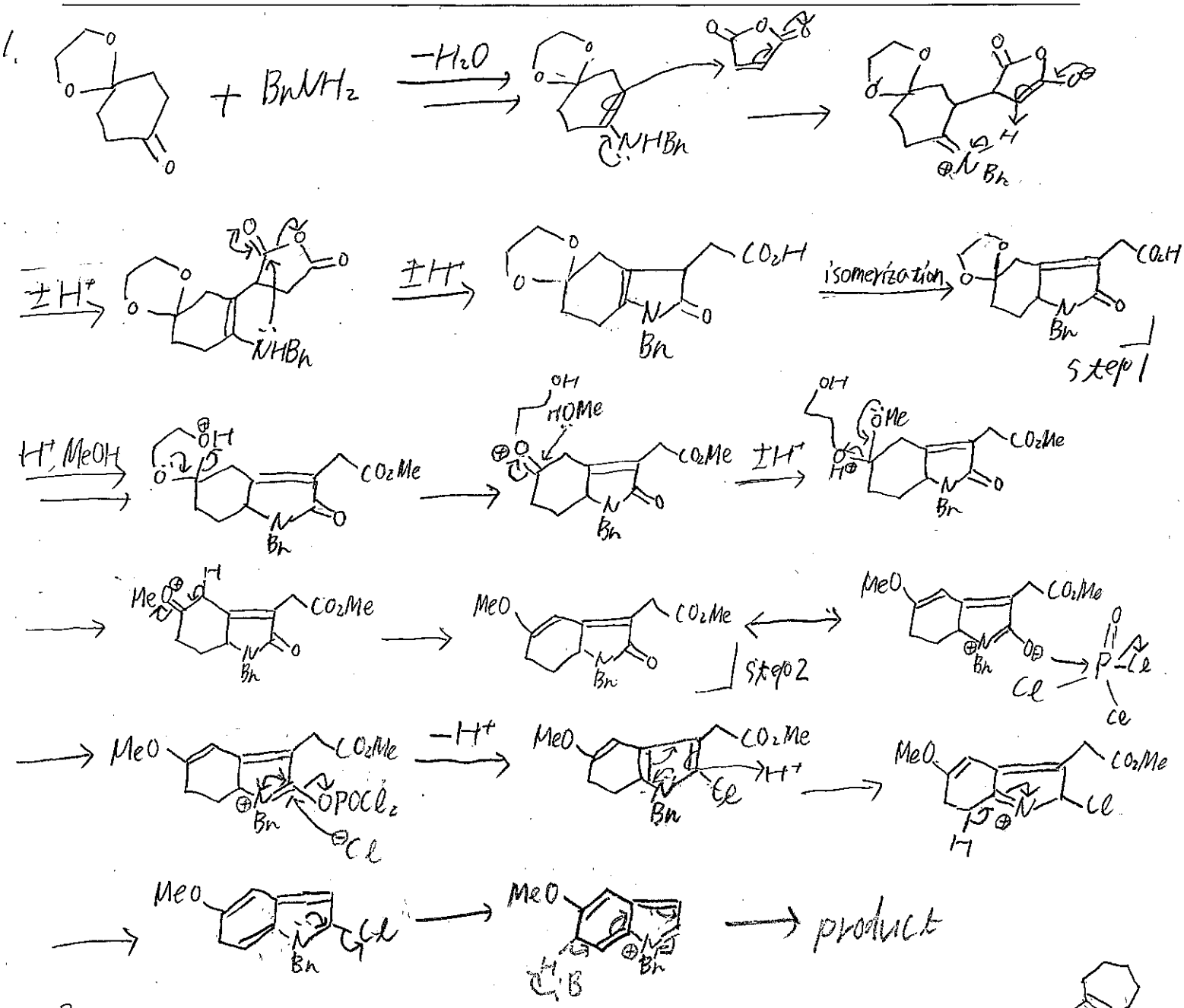
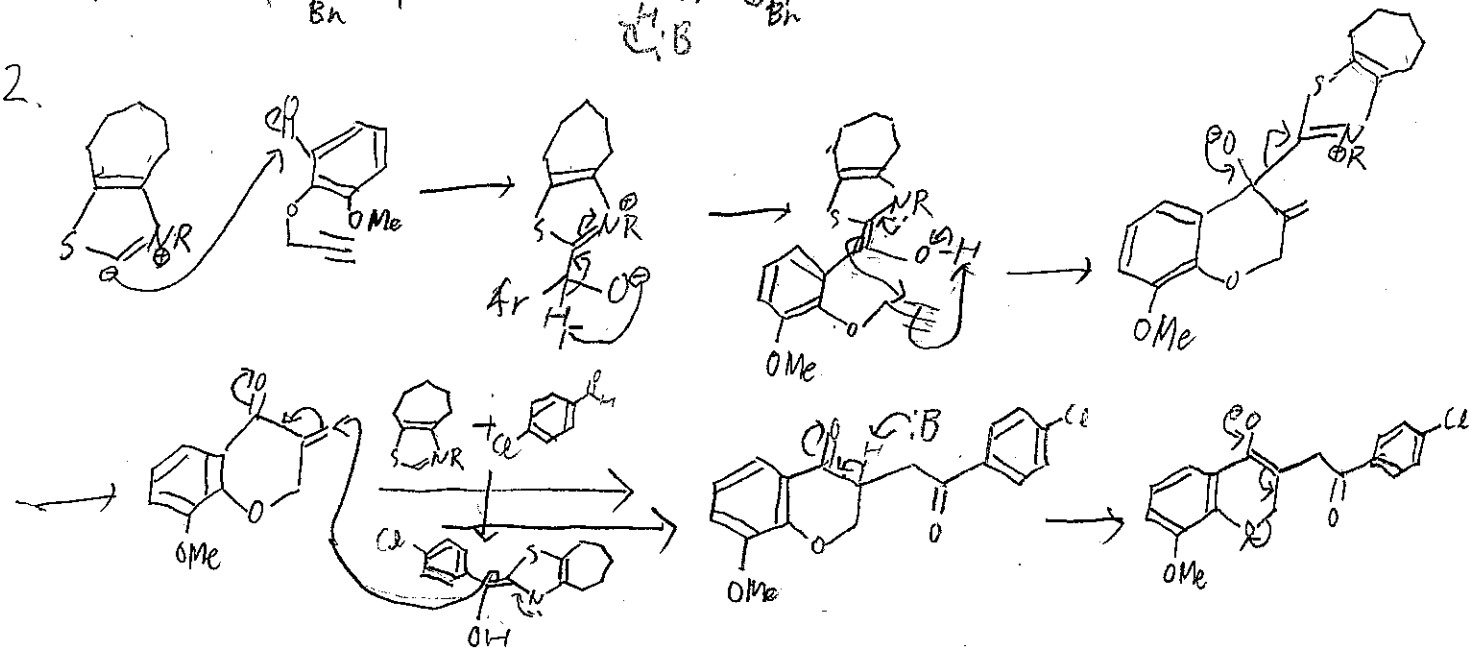
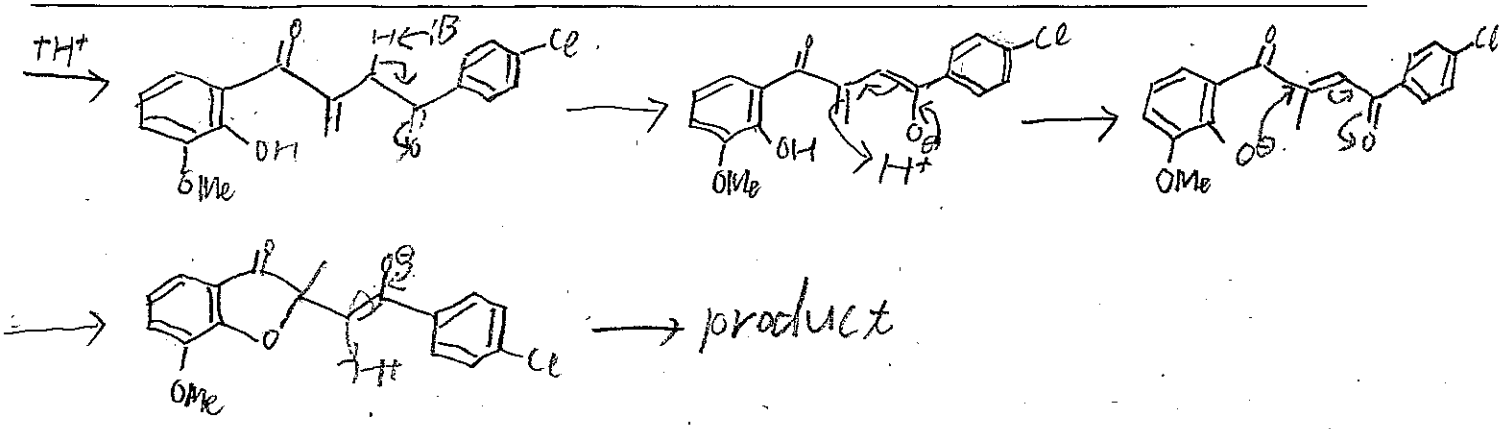
1.

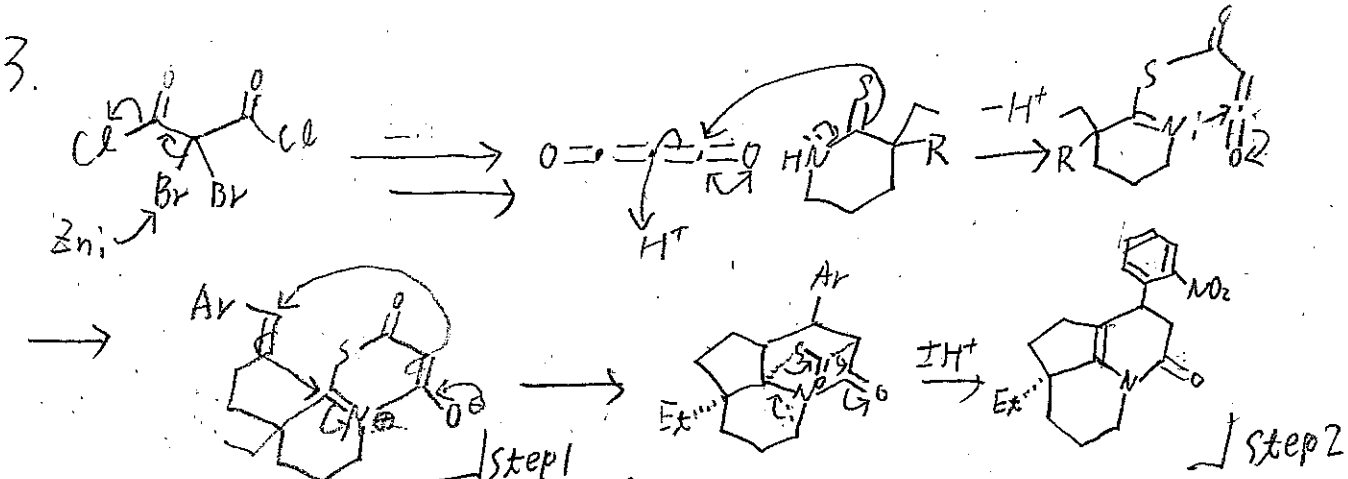

+ BnNH2
−H2O
NHBn
±H+
CO2H
isomerization
step 1
H+, MeOH
CO2Me
±H+
step 2
MeO
−H+
OPOCl2
product

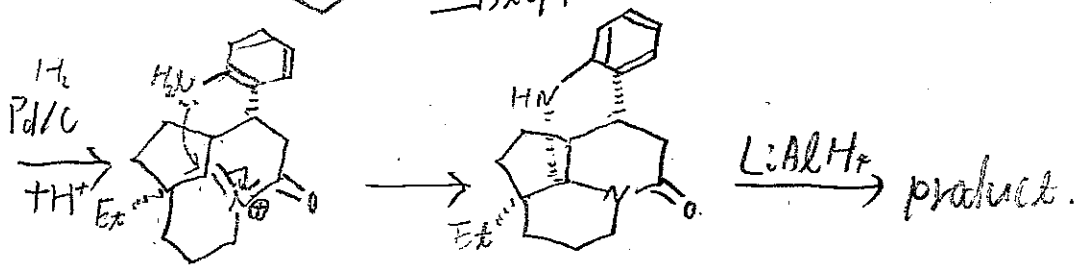
2.


OMe
Ar
OH

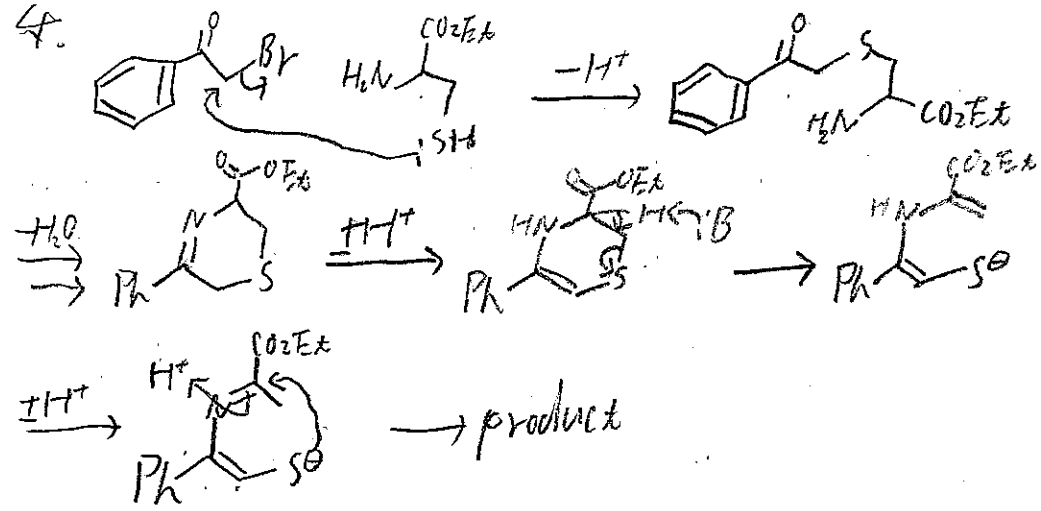

+H+
product

3.

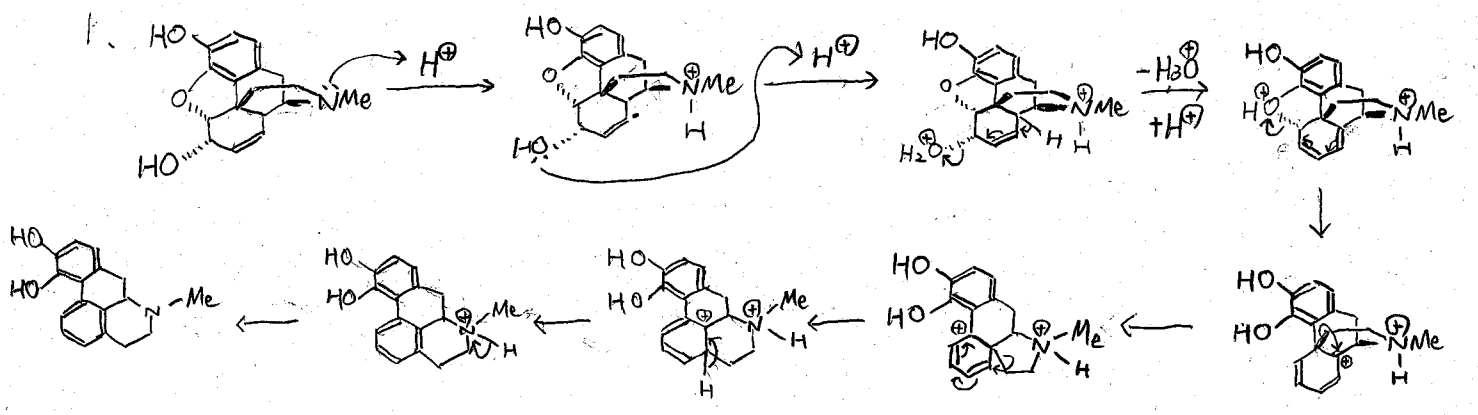

Zn;
-H+
H+
Step1
Step2


H2
Pd/C
+H+
LiAlH4
product.

4.


-H+
H2O
+H+
+H+
product

1.



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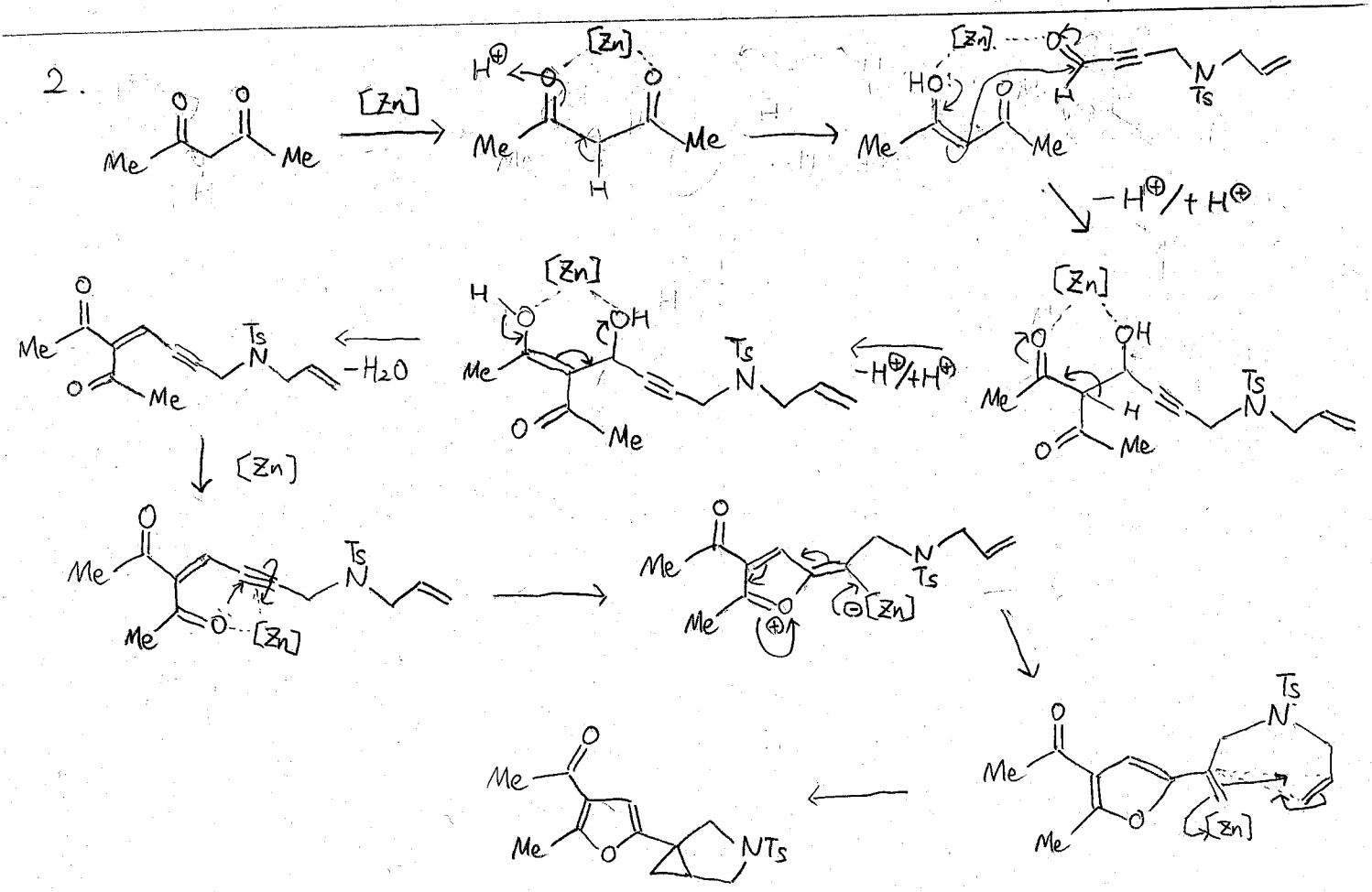

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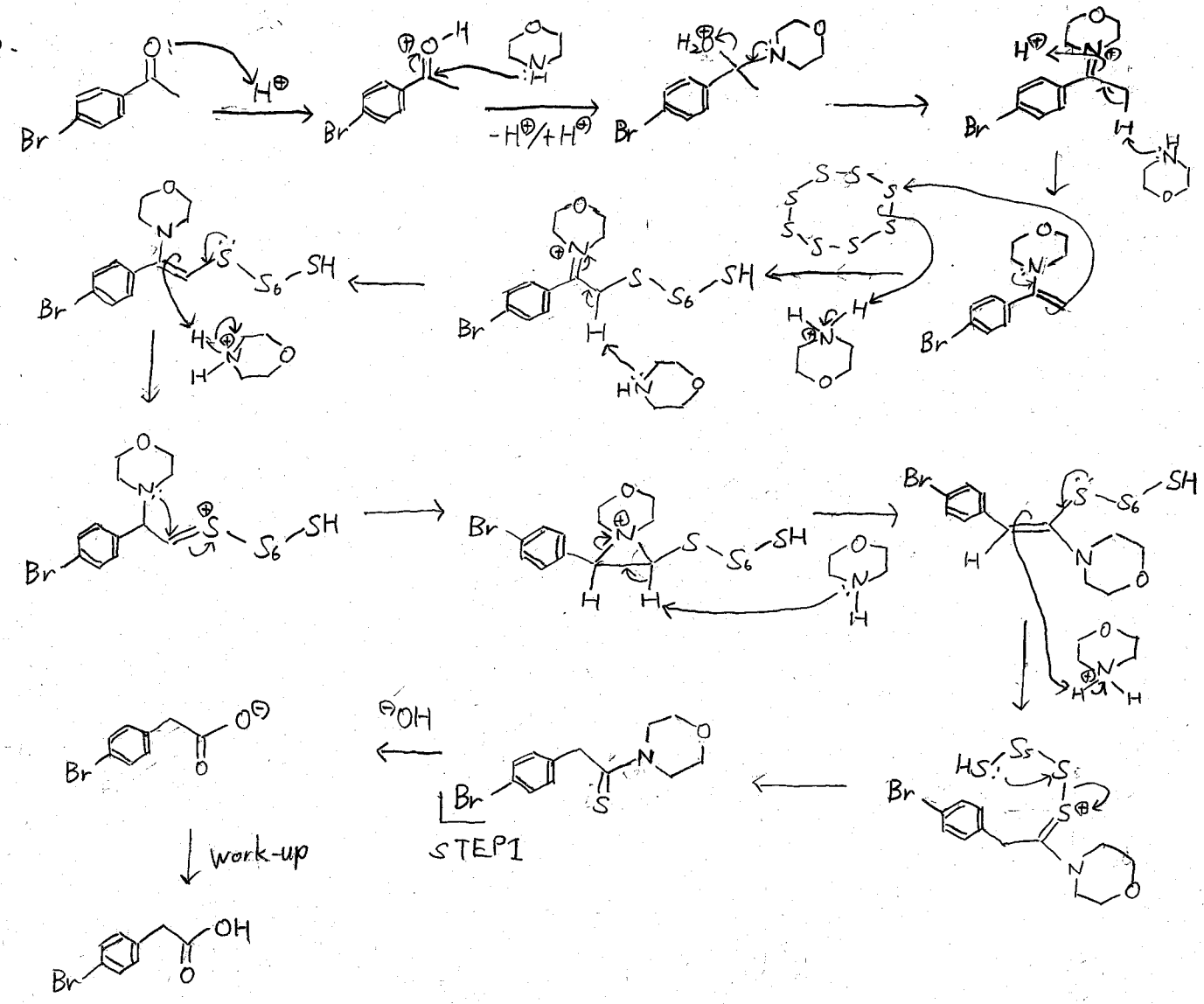
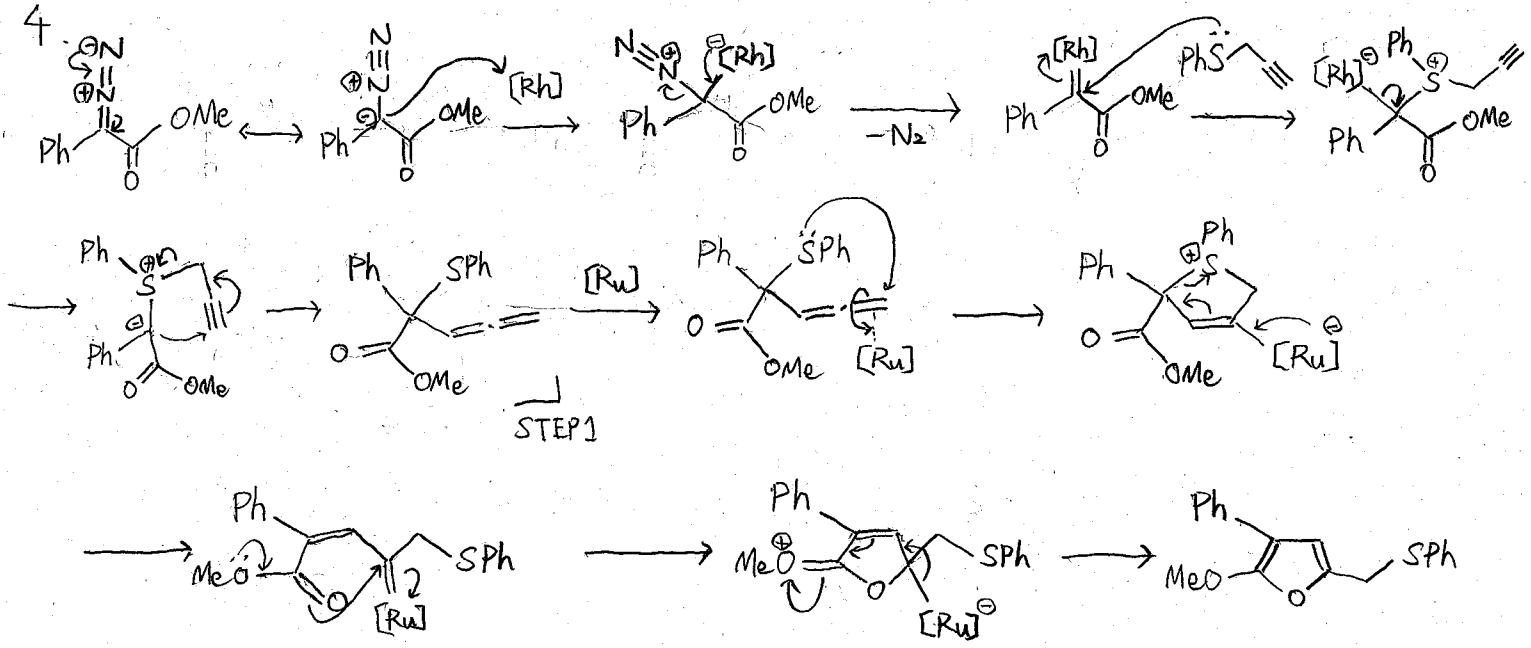
4.