Supporting Information

Metal-Free Room-Temperature Vulcanization of Silicones via Borane Hydrosilylation

Caitlin S. Sample[§], Sang-Ho Lee[†§], Shaoguang Li[‡§], Morgan W. Bates[§], Valerie Lensch[§], Brooke A. Versaw[∥§], Christopher M. Bates[§], and Craig J. Hawker*[,§].

[§]*Mitsubishi Chemical Center for Advanced Materials, Department of Chemistry and Biochemistry, Materials Department, and Materials Research Laboratory, University of California, Santa Barbara, California 93106, United States*

[†]*Research Center for Green Fine Chemicals, Korea Research Institute of Chemical Technology, Ulsan 44412, Republic of Korea.*

[‡]*Faculty of Materials Science and Chemistry, China University of Geosciences, Wuhan 430074, China*

[∥]*Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, California 91125, United States*

Supporting Figures

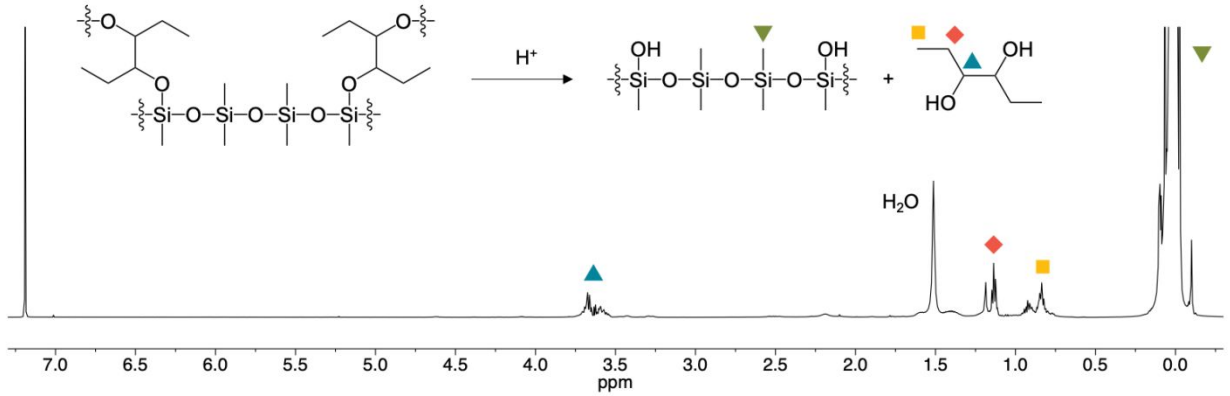

Figure S1. Scheme of hydrolysis and ^{1}H-NMR of resulting product.

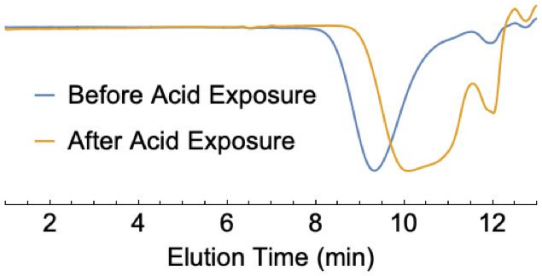

Figure S2. Size-exclusion chromatograms showing the elution profiles of linear PMHS (6 kDa, 8% Si-H) before and after dissolution in chloroform containing 1 mM HCl for 24 h.

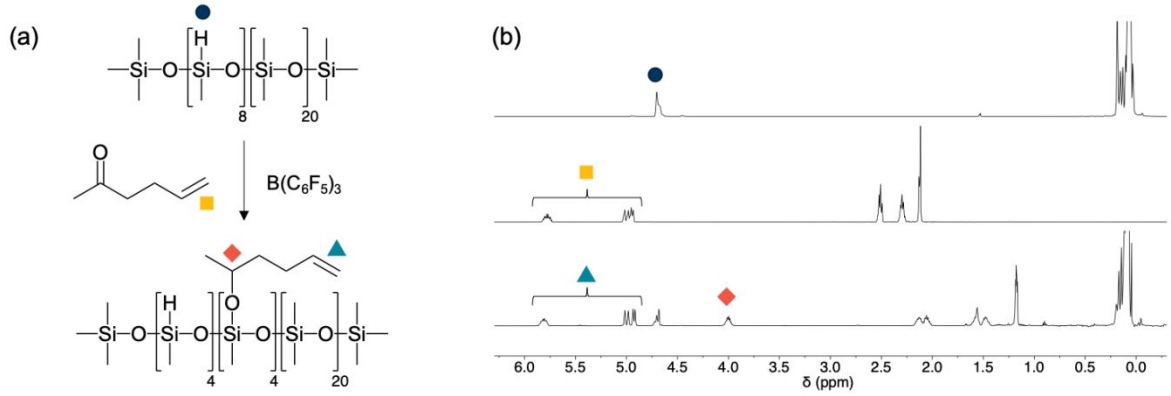

Figure S3. (a) Synthesis of functionalized PMHS derivatives via reaction with 5-hexen-2-one and (b) ^{1}H-NMR showing appearance of the proton adjacent to silyl ether as well as preservation of vinyl group.