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Synthesis of 2-(1,4-oxazino[2,3-b]quinoxalin-4-yl)ethanol

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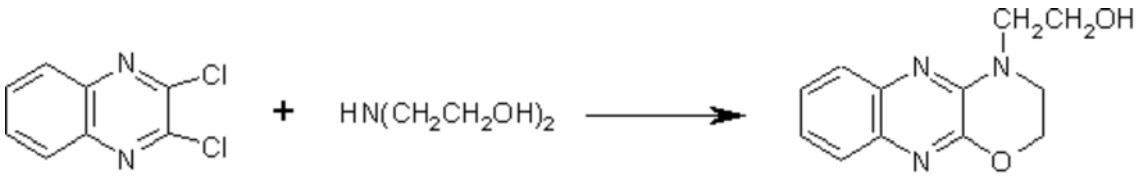

1 2 3

A mixture of 2,3-dichloroquinoxaline **1**[1] (5.0 g, 25 mmol) and diethanolamine **2** (12 mL, 125 mmol) was heated to 130° C for 3 h, with magnetic stirring. The reaction mixture was cooled to room temperature and then poured into 300 mL of water. The resulting solid was filtered and then recrystallized from water to give white crystals of 2-(1,4-oxazino[2,3-b]quinoxalin-4-yl)ethanol **3** (5.3 g, 91%).

Melting point: 159 – 161°C. (Ref. [2]: 88%, m.p. 158°C)

IR (ν_{max}, KBr, cm^{-1}): 3295 (OH), 1530, 1350, 1205, 1060

^{1}H-NMR (400 MHz, $CDCl_3$, δ (ppm): 7.58 – 7.52 (m, 2H, Ar-H), 7.41 (t, 1H, Ar-H), 7.29 (t, 1H, Ar-H), 4.86 (t, 1H, OH, D_2O exchangeable), 4.48 (t, 2H, CH_2), 3.80 – 3.72 (m, 6H, (3 x CH_2)).

^{13}C-NMR (100 MHz, $CDCl_3$, δ (ppm): 147.5, 142.7, 139.2, 134.9, 126.7, 126.1, 124.7, 123.8, 64.3, 58.1, 49.9, 46.2

MS (m/z, %): 231 (M^+, 35.7), 212 ($[M-H_3O.]^+$, 6.0), 201 ($[M - HCHO]^+$, 26.4), 200 ($[M - CH_2OH]^+$, 100), 187 ($[M - CH_2 = CHOH]^+$, 70.9), 129 (24.8), 90 (15.2), 56 (41.5).

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References

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2. I.N. Goncharova, I. Ya. Postovskii *J. Gen. Chem. USSR* **1962,** 32, 3271 – 3278. ^{1}H-NMR, ^{13}C-NMR and mass spectra data are not given in this paper.

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