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 products¹. They can be prepared by olefination reactions², elimination from α- or β-substituted sulfones³, oxidation of vinyl sulfides⁴ or others.

Their preparation from terminal alkynes is highly attractive. However, such transformations have only been reported via hydrometallation process⁵.

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