Supporting Information

for

Highly efficient CuI catalyzed coupling of aryl bromides with oxazolidinones using Buchwald's protocol : A short route to Linezolid and Toloxatone.

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General Considerations : All the reactions were carried out under argon atmosphere in previously dried glassware. All aryl halides were purchased from Lancaster. Anhydrous 1,4-dioxane was prepared by distilling LR grade 1,4-dioxane over sodium wire. Trans 1, 2-diaminocyclohexane was purchased from Lancaster and was distilled freshly before use. Cuprous Iodide was purchased from Acros Chemicals and was recrystallized before use.

IR spectra were recorded on a Perkin-Elmer 1650 spectrophotometer. All ^1H NMR and ^{13}C NMR were recorded at 200 MHz and 50 MHz, respectively, on a Varian Gemini spectrometer. Chemical shifts are reported in δ units with respect to tetramethylsilane as internal standard. Mass spectra were recorded on a HP-5989A spectrometer. Combustion analyses were obtained using a Perkin-Elmer 2400 analyzer.

General procedure for the coupling of aryl bromides with oxazolidinones:

Recrystallized CuI (3-5 mol%), K_2CO_3 (2 mmol) and substituted or simple oxazolidinone (1 mmol) were added to 25 mL 2 neck round bottom flask fitted with condenser and a stopcock. The whole system was evacuated and filled with argon three times. 0.5mL of dry 1,4-dioxane for each mmol of oxazolidinone, ($\pm$)-trans-Cyclohexanediamine (10 mol%), and corresponding aryl bromide were added using a syringe at room temperature. The reaction mixture was heated at 110 $^\circ\text{C}$ for 15 hours and then it was allowed to cool to room temperature. The reaction was quenched by adding ethyl acetate and the resulting solution was filtered through a pad of celite. The filtrate was concentrated and the residue was purified by column chromatography on silica gel (100-200 mesh) to give the pure product.

3-phenyl-2-oxazolidinone (Table 1, entry 1)⁴ : The general procedure using 1,4-dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), bromobenzene (0.12 mL, 1.14 mmol), CuI (6.49 mg, 3 mol%), ($\pm$)-trans-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K_2CO_3 (314 mg, 2.28 mmol) gave (168 mg, 90 %) of the title compound as a white solid : mp 118-119 $^\circ\text{C}$; ^1H NMR (200MHz, CDCl_3): 7.54 (d, J = 7.8Hz, 2H), 7.38 (t, J = 7.5Hz, 2H), 7.14 (t, J = 7.5Hz, 1H), 4.49-4.42 (m, 2H), 4.06-3.99 (m, 2H); IR (KBr) : 1740 cm^{-1} ; Mass (CI method): 164 ($\text{M}^+ + 1$), 119, 104, 91.

3-(4-nitrophenyl)-2-oxazolidinone (Table 1, entry 2)⁴ : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4-bromonitrobenzene (230 mg, 1.14 mmol), CuI (6.49 mg, 3 mol%), (±)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (119 mg, 50 %) of the title compound as a pale yellow solid : mp.152-154 °C; ¹HNMR (200MHz, CDCl₃) 8.25 (d, *J* = 9.3Hz, 2H), 7.73 (d, *J* = 9.3Hz, 2H), 4.60-4.52 (m, 2H), 4.18-4.01 (m, 2H); IR (KBr): 1749 cm⁻¹; Mass (CI method): 209 (M⁺+1), 179, 149

3-(4-cyanophenyl)-2-oxazolidinone (Table 1, entry 3)⁴ : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4- bromobenzonitrile (207.5 mg, 1.14 mmol), CuI (6.49 mg, 3 mol%), (±)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (174 mg, 81 %) of the title compound as a off white solid : mp 142-144 °C; ¹HNMR (200MHz, CDCl₃) 7.66 (m, 4H), 4.57-4.49 (m, 2H), 4.12-4.02 (m, 2H), IR (KBr, cm⁻¹): 2221, 1763 cm⁻¹; Mass (CI method): 189 (M⁺+1), 163, 145, 92.

3-(4-acetylphenyl)-2-oxazolidinone (Table 1, entry 4)⁴ : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4-bromoacetophenone (227 mg, 1.14 mmol), CuI (6.49 mg, 3 mol%), (±)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (230 mg, 98 %) of the title compound as white solid : mp 146-147°C; ¹HNMR (200MHz, CDCl₃) 8.0 (d, *J* = 8.8Hz, 2H), 7.69 (d, *J* = 8.8Hz, 2H), 4.51-4.43 (m, 2H), 4.14-4.06 (m, 2H), 2.55 (s, 3H); IR (KBr, cm⁻¹): 1747, 1667 ; Mass (CI method): 206 (M⁺+1), 146, 106.

3-(4-thiomethylphenyl)-2-oxazolidinone (Table 1, entry 5) : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4-bromothioanisole (227 mg, 1.14 mmol), CuI (6.49 mg, 3 mol%), (±)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (204 mg, 86 %) of the title compound as a off white solid : mp 138-140 °C; ¹HNMR (200MHz, CDCl₃) 7.47 (d, *J* = 8.8Hz, 2H), 7.28 (d, *J* = 8.8Hz, 2H), 4.48 (t, *J* = 8.0Hz, 2H), 4.0 (t, *J* = 8.0Hz, 2H), 2.47 (s, 3H); ¹³C NMR (50 MHz, DMSO d⁶) 154.8, 135.9, 132.3, 127.0, 118.6, 61.4, 44.7, 15.4; IR (KBr, cm⁻¹): 1732, 1501, 1427; Anal. Calcd for C₁₀H₁₁NO₂S : C, 57.39; H, 5.29 . Found: C, 57.34; H, 5.39; Mass (CI method): 210(M⁺+1), 191, 94.

3- (4-methoxyphenyl) oxazolidinone (Table 1, entry 6) : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4- bromoanisole (0.14 mL, 1.14 mmol), CuI (10.9 mg, 5 mol%), (±)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (180 mg, 82 %) of the title compound as a crystalline white solid : mp 112-114 °C; ¹H NMR (200 MHz, CDCl₃) 7.42 (d, *J* = 9.13 Hz, 2H), 6.90 (d, *J* = 9.13 Hz, 2H), 4.49-4.42 (m, 2H), 4.05-3.97 (m, 2H), 3.79 (s, 3H); ¹³C NMR (50 MHz, DMSO d⁶) : 155.57, 155.12, 131.71, 119.89, 114.01, 61.32, 55.18, 45.12; IR (KBr) : 1728, 1518 cm⁻¹; Anal. Calcd for C₁₀H₁₁NO₃ : C, 62.15; H, 5.74 . Found: C, 62.36; H, 5.30; Mass (m/z) : 194 (M⁺+1).

3-(4-formylphenyl)-2-oxazolidinone (Table 1, entry 8)⁴ : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4-bromobenzaldehyde (0.132 mL, 1.14 mmol), CuI (6.49 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (65.6 mg, 30 %) of the title compound as a off white solid : mp 117-118 °C; ¹H NMR (200MHz, CDCl₃): 9.95 (s, 1H), 7.90 (d, *J* = 8.6Hz, 2H), 7.73 (d, *J* = 8.8Hz, 2H), 4.54 (t, *J* = 7.5Hz, 2H), 4.13 (t, *J* = 7.5Hz, 2H); IR (KBr, cm⁻¹) 2856, 1746, 1678, 1602, 1405 ; Mass (CI method): 192 (M⁺+1), 166, 147, 105, 94.

3- (3-methylphenyl)-2-oxazolidinone (Table 1, entry 9) : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), 4-bromotoluene (0.14 mL 1.14 mmol), CuI (6.49 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (162 mg, 80 %) of the title compound as a off white solid : mp 94-96 °C; ¹H NMR (200 MHz, CDCl₃) 7.36-7.27 (m, 3H), 6.95-6.92 (m, 2H), 4.48-4.40 (m, 2H), 4.05- 3.97 (m, 2H), 2.35 (s, 3H); ¹³C NMR (50 MHz, CDCl₃) 138.9, 138.1, 128.8, 124.8, 118.9, 115.3, 61.2, 45.2, 21.5; IR (KBr) : 1739 cm⁻¹; Anal. Calcd for C₁₀H₁₁NO₂: C, 67.76; H, 6.26, Found : C, 68.15; H, 6.21; Mass (CI method) 178 (M⁺+ 1), 177.

3-(1-methoxyphenyl)-2-oxazolidinone (Table 1, entry 10) : The general procedure using dioxane as solvent, oxazolidinone (100 mg, 1.14 mmol), o-bromoanisoole (227 mg, 1.14 mmol), CuI (10.8 mg, 5 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (12.9 mg, 10 mol %) and K₂CO₃ (314 mg, 2.28 mmol) gave (182 mg, 83 %) of the title compound as a white solid :mp. 62-63 °C; ¹H NMR (200 MHz, CDCl₃) : 7.38-7.26 (m, 2H), 7.02-6.94 (m, 2H), 4.52-4.44 (m, 2H), 4.02-3.94 (m, 2H), 3.84 (s, 3H); ¹³C NMR (50 MHz, DMSO d₆) : 156.06, 154.82, 128.74, 128.38, 126, 120.52, 112.407, 62.82, 55.63, 46.64; IR (KBr) : 1740 cm⁻¹; Anal. Calcd for C₁₀H₁₁NO₃ : C, 62.15; H, 5.74. Found : C, 62.36; H, 5.29; Mass (CI method) : 194 (M⁺+1).

4-Isopropyl-3-(4-cyanophenyl)-2-oxazolidinone (Table 2, entry 1) : The general procedure using dioxane as solvent, 4-Isopropylloxazolidin-2-one (100 mg, 0.78 mmol), 4-bromobenzonitrile (142 mg, 0.78 mmol), CuI (4.4 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (8.9 mg, 10 mol %) and K₂CO₃ (215 mg, 1.56 mmol) gave (178 mg, 99 %) of the title compound as a pale yellow liquid : ¹H NMR (200MHz, CDCl₃): 7.65 (m, 4H), 4.50-4.20 (m, 3H), 2.20 (m, 1H), 0.94 (d, *J* = 7.2Hz, 3H), 0.83 (d, *J* = 7.0 Hz, 3H); ¹³C NMR (50 MHz, DMSO d₆) 154.77, 141.29, 133.24, 120.46, 118.71, 106.04, 62.42, 58.61, 27.01, 17.08, 13.84; IR (Neat, cm⁻¹) 2965, 2226, 1744, 1605, 1512, 1403, 1322; Mass (CI method): 231(M⁺+1), 205, 187.

4-Isopropyl -3-{4-methoxyphenyl}-2-oxazolidinone (Table 2, entry 2) : The general procedure using dioxane as solvent, 4-Isopropylloxazolidin-2-one (100 mg, 0.78 mmol), 4-bromoanisoole (98μL, 0.78 mmol), CuI (4.4 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (8.9 mg, 10 mol %) and K₂CO₃ (215 mg, 1.56 mmol) gave (91 mg, 50 %) of the title compound as a cream colored solid : mp 65-67 °C; ¹H NMR (200MHz, CDCl₃) 7.30(d, *J* = 8.9 Hz, 2H), 6.91(d, *J* = 8.9 Hz, 2H), 4.15-4.05 (m, 3H), 3.80 (s, 1H), 2.0 (m, 1H), 0.8-0.9 (two merging d, 6H); ¹³C NMR (50 MHz, DMSO d₆) 156.59, 155.65, 129.71, 124.28, 114.15, 62.32, 59.90,

55.19, 27.37, 17.37, 17.04, 14.07; IR (Neat, cm^{-1}) 2963, 1750, 1515 ; Anal. Calcd for $\text{C}_{13}\text{H}_{17}\text{NO}_3$: C, 66.34; H, 7.28. Found : C, 66.41; H, 7.63; Mass (CI method): 236(M^+ +1), 192, 163.

4-Phenyl-3-(4-cyanophenyl)-2-oxazolidinone (Table2, entry 3) : The general procedure using dioxane as solvent, 4-phenyloxazolidin-2-one (100 mg, 0.61mmol), 4-bromobenzonitrile (111 mg, 0.61 mmol), CuI (3.5 mg, 3 mol%), (($\pm$)-*trans*-1,2- diaminocyclohexane (7.0 mg, 10 mol %) and K_2CO_3 (169 mg, 1.22 mmol) gave (155 mg, 96 %) of the title compound as a colorless semi solid : ^1H NMR (200 MHz, CDCl_3) : 7.60-7.54 (m, 4H), 7.49-7.29 (m, 5H), 5.45-5.37 (m, 1H), 4.86-4.77 (m, 1H), 4.226-4.19 (m, 1H); ^{13}C NMR (50 MHz, DMSO d^6) 154.88, 141.39, 138.24, 132.98, 129.14, 28.49, 126.38, 120.13, 118.61, 105.89, 69.80, 58.71; IR (Neat) 2226, 1759, 1605; Mass (CI method) : 265 (M^+ +1)

4-Phenyl-3-{4-methoxyphenyl}-2-oxazolidinone (Table2, entry 4) : The general procedure using dioxane as solvent, 4-phenyloxazolidin-2-one (100 mg, 0.61 mmol), 4- bromoanisole (77 μL , 0.61 mmol), CuI (3.5 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (7.0 mg, 10 mol %) and K_2CO_3 (169 mg, 1.22 mmol) gave (161 mg, 98 %) of the title compound as a white solid : mp 137-138 $^\circ\text{C}$; ^1H NMR (200MHz, CDCl_3) 7.32-7.28 (m, 5H), 7.23 (d, J = 9.0 Hz, 2H) 6.77 (d, J = 9.1Hz, 2H), 5.24 (dd, J = 8.7, 6.6 Hz, 1H), 4.76 (t, J = 8.7 Hz, 1H), 4.20 (dd, J = 8.6, 6.5 Hz, 1H), 3.70 (s, 3H); ^{13}C NMR (50 MHz, DMSO d^6) +156.2, 155.7, 138.8, 129.9, 128.9, 128.3, 126.8, 123.3, 113.9, 69.4, 59.8, 55.0; IR (KBr) 3050, 2919, 1734, 1515, 1406; Anal. Calcd for $\text{C}_{16}\text{H}_{15}\text{NO}_3$: C, 71.34; H, 5.61. Found : C, 70.49; H, 5.77; Mass (CI method): 270(M^+ +1), 164, 91.

5-hydroxymethyl-3-phenyl-2-oxazolidinone : (Table 2, entry 5)^{2e} : The general procedure using dioxane as solvent, 5-hydroxymethyl oxazolidin-2-one (100 mg, 0.85mmol), bromobenzene (90 μL , 0.85 mmol), CuI (4.8 mg, 3 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (9.73 mg, 10 mol %) and K_2CO_3 (235 mg, 1.70 mmol) gave (33 mg, 20 %) of the title compound as a white solid : mp 139-140 $^\circ\text{C}$ ^1H NMR (200MHz, CDCl_3) 7.55 (d, J = 7.8Hz, 2H), 7.38 (t, J = 7.2Hz, 2H), 7.15 (t, J =7.2Hz,1H), 4.75 (m,1H), 4.10-3.95 (m, 3H), 3.82-3.73 (m, 1H); IR (Neat, cm^{-1}) 3384, 2925, 1744, 1599; Mass (CI method): 194(M^+ +1).

5-Pthalimidomethyl-3-phenyl-2-oxazolidinone (Table 2, entry 6): The general procedure using dioxane as solvent, 5-Pthalimidomethyl-2-oxazolidinone (100 mg, 0.4mmol), bromobenzene (43 μL , 0.4 mmol), CuI (3.9 mg, 5 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (4.6mg, 10 mol %) and K_2CO_3 (112 mg, 0.80 mmol) gave (84 mg, 65 %) of the title compound as a off white solid : mp194-196 $^\circ\text{C}$; ^1H NMR (200 MHz, CDCl_3) : 7.94-7.84 (m, 5H), 7.53-7.49 (m, 2H), 7.50-7.42 (m, 2H), 7.16-7.03 (m, 1H), 4.98-4.91 (m, 1H), 4.29-4.17 (m, 1H), 4.0-3.89 (m, 3H); ^{13}C NMR (50 MHz, DMSO d^6) : 167.7, 153.7, 138.2, 134.5, 131.4, 128.8, 123.5, 123.2, 118, 69.9, 47.7, 40.45; IR (KBr, cm^{-1}) 3438, 2925, 1740, 1708, 1399; Anal. Calcd for $\text{C}_{18}\text{H}_{14}\text{N}_2\text{O}_4$: C, 67.06; H, 4.38. Found: C, 67.00; H, 4.17; Mass (CI method) : 323 (M^+ +1), 322 (M^+).

5-tetrahydro-2H-2-pyranyloxymethyl-3-phenyl-2-oxazolidinone (Table 2, entry 7): The general procedure using dioxane as solvent, 5-tetrahydro-2H-2-pyranyloxymethyl oxazolidin-2-one (100 mg, 0.5 mmol), bromobenzene (53 μ L, 0.5 mmol), CuI (4.8 mg, 5 mol%), ($\pm$)-*trans*-1,2- diaminocyclohexane (5.66 mg, 10 mol %) and K₂CO₃ (137 mg, 1.0 mmol) gave (118 mg, 85 %) of the title compound as a white solid : mp 63-65 °C; ¹H NMR (200MHz, CDCl₃): 7.56 (d, *J* = 8.0Hz, 2H), 7.38 (t, *J* = 7.9 Hz, 2H), 7.14 (t, *J* = 7.2 Hz, 1H), 4.80 (m, 1H), 4.68 (bs, 1H), 4.2-3.2 (m, 6H), 1.8-1.4 (m, 6H); ¹³C NMR (50 MHz, DMSO d⁶) 154.26, 138.45, 128.83, 123.33, 117.85, 98.12, 98.05, 71.56, 71.34, 67.63, 67.29, 61.32, 61.12, 46.43, 46.35, 40.34, 39.91, 39.50, 39.08, 38.66, 29.97, 29.94, 24.90, 24.87, 18.83, 18.71; IR (Neat, cm⁻¹): 2943, 1753, 1599, 1502, 1410, 1224; Anal. Calcd for C₁₅H₁₉NO₄: C, 64.95; H, 6.91. Found: C, 65.01; H, 6.99; Mass (CI method) : 278 (M⁺+1), 94.

EXPERIMENTAL PROCEDURE FOR PREPARATION OF LINEZOLID:

Preparation of 3-{3-fluoro-4-morpholinophenyl}-5-tetrahydro-2H-2-pyranyloxy –methyl-2-oxazolidinone :

A 25 mL 2 necked round bottom flask was charged with CuI (10 mg, 0.044 mmol), dry K₂CO₃ (0.242g, 1.76 mmol) and 5-tetrahydro-2H-2-pyranyloxymethyl-3-phenyl-2-oxazolidinone (0.177g, 0.88 mmol). The flask was capped with rubber septum, then evacuated and filled with ultra high purity argon. 4-(4-Bromo-2-fluorophenyl)morpholine (0.23g, 0.88 mmol), ($\pm$)-*trans*-1,2- diaminocyclohexane (11 μ L, 0.088 mmol) and dioxane (0.5mL) were added through the septum and the reaction mixture was stirred at 110 °C for 15 h. The reaction mixture was cooled to room temperature and diluted with ethyl acetate. The reaction mixture was filtered through a pad of celite. The solvent was removed under reduced pressure and the crude material was purified by column chromatography on silica gel to get colorless solid as a mixture of diastereomers (0.336g, 85%). mp 107-109 °C; ¹H NMR (200 MHz, CDCl₃): 7.45 (m, 1H), 7.15 (d, *J* = 8.8 Hz, 1H), 6.93 (t, *J* = 8.8 Hz, 1H), 4.90-4.60 (m, 2H), 4.1-3.45 (m, 10H), 3.15-2.95 (m, 4H), 1.80-1.40 (m, 6H); IR (KBr, cm⁻¹): 2939, 1743, 1517, 1113, 1032, 904, 810; Mass (CI method): 381(M⁺+1), 297, 202, 118.

3-{3-fluoro-4-morpholinophenyl}-5-hydroxymethyl-2-oxazolidinone ^{2c}:

3-{3-fluoro-4-morpholinophenyl}-5-tetrahydro-2H-2-pyranyloxy –methyl-2-oxazolidinone: (0.33g, 0.9 mmol) was dissolved in ethanol (5 mL) and PPTS (22 mg, 0.09 mmol) was added. The reaction mixture was refluxed for 30 min. The solvent was removed under reduced pressure and the crude product was purified by column chromatography to give the product as a colorless solid (0.206 g, 80%): mp 112-114 °C; ¹H NMR (200MHz, CDCl₃): 7.45 (m, 1H), 7.13 (d, *J* = 8.6, 1H), 6.92 (t *J* = 9.1, 1H), 4.80-4.65 (m, 1H), 4.10-3.70 (m, 8H), 3.15-2.90 (m, 4H); IR (KBr, cm⁻¹) 3424, 2925, 1741, 1518, 1232, 1117, 940, 747; Mass (CI method): 297 (M⁺ + 1), 202, 118.

{3-(3-Fluoro-4-morpholinophenyl)-5-acetamidomethyl}-2-oxazolidinone ^{2c}:

N 1-{3-(3-Fluoro-4-morpholinophenyl)-5-acetamidomethyl}-2-oxazolidinone (0.205 g, 0.695 mmol) was dissolved in dichloromethane (10 mL) and cooled to 0 °C. NEt₃ (0.29 mL, 2.08 mmol) and methanesulfonyl chloride (64 µL, 0.835 mmol) were added at 0 °C. The reaction mixture was then stirred at room temperature for 1 h. It was then diluted with dichloromethane (50 mL) and washed with water (50 mL) followed by brine. The solvent was dried over CaCl₂ and removed under reduced pressure to give a pale yellow gummy mass, which was redissolved in DMF (5 mL) and then NaN₃ (0.09 g, 1.39 mmol) was added. The reaction mixture was stirred at 70 °C for 1 h. It was cooled to room temperature and quenched by adding water. The reaction mixture was extracted with EtOAc (50 mL X 3), and the combined extracts were washed with water (100 mL) followed by brine. The organic layer was dried over sodium sulfate and evaporated under reduced pressure to obtain a gummy compound. To this crude compound thioacetic acid (2 mL) was added and the reaction mixture was stirred at room temperature for 15 h. The crude compound was purified by column chromatography to obtain the title compound as a white solid (0.2 g, 85%): mp 181-182 °C; ¹H NMR (400 MHz, CDCl₃): 7.40 (m, 1H), 7.1 (m, 1H), 6.90 (t, *J* = 9.2 Hz, 1H), 6.10 (bs, 1H), 4.80-4.70 (m, 1H), 4.0 (t, *J* = 9.1 Hz, 1H), 3.90-3.60 (m, 7H), 3.05 (m, 4H), 2.1 (s, 3H); IR (KBr, cm⁻¹): 3343, 2927, 1742, 1662, 1517, 1426, 1229, 1199, 1117, 870, 754; Mass (CI method): 338 (M⁺ + 1), 294, 159, 100.

EXPERIMENTAL PROCEDURE FOR PREPARATION OF TOLOXATONE:**Preparation of 3-{3-methylphenyl}-5-tetrahydro-2H-2-pyranyloxy-methyl-2-oxazolidinone :**

A 25 mL 2 neck round bottom flask was charged with CuI (11 mg, 0.056 mmol) and dry K₂CO₃ (0.311 g, 2.26 mmol), 5-tetrahydro-2H-2-pyranyloxymethyl-3-phenyl-2-oxazolidinone (0.25 g, 1.24 mmol) then the flask was evacuated and backfilled with ultra high purity argon. The 3-bromo-toluene (0.16 mL, 1.13 mmol) and (±)-*trans*-1,2-diaminocyclohexane (0.014 mL, 0.113 mmol), dioxane (0.5 mL) was added and the reaction mixture was stirred at 110 °C for 15 h. Then the reaction mixture was cooled to room temperature and ethyl acetate was added to the flask then filtered through a pad of celite. The solvent was removed under reduced pressure and the crude product was purified by column chromatography to get gummy liquid as a pair of diastereomers (180 mg, 50 %). mp 76-78 °C; ¹H NMR: (200 MHz, CDCl₃) 7.40-7.21 (m, 3H), 6.95 (d, *J* = 7.33 Hz, 2H), 4.80-4.60 (m, 2H), 4.10-3.50 (m, 6H), 2.37 (s, 3H), 1.80-1.40 (m, 6H); IR (KBr, cm⁻¹): 2943, 1753, 1228, 1126; Mass (CI method): 292 (M⁺ + 1), 291 (M⁺), 208.

Preparation of 5-hydroxymethyl-3-phenyl-2-oxazolidinone ^{2d}:

The Gummy material obtained in the above step (0.17 g, 0.58 mmol) was dissolved in ethanol and treated with PPTS (15 mg, 0.058 mmol). The reaction mixture was refluxed for 1 h to give colorless solid (0.85 g, 40%) mp 75-76 °C; ¹H NMR: (200 MHz, CDCl₃) 7.40 (s, 1H), 7.20-7.35 (m, 2H), 6.95 (d, *J* = 6.7 Hz, 1H),

4.65-4.80 (m, 1H), 3.7-4.1 (m, 4H), 2.95 (s, 3H); IR (KBr, cm^{-1}): 3484, 2913, 1729, 1587, 1494, 1423, 1235;
Mass (CI method): 208 ($\text{M}^+ + 1$), 107, 91.