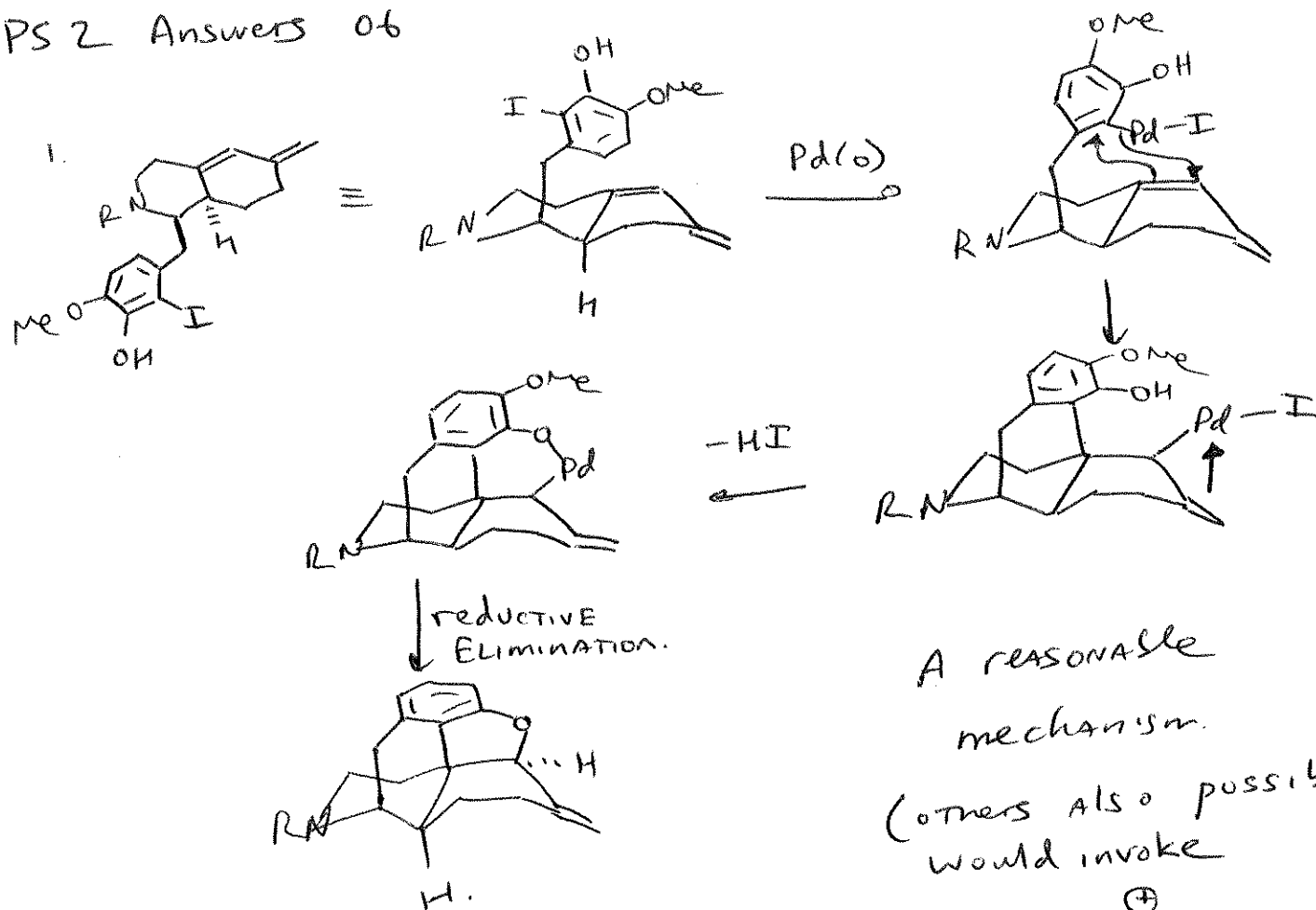
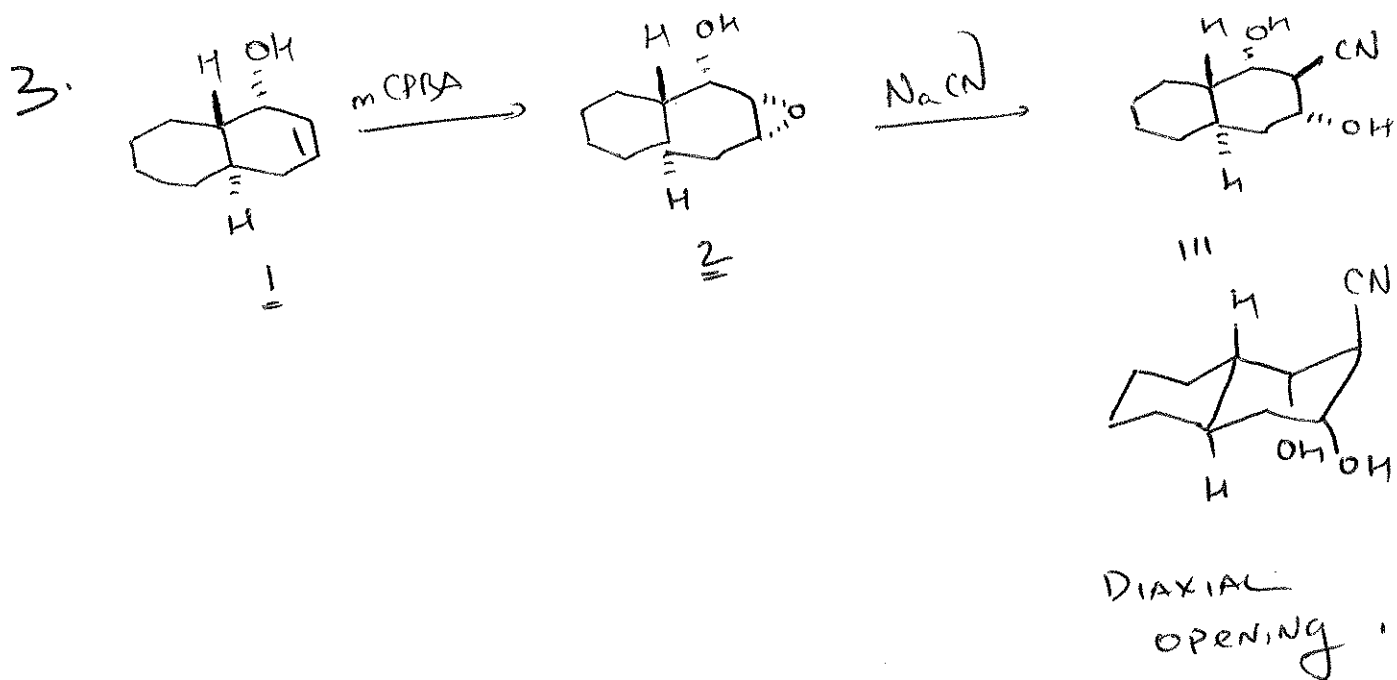


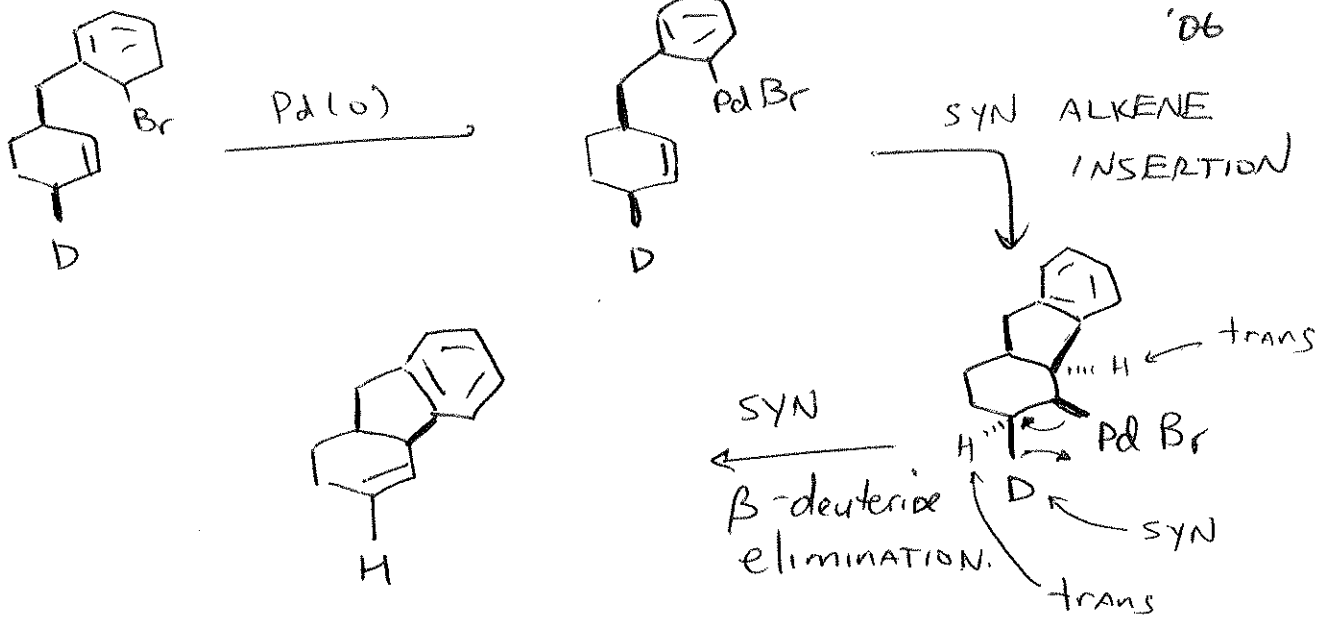
PS 2 Answers 06



A reasonable mechanism.
 (others also possible would involve
 $\leftarrow \text{Pd}^+$
 intermediates)

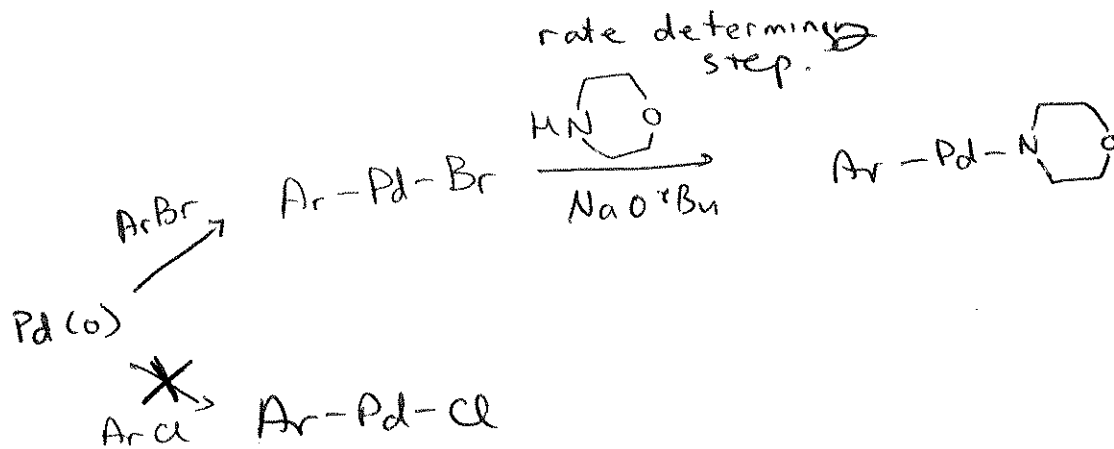


2.



ONLY the Deuterium
is syn relative
to Palladium.

4.



The result can be explained by assuming that **OXIDATIVE ADDITION** is **IRREVERSIBLE**, AND THAT **Pd-AMIDO FORMATION** is **RATE DETERMINING**. Thus, Pd "commits" to the aryl bromide, even though the overall catalytic cycle is slower.