

Supporting Information. Spectral and analytical data for the reduced products, not reported earlier, designated by their entries in Table 1.

1 : 2,4-Dimethyl-1,1-dicyanopentane

IR 2254 cm^{-1} ; ^1H NMR δ 0.87-1.01 (6H, m), 1.23 (3H, d, $J = 6.0$ Hz), 1.36-1.42 (2H, m), 1.63-1.73 (1H, m), 2.20-2.29 (1H, m), 3.67 (1H, d, $J = 4.9$ Hz); ^{13}C NMR δ 17.3, 22.0, 23.4, 25.5, 29.9, 33.9, 43.1, 112.2, 112.8. Anal. Calcd for $\text{C}_9\text{H}_{14}\text{N}_2$: C, 71.96; H, 9.39. Found : C, 71.96; H, 9.44.

2 : Dicyanomethylcyclohexane

IR 2254 cm^{-1} ; ^1H NMR δ 1.17-1.41 (6H, m), 1.71-2.04 (5H, m), 3.59 (1H, d, $J = 5.6$ Hz); ^{13}C NMR δ 25.5, 25.7(2), 29.8, 30.4(2), 39.8, 112.4(2). Anal. Calcd for $\text{C}_9\text{H}_{12}\text{N}_2$: C, 72.94; H, 8.16. Found : C, 72.57; H, 8.12.

3 : 1-(Dicyanomethyl)-2-methylcyclohexane

IR 2253 cm^{-1} ; ^1H NMR δ 0.95-1.00 (3H, m), 1.25-1.86 (10H, m), 3.48 (1H, d, $J = 10.0$ Hz); ^{13}C NMR δ 12.2, 19.9, 25.1, 25.9, 27.6, 30.2, 33.3, 42.7, 112.4, 113.0. Anal. Calcd for $\text{C}_{10}\text{H}_{14}\text{N}_2$: C, 74.03; H, 8.70. Found : C, 74.43; H, 8.74.

4 : Dicyanomethylcycloheptane

IR 2253 cm^{-1} ; ^1H NMR δ 1.49-2.18 (13H, m), 3.62 (1H, d, $J = 5.5$ Hz); ^{13}C NMR δ 26.1(2), 27.9(2), 30.5, 32.4(2), 41.7, 112.8(2). . Anal. Calcd for $\text{C}_{10}\text{H}_{14}\text{N}_2$: C, 74.03; H, 8.70. Found : C, 74.36; H, 8.65.

6 : 1,1-Dicyano-2-phenylpropane

IR 2255 cm^{-1} ; ^1H NMR δ 1.63 (3H, d, $J = 7.0$ Hz), 3.41-3.51 (1H, m), 3.85 (1H, d, $J = 6.1$ Hz), 7.31-7.43 (5H, m); ^{13}C NMR δ 18.2, 31.6, 41.5, 112.2, 112.5, 127.7(2), 129.2, 129.6(2), 138.7. Anal. Calcd for $\text{C}_{11}\text{H}_{10}\text{N}_2$: C, 77.62; H, 5.92. Found : C, 77.38; H, 6.05.

7 : 1,1-Dicyano-2-(4-methylphenyl)propane

IR 2255 cm^{-1} ; ^1H NMR δ 1.61 (3H, d, $J = 7.0$ Hz), 2.35 (3H, s), 3.39-3.43 (1H, m), 3.82 (1H, d, $J = 6.1$ Hz), 7.21 (4H, s); ^{13}C NMR δ 18.2, 21.5, 31.7, 41.2, 112.3, 112.5, 127.5(2), 130.3(2), 135.6, 139.1. Anal. Calcd for $\text{C}_{12}\text{H}_{12}\text{N}_2$: C, 78.23; H, 6.56. Found : C, 77.99; H, 6.76.

8 : 2-(4-Chlorophenyl)-1,1-dicyanoethane

mp 92°C; IR 2258 cm⁻¹; ¹H NMR δ 3.26 (2H, d, J = 6.6 Hz), 3.92 (1H, t, J = 6.9 Hz), 7.20-7.46 (4H, m); ¹³C NMR δ 25.3, 36.4, 112.3(2), 130.0(2), 131.0(2), 131.7, 135.5. Anal. Calcd for C₁₀H₇ClN₂ : C, 63.01; H, 3.70. Found : C, 62.89; H, 3.71.

9 : 2-(4-Chlorophenyl)-1,1-dicyanopropane

IR 2256 cm⁻¹; ¹H NMR δ 1.63 (3H, d, J = 6.9 Hz), 3.40-3.50 (1H, m), 3.85 (1H, d, J = 6.0 Hz), 7.27-7.41 (4H, m); ¹³C NMR δ 18.2, 31.5, 41.0, 112.0, 112.1, 129.0, 129.1, 129.9(2), 135.3, 137.0. Anal. Calcd for C₁₁H₉ClN₂ : C, 64.56; H, 4.43. Found : C, 64.50; H, 4.30.

10 : 1,1-Dicyano-2-(4-methoxyphenyl)ethane

mp 91°C; IR 2258 cm⁻¹; ¹H NMR δ 3.21 (2H, d, J = 6.9 Hz), 3.80 (3H, s), 3.86 (1H, t, J = 6.9 Hz), 6.91 (2H, d, J = 8.5 Hz), 7.23 (2H, d, J = 8.5 Hz); ¹³C NMR δ 25.1, 35.9, 55.2, 112.3(2), 114.6(2), 124.9, 130.3(2), 159.8. Anal. Calcd for C₁₁H₁₀N₂O : C, 70.97; H, 5.38. Found : C, 70.78; H, 5.32.

11 : 1,1-Dicyano-2-(3,4-methylenedioxyphenyl)ethane

mp 84°C; IR 2253 cm⁻¹; ¹H NMR δ 3.20 (2H, d, J = 6.9 Hz), 3.86 (1H, t, J = 6.6 Hz), 5.99 (2H, s), 6.77-6.84 (3H, m); ¹³C NMR δ 25.6, 37.0, 101.9, 109.3, 109.7, 112.6(2), 123.2, 126.8, 148.5, 148.7. Anal. Calcd for C₁₁H₈N₂O₂ : C, 66.00; H, 4.03. Found : C, 65.66; H, 4.03.

12 : 1,1-Dicyano-2-furfuryl ethane

IR 2258 cm⁻¹; ¹H NMR δ 3.38 (2H, d, J = 7.2 Hz), 4.04 (1H, t, J = 7.1 Hz), 6.37-6.40 (2H, m), 7.43 (1H, m); ¹³C NMR δ 23.0, 30.2, 110.4, 111.3, 112.2(2), 143.9, 146.7. Anal. Calcd for C₈H₆N₂O : C, 65.75; H, 4.14. Found : C, 65.55; H, 4.30.

14 : 4-(3-Methoxyphenyl)-butan-2-one

IR 1716 cm⁻¹; ¹H NMR δ 2.13 (3H, s), 2.72-2.89 (4H, m), 3.78 (3H, s), 6.72-6.77 (3H, m), 7.16-7.21 (1H, m); ¹³C NMR δ 30.2, 30.4, 45.5, 55.5, 111.8, 114.5, 121.0, 129.9, 143.0, 160.1, 208.2. Anal. Calcd for C₁₁H₁₄O₂ : C, 74.13; H, 7.92. Found : C, 74.21; H, 7.90.

15 : 4-Furfuryl-butan-2-one

IR 1716 cm^{-1} ; ^1H NMR δ 2.16 (3H, s), 2.75-2.94 (4H, m), 5.99 (1H, d, $J = 3.0$ Hz), 6.26 (1H, m), 7.26-7.29 (1H, m); ^{13}C NMR δ 22.6, 30.3, 42.1, 105.6, 110.6, 141.5, 154.9, 207.7. Anal. Calcd for $\text{C}_8\text{H}_{10}\text{O}_2$: C, 69.55; H, 7.30. Found: C, 69.32; H, 7.21.

17 : 2-Benzylcyclohexan-1-one

IR 1709 cm^{-1} ; ^1H NMR δ 1.33-2.06 (6H, m), 2.31-2.60 (5H, m), 7.14-7.29 (5H, m); ^{13}C NMR δ 25.5, 28.5, 33.8, 35.9, 42.6, 52.9, 126.4, 128.7(2), 129.5(2), 140.8, 212.9. Anal. Calcd for $\text{C}_{13}\text{H}_{16}\text{O}$: C, 82.94; H, 8.57. Found: C, 82.79; H, 8.35.

18 : 2-Benzylcycloheptan-1-one

IR 1701 cm^{-1} ; ^1H NMR δ 1.26-1.86 (8H, m), 2.43-2.83 (5H, m), 7.14-7.30 (5H, m); ^{13}C NMR δ 24.6, 29.0, 29.7, 30.8, 38.3, 43.6, 54.0, 126.5, 128.7(2), 129.5(2), 140.4, 216.0. Anal. Calcd for $\text{C}_{14}\text{H}_{18}\text{O}$: C, 83.12; H, 8.97. Found: C, 82.89; H, 8.93.

19 : 3-Carbomethoxycyclopentan-1-one

IR 1713, 1744 cm^{-1} ; ^1H NMR δ 1.23-1.42 (2H, m), 2.04-2.43 (3H, m), 2.48 (2H, t, $J = 7.8$ Hz), 3.73 (3H, s); ^{13}C NMR δ 26.9, 37.8, 41.1, 41.5, 52.5, 174.9, 216.5. Anal. Calcd for $\text{C}_7\text{H}_{10}\text{O}_3$: C, 59.14; H, 7.09. Found: C, 58.78; H, 6.95.

20 : 3-Carbomethoxy cyclohexan-1-one

IR 1715, 1732 cm^{-1} ; ^1H NMR δ 1.21-1.42 (2H, m), 1.71-1.86 (2H, m), 2.04-2.13 (1H, m), 2.32-2.39 (2H, m), 2.55 (2H, d, $J = 7.9$ Hz), 3.71 (3H, s); ^{13}C NMR δ 24.9, 28.1, 41.3, 43.5(2), 52.5, 174.6, 209.6. Anal. Calcd for $\text{C}_8\text{H}_{12}\text{O}_3$: C, 61.52; H, 7.74. Found: C, 61.19; H, 7.50.