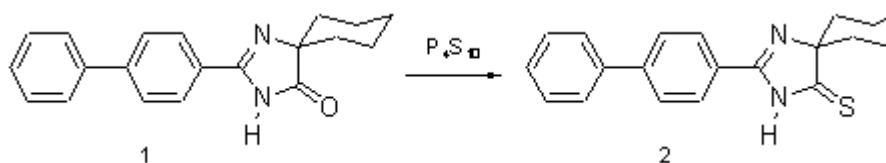


2-(4-Biphenyl-1-yl)-1,3-diazaspiro[4,5]dec-1-en-4-thione**Milos Sedlak* and Jiri Hanusek**

Department of Organic Chemistry, University of Pardubice, Cs Legii 565, 523 10 Pardubice, Czech Republic (Tel: 420 40 6037015, Fax: 420 40 6037068, E-mail: Milos.Sedlak@upce.cz)

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The title compound was prepared from imidazolinone **1** whose synthesis as well as ¹H and ¹³C NMR spectra were published previously [1]. A solution of **1** (0.40 g, 1.3 mmol) in benzene (30 ml) was treated with a powder of phosphorus(V) sulfide (0.58 g, 2.6 mmol) and the resulting mixture was refluxed. After refluxing for 45 min the hot reaction mixture was filtered with charcoal (0.10 g). The filtrate was cooled and the crystalline solid obtained was collected by filtration and recrystallised from ethanol. The separated white crystals of compound **2** (0.16 g, 38 %) had the melting point of 228-230 °C.

The obtained thione **2** was tested for bacteriostatic activity against *Mycobacterium tuberculosis* H37Rv in the BACTEC 12B medium with the help of the radiometric system BACTEC 460 [2]. The inhibition activity of the said compound **2** was 22 %.

¹H NMR (360 MHz, DMSO-d₆): 1.36-1.89 (m, 10H), 7.49 (m, 1H-arom), 7.56 (t, 2H-arom), 7.82 (d, 2H-arom), 7.91 (d, 2H-arom), 8.21 (d, 2H-arom), 13.41 (s, 1H-NH).

¹³C NMR (90 MHz, DMSO-d₆): 22.2, 25.2, 36.9, 84.9, 126.8, 127.0, 127.2, 128.2, 128.5, 129.3, 139.1, 143.3, 157.9, 222.7.

Anal. Calc. For C₂₀H₂₀N₂S: C 74.96, H 6.29, N 8.74, S 10.01. Found: C 75.17, H 6.36, N 8.64, S 10.18.

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References

1. Sedlák, M.; Halama, A.; Mitas, P.; Kaválek, J.; Machacek, V. *J. Heterocycl. Chem.* **1997**, *34*, 1227.
2. Collins, L.; Franzblau, S.G. *Antimicrob. Agents. Chemother.* **1997**, *41*, 1004.

Sample Availability: Available from the authors and MDPI.

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