

Radical Reaction of Sulfonyl Chloride in Access to Vinyl Sulfones

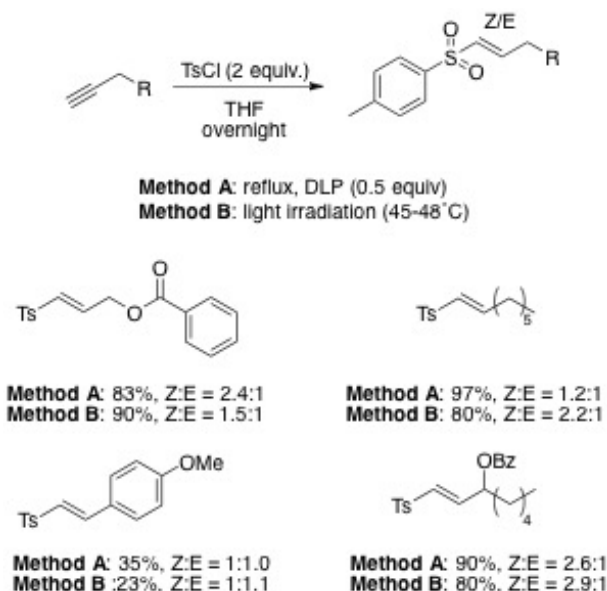
I. Kovalova¹, C. S. Gloor¹, F. Denes², P. Renaud^{1*}

¹University of Bern, ²University of Nantes

Vinyl sulfones are extensively used as a building blocks for total synthesis of natural products^[1]. They can be prepared by olefination reactions^[2], elimination from α - or β -substituted sulfones^[3], oxidation of vinyl sulfides^[4] or others.

Their preparation from terminal alkynes is highly attractive. However, such transformations have only been reported *via* hydrometallation process^[5].

Herein we describe selective introduction of vinyl sulfones. We generate the sulfonyl radical from *p*-toluenesulfonyl chloride and add it onto alkyne.



[1] Riccardo Piccardi, Philippe Renaud, P. *Eur. J. Org. Chem.* **2007**, 4752-4757

[2] Vijay Nair, Anu Augustine, T. D. Suja, *Synthesis* **2002**, 2259-2265

[3] Hao Qian, Xian Huang, *Synlett* **2001**, 1913-1916

[4] Xian Huang, De-Hui Duan, Weixin Zheng, *J. Org. Chem.* **2003**, 68, 1958-1963

[5] De-Hui Duan, Xian Huang, *Synlett*, **1999**, 3, 317-318