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[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.