

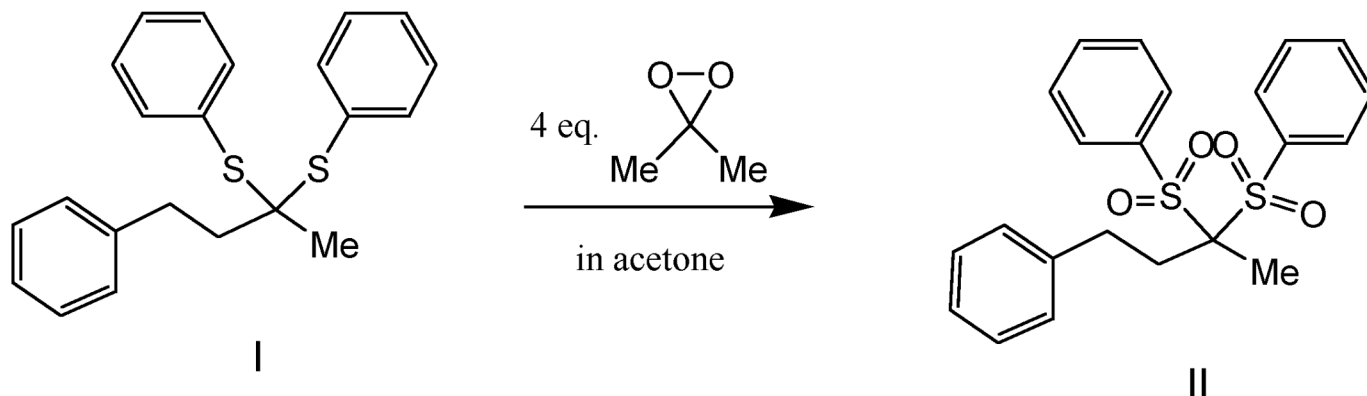
Molecules **2001**, *6*, M229

4-Phenyl-2,2'-bis(phenylsulfonyl)butane

F. Matloubi Moghaddam and O. Khakshoor

Sharif University of Technology, Department of Chemistry, P.O.Box 11365-9516 Tehran, Iran. E-mail: Matloubi@sina.sharif.ac.ir

Received: 16 February 2001 / Accepted: 15 May 2001 / Published: 25 May 2001



During our investigation of the chemistry of bis-gemdiphenylsulphanyl and sulfonyls [1], we have prepared the 4-phenyl-2,2'-bis (phenylsulfonyl)butane from the corresponding thioketal by dimethyldioxirane oxidation [2]. Procedure of synthesis: To a stirring solution of thioketal (**I**) 0.7 g. (2 mmol) in dry acetone (40 mL) at -78°C , a solution of dimethyldioxirane 85 mL (0.043 mmol/mL acetone) were added dropwise. Then, the reaction mixture was stirred to reach the room temperature. After evaporation of the solvent under vacuum, the residue was chromatographed on a silica gel column eluting with a mixture of CHCl_3 : AcOEt: petroleumether (30:5:65) to yield 0.72 g. (87%) of the compound (**II**) as white crystals.

Mp.: $132\text{--}134^{\circ}\text{C}$

IR (KBr pellet): 3061, 1584, 1453, 1307($\text{O}=\text{S}=\text{O}$), 1146($\text{O}=\text{S}=\text{O}$), 750, 730, 700 cm^{-1} .

^1H -NMR (CDCl_3 , 80MHz): d 1.67(s, 3H), 2.2–2.6(m, 2H), 2.6–3.0(m, 2H), 7.2–8.1(m, 15H).

MS (EI), (formula: $\text{C}_{22}\text{H}_{22}\text{S}_2\text{O}_4$, M.W: 414.1), m/x (%): 414(8.5), 310(3.4), 274(6.8), 273(34), 272(25), 255(3.4), 206(4.3), 141(7), 130(20), 125(35), 115(11.4), 91(100), 77(47).

References

1. Khakshoor, O. *M.Sc. Thesis*, Sharif University of Technology, Department of Chemistry. **2000**.
2. Curi, D.; Pardini, V. L.; Harden, D. B. *Heteroatom Chemistry*. **1994**, *5*(5/6), 555.

Sample Availability: Available from the authors and from MDPI.

© 2001 MDPI. All rights reserved. *Molecules* website <http://www.mdpi.org/molecules/>