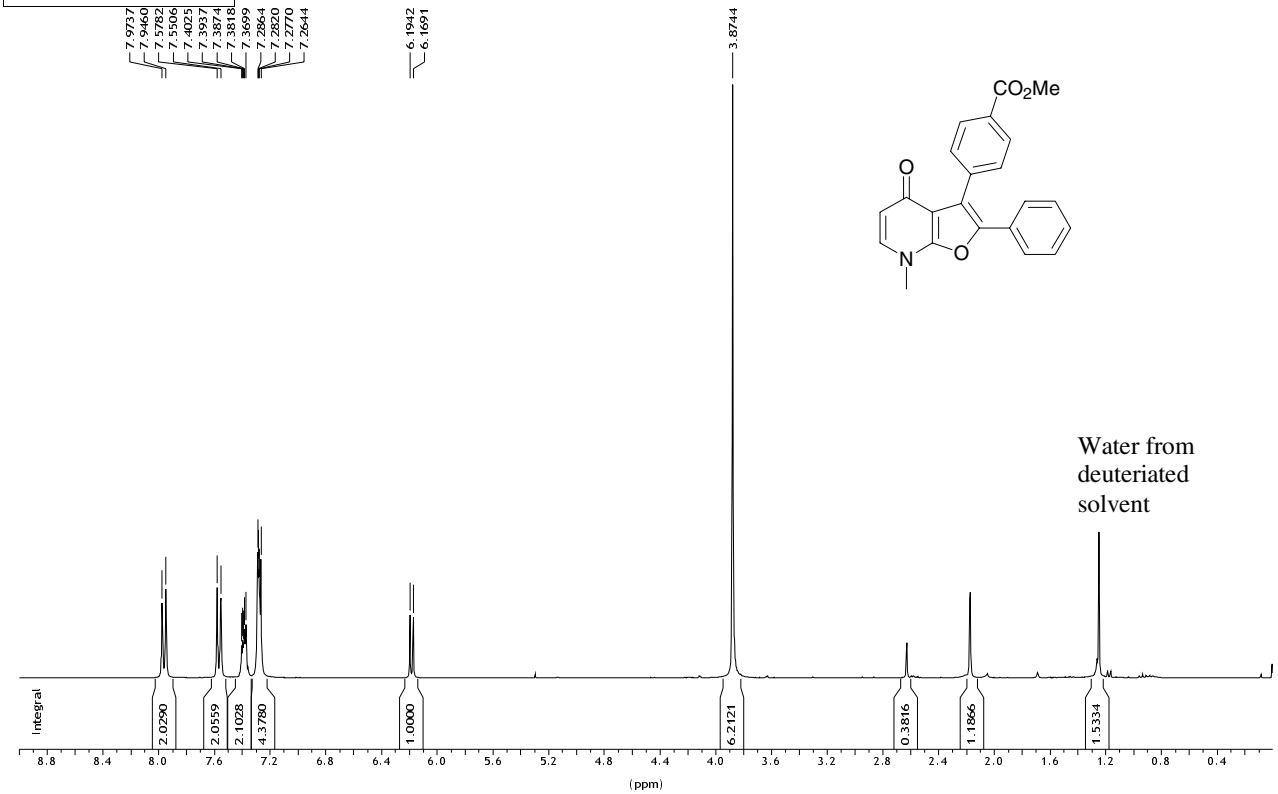


7g – DMSO-d_6 at 383 K



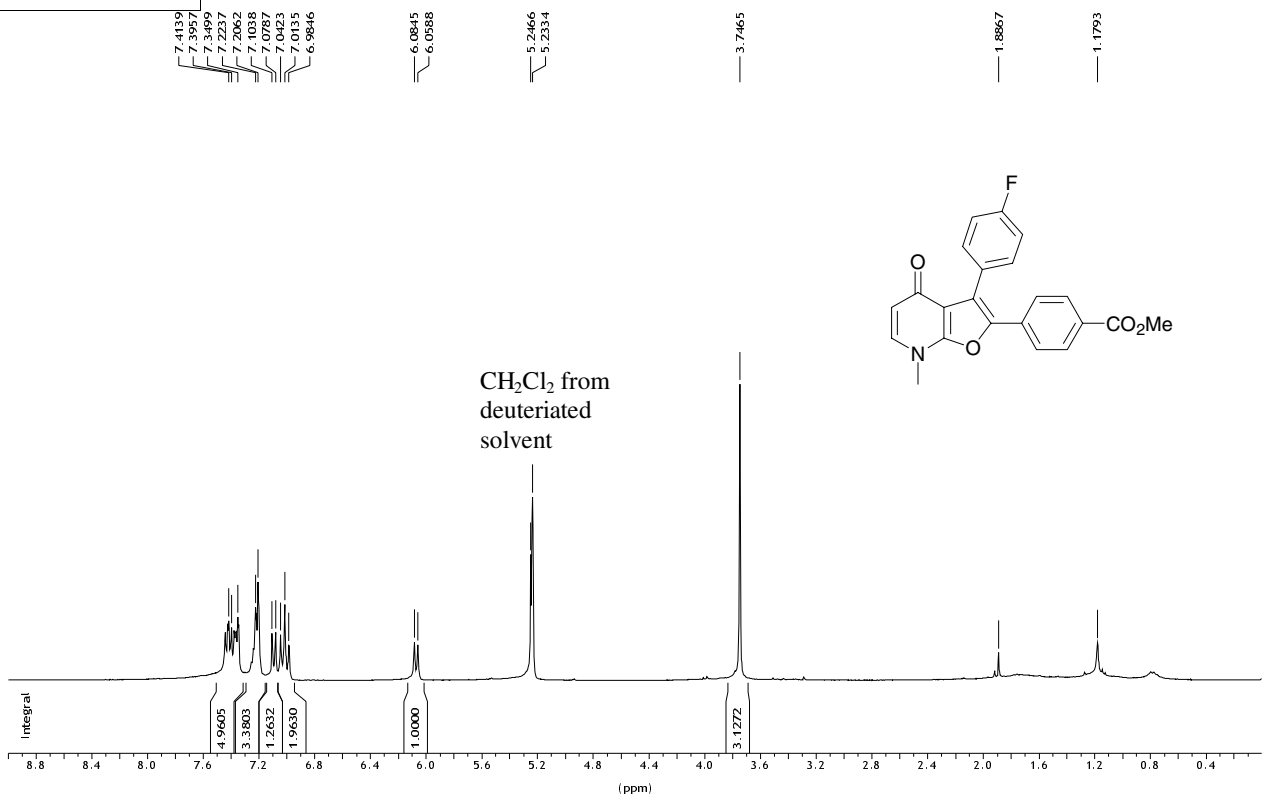
spectre proton de EB331¤

7h - $CDCl_3$

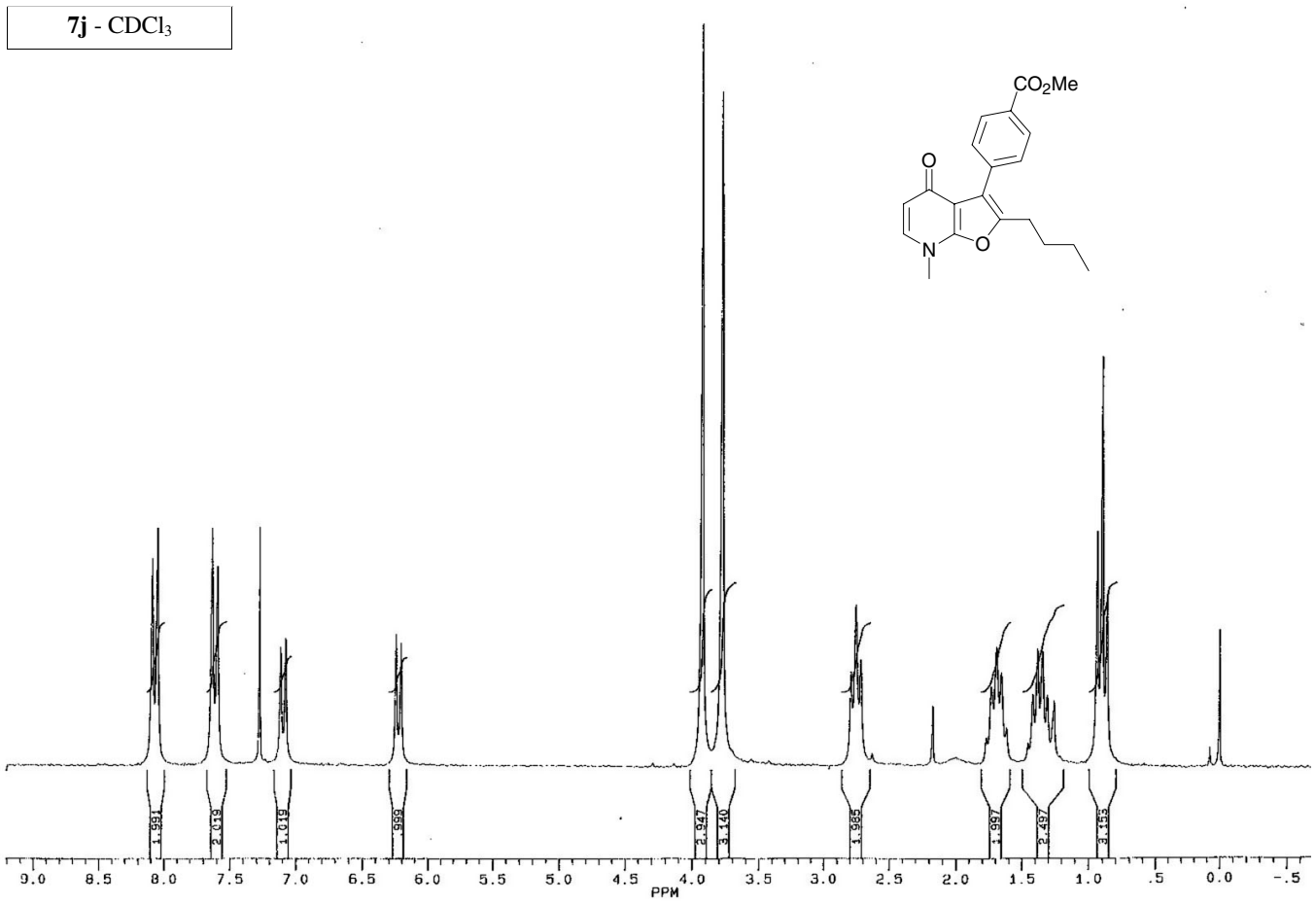


PROTON128¤

7i – CD_2Cl_2



7j - $CDCl_3$



spectre proton de EB352B¤

7k - $CDCl_3$