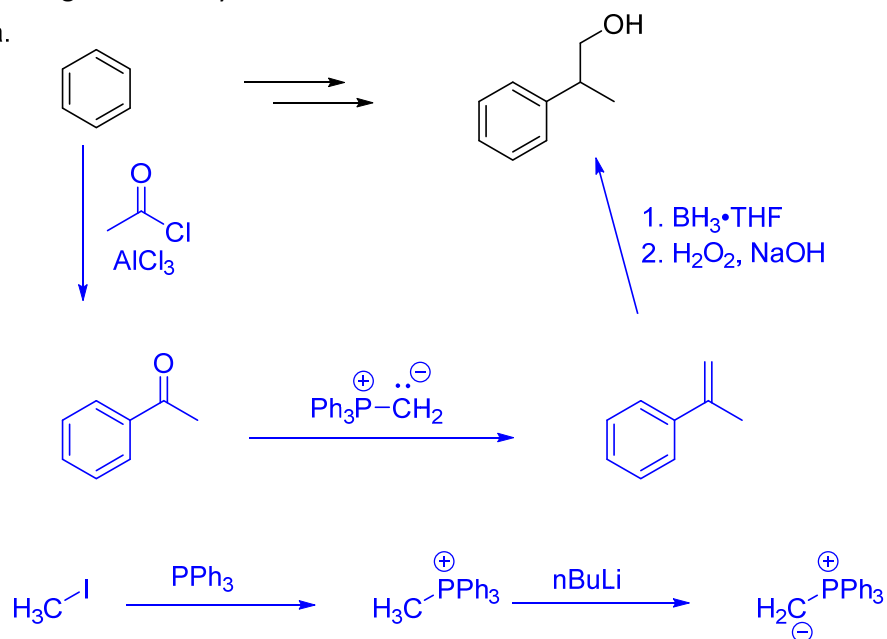
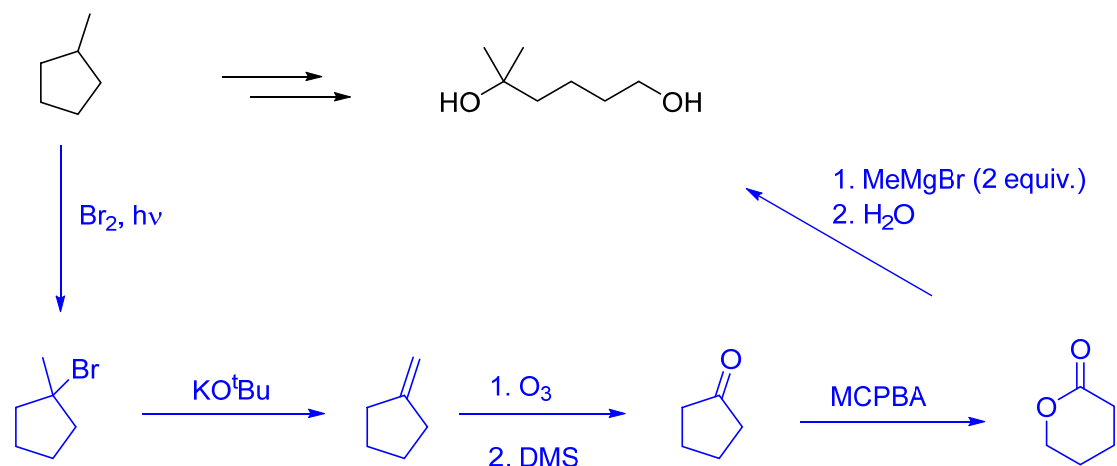


1. Propose a synthesis for the following transformations. If you use a Wittig reagent show how you would make it starting from an alkyl halide.

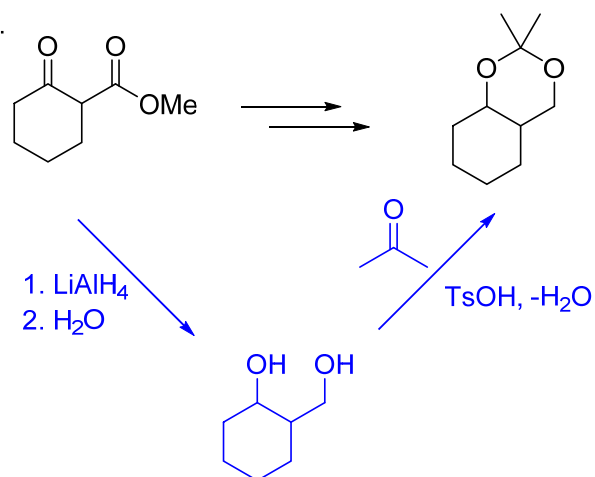
a.



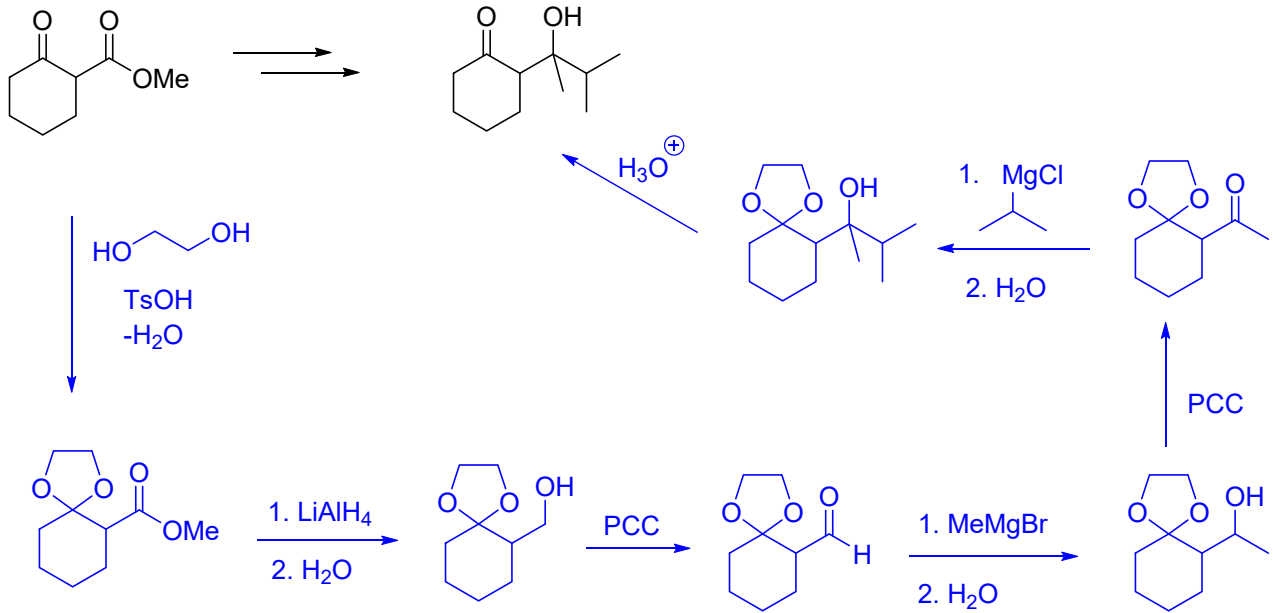
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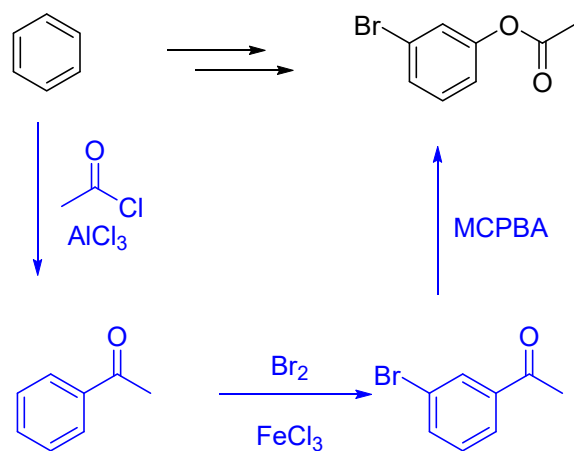
c.



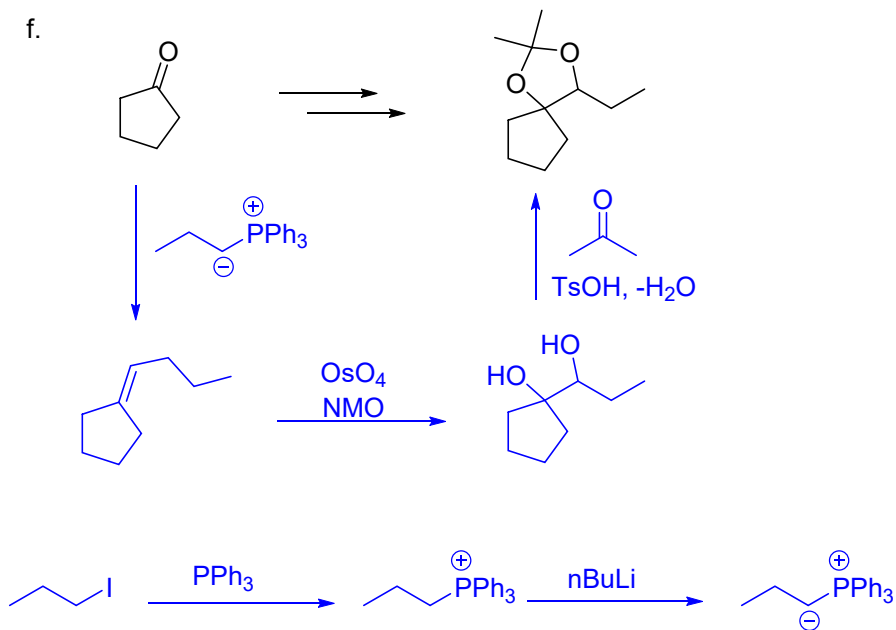
d.



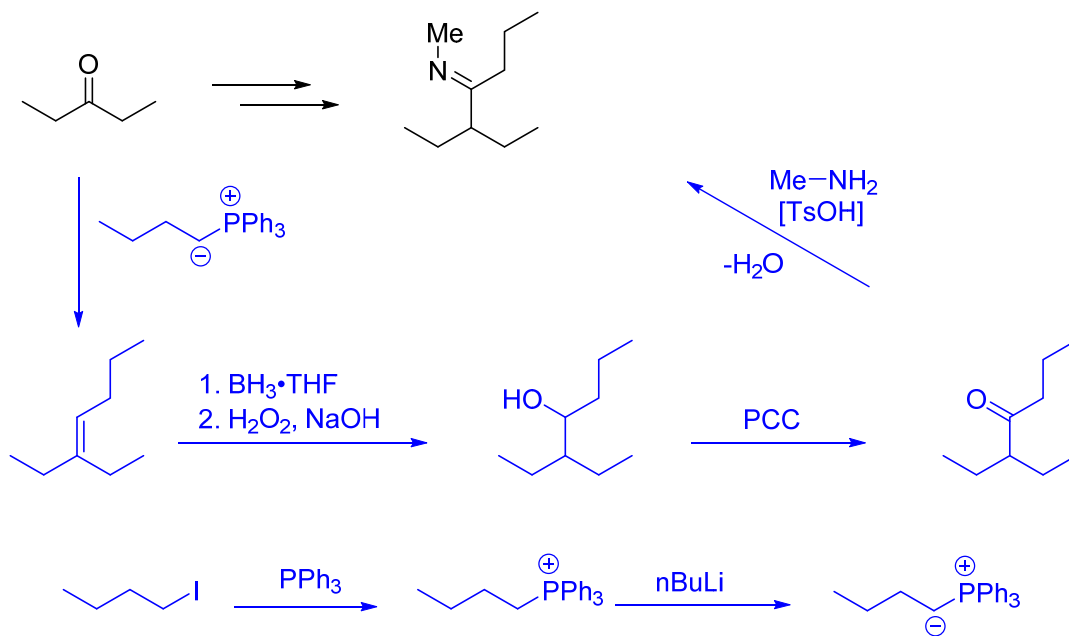
e.



f.



g.



2. Propose a mechanism for the following reactions.

