Supporting Information for Adsorption Orientation Induced Selectivity Control of Reactions of Benzyl Alcohol on Pd(111)

Simon H. Pang,[†] Alex M. Román,[‡] and J. Will Medlin^{*,†}

Department of Chemical and Biological Engineering, University of Colorado Boulder, Boulder, CO 80309, and Department of Chemical Engineering, Auburn University, Auburn, AL 36849

E-mail: will.medlin@colorado.edu

 $[\]ensuremath{^*\text{To}}$ whom correspondence should be addressed

[†]University of Colorado

[‡]Auburn University



Figure S1: Magnified version of Figure 4(d), Pd(111) surface after a multilayer-producing exposure annealed at 230 K, highlighting the peak at 2850 cm⁻¹. The inset from 2500-3500 cm⁻¹ has been further magnified by a factor of 3.



Figure S2: HREEL spectra of benzaldehyde on Pd(111) obtained by exposing the surface to a (a) 0.2 Langmuir direct dose at 130 K followed by brief annealing at (b) 300 and (c) 475 K. In all cases, the elastic peak was normalized to the same height and magnified as noted.



Figure S3: Example TPD spectrum after a saturating dose of benzaldehyde on Pd(111) at 100 K.