**N-Benzotriazol-1-yl-methyl-1,2,3,4-tetrahydroisoquinoline**

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Benzotriazole-mediated heteroalkylations have been explored for many synthetic pathways. The principle of an aminoalkylation (or Mannich reaction) with primary or secondary amines was applied to the reaction of 1-hydroxymethylbenzotriazole [1] with 1,2,3,4-tetrahydroisoquinoline [2] which yielded very high quantities of crystalline \( \text{N-benzotriazol-1-ylmethyl-1,2,3,4-tetrahydroisoquinoline} \) [3].

1,2,3,4-Tetrahydroisoquinoline (19.9mmol, 2.64g) was added to 1-hydroxymethylbenzotriazole (2.96g, 19.9mmol) with stirring. Ethanol (5mL) was added and the mixture heated. The reaction was very fast and initial crystallisation of the product started already after a few seconds. More ethanol (15mL) was added and the solution refluxed with stirring for 30min. The mixture was kept at -5 °C overnight, the final product (5.14g, 98%) was collected under reduced pressure and washed with cold ethanol. It was recrystallised from ethanol and yielded \( \text{N-benzotriazol-1-ylmethyl-1,2,3,4-tetrahydroisoquinoline} \) [3] as white needles.

M.p. 155-157 °C (EtOH, uncorrected).

UV \( \lambda_{\text{max}} \) (nm; EtOH) / e (dm\(^3\)mol\(^{-1}\)cm\(^{-1}\)) 206 / 27060, 253 / 6970 and 273 / 5808.

IR \( \nu_{\text{max}} \) (cm\(^{-1}\); Nujol) 1260, 1210, 1150, 1090, 1050, 955, 940, 740.

\(^1\)H-NMR \( \delta_{\text{H}} \) (200 MHz; CDCl\(_3\); Me\(_4\)Si) 8.08 (1H, d, \( J \) 4), 7.68 (1H, d, \( J \) 4), 7.52 (1H, t, \( J \) 7), 7.38 (1H, t, \( J \) 7), 7.10-6.90 (4H, m), 5.64 (2H, s, NCH\(_2\)N), 3.86 (2H, s, ArCH\(_2\)N), 2.96-2.91 (4H, m, ArCH\(_2\)CH\(_2\)N).

\(^13\)C-NMR \( \delta_{\text{C}} \) (50 MHz; CDCl\(_3\)) 129.0 (ArCH\(_2\)CH\(_2\)N), 48.4 (ArCH\(_2\)N), 101.1, 118.4, 120.1, 124.1, 125.9, 126.4, 126.6, 127.7, 128.9, 133.6, 133.7, 134.0, 146.1.

Analysis Found (C\(_{16}\)H\(_{16}\)N\(_4\), 264.33, Calc.) C 72.6 (72.7), H 6.2 (6.1), N 21.2 (21.2).

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**References**

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*Sample Availability:* Available from the authors (C.L. or N.P.) and from MDPI. [MDPI Reg. No. 15927](http://www.mdpi.org/molbank/m0091.htm).

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