

Supporting Information for:

**Selective Hydrodeoxygenation of Oxygenated Aromatic Molecules Using a
Molecular Palladium Catalyst Covalently Bound to a Solid SiO₂ Support**

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Table of Contents

Pre-Reaction Characterization – pg. S2-S3

Post-Reaction Characterization – pg. S3-S4

GC-MS Calibration Curves – pg. S5-S6

Reaction Kinetic Plots – pg. S6-S8

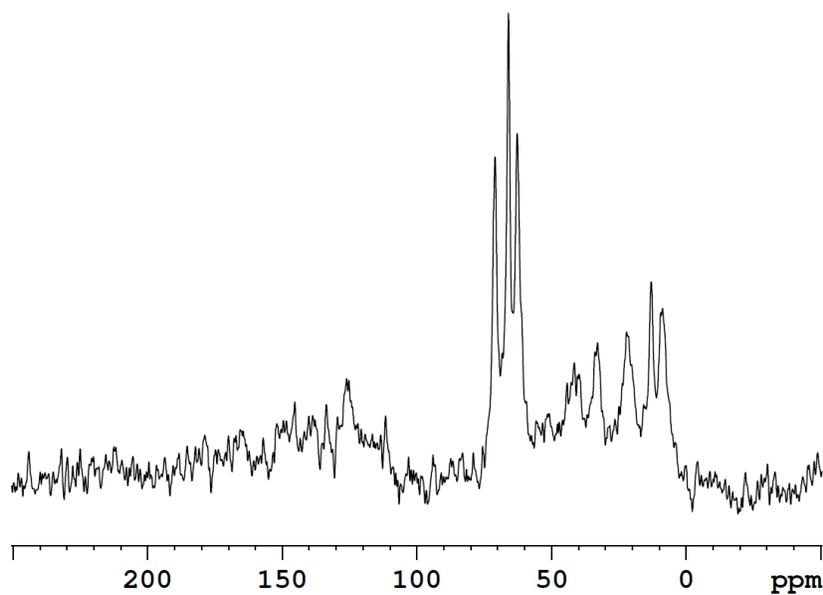


Figure S1: Solid-State ^{13}C NMR spectra of catalyst chloro(2,6-bis(1-methylbenzimidazolyl)pyridine-4'-aminopropyl trisiloxane) palladium(II) nitrate/A300 (**3**).

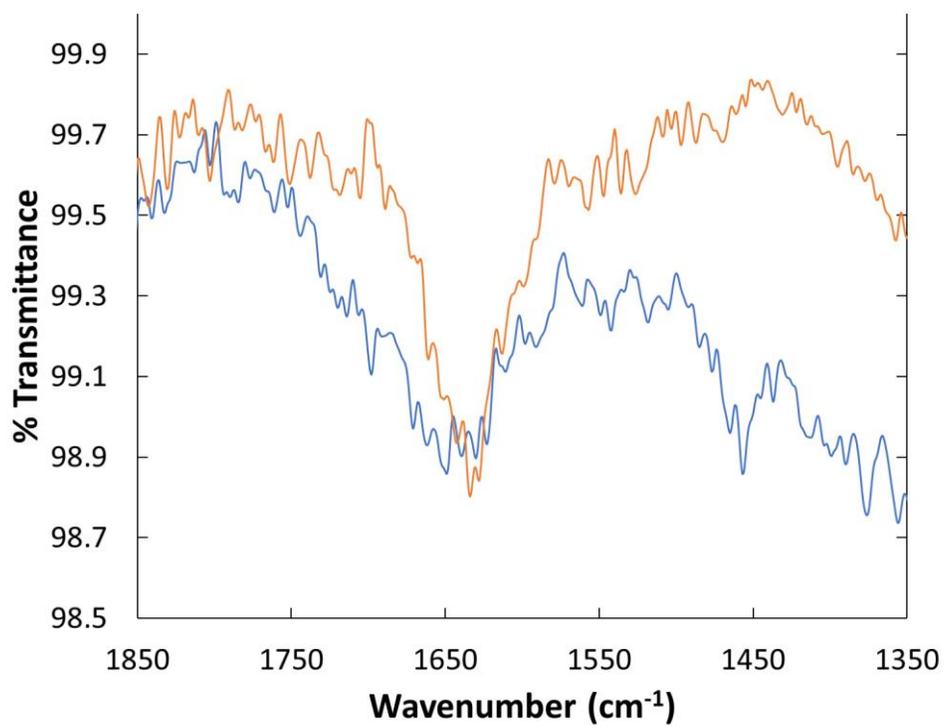


Figure S2: IR spectroscopy data for A300 silica (orange) and **3** (blue).

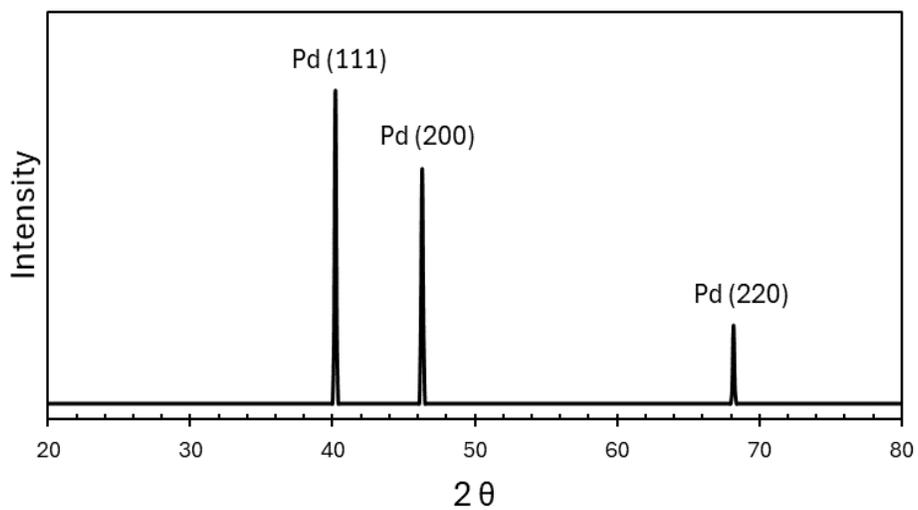
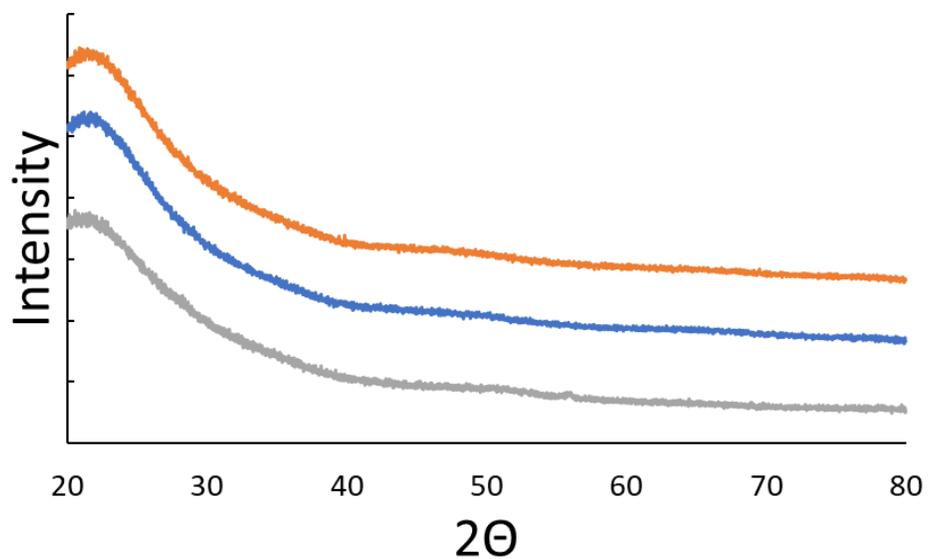


Figure S3: Top: Powder X-ray diffraction profiles of A300 silica support (grey), pre-reaction **3** (blue), and post-reaction **3** (orange). Reaction conditions as describe in entry 5 of Table 1. Bottom: Simulated spectrum of metallic Pd nanoparticles on SiO_2 support.

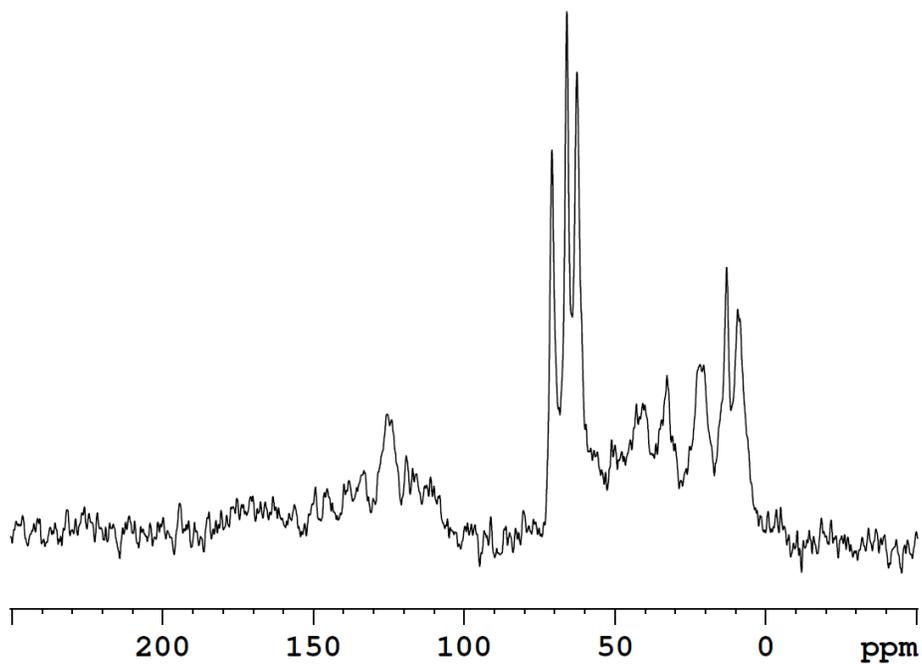


Figure S4: Solid-State ^{13}C NMR spectra of **3** following reaction in n-dodecane as described in entry 5 of Table 1.

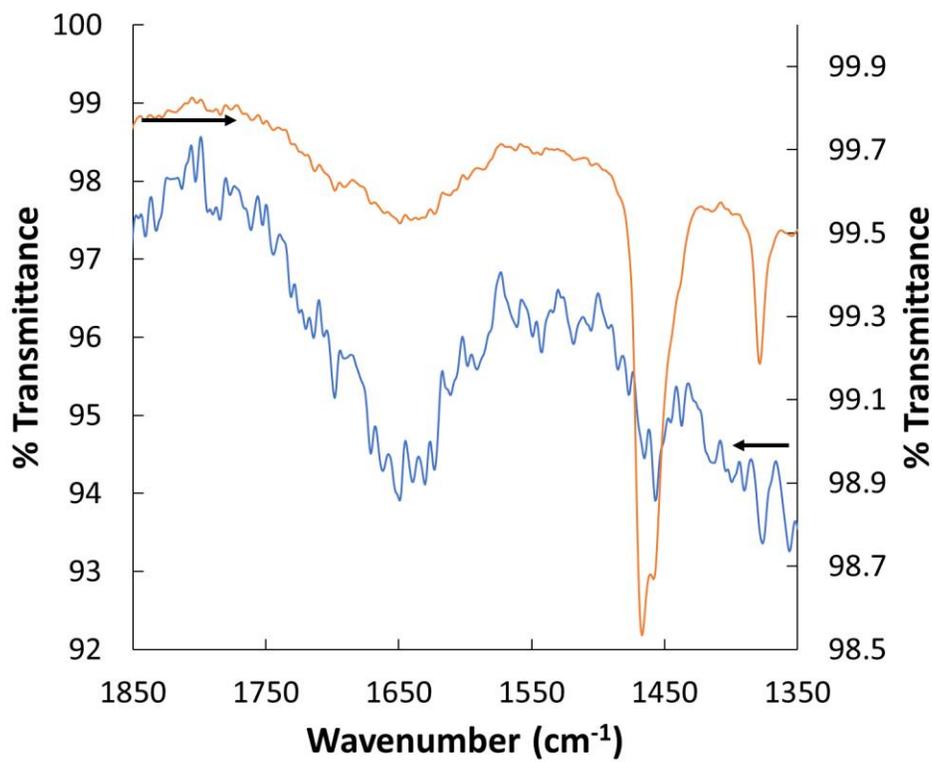


Figure S5: IR spectroscopy data of pre-reaction **3** (blue) and post-reaction **3** (orange).

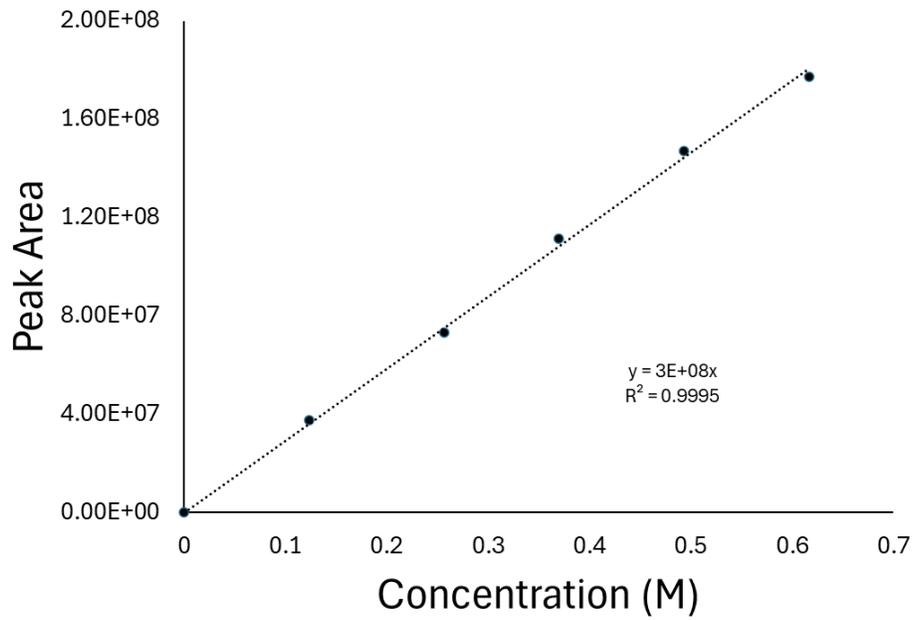


Figure S6: GC-MS calibration curve for benzyl alcohol.

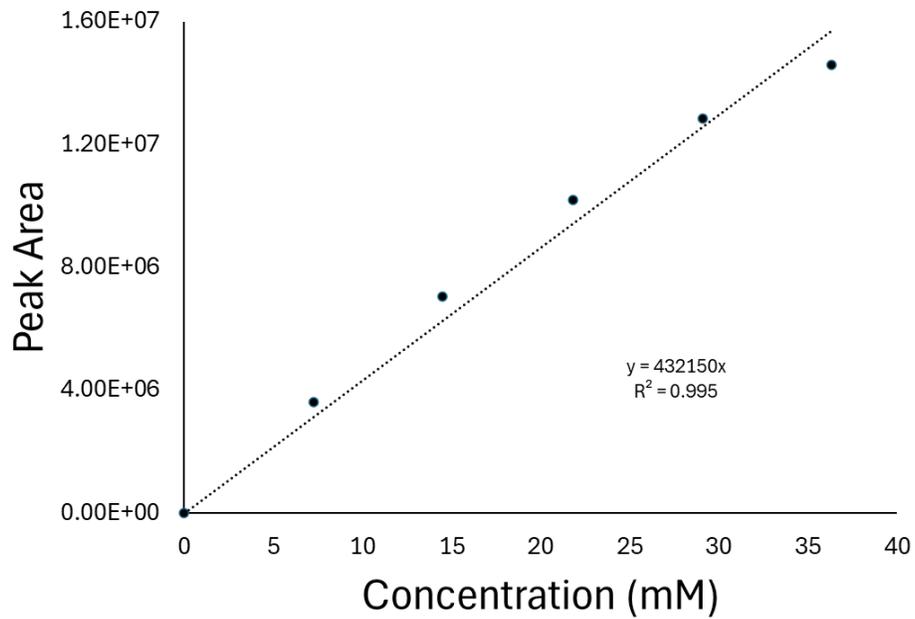


Figure S7: GC-MS calibration curve for toluene.

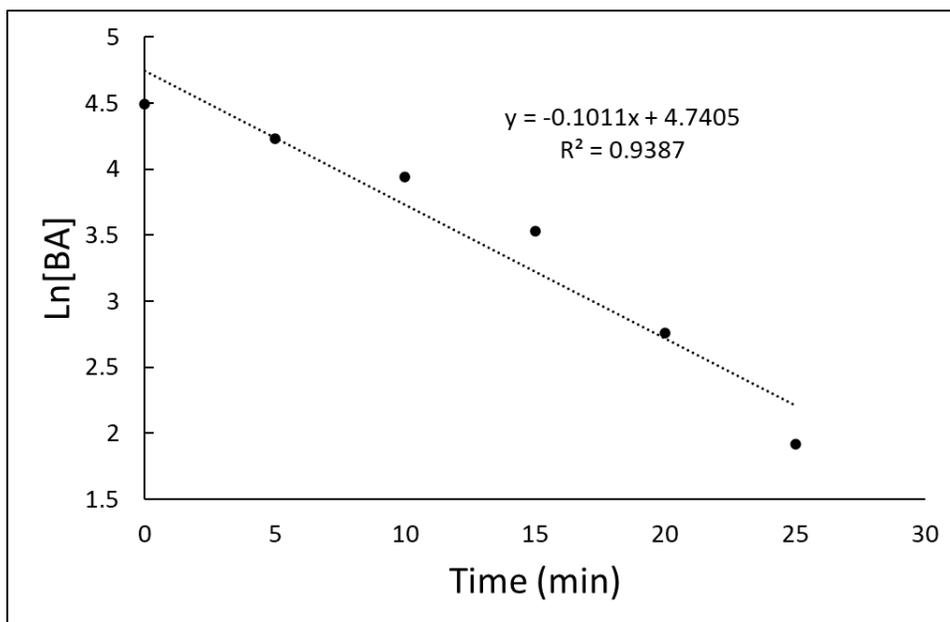


Figure S8: Cycle 1 consumption of benzyl alcohol over time.

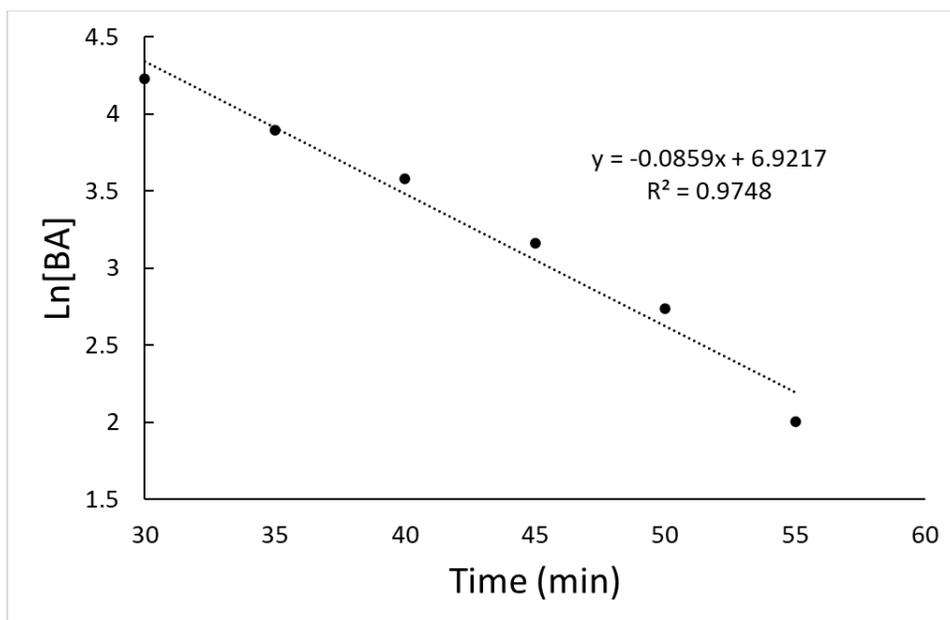


Figure S9: Cycle 2 consumption of benzyl alcohol over time.

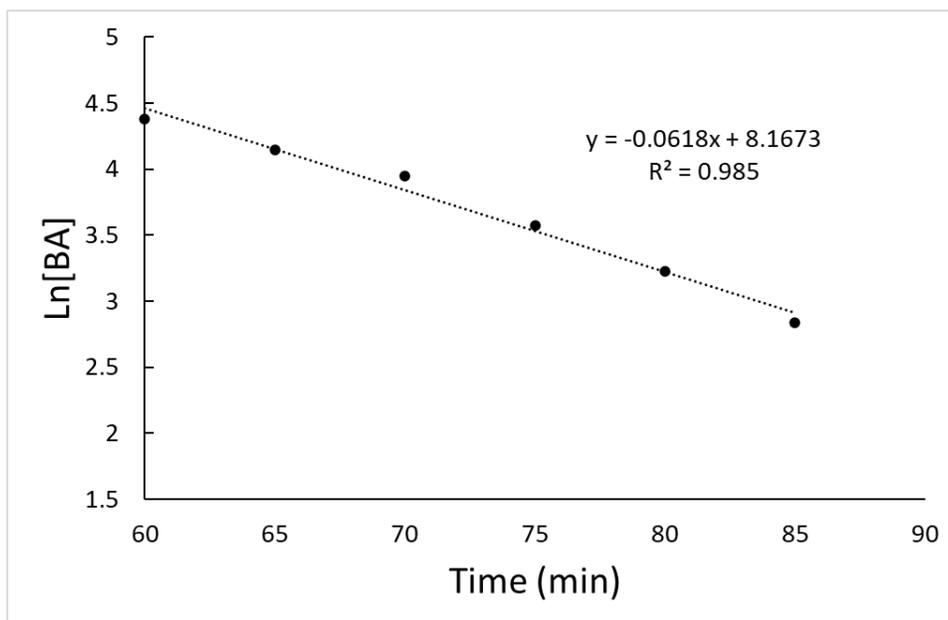


Figure S10: Cycle 3 consumption of benzyl alcohol over time.

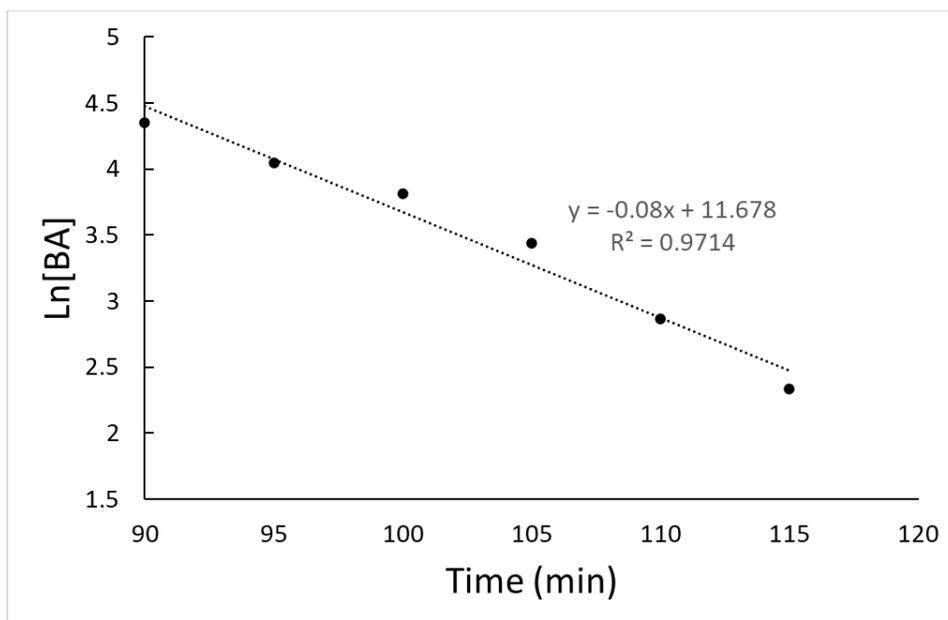


Figure S11: Cycle 4 consumption of benzyl alcohol over time.

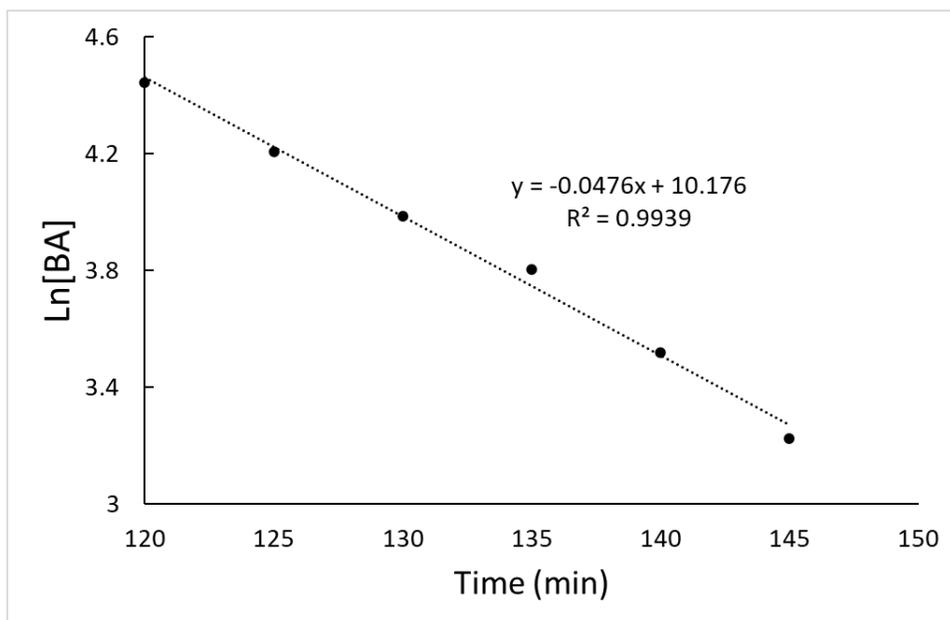


Figure S12: Cycle 5 consumption of benzyl alcohol over time.