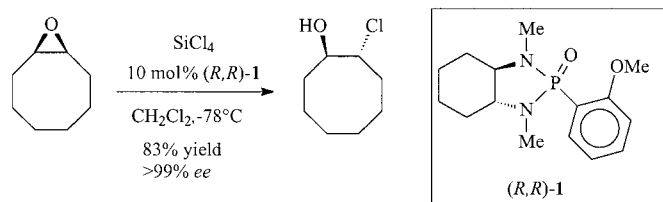


On the Beneficial Effect of *ortho*-Methoxy Groups in the Asymmetric Ring Opening of *meso* Epoxides with Silicon Tetrachloride Catalyzed by Chiral *ortho*-Methoxyphenyldiazaphosphonamide Lewis Bases**

G rard Buono*

We published in this journal a communication on the enantioselective opening of *meso* epoxides with silicon tetrachloride in the presence of a catalytic amount of chiral phosphonamides.^[1] In that paper we reported the asymmetric ring opening of cyclooctene oxide with SiCl₄ in the presence of 10 mol % of chiral phosphonamide base (*R,R*)-**1** as a catalyst (Scheme 1).



Scheme 1.

For this reaction, we described up to 83 % yield and enantiomeric excess higher than 99 %. This spectacular result attracted the attention of Professor Scott E. Denmark, who pioneered this research field,^[2] because it was found that cyclooctene oxide is one of the slowest acting epoxides in this catalytic system and produced the racemic chlorohydrin. However, Denmark et al. did not succeed in reproducing the results we disclosed and submitted a rebuttal to our paper.^[3] We were then contacted by the Editor and Prof. Denmark and prompted to elucidate the origin of such a striking discrepancy. At this stage, I asked my co-workers^[4] to check the experimental procedures and analytical conditions and to try

to reproduce the described results. I was provided with experimental data and material that fully confirmed our original claims. On the basis of these results we sent a first answer to the rebuttal published in *Angewandte Chemie*, an answer that could not explain why our observation differed from Prof. Denmark's. One month later, we received a letter from the Editor who required further complementary analytical data and information. When I had these new data from my co-workers in hand, I noticed several inconsistencies with the analytical material they had previously provided. Therefore, I decided to reproduce *personally* and *independently* the whole experimental procedures from the very beginning. I was unable to observe the opening of cyclooctene oxide under the described conditions and to reproduce the analytical data (for example, NMR, retention times in chiral GPC and HPLC analyses) provided by my co-workers. Instead, I obtained results similar to those reported by Denmark et al. in their rebuttal.^[3] A cross-check undertaken by several colleagues led to identical results. To date, my co-workers^[4] have been unable to provide an appropriate scientific rationale for the non-reproducibility of the former results and analyses. Under these circumstances, although our communication presented several other *meso* epoxide openings with fair to high enantioselectivities, which require experimental verification, I wish to withdraw that communication.^[1] Other pieces of work based on related experimental results that were published elsewhere will also be withdrawn.^[5, 6]

[*] Prof. Dr. G. Buono
UMR CNRS 6516, Facult  de St J r me
ENSSPICAM, Avenue Escadrille Normandie Niemen
13397 Marseille, Cedex 20 (France)
Fax: (+33) 4-91-02-77-76
E-mail: buono@spi-chim.u-3mrs.fr

[**] A Response to the correspondence by Professor Scott E. Denmark et al.^[3]

- [1] J. M. Brunel, O. Legrand, S. Reymond, G. Buono, *Angew. Chem.* **2000**, *112*, 2654; *Angew. Chem. Int. Ed.* **2000**, *39*, 2554.
- [2] S. E. Denmark, P. A. Barsanti, K.-T. Wong, R. A. Stavenger, *J. Org. Chem.* **1998**, *63*, 2428.
- [3] S. E. Denmark, T. Wynn, B. G. Jellerichs, *Angew. Chem.* **2001**, *113*, 2315; *Angew. Chem. Int. Ed.* **2001**, *40*, 2255.
- [4] Except O.L. who left my group in July 1999.
- [5] S. Reymond, J. M. Brunel, G. Buono, *Tetrahedron: Asymmetry* **2000**, *11*, 4441.
- [6] S. Reymond, O. Legrand, J. M. Brunel, G. Buono, *Eur. J. Org. Chem.* **2001**, 2819.

APOLOGY

In the Communication "A Lewis Acid Catalyst Anchored on Silica Grafted with Quaternary Alkylammonium Chloride Moieties" by M. V. Landau et al. the authors made no reference to their thematically related communication "A comparative study of an MCM-41 anchored quaternary ammonium chloride/SnCl₄ catalyst and its silica gel

analogue" (T. M. Jyothi, M. L. Kaliya, M. Herskowitz, M. V. Landau, *Chem. Commun.* **2001**, 992–993) and vice versa, even though both manuscripts were submitted to their respective journals at the same time. The authors apologize for this oversight.