Supporting Information

High-Load, Soluble Oligomeric Carbodiimide: Synthesis and Application in Coupling Reactions

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General Experimental Methods

All reactions were carried out under argon in oven-dried or flame-dried glassware unless stated otherwise. Toluene, Et₂O and CH₂Cl₂ were purified by passage through the Solv-Tek purification system employing activated Al₂O₃. Flash column chromatography was performed with silica gel (230-400 mesh). Thin layer chromatography was performed on silica gel 60 F₂₅₄ plates. ¹H NMR and ¹³C NMR spectra were recorded in CDCl₃ (unless stated otherwise) on a spectrometer operating at 400 MHz, 100 MHz and referenced to residual solvent proton (7.26) and carbon (77.0), respectively. Infrared data was obtained on a Fourier Transform Infrared Spectrophotometer. Capillary gas chromatography was performed using an HP-5 5% phenyl methyl siloxane capillary 30.0m x 320μm x 0.25μm nominal (325 °C max) column.

Table 1. Compounds **6a** – **6g** prepared

Product	¹ H NMR (400 MHz, CDCl ₃), δ, <i>J</i> (Hz)	¹³ C NMR (100 MHz, CDCl ₃), δ	MS (HP 6890 GC/MS, EI) <i>m/z</i> (%)
6a¹	8.10 (dd, <i>J</i> = 8.2, 1.1, 2H), 7.58 (tt, <i>J</i> = 7.4, 1.1, 1H), 7.49-7.33 (m, 7H), 5.39 (s, 2H)	166.9, 136.5, 133.5, 130.6, 130.1, 129.0, 128.8, 128.7, 128.6, 67.1	213 ([M+1] ⁺ , 8), 212 (M ⁺ , 52), 194 (19), 167 (10), 105 (100), 91 (42), 77 (22)
6b²	8.05 (dd, <i>J</i> = 8.2, 1.0, 2H), 7.56 (tt, <i>J</i> = 7.4, 1.0, 1H), 7.44 (t, <i>J</i> = 7.8, 2H), 5.87 (ddt, <i>J</i> = 17.1, 10.3, 6.7, 1H), 5.19 (ddd, <i>J</i> = 17.2, 3.0, 1.4, 1H), 5.12 (dd, <i>J</i> = 10.2, 1.2, 1H), 4.39 (t, <i>J</i> = 6.7, 2H), 2.54 (tq, <i>J</i> = 6.7, 1.0, 2H)	166.1, 133.6, 132.4, 129.8, 129.1, 127.8, 116.9, 63.5, 32.7	176 (M ⁺ , 2), 135 (2), 122 (2), 105 (100), 77 (27), 54 (22)
6c³	7.40-7.34 (m, 5H), 5.14 (s, 2H), 3.41 (t, <i>J</i> = 6.8, 2H), 2.40 (t, <i>J</i> = 7.4, 2H), 1.91-1.85 (m, 2H), 1.73-1.66 (m, 2H), 1.54-1.47 (m, 2H)	173.7, 136.4, 129.0, 128.6, 127.4, 66.6, 34.5, 33.9, 32.8, 28.0, 24.5	287 ([M+3] ⁺ , 1), 286 ([M+2] ⁺ , 10), 284 (M ⁺ , 10), 195 (1), 193 (1), 187 (3), 179 (8), 177 (9), 171 (3), 169 (3), 108 (100), 91 (92), 79 (7), 69 (17)
6d	4.19 (t, <i>J</i> = 6.3, 2H), 3.42 (t, <i>J</i> = 6.7, 2H), 2.57 (t, <i>J</i> = 7.3, 2H), 2.32 (t, <i>J</i> = 7.4, 2H), 2.12 (s, 3H), 1.96-1.87 (m, 4H), 1.70-1.63 (m, 2H), 1.51-1.46 (m, 2H)	173.8, 63.3, 34.4, 33.9, 32.8, 31.0, 28.6, 28.0, 24.5, 15.9	284 ([M+2] ⁺ , 6), 282 (M ⁺ , 6), 179 (8), 177 (8), 105 (5), 88 (100), 73 (29), 69 (17), 61 (12)
6e	7.32-7.20 (m, 5H), 5.16 (sex, <i>J</i> = 6.4, 1H), 4.19 (t, <i>J</i> = 6.3, 2H), 3.39 (t, <i>J</i> = 6.8, 2H), 2.93 (dd, <i>J</i> = 13.7, 7.1, 1H), 2.79 (dd, <i>J</i> = 13.6, 6.2, 1H), 2.28 (t, <i>J</i> = 7.6, 3H), 1.89-1.81 (m, 2H), 1.64-1.55 (m, 2H), 1.45-1.36 (m, 2H), 1.25 (d, <i>J</i> = 6.3, 3H)	173.3, 138.1, 129.8, 128.7, 126.9, 71.8, 42.7, 34.8, 33.9, 32.8, 28.0, 24.5, 20.0	M ⁺ n/a, 179 (21)/177 (21) [Br(CH ₂) ₅ CO] ⁺ , 149 (2)/151 (2) [Br(CH ₂) ₅] ⁺ , 118 (100) [PhCHCHMe] ⁺ , 91 (27) [PhCH ₂] ⁺ , 69 (26) [CH ₂ CHCO] ⁺
6f⁴	7.98 (dd, <i>J</i> = 8.3, 1.2, 2H), 7.57 (tt, <i>J</i> = 7.4, 1.4, 1H), 7.45 (br t, <i>J</i> = 7.8, 2H), 3.09 (t, <i>J</i> = 7.3, 2H), 1.72-1.63 (m, 2H), 1.47 (sex, <i>J</i> = 7.6, 2H), 0.96 (t, <i>J</i> = 7.4, 3H)	192.2, 137.2, 133.2, 128.5, 127.1, 31.6, 28.7, 22.0, 13.6	194 (M ⁺ , 5), 139 (4), 105 (100), 84 (4), 77 (25), 69 (3), 51 (7)
6g⁵	7.98 (br d, <i>J</i> = 7.7, 2H), 7.57 (br t, <i>J</i> = 7.3, 1H), 7.45 (t, <i>J</i> = 7.6, 2H), 3.08 (t, <i>J</i> = 7.3, 2H), 1.68 (qn, <i>J</i> = 7.3, 2H), 1.43 (qn, <i>J</i> = 7.2, 2H), 1.37-1.20 (m, 16H), 0.89 (t, <i>J</i> = 6.4, 3H)	192.2, 137.3, 133.2, 128.5, 127.2, 31.9, 29.63, 29.58, 29.55, 29.50, 29.34, 29.16, 29.05, 28.94, 22.7, 14.1	307 ([M+1] ⁺ , 0.2), 306 (M ⁺ , 0.8), 246 (1.5), 207 (2), 139 (2), 105 (100), 77 (13), 69 (2), 55 (3)

Table 2. Compounds **6h** - **7c** prepared

Product	¹ H NMR (400 MHz, CDCl ₃), δ , <i>J</i> (Hz)	¹³ C NMR (100 MHz, CDCl ₃), δ	MS (HP 6890 GC/MS, EI) <i>m/z</i> (%)
<p>6h</p>	3.41 (t, <i>J</i> = 6.7, 2H), 2.88 (t, <i>J</i> = 7.3, 2H), 2.57 (t, <i>J</i> = 7.4, 2H), 1.88 (qn, <i>J</i> = 7.4, 2H), 1.70 (qn, <i>J</i> = 7.7, 2H), 1.60-1.36 (m, 6H), 0.92 (t, <i>J</i> = 7.3, 3H)	199.4, 43.7, 33.4, 32.4, 31.6, 28.5, 27.4, 24.7, 21.9, 13.6	268 ([M+2] ⁺ , 2), 286 ([M] ⁺ , 2), 211 (5), 199 (4), 187 (6), 179 (74), 177 (76), 151 (6), 149 (6), 132 (7), 69 (100), 55 (14)
<p>6i</p>	3.42 (t, <i>J</i> = 6.8, 2H), 2.87 (t, <i>J</i> = 7.3, 2H), 2.56 (t, <i>J</i> = 7.4, 2H), 1.88 (qn, <i>J</i> = 7.4, 2H), 1.70 (qn, <i>J</i> = 7.7, 2H), 1.59-1.45 (m, 4H), 1.35-1.20 (m, 18H), 0.88 (t, <i>J</i> = 6.8, 3H)	199.4, 43.8, 33.4, 32.4, 31.9, 29.61, 29.55, 29.47, 29.3, 29.1, 28.9, 28.8, 27.4, 24.7, 22.7, 14.1	381 ([M+3] ⁺ , 0.2), 380 ([M+2] ⁺ , 0.6), 379 ([M+1] ⁺ , 0.2), 378 (M ⁺ , 0.6), 320 (1), 318 (1), 299 (5), 201 (12), 179 (100), 177 (100), 97 (8), 69 (55), 55 (13)
<p>6j</p>	7.39 (dt, <i>J</i> = 8.0, 2.2, 2H), 7.27-7.22 (m, 1H), 7.11-7.08 (m, 2H), 3.45 (t, <i>J</i> = 6.7, 2H), 2.60 (t, <i>J</i> = 7.4, 2H), 1.94 (qn, <i>J</i> = 7.1, 2H), 1.81 (qn, <i>J</i> = 7.6, 2H), 1.64-1.56 (m, 2H)	171.9, 150.6, 129.4, 125.8, 121.5, 34.1, 33.5, 32.3, 27.6, 24.0	272 ([M+2] ⁺ , 15), 270 (M ⁺ , 15), 179 (37), 177 (37), 94 (100), 69 (44), 65 (10), 55 (13)
<p>6k</p>	3.44 (t, <i>J</i> = 6.7, 2H), 2.71 (t, <i>J</i> = 7.4, 2H), 1.94 (qn, <i>J</i> = 7.1, 2H), 1.82 (qn, <i>J</i> = 7.6, 2H), 1.64-1.57 (m, 2H)	169.2, 141.1 (d(m), <i>J</i> = 250 Hz), 139.4 (dtt, <i>J</i> = 252, 13.5, 4.1 Hz), 137.8 (d(m), <i>J</i> = 253 Hz), 125.1(m), 33.2, 33.1, 32.2, 27.3, 23.9	No M ⁺ , 184 (7%) [C ₆ F ₅ OH] ⁺ , 179 (37)/177 (38) [Br(CH ₂) ₅ CO] ⁺ , 155 (10), 136 (4), 117 (6), 109/107 (7), 93 (4), 69 (100) [CH ₂ CHCO] ⁺ , 55 (18)
<p>7a⁶</p>	7.81 (dd, <i>J</i> = 8.4, 1.1, 2H), 7.55-7.27 (m, 8H), 6.52 (s, 1H), 4.67 (d, <i>J</i> = 5.7, 2H)	167.8, 138.6, 134.8, 132.0, 129.2, 129.0, 128.3, 128.0, 127.4, 44.5	212 ([M+1] ⁺ , 13), 211 (M ⁺ , 84), 210 ([M-1] ⁺ , 35), 105 (100), 91 (9), 77 (45), 65 (4), 51 (12)
<p>7b⁷</p>	7.50-7.40(m, 5H), 7.32-7.29 (m, 2H), 6.98-6.93 (m, 3H), 3.96 (br s, 2H), 3.62 (br s, 2H), 3.28 (br s, 2H), 3.16 (br s, 2H)	170.8, 151.4, 136.0, 130.2, 129.7, 129.0, 127.5, 121.0, 117.2, 50.3, 42.5	267 ([M+1] ⁺ , 9), 266 (M ⁺ , 49), 161 (10), 132 (100), 120 (21), 105 (34), 91 (8), 77 (32), 56 (17)
<p>7c⁸</p>	7.45-7.27 (m, 5H), 5.89 (br s, 1H), 5.74 (br s, 1H), 5.26-5.18 (m, 4H), 4.15 (br s, 2H), 3.84 (br s, 2H)	171.8, 136.2, 133.2, 132.7, 130.0, 129.6, 128.3, 126.5, 117.6, 50.7, 46.9	201 ([M] ⁺ , 4), 200 ([M-1] ⁺ , 5), 160 (11), 105 (100), 77 (34), 51 (7)

Table 3. Compounds **7d** – **7i** prepared

Product	¹ H NMR (400 MHz, CDCl ₃), δ , <i>J</i> (Hz)	¹³ C NMR (100 MHz, CDCl ₃), δ	MS (HP 6890 GC/MS, EI) <i>m/z</i> (%)
7d⁹	7.77 (d, <i>J</i> = 7.1, 2H), 7.52-7.41 (m, 3H), 6.20 (br s, 1H), 3.47 (dt, <i>J</i> = 6.9, 6.5, 2H), 1.61 (qn, <i>J</i> = 7.4, 2H), 1.42 (sex, <i>J</i> = 7.4, 2H), 0.96 (t, <i>J</i> = 7.3, 3H)	167.5, 134.8, 131.3, 128.5, 126.8, 39.8, 31.7, 20.1, 13.8	177 ([M ⁺ , 15), 176 ([M-1] ⁺ , 4), 162 (3), 148 (5), 135 (35), 134 (34), 105 (100), 77 (21), 51 (5)
7e¹⁰	7.58-7.37 (m, 5H), 7.27-7.00 (m, 4H), 4.08 (br s, 2H), 3.13 (t, <i>J</i> = 8.2, 2H)	168.9, 130.3, 128.5, 127.1, 124.9, 123.9, 49.9, 27.9	224 ([M+1] ⁺ , 10), 223 (M ⁺ , 61), 105 (100), 91 (6), 77 (34), 65 (4), 51 (7)
7f¹¹	7.36-7.27 (m, 5H), 5.84 (br s, 1H), 4.44 (d, <i>J</i> = 5.7, 2H), 3.41 (t, <i>J</i> = 6.7, 2H), 2.23 (t, <i>J</i> = 7.5, 2H), 1.88 (qn, <i>J</i> = 7.2, 2H), 1.70 (qn, <i>J</i> = 7.7, 2H), 1.51-1.46 (m, 2H)	172.5, 138.2, 128.7, 127.8, 127.5, 43.6, 36.4, 33.6, 32.4, 27.7, 24.7	286 ([M+3] ⁺ , 4), 285 ([M+2] ⁺ , 28), 283 (M ⁺ , 28), 204 (16), 176 (7), 162 (13), 149 (100), 148 (22), 106 (49), 91 (90), 77 (8), 69 (11), 65 (9), 55 (5)
7g¹²	7.33-7.28 (m, 2H), 6.97-6.91 (m, 3H), 3.80 (t, <i>J</i> = 5.1, 2H), 3.64 (t, <i>J</i> = 5.1, 2H), 3.45 (t, <i>J</i> = 6.7, 2H), 3.21-3.15 (m, 4H), 2.41 (t, <i>J</i> = 7.5, 2H), 1.92 (qn, <i>J</i> = 7.2, 2H), 1.72 (qn, <i>J</i> = 7.7, 2H), 1.56-1.51 (m, 2H)	171.1, 150.9, 129.2, 120.5, 116.6, 49.7, 49.4, 45.4, 41.4, 33.7, 32.9, 32.5, 27.9, 24.3	341 ([M+3] ⁺ , 3), 340 ([M+2] ⁺ , 11), 341 ([M+1] ⁺ , 3), 338 (M ⁺ , 11), 281 (6), 207 (18), 161 (15), 132 (100), 120 (32), 119 (29), 104 (18), 91 (11), 77 (14), 56 (20)
7h¹¹	5.50 (br s, 1H), 3.41 (t, <i>J</i> = 6.7, 2H), 3.28-3.22 (m, 2H), 2.18 (t, <i>J</i> = 7.5, 2H), 1.88 (qn, <i>J</i> = 7.1, 2H), 1.67 (qn, <i>J</i> = 7.6, 2H), 1.52-1.42 (m, 4H), 1.34 (sex, <i>J</i> = 7.5, 2H), 0.92 (t, <i>J</i> = 7.3, 3H)	172.6, 39.2, 36.5, 33.6, 32.4, 31.7, 27.7, 24.8, 20.0, 13.7	251 ([M+2] ⁺ , 3), 250 ([M+1] ⁺ , 1), 249 (M ⁺ , 3), 236 (4), 234 (4), 209 (6), 208 (6), 207 (7), 206 (6), 179 (19), 177 (19), 170 (19), 128 (16), 115 (100), 100 (26), 73 (31), 69 (32), 57 (18)
7i¹³	5.79-5.71 (m, 2H), 5.22-5.08 (m, 4H), 3.98 (d, <i>J</i> = 5.9, 2H), 3.87 (dd, <i>J</i> = 2.8, 1.9, 2H), 3.41 (t, <i>J</i> = 6.8, 2H), 2.33 (t, <i>J</i> = 7.5, 2H), 1.88 (qn, <i>J</i> = 7.4, 2H), 1.68 (qn, <i>J</i> = 7.7, 2H), 1.49-1.42 (m, 2H)	172.6, 133.3, 132.8, 117.1, 116.5, 49.1, 47.9, 33.7, 32.64, 32.56, 27.9, 24.3	275 ([M+2] ⁺ , 2), 273 (M ⁺ , 2), 260 (5), 258 (5), 232 (43), 219 (15), 217 (15), 194 (100), 152 (23), 139 (33), 124 (25), 97 (27), 82 (32), 69 (47), 56 (68)

Table 4. Compounds **7j** – **9c** prepared

Product	¹ H NMR (400 MHz, CDCl ₃), δ, <i>J</i> (Hz)	¹³ C NMR (100 MHz, CDCl ₃), δ	MS (HP 6890 GC/MS, EI) m/z (%)
<p>7j</p>	8.23 (d, <i>J</i> = 7.9, 1H), 7.27-7.17 (m, 2H), 7.04-6.99 (m, 1H), 4.04 (t, <i>J</i> = 8.5, 2H), 3.44 (t, <i>J</i> = 6.8, 2H), 3.20 (t, <i>J</i> = 8.4, 2H), 2.44 (t, <i>J</i> = 7.3, 2H), 1.95-1.89 (m, 2H), 1.80-1.73 (m, 2H), 1.60-1.53 (m, 2H)	170.9, 143.0, 131.0, 127.5, 124.5, 123.5, 116.9, 47.9, 35.6, 33.7, 32.6, 28.0, 27.9, 23.6	298 ([M+3] ⁺ , 2), 297 ([M+2] ⁺ , 11), 295 (M ⁺ , 12), 216 (3), 207 (3), 161 (7), 119 (100), 118 (37), 91 (10), 77 (2), 69 (6), 65 (4), 55 (4)
<p>8a¹⁴</p>	8.20-8.16 (m, 4H), 7.72-7.66 (m, 2H), 7.57-7.52 (m, 4H)	162.3, 134.5, 130.5, 128.85, 128.80	NA
<p>8b¹⁵</p>	3.42 (t, <i>J</i> = 6.6, 4H), 2.48 (t, <i>J</i> = 7.3, 4H), 1.89 (qn, <i>J</i> = 7.1, 4H), 1.70 (qn, <i>J</i> = 7.5, 4H), 1.56-1.48 (m, 4H)	169.1, 35.0, 33.3, 32.2, 27.3, 23.3	NA
<p>9a¹⁶</p>	7.38- 7.28 (m, 5H), 7.10 (d, <i>J</i> = 3.6, 1H), 6.60 (br s, 1H), 6.44 (d, <i>J</i> = 3.2, 1H), 4.6 (d, <i>J</i> = 5.6, 2H)	157.0, 149.4, 137.7, 128.8, 128.0, 127.7, 124.4, 116.7, 114.1, 43.2	283 ([M+2] ⁺ , 15), 281 (M ⁺ , 15), 207 (65), 167 (39), 149 (100)
<p>9b</p>	7.25 (d, <i>J</i> = 2.1, 2H), 7.18 (d, <i>J</i> = 2.2, 2H), 7.1 (m, 1H), 6.61 (br s, 1H), 6.45-6.44 (m, 1H), 4.57 (d, <i>J</i> = 6.4, 2H), 2.36 (s, 3H)	157.0, 149.4, 137.4, 129.4, 128.0, 124.2, 116.6, 114.1, 43.0, 21.0	295 ([M+2] ⁺ , 80), 293 (M ⁺ , 80), 175 (73), 173 (73), 120 (100)
<p>9c</p>	7.29 (d, <i>J</i> = 8.6, 2H), 7.1 (d, <i>J</i> = 5.7, 1H), 6.91 (br s, 1H), 6.88 (br s, 1H), 6.59 (br s, 1H), 6.45 (d, <i>J</i> = 5.7, 1H), 4.44 (d, <i>J</i> = 5.8, 2H), 3.82 (s, 3H)	159.1, 157.0, 149.4, 129.7, 129.3, 127.9, 124.2, 116.6, 114.0, 52.2, 42.6	311 ([M+2] ⁺ , 100), 309 (M ⁺ , 100), 175 (53), 173 (53), 136 (80), 121 (78)

Table 5. Compounds **9d – 9j** prepared

Product	¹ H NMR (400 MHz, CDCl ₃), δ, <i>J</i> (Hz)	¹³ C NMR (100 MHz, CDCl ₃), δ	MS (HP 6890 GC/MS, EI) <i>m/z</i> (%)
9d ¹⁷	7.35-2.27 (m, 4H), 7.12 (d, <i>J</i> = 3.5, 1H), 6.6 (br s, 1H), 6.47 (d, <i>J</i> = 3.5, 1H), 4.59 (d, <i>J</i> = 3.5, 2H)	157.1, 149.2, 136.3, 133.5, 129.2, 128.9, 124.5, 117.0, 114.2, 42.6	315 ([M+2] ⁺ , 75), 313 (M ⁺ , 75), 175 (85), 173 (85), 150 (50), 148 (50), 95 (100)
9e ¹⁸	7.95 (br s, 1H), 7.63 (d, <i>J</i> = 4.8, 2H), 7.39-7.35 (dt, <i>J</i> = 8.0, 2.2, 2H), 7.20-7.13 (m, 2H), 6.51-6.49 (m, 1H)	154.8, 149.3, 137.0, 129.0, 124.7, 124.6, 120.0, 117.6, 114.6	267 ([M+2] ⁺ , 80), 265 (M ⁺ , 80), 175 (80), 173 (80), 158 (25)
9f ¹⁹	7.91 (br s, 1H), 7.54 (br d, <i>J</i> = 8.8, 2H), 7.16 (d, <i>J</i> = 3.6, 2H), 6.9 (d, <i>J</i> = 8.8, 2H), 6.49 (br d, <i>J</i> = 4.8, 1H), 3.8 (s, 3H)	156.7, 154.8, 149.4, 130.0, 124.5, 121.8, 117.2, 114.5, 114.2, 55.5	297 ([M+2] ⁺ , 20), 295 (M ⁺ , 20), 175 (100), 173 (100), 122 (65)
9g	8.00 (br s, 1H), 7.63 (br d, <i>J</i> = 9.8, 1H), 7.36-7.27 (m, 3H), 7.23-7.22 (m, 1H), 6.90-6.85 (m, 1H), 6.55-6.53 (m, 1H)	163 (d, <i>J</i> = 243), 154.8, 148.9, 138.6 (d, <i>J</i> = 10.8), 130.2, (d, <i>J</i> = 9.3), 125.09, 118, 115.2 (d, <i>J</i> = 2.9), 114.73, 11.42 (d, <i>J</i> = 21.3), 107.5 (d, <i>J</i> = 26.4)	285 ([M+2] ⁺ , 7), 283 (M ⁺ , 7), 175 (100), 173 (100)
9h	7.05 (dd, <i>J</i> = 3.5, 1.0, 1H), 6.43 (dd, <i>J</i> = 3.5, 1.0, 1H), 6.27 (br s, 1H), 3.39 (dd, <i>J</i> = 13.1, 6.7, 2H), 1.58 (m, 2H), 1.35 (m, 6H), 0.9 (m, 3H)	157.2, 149.7, 124.0, 116.2, 114.0, 39.2, 31.4, 29.6, 26.5, 22.5, 14.0	275 ([M+2] ⁺ , 5), 273 (M ⁺ , 5), 244 (10), 242 (10), 203 (30), 201 (30), 175 (100), 173 (100)
9i	7.35-7.31 (m, 1H), 7.26-7.22 (m, 4H), 7.05-7.04 (d, <i>J</i> = 4, 1H), 6.43 (d, <i>J</i> = 3, 1H), 6.32 (br s, 1H), 3.66 (dd, <i>J</i> = 13.2, 6.7, 2H), 2.91 (t, <i>J</i> = 7.1, 2H)	167.8, 138.6, 134.8, 132.0, 129.2, 129.0, 128.3, 128.0, 127.4, 44.5	295 ([M+2] ⁺ , 5), 293 (M ⁺ , 5), 204 (22), 202 (22), 175 (100), 173 (100), 104 (97)
9j	7.37-7.28 (m, 10 H), 6.95 (dd, <i>J</i> = 3.4, 1.2, 1H), 6.4 (dd, <i>J</i> = 3.4, 1.2, 1H), 4.78 (br s, 4H)	159.5, 149.1, 136.5, 128.7, 128.4, 128.1, 127.6, 126.9, 124.7, 118.9, 113.3, 53.0	371 ([M+2] ⁺ , 5), 369 (M ⁺ , 5), 280 (60), 278 (60), 175 (100), 173 (100), 91 (80)

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Intermediate 3

Intermediate 4 (OACC monomer)

$^{2\text{G}}\text{OACC}_{50}$

Ester **6a**, Table 1, *entry 1*

Ester **6b**, Table 1, *entry 2*

Ester **6c**, Table 1, *entry 3*

Ester **6d**, Table 1, *entry 4*

Ester **6e**, Table 1, *entry 5*

Thioester **6f**, Table 1, *entry 6*

Thioester **6g**, Table 1, *entry 7*

Thioester **6h**, Table 1, *entry 8*

Thioester **6i**, Table 1, *entry 9*

Phenol ester **6j**, Table 1, *entry 10*

Phenol ester **6k**, Table 1, *entry 11*

Amide **7a**, Table 2, *entry 1*

Amide **7b**, Table 2, *entry 2*

Amide **7c**, Table 2, *entry 2*

Amide **7d**, Table 2, *entry 4*

Amide **7e**, Table 2, *entry 5*

Amide **7f**, Table 2, *entry 6*

Amide **7g**, Table 2, *entry 7*

Amide **7h**, Table 2, *entry 8*

Amide **7i**, Table 2, *entry 9*

Amide **7j**, Table 2, *entry 10*

Anhydride **8a**, Table 3, *entry 1*

Anhydride **8b**, Table 3, *entry 2*

Amide **9a**, Table 4, *entry 1*

Amide **9b**, Table 4, *entry 2*

Amide **9c**, Table 4, *entry 3*

Amide **9d**, Table 4, *entry 4*

Amide **9e**, Table 4, *entry 5*

Amide **9f**, Table 4, *entry 6*

Amide **9g**, Table 4, *entry 7*

Amide **9h**, Table 4, *entry 8*

Amide **9i**, Table 4, *entry 9*

Amide **9j**, Table 4, *entry 10*