

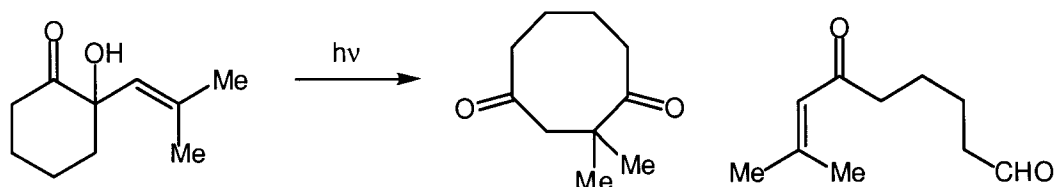
Massachusetts Institute of Technology

5.13: Organic Chemistry II

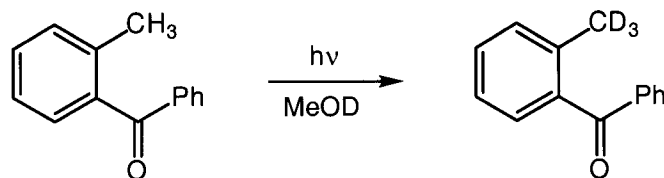
Spring 2003

Additional Practice Problems for the Final Exam

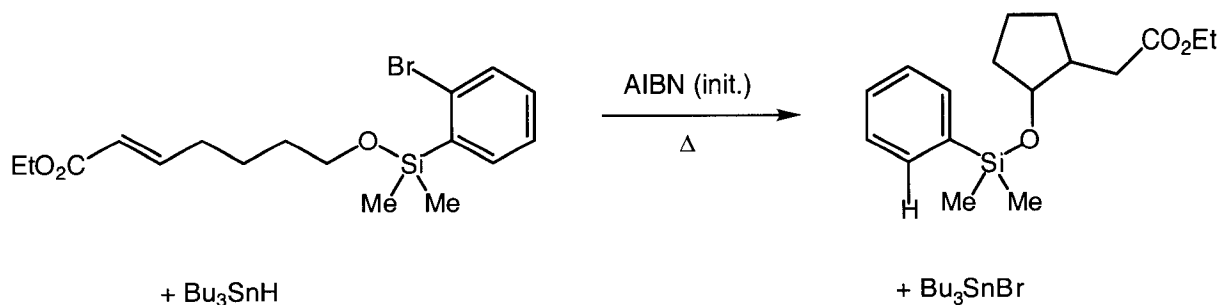
(1) Provide the best mechanism. Please show all arrow pushing.



(2) When 2-methylbenzophenone is irradiated in MeOD, deuterium is rapidly incorporated into the *ortho* methyl group. No exchange occurs in the absence of light. Suggest a mechanism for this transformation. Please show arrow pushing.



(3) Provide a mechanism for the radical chain process illustrated below. Please show all arrow pushing.



(4) Photogeneration of amines (which are basic) from non-basic precursors is a useful process. Provide a mechanism for this process. Please show arrow pushing.

