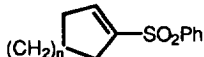
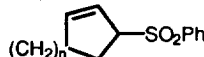
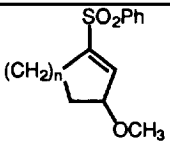
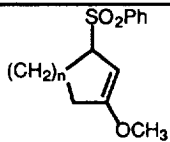
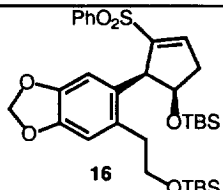
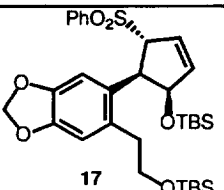


Table 2.

#	Vinyl Sulfone	Conditions [§]	Allyl Sulfone	A:V ratio [*]	Yield
1 2 3	 4 n = 1 5 n = 2 6 n = 3	P ₂ -Et (0.1 eq) THF, 25°C 1 hr 4 or 14hr 4 or 14hr	 7 n = 1 8 n = 2 9 n = 3	100:0 45:55† 13:87†	99% ⁴ 96% 99%
4 5 6	 10 n = 1 11 n = 2 12 n = 3	P ₂ -Et (0.2 eq) THF, 50-55°C 70 hr 15hr 7hr	 13 n = 1 14 n = 2 15 n = 3	100:0 100:0 100:0	92% ⁴ 95% 99%
7	 16	P ₂ -Et (0.1 eq) THF, 25°C, 20 hr	 17	70:30†	98%

[§] The concentration of these reactions is ~0.05-0.1 M. *Allyl sulfone/vinyl sulfone ratio.

†This reaction is an equilibrium mixture.

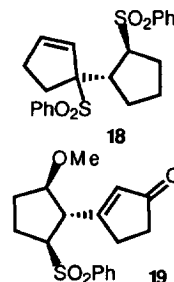
References and Notes

¹ Syntheses via vinyl sulfones 64.

² (a) Hine, J., Skoglund, M. J. *J. Org. Chem.* **1982**, *47*, 4766; (b) Hine, J.; Linden, S.-M., Wang, A., Thiagarajan, V. *J. Org. Chem.* **1980**, *45*, 2821.

³ (a) Schwesinger, R., Schlemper, H. *Angew. Chem.* **1987**, *99*, 1212; (b) Schwesinger, R. *Chimia.* **1985**, *39*, 269; (c) Pietzonka, T., Seebach, D. *Chem. Ber.* **1991**, *124*, 1837; (d) Schwesinger, R., Willaredt, J., Schlemper, H., Keller, M., Schmitt, D., Fritz H. *Chem. Ber.* **1994**, *127*, 2435 and references cited therein.

⁴ The only product isolated from the reaction of **4** with catalytic amount of KO-t-Bu was compound **18**. This is consistent with our observation that 5 membered-ring vinyl sulfones are good Michael acceptors. The major product isolated from the reaction of **10** with a catalytic amount of KO-tBu was compound **19**. For additional examples of this reaction, see Jin, Z., Fuchs, P. L. *J. Am. Chem. Soc.* **1995**, *117*, 3022; and Kim, S. H., Jin, Z. Fuchs, P. L. *Tetrahedron Lett.* **1995**, *36*, 4537.



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