

Supplemental Material

In Situ Monitoring of Heterogeneous Hydrosilylation Reactions Using Infrared and Raman Spectroscopy: Normalization by Phase-Specific Internal Standards

Xiaoyun Chen^{*1}, *Yang Cheng*², *Masashi Matsuba*³, *Xianghuai Wang*¹, *Shuangbing Han*⁴,
*Mowbray Jordan*⁴, *Qing Zhu*⁵

¹Analytical Science, 1897 Bldg, Dow Inc., Midland, MI 48667.

²Dow Performance Silicone, Hyde Bldg, Dow Inc., Midland, MI 48667.

³Dow Toray Co. Ltd, Chiba, Japan

⁴Chemical Science, 1776 Bldg, Dow Inc., Midland, MI 48667.

⁵Analytical Science, 936 Zhangheng Road, Dow Inc., Zhangjiang HiTech Park, Shanghai, China.

Corresponding author email: xchen4@dow.com

Table S2. Parameters used for peak analysis.

Peak center (cm ¹)	Integration range (cm ¹)		Baseline range (cm ¹)	
	start	end	start	end
1648	1629	1656	1615	1695
1669	1657	1686	1615	1695
2154	2110	2210	2050	2250
490	440	600	440	600
1050/1130	1000	1188	966	1188

NMR Analysis Details

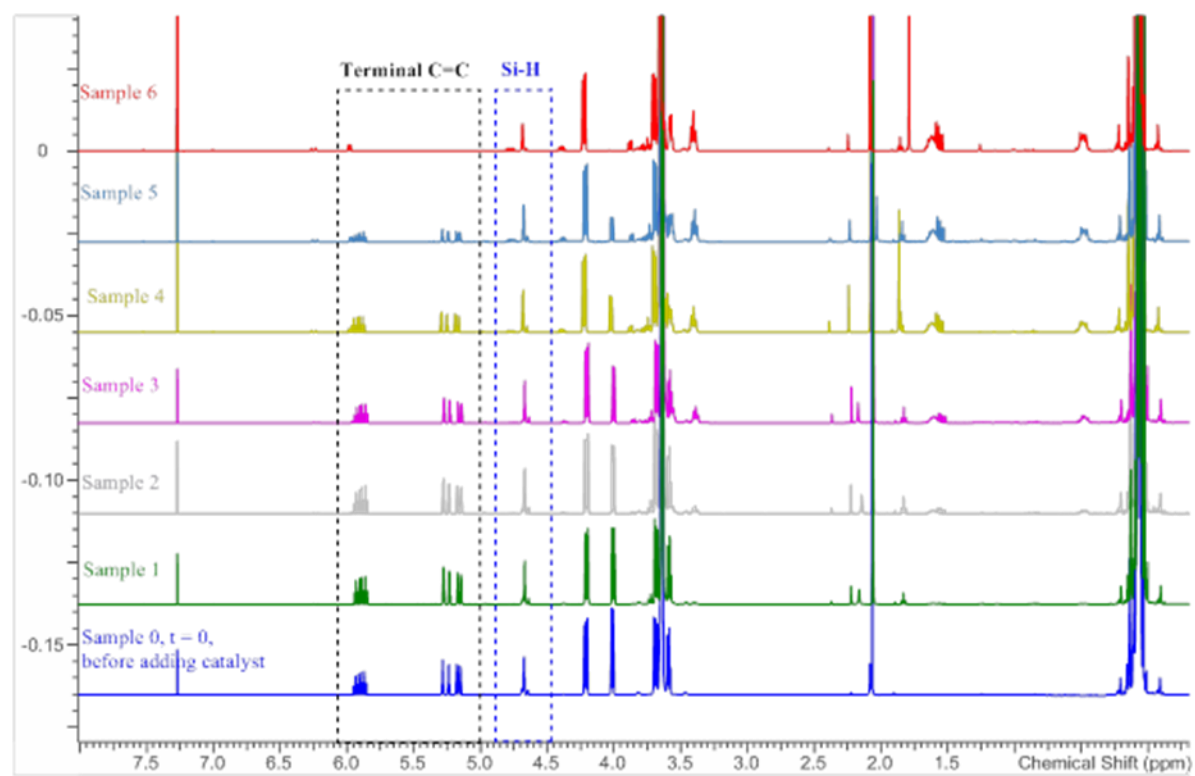


Figure S1. ^1H NMR spectra of sample 0 to 6.

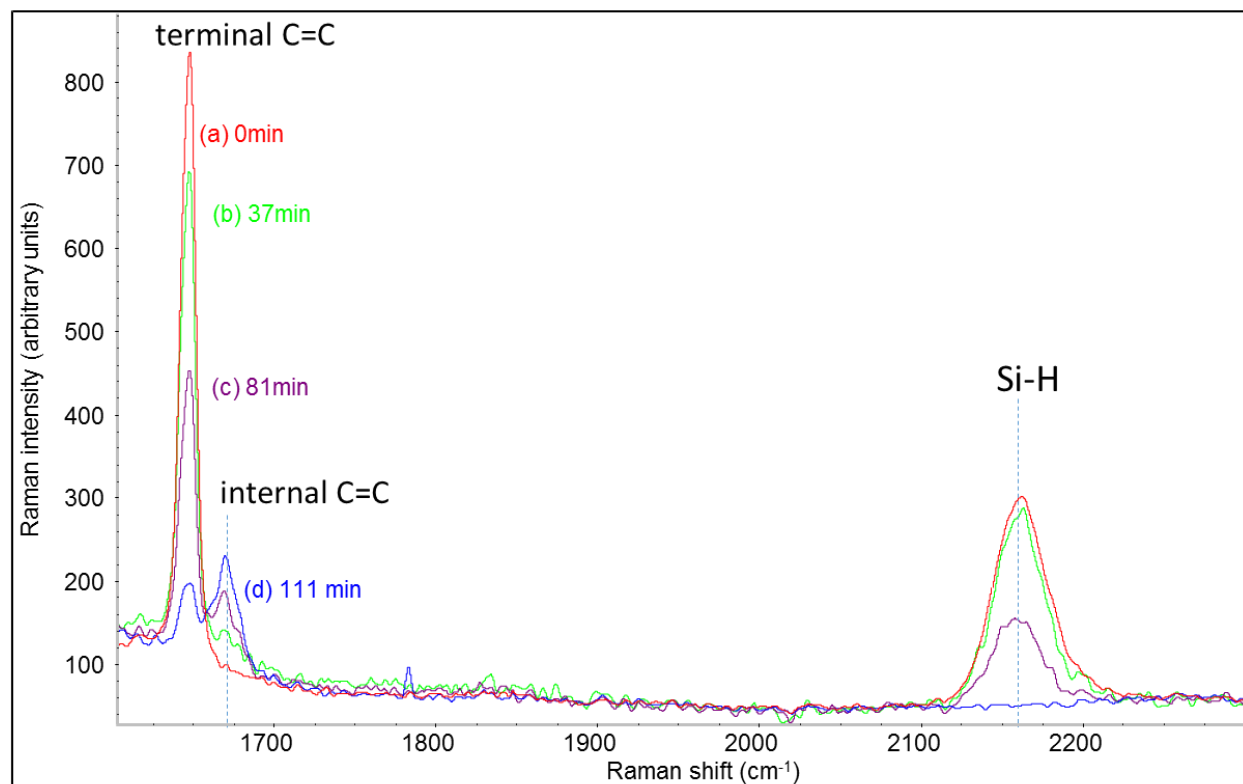


Figure S2. Enlarged view of the 1600–2300 cm^{-1} region of reaction Raman spectra shown in Figure 2.

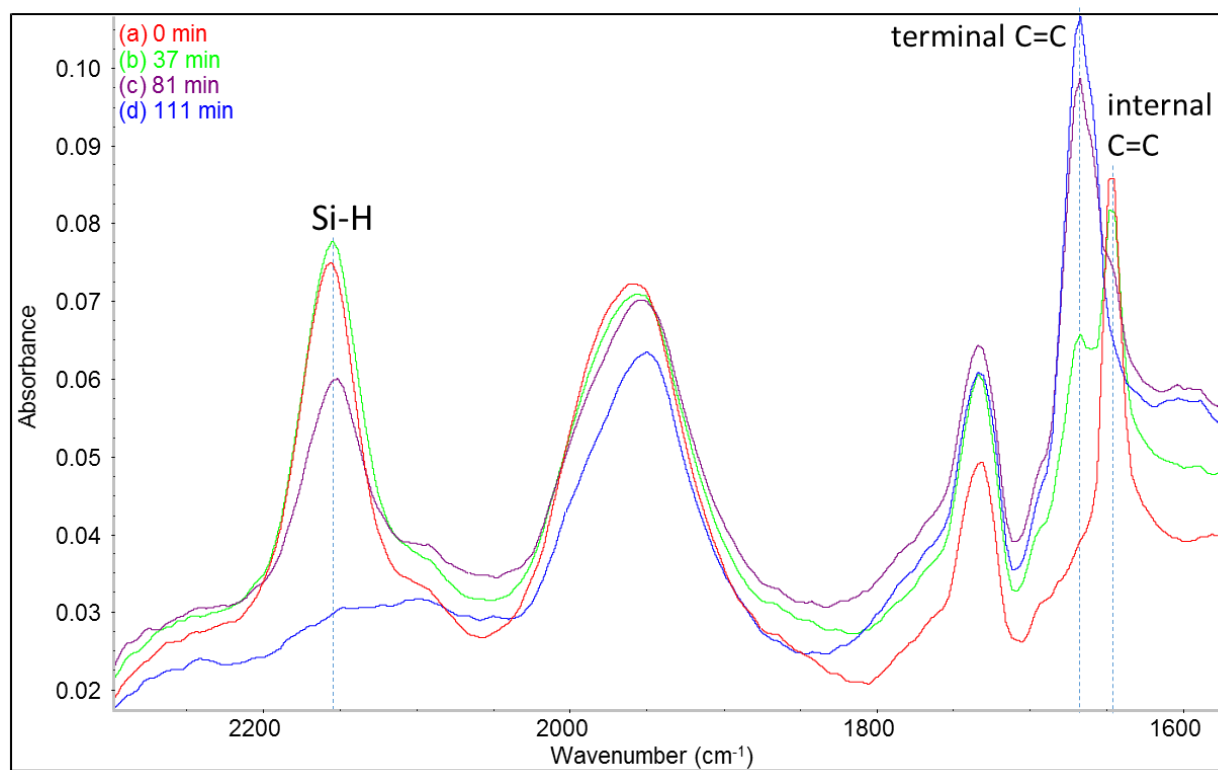


Figure S3. Enlarged view of the 1600–2300 cm^{-1} region of reaction IR spectra shown in Figure 3.