

General Procedure for Experiments 1-3. The diene (1.0 mmol) was dissolved in CH_2Cl_2 (5 mL), sealed via a septum under a nitrogen atmosphere and treated via canula with a solution of the Grubbs catalyst (5 mol %) in CH_2Cl_2 (5 mL). The flask was evacuated with house vacuum via a syringe needle through the septum until the solvent boils. This evacuation procedure was repeated two additional times at several minute intervals. The top of the septum was sealed with grease and the brown solution was stirred for 30 mins. The flask was flushed with nitrogen and lead tetraacetate (1.5 equiv based on 5 mol % and 95% purity) was added and the reaction mixture was stirred overnight prior to filtration through silica gel (10g, 43-75 micron) with a CH_2Cl_2 rinse (150 mL). The filtrate was concentrated and the white product dried to determine the yield.

The products from experiments 1-3,¹ 4-5,² and 7³ have been previously described.

(1) Paquette, L. A.; Leit, S. M. *J. Am. Chem. Soc.* **1999**, *121*, 8126.

(2) Paquette, L. A.; Gallou, F.; Zhao, Z.; Young, D. G.; Liu, J.; Yang, J. submitted for publication.

(3) Paquette, L. A.; Fabris, F.; Tae, J.; Gallucci, J. C.; Hofferberth, J. E. *J. Am. Chem. Soc.* **2000**, *122*, in press.