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Reaction of 1 or 2-Naphthols 1 with Aldehydes 2 under Carbon Monoxide: Typical Procedure. A mixture of **1** (2 mmol), **2** (2-10 mmol), a palladium complex (0.05-0.1 mmol), carboxylic acid (0.05-0.1 mmol), and benzene (5 mL) was placed in a 50 mL stainless steel autoclave. Then, carbon monoxide (5 atm at room temperature) was charged and the mixture was magnetically stirred at 120-125 ^{o}C for 18 h. After cooling, the reaction mixture was poured into water, extracted with ether, and dried over sodium sulfate. Product **3** was isolated by column chromatography on silica gel using hexane-methylene chloride as eluant.

3-Methylnaphtho[1,2-b]furan-2(3H)-one (3a): mp 80-81 ^{o}C; ^{1}H NMR δ 1.66 (d, 3H, J=7.8 Hz), 3.93 (q, 1H, J=7.8 Hz), 7.37 (d, 1H, J=8.3 Hz), 7.51-7.59 (m, 2H), 7.67 (d, 1H, J=8.3 Hz), 7.88 (dd, 1H, J=1.5, 7.3 Hz), 8.04 (dd, 1H, J=1.0, 8.3 Hz); IR (KBr) 1792 cm^{-1}; MS m/z 198 (M^{+}). Anal. Calcd for $C_{13}H_{10}O_2$: C, 78.77; H, 5.09. Found: C, 78.66; H, 5.09.

3-*n*-Heptylnaphtho[1,2-b]furan-2(3H)-one (3b): mp 59-60 ^{o}C; ^{1}H NMR δ 0.85 (t, 3H, J=6.8 Hz), 1.23-1.45 (m, 10H), 2.04-2.09 (m, 2H),3.90 (t, 1H, J=6.1 Hz), 7.36 (d, 1H, J=8.3 Hz), 7.49-7.57 (m, 2H), 7.65 (d, 1H, J=8.3 Hz), 7.87 (d, 1H, J= 7.3 Hz), 8.02 (d, 1H, J=8.3 Hz); MS m/z 282 (M^{+}). Anal. Calcd for $C_{19}H_{22}O_2$: C, 80.81; H, 7.85. Found: C, 80.97; H, 7.91.

3-*i*-Propylnaphtho[1,2-b]furan-2(3H)-one (3c): mp 60-61 ^{o}C; ^{1}H NMR δ 1.03 (d, 3H, J=6.8 Hz), 1.13 (d, 3H, J=6.8 Hz), 2.54-2.59 (m, 1H), 3.84 (d, 1H, J=3.9 Hz), 7.40 (d, 1H, J=8.3 Hz), 7.51-7.59 (m, 2H), 7.66 (d, 1H, J=8.3 Hz), 7.88 (d, 1H, J=8.8 Hz), 8.04 (d, 1H, J=8.3 Hz); IR (KBr) 1794 cm^{-1}; MS m/z 226 (M^{+}). Anal. Calcd for $C_{15}H_{14}O_2$: C, 79.62; H, 6.24. Found: C, 79.58; H, 6.30.

3-Phenylnaphtho[1,2-b]furan-2(3H)-one (3d): mp 129-130 ^{o}C; ^{1}H NMR δ 5.07 (s, 1H), 7.24-7.39 (m, 6H), 7.54-7.62 (m, 2H), 7.68 (d, 1H, J=8.3 Hz), 7.90 (d, 1H, J=7.8 Hz), 8.09 (d, 1H, J=8.3 Hz); MS m/z 260 (M^{+}). Anal. Calcd for $C_{18}H_{12}O_2$: C, 83.06; H, 4.65. Found: C, 83.34; H, 4.61.

5-Methoxy-3-methynaphtho[1,2-b]furan-2(3H)-one (3e): mp 86-87 ^{o}C; ^{1}H NMR δ 1.65 (d, 3H, J=7.3 Hz), 3.90 (q, 1H, J=7.8 Hz), 4.01 (s, 3H), 6.69 (s, 1H), 7.53 (ddd, 1H,

J=1.5, 7.3, 8.8 Hz), 7.59 (ddd, 1H, J=1.0, 6.9, 7.9 Hz), 7.97 (d, 1H, J=8.3 Hz), 8.27 (d, 1H, J= 8.3 Hz); IR (KBr) 1794 cm^{-1}; HRMS m/z (M^+) Calcd for $C_{14}H_{12}O_3$: 228.0787. Found: 228.0789.

3-Methylnaphtho[2,1-b]furan-2(3H)-one (3f): mp 126-127 ^oC; ^1H NMR δ 1.79 (d, 3H, J=7.8 Hz), 4.11 (q, 1H, J=7.8 Hz), 7.36 (d, 1H, J=8.8 Hz), 7.45 (ddd, 1H, J=1.0, 6.8, 8.3 Hz), 7.57 (ddd, 1H, J=1.5, 6.8, 8.3 Hz), 7.77 (d, 1H, J=8.3 Hz), 7.84 (d, 1H, J=9.3 Hz), 7.90 (d, 1H, J=8.3 Hz); IR (KBr) 1794 cm^{-1}; MS m/z 198 (M^+). Anal. Calcd for $C_{13}H_{10}O_2$: C, 78.77; H, 5.09. Found: C, 78.45; H, 5.14.

5-Methoxy-3-methynaphtho[2,1-b]furan-2(3H)-one (3g): mp 116 ^oC; ^1H NMR δ 1.78 (d, 3H, J=7.3 Hz), 3.95 (s, 3H), 4.06 (q, 1H, J=7.8 Hz), 6.99 (d, 1H, J=2.5 Hz), 7.11 (dd, 1H, 2.4, 8.8 Hz), 7.20 (d, 1H, J=8.3 Hz), 7.75 (d, 1H, J=8.8 Hz), 7.78 (d, 1H, J=9.3 Hz); IR (KBr) 1802 cm^{-1}; MS m/z 228 (M^+). Anal. Calcd for $C_{14}H_{12}O_3$: C, 73.67; H, 5.30. Found: C, 73.52; H, 5.39.