

Synthesis of Additional 4 and 5-Aryl Substituted 1,3(3H) Oxazine-2,6-Diones.

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The following additional 4-and 5-Aryl Substituted 1,3(3H) oxazine-2,6-diones (oxauracils) were synthesized for anti malarial screening by the reaction of the corresponding aryl maleic anhydride with trimethylsilyl azide, by the procedure described in J. Heterocyclic Chemistry, Vol. 12, p 1215, (1975). The N-Alkylated derivatives were prepared by refluxing the corresponding aryl substituted oxauracil with a di alkyl sulfate/sodium bicarbonate slurry in acetone, as described in the above paper.

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4-(3-chloro-4-methylphenyl)-1,3(3H) Oxazine-2,6-Dione, 1
m.p. 184-6° (dec), Ir, (CDCl₃), 3400(w), 1795(s), 1740(s),
1720(s), 1640(m), 1560(w), 1160(w), 1090(m), 1050(w),
980(m), 805(m), cm⁻¹.

Pmr (acetone-d₆, 60mz), δ 10.0 (broad, 1H, seen only in integration, N-H), 7.7 (m, 3H, aromatics), 5.95 (s, 1H, C5-H), 2.40(s, 3H, CH₃).

Anal. Calc. For C₁₁H₈ClNO₃ :
C, 55.59, H, 3.39, N, 5.89, Cl, 14.92.

Found: C, 55.47, H, 3.40, N, 5.73, Cl, 14.85. Satisfactory

**N-Methyl-4-(3-chloro-4-methylphenyl)-1,3(3H)
Oxazine-2,6-Dione, 1a.**

m.p. 179-82° (dec), Ir, (CDCl₃), 1790(s), 1730(s), 1640(s), 1605(m), 1500(w), 1420(m), 1380(s), 1330(s), 1220(w) 1160(w), 1080(m), 1045(w), 1030(w), 980(m), 820(m), cm⁻¹.

Pmr (acetone-d₆, 60mz), δ 8.1(s, 1H, C4-H), 7.7(d, 1H, J=1.5Hz, H ortho), 7.55(d of d, 1H, H ortho, J ortho-meta = 8Hz, J ortho-ortho = 1.5 Hz), 7.30 (distorted doublet, 1H, H meta, J ortho-meta = 8Hz), 3.55 (s, 3, N-CH₃), 2.40 (s, 3H, phenyl-CH₃).

Anal. Calc. For C₁₂H₁₀ClNO₃ :
C, 57.27, H, 4.01, N, 5.57, Cl, 14.09.

Found: C, 57.32, H, 4.00, N, 5.40, Cl, 14.06. Satisfactory

4-(p-bromophenyl)-1,3(3H) Oxazine-2,6-Dione, 2.

m.p. 207-9° (dec), Ir, (mull), 3220(w), 3160(w), 3100 (w), 1790(s), 1800(s), 1710(s), 1630(s), 1595(m), 1500(m), 1400(w), 1305(w), 1270(w), 1220(w) 1110(m), 1085(m), 1070(m), 1005(w), 980(m), 840(m), 805(m), 750 (m) cm⁻¹.

Pmr (DMSO-d₆, 60mz), δ 7.7(broad singlet, 4H, aromatics), 6.0 (s, 1H, N-H), 5.66 (s, 1H, C5-H).

Anal. Calc. For C₁₀H₆BrNO₃ :
C, 44.80, H, 2.26, N, 5.23, Br, 29.81.

Found: C, 44.74, H, 2.17, N, 5.18, Br, 29.79. Satisfactory

N-Methyl-4-(p-bromophenyl)-1,3(3H) Oxazine-2,6-Dione, 2a.

m.p. 173-5° (dec), Ir, (CDCl₃), 3110(w), 1790(s), 1730(s), 1660(s), 1590(w), 1490(s), 1440(s), 1395(s), 1340(s), 1220(m) 1180(m), 1090(m), 1045(w), 1070(m), 1015(m), 1005(s), 980(m), 820(m), cm⁻¹.

4-(p-tolyl)-1,3(3H) Oxazine-2,6-Dione, 3.

m.p. 200-2° (dec), Ir, (mull), 3240(m), 3160(m), 3110 (m), 1810(s), 1710(s), 1625(s), 1510(m), 1280(w), 1260(w), 1185(m), 1110(m), 1080(m), 1030(m), 980(m), 840(m), 800(m), 740 (s) cm⁻¹.

Pmr (DMSO-d₆, 60mz), δ 7.5 (AB Pattern, 4H, aromatics), 5.90 (s, 1H, C5-H), 2.4 (s, 3H, phenyl-CH₃).

N-Methyl-4-(p-tolyl)-1,3(3H) Oxazine-2,6-Dione, 3a.

m.p. 99-100°, IR (CDCl₃), 3120(w), 2960 (m), 1780(vs), 1720(vs), 1620(s), 1510(m), 1470(s), 1430(s), 1390(m), 1320(m), 1240(m), 1200(m), 1180(m), 1080(m), 1060(m), 1010(m), 1005(m), 960(m), 840(s), 800(m), cm⁻¹.

Pmr (CDCl₃, 60mz), δ 7.3 (AB Pattern, 4H, aromatics), 5.50 (s, 1H, C5-H), 3.2 (s, 3H, N-CH₃) 2.4 (s, 3H, phenyl-CH₃).

¹³C NMR (DMSO-d₆), δ 162.0, 159.2 (carbonyls), 151.2 (C-4 of oxauracil), 142.0, 130.1, 130, 128.5 (aromatics). 96.5 (C-5 of oxauracil), 34.8, (N-CH₃), 20.8 (phenyl-CH₃).

Anal. Calc. For C₁₂H₁₁NO₃ :
C, 66.35, H, 5.10, N, 6.45.

Found: C, 66.41, H, 5.20, N, 6.33. Satisfactory

N-Ethyl-5-(3,4-dichlorophenyl)-1,3(3H) Oxazine-2,6-Dione, 4.
m.p. 149-50° IR (CDCl₃), 1790(s), 1730(s), 1640(s),
1430(m), 1340(m), 1290(m), 1260(m), 1220(m), 1150(m),
1130(m), 1080(m), 1090(m), 1025(m), 980(m), 820(m),
cm⁻¹.

Pmr (CDCl₃, 60mz), δ 7.3 (m, 4H, aromatics, C4-H), 3.8 (quartet, 2H, N-CH₂) 1.4 (triplet, 3H, CH₃).

Anal. Calc. For C₁₂H₉Cl₂NO₃ :
C, 50.37, H, 3.17, N, 4.90, Cl, 24.78.

Found: C, 50.42, H, 3.20, N, 4.82, Cl, 24.72. Satisfactory