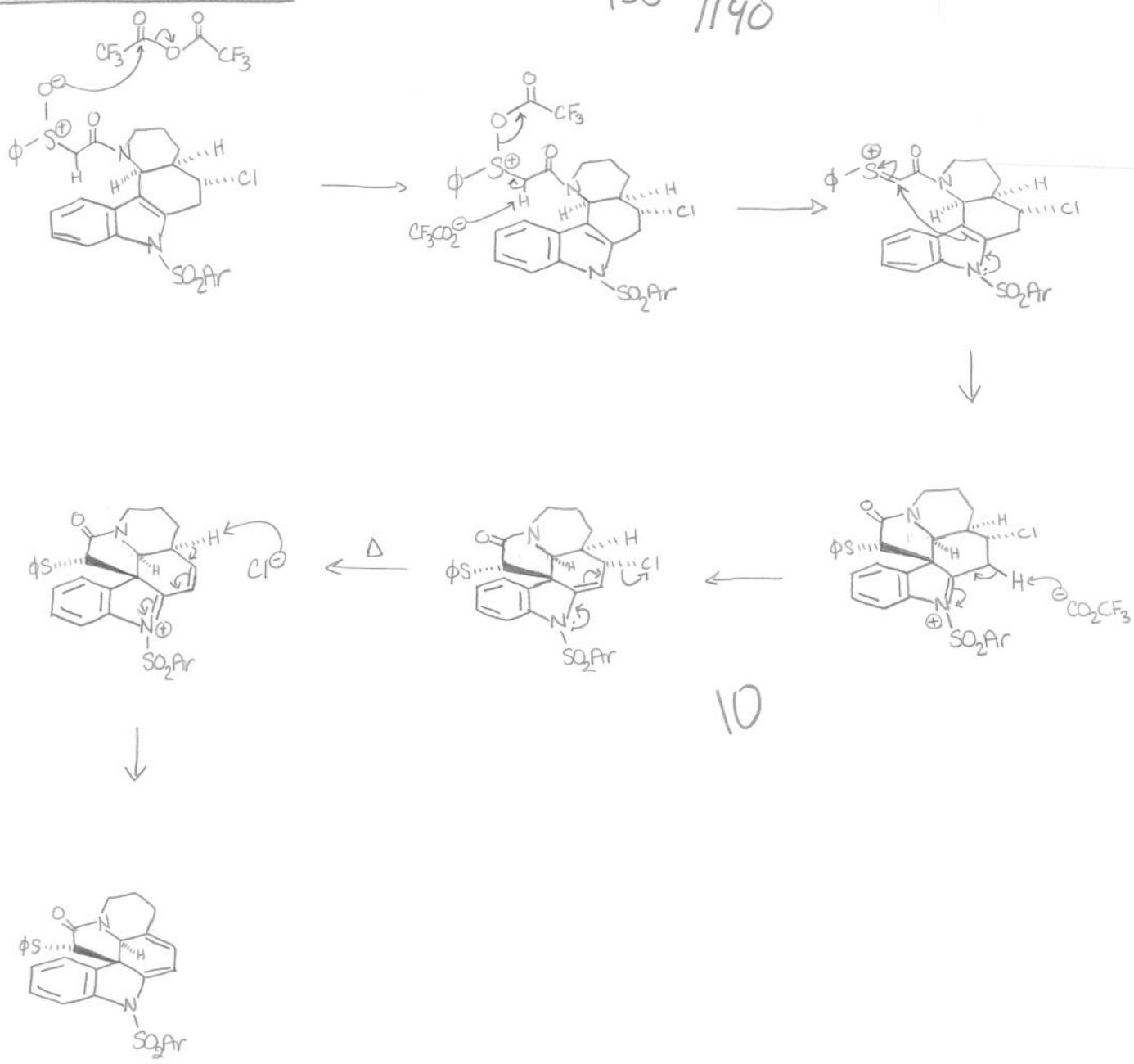


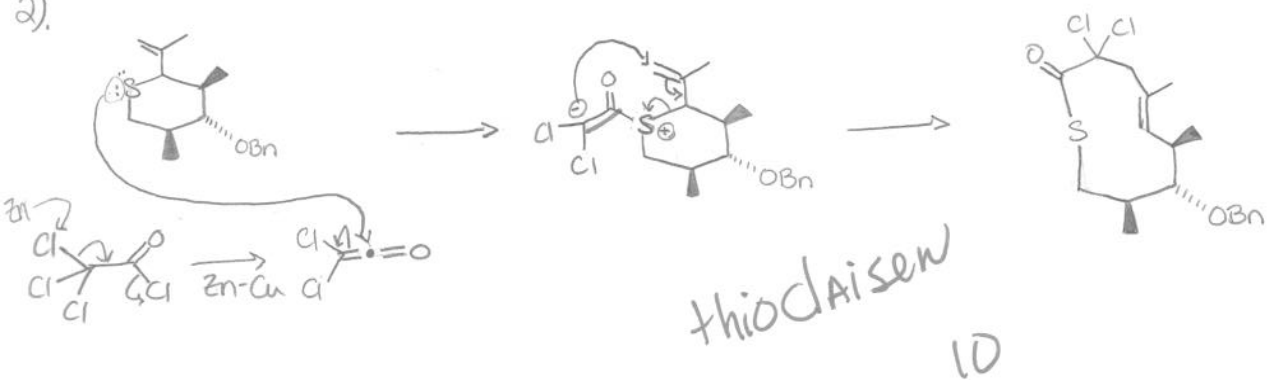
135 / 140

1)

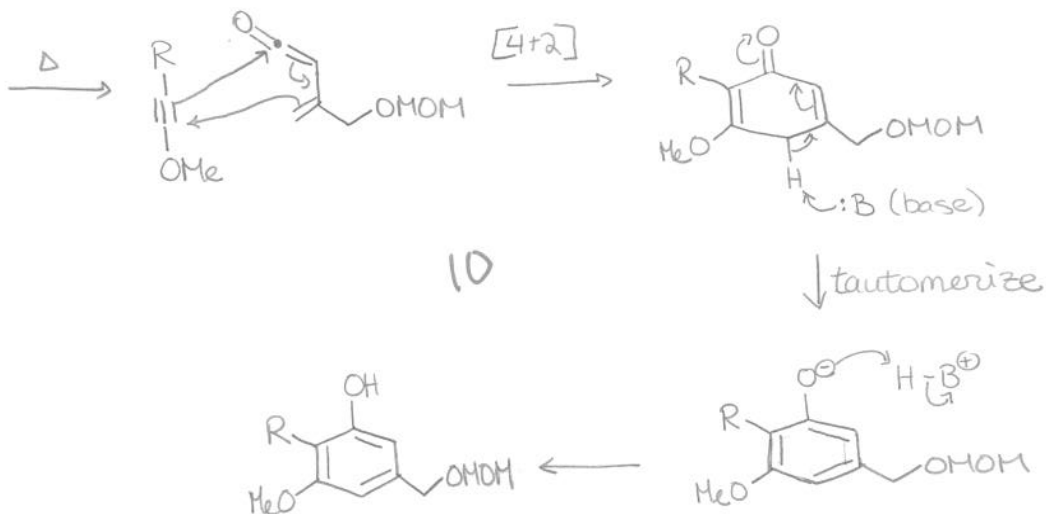


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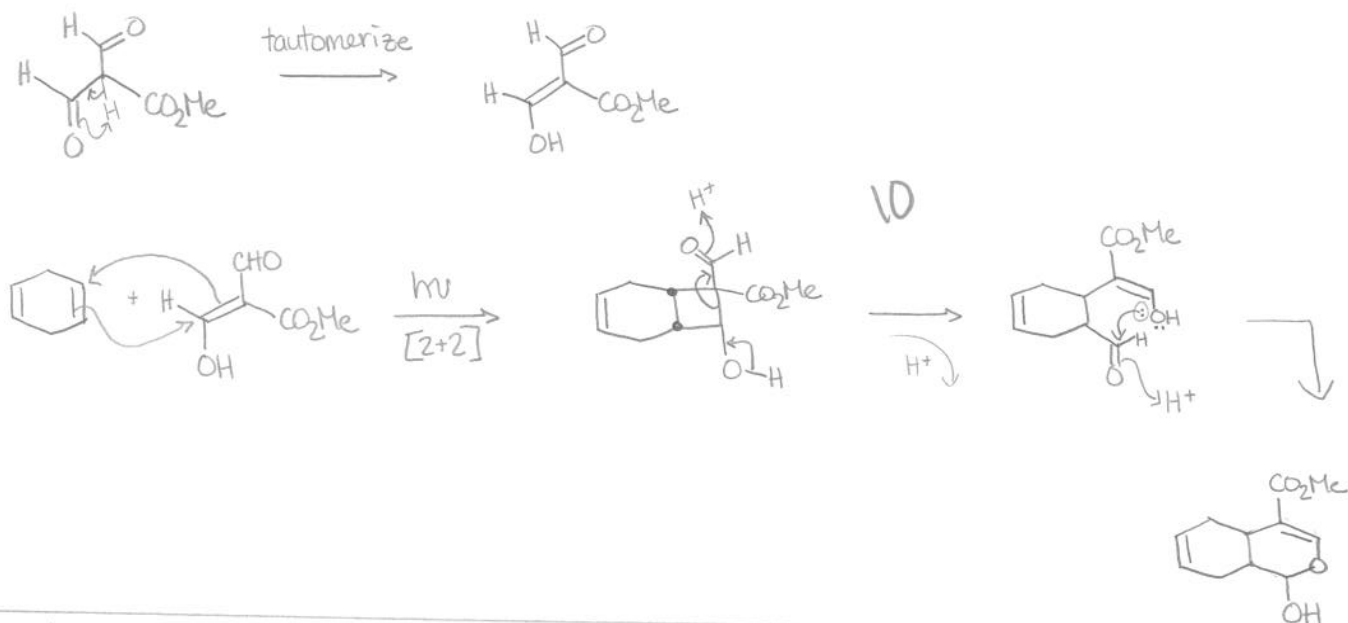
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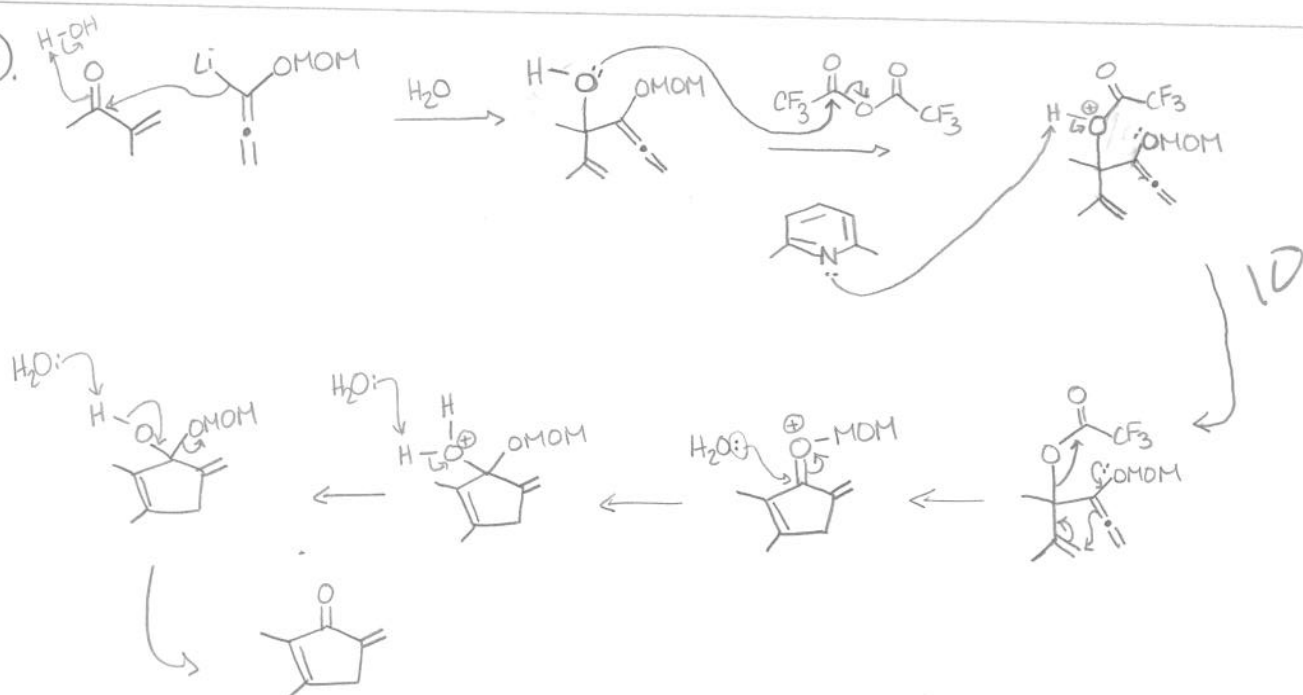
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4).



5).



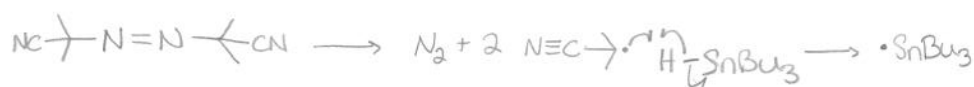
Reaction scheme showing the synthesis of a bicyclic ketone:

Starting material: A cyclopentenone derivative with a vinyl group and a 1-bromo-2-methylprop-1-en-2-yl group. The bromine atom is highlighted in red.

Reaction conditions: SnBu_3 (indicated by a curved arrow).

Intermediate: A radical intermediate is formed, shown with a red dot on the carbon atom.

Product: A bicyclic ketone derivative, shown with a red dot on the carbon atom.



Reaction scheme showing the synthesis of a bicyclic ketone derivative. The starting material is a bicyclic ketone with a methyl group and a hydrogen atom on a chiral center. The reaction proceeds via a radical intermediate, which is then reduced by Bu_3SnH to yield the final product, a bicyclic ketone with a methyl group and a hydrogen atom on a chiral center.

Handwritten chemical reaction scheme for the synthesis of 1,4-dimethylcyclohexa-1,4-diene from 1,4-dimethylcyclohexanone and hydrazine hydrate. The scheme includes reagents (Sieves, NaOAc, KOH, 160°C) and a final boxed product.

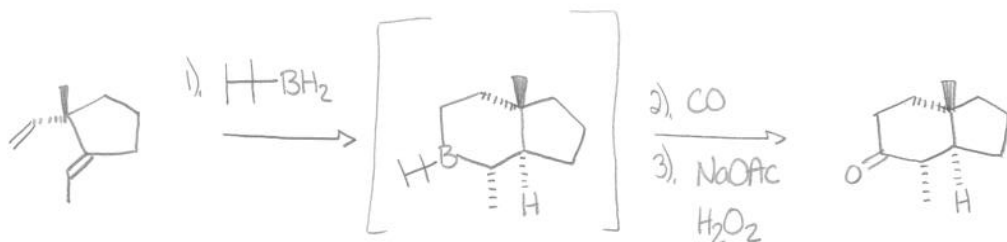
Handwritten note: "NOT what I would say but → Flawless"

NOT what I would
say but →
flawless

[illegible]

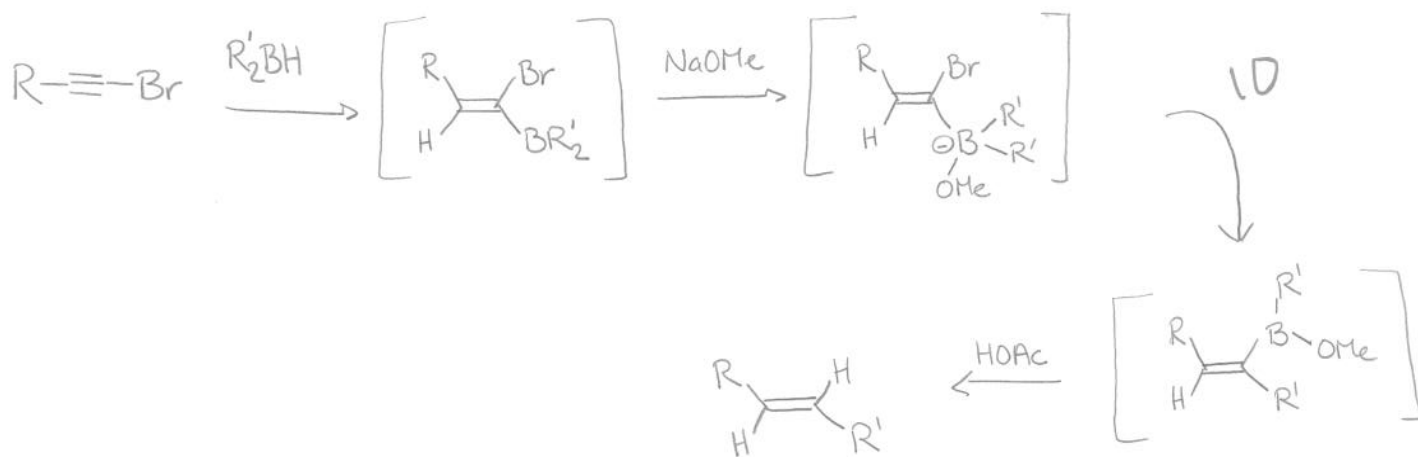
Give reagents for 1 pot reactions

1).



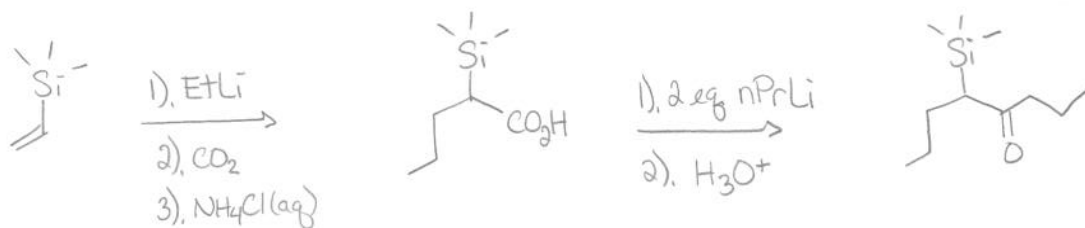
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2).



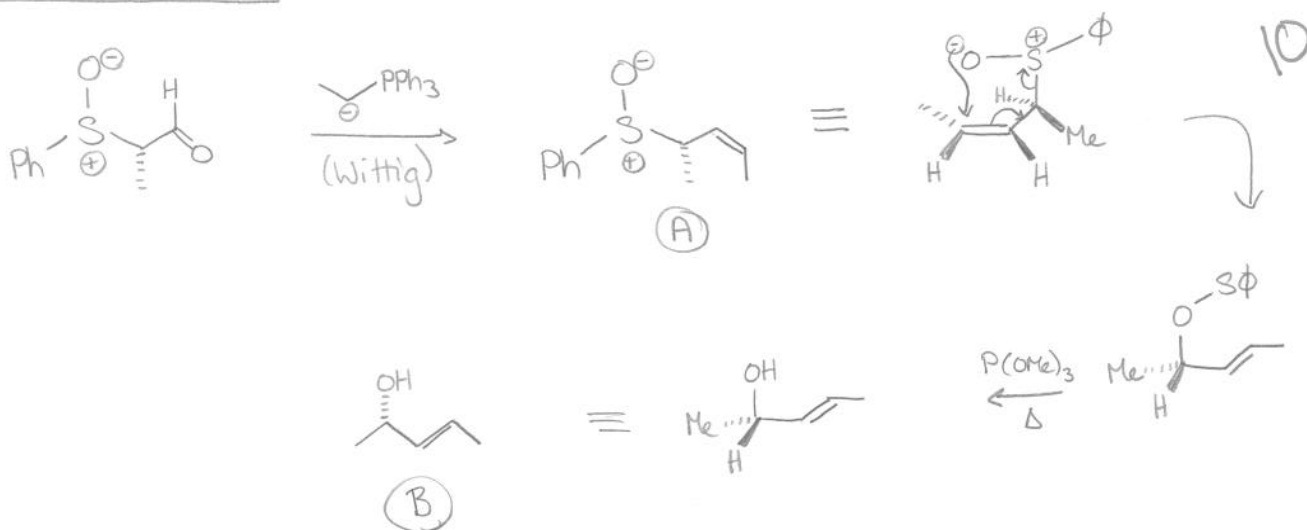
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3).



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Last Question



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