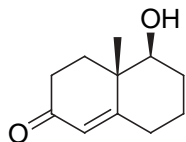
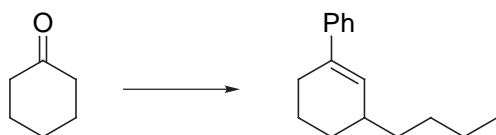


Literature references are required only for steps 1 and 2

1. Outline a synthesis from commercial materials. Provide a literature reference for each step, (20 pts)



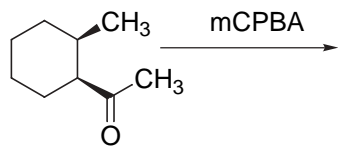
2. Outline a synthesis. Provide a literature reference for each step



(20 pts)

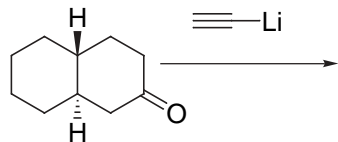
3. Predict the products

a.



(10 pts)

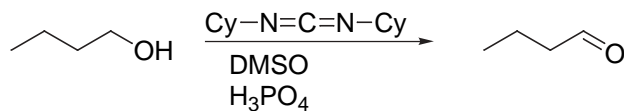
b.



(10 pts)

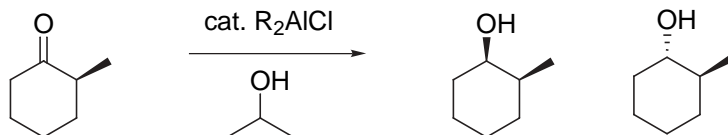
4. Provide a mechanism

(10 pts)



5. Rationalize the following observation.

(20 pts)



20 min	86%	:	7%	(+ 7% unreacted ketone)
3 h	5%	:	95%	