

Supporting Information

Palladium Catalyzed Coupling Reactions for the Functionalization of Si Surfaces: Superior Stability of Alkenyl Monolayers

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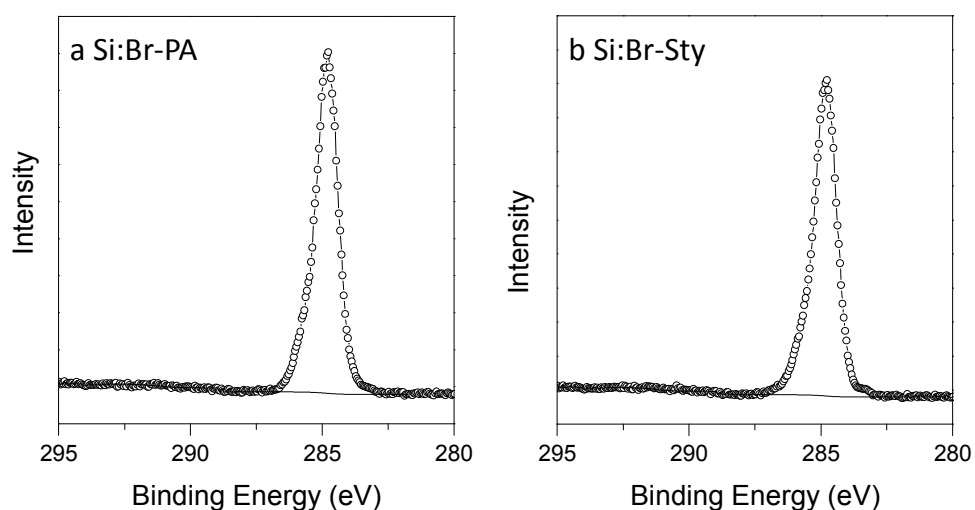


Figure S1. C 1s spectra of Si(100) after functionalization with bromophenylacetylene (Br-PA) and bromostyrene (Br-Sty).

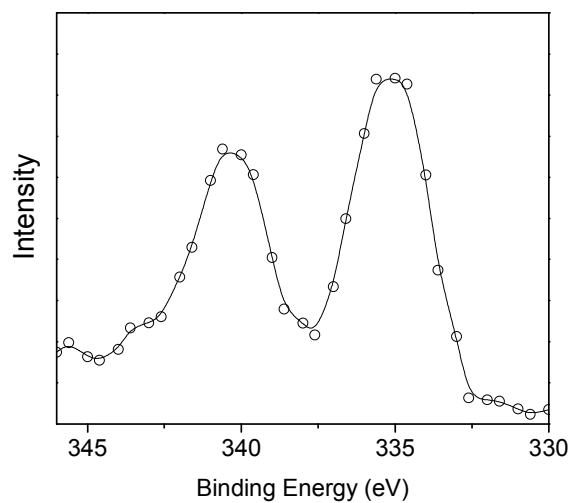


Figure S2. Pd 3d spectrum, (from survey scan) on Br-PA functionalized Si substrate after Suzuki coupling using 0.2 mM Pd(PPh₃)₄.

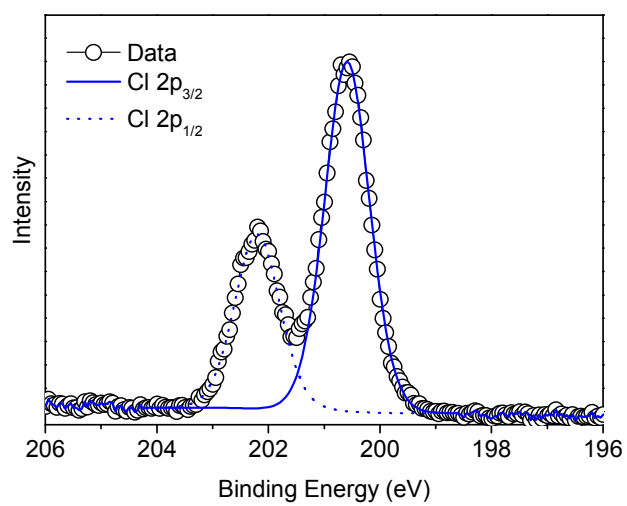


Figure S3. High resolution Cl 2p spectrum of chlorostyrene functionalized Si(100).

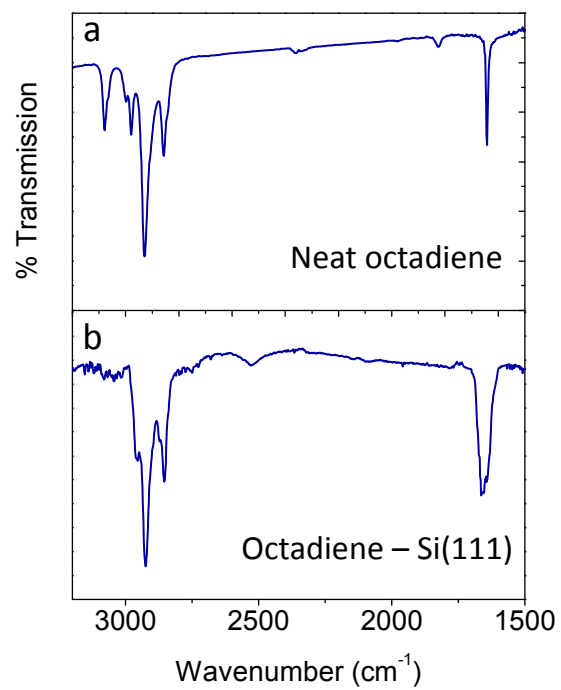


Figure S4. (a) FTIR spectra of neat 1, 7- octadiene and (b) ATR-FTIR spectra of H-terminated Si after hydrosilylation with octadiene.

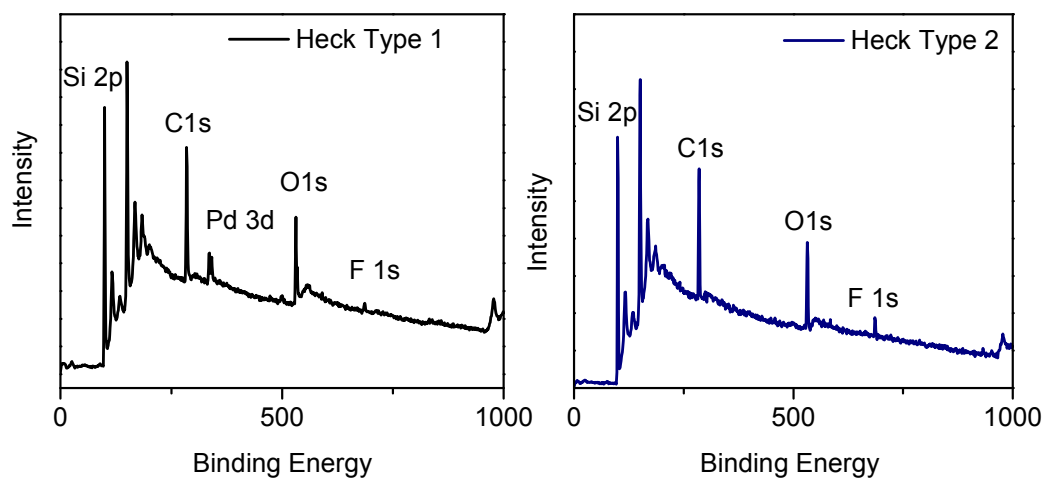


Figure S5. Survey spectra of Heck coupling on octadiene functionalized Si(111) using the Heck Type 1 and Type 2 reaction procedures.

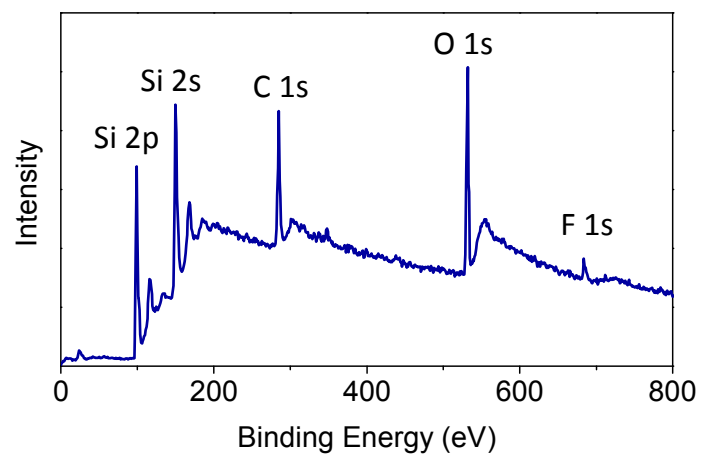


Figure S6. Survey spectra of octadiene functionalized Si(111) after B-alkyl Suzuki coupling.

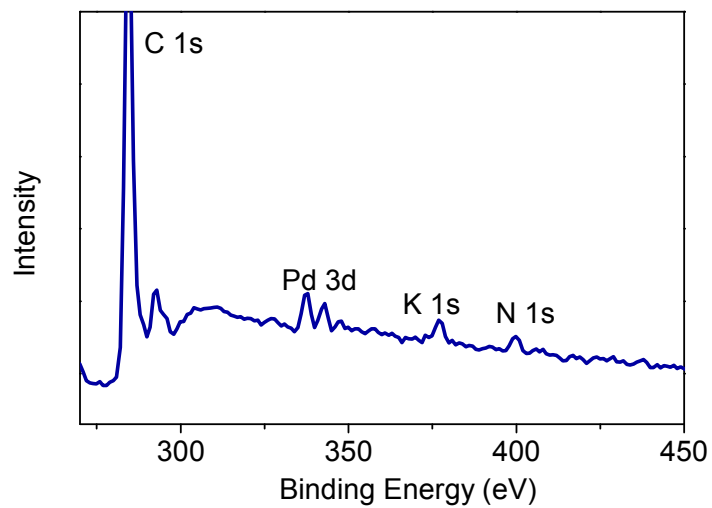


Figure S7. Magnification of survey spectrum of B-alkyl Suzuki coupling of alkyl borane functionalized Si(111) using DMF.

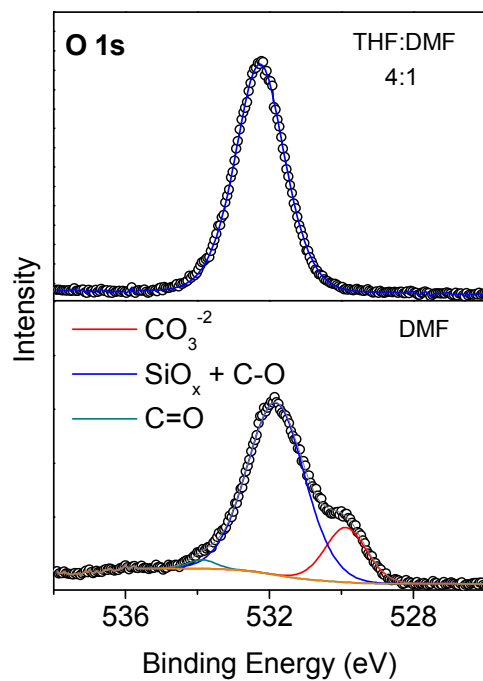


Figure S8. Core level O 1s spectra of diene functionalized Si(111) after *B*-alkyl Suzuki cross coupling in DMF and THF:DMF 4:1.