

## Radical Reaction of Sulfonyl Chloride in Access to Vinyl Sulfones

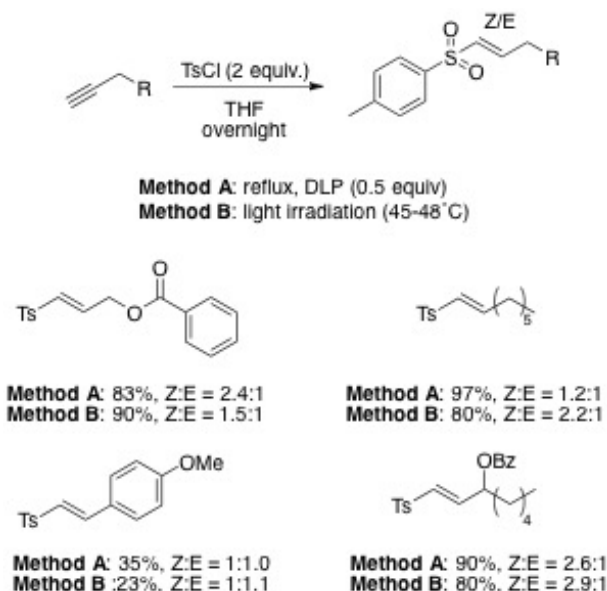
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Vinyl sulfones are extensively used as a building blocks for total synthesis of natural products<sup>[1]</sup>. They can be prepared by olefination reactions<sup>[2]</sup>, elimination from  $\alpha$ - or  $\beta$ -substituted sulfones<sup>[3]</sup>, oxidation of vinyl sulfides<sup>[4]</sup> or others.

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

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



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[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