

Synthesis of tridentate Nitrogen Ligand : N,N-bis-(3,5-dimethylpyrazol-1-ylmethyl)benzylamine (NNNN)

Maria DAOUDI,^a Brahim BENNANI,^a Assou ZAHID,^b Mohamed MCHICH,^b Taibi BEN HADDA^{b,*}

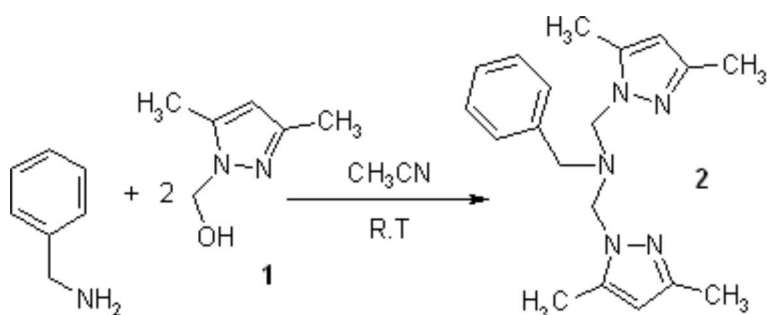
^a Laboratoire de Chimie Organique, Faculté des Sciences Dhar El Mehraz, 50000 Fès, Morocco.

^b Laboratoire d'Activation Moléculaire, Faculté des Sciences, 60000 Oujda, BP 524, Morocco.

e-mail benhadda@sciences.univ-oujda.ac.ma

Received: 8 March 2004 / Accepted: 18 March 2004 / Published: 1 August 2005

Keywords: Tridentate N Ligand - Pyrazole – Amine/ alcohol condensation.



The product **2** was prepared by the addition of benzylamine (C₆H₅CH₂NH₂) to **1** [1] according to the reported procedure [2]. To a solution of **1** (1.26 g, 10 mmol) in acetonitrile (25 ml) was added benzylamine (0.536 g, 5 mmol) and the mixture was stirred. The stirring was continued at room temperature for 4 days. The residue was precipitated by addition of cold water, purified and dried by hexane and under vacuum, to afford **2** as a white solid (1.08 g, 63%).

Melting point: 72 °C.

IR (KBr, cm⁻¹): 3262 (= C-H aromatic); 3080 (CH); 1603 (C=C); 1500, 1472 (C=N); 1507; 1351; 1290; 1230.

¹H-NMR (400 MHz, CDCl₃): δ= 7.4 (s, 5H, Ph); 5.9 (s, 2H, Pyrazol); 5.0 (s, NCH₂N); 3.9 (s, 2H, Ph-CH₂-N); 2.3 (s, 6H, CH₃); 2.1 (s, 6H, CH₃).

MS (DCI/NH₃, CHCl₃) = Calculated for [M]⁺, C₁₉H₂₅N₅= 323. Found 324 ([M+H]⁺, 92.5%); 228 ([MH – C₅H₇N₂]⁺, 100%); 114 ([C₅H₇N₂+NH₄]⁺, 42.5%).

Acknowledgments

We are indebted to the "Programme Thématique d'Appui à la Recherche Scientifique PROTARS N° P1T2/27", and the "Wylaya d'Oujda" for financial support.

References

1. Dvoretzky, I.; Richter, G.H., *J.Org.Chem.*, **1950**, 15, 1285.
2. Sheu, S-C; Tien, M-J.; Cheng, M-C.; Ho, T-I.; Peng, S-M. And Lin, Y-C., *J. Chem. Soc. Dalton Trans*, **1995**, 3503-3510.

Sample Availability: Available from the authors and MDPI.

© 2005 [MDPI](#). All rights reserved.