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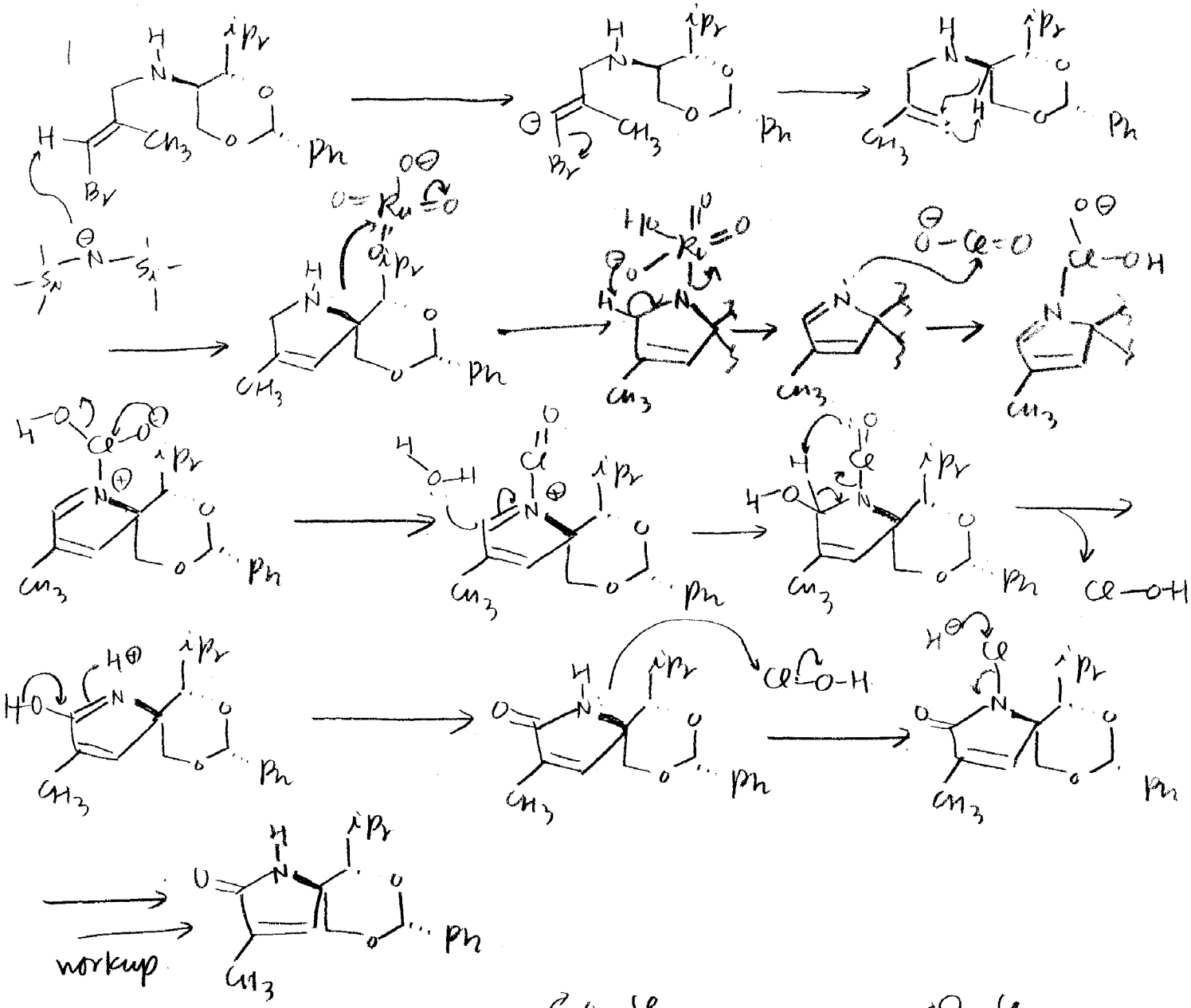

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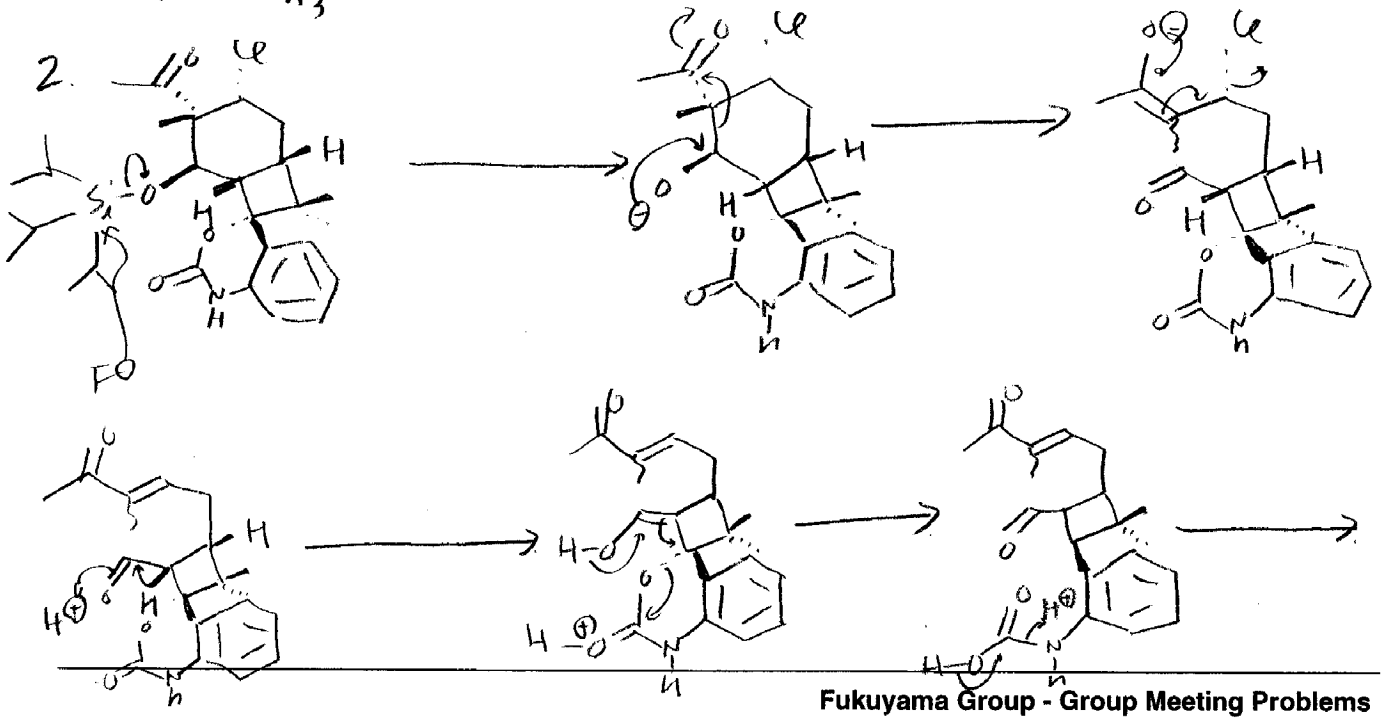

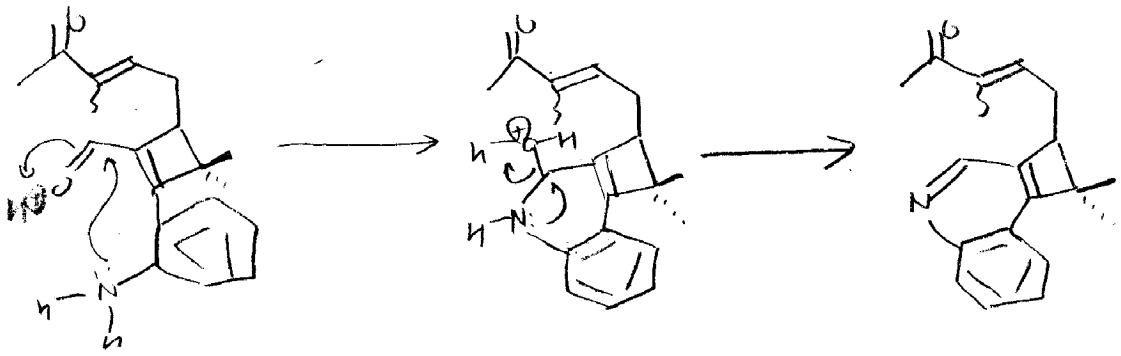

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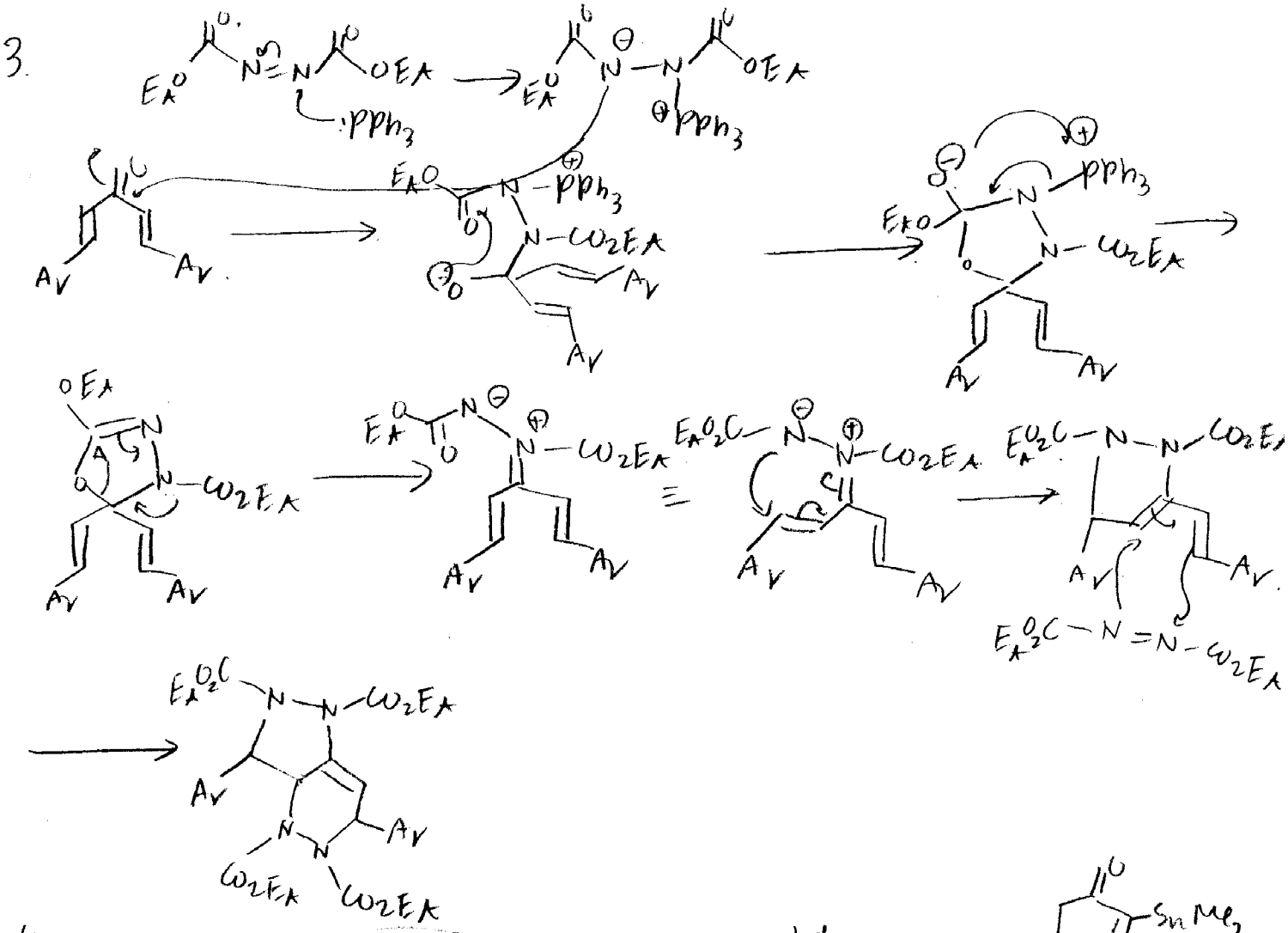

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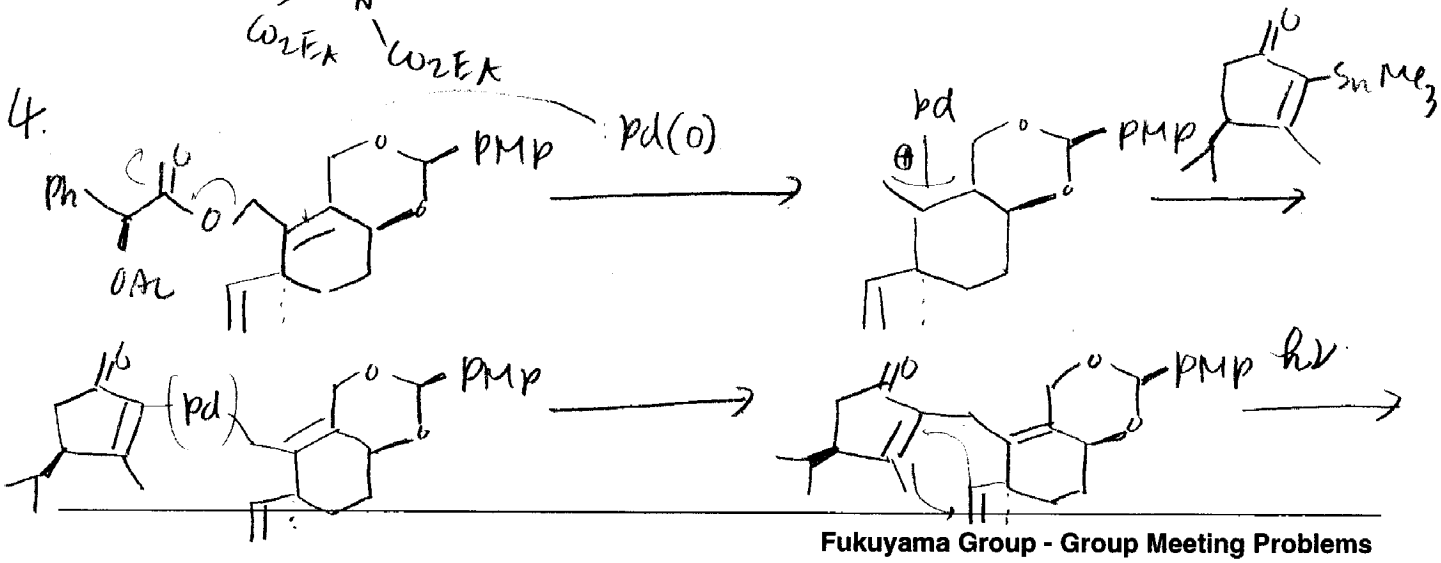

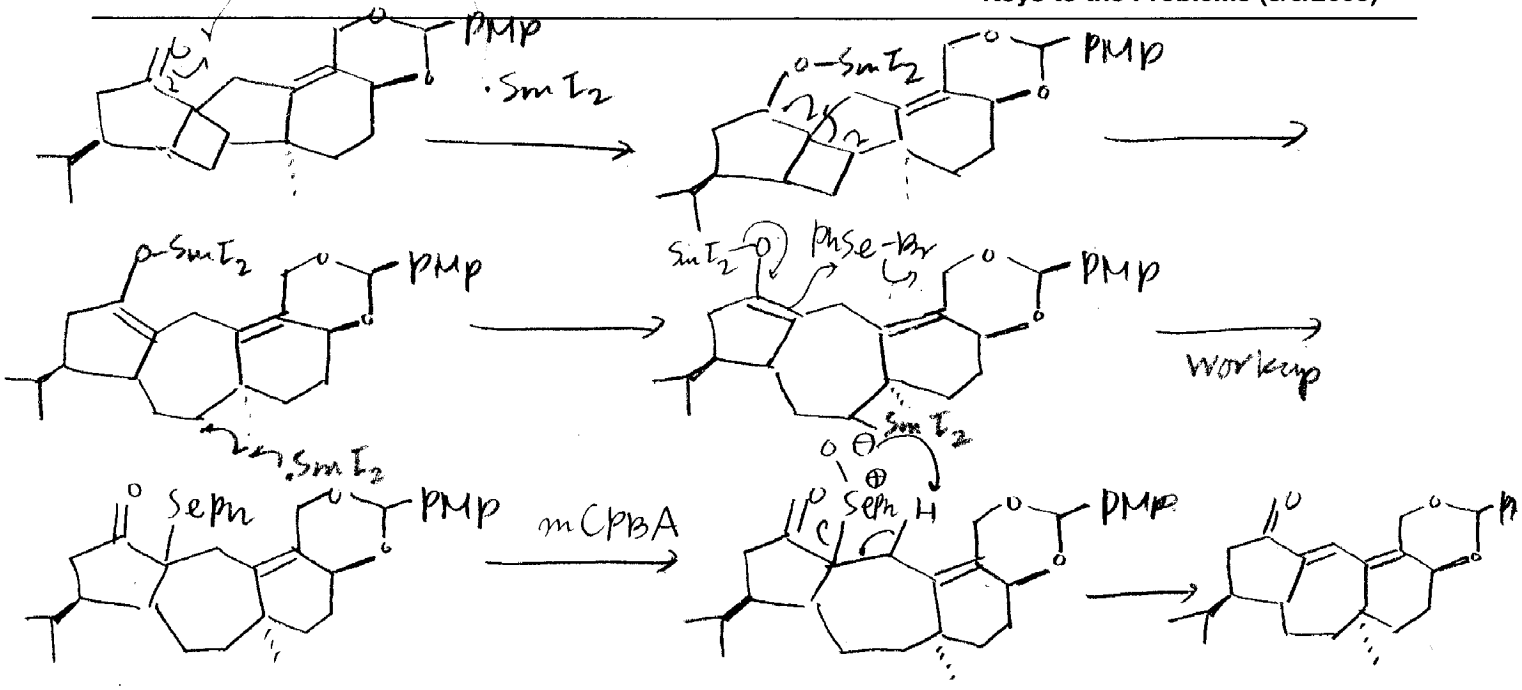
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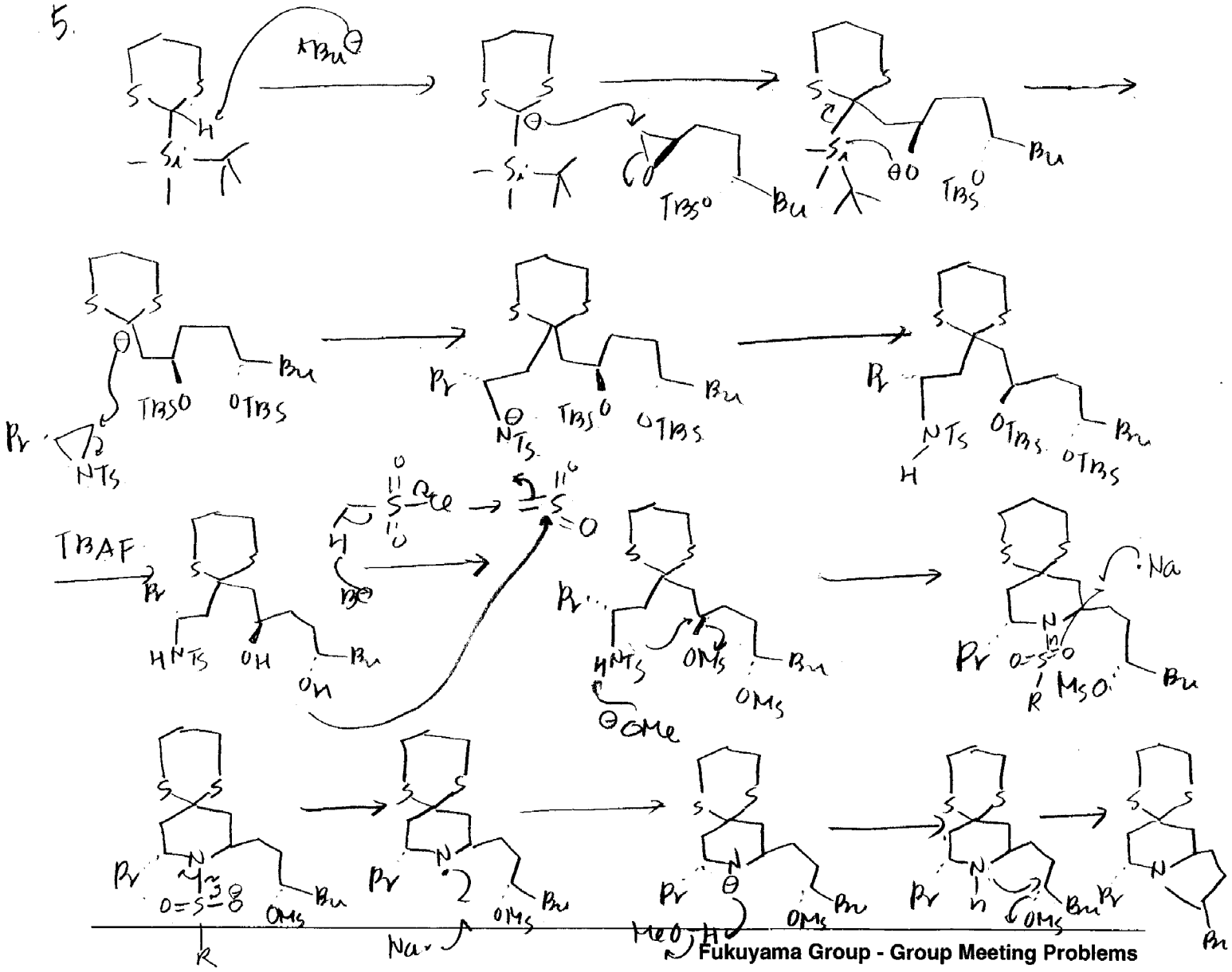
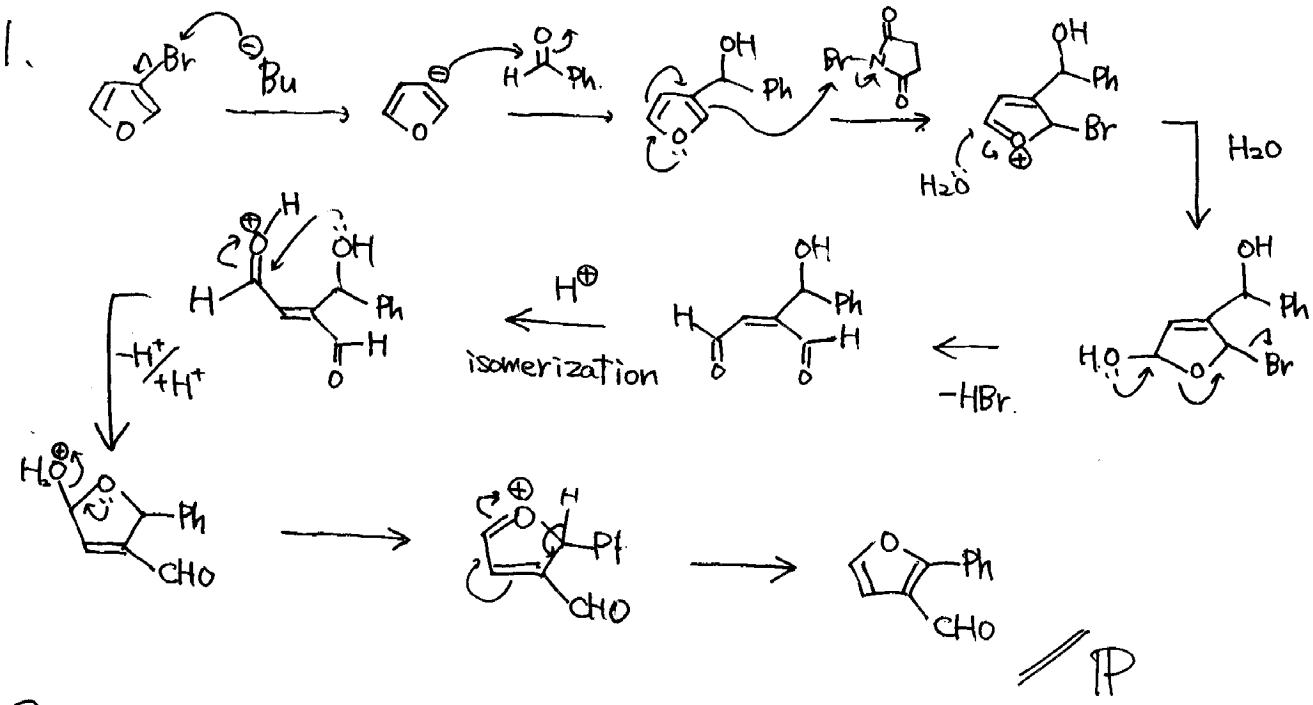
PhSe-Br
workup
SePh
mCPBA

5.


tBu
TBSO
OTBS
Bu
Pr
NTs
TBAF
HNTs
OH
OMs
Na
MsO
R
MeO
Fukuyama Group - Group Meeting Problems

1.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OH
Ph
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H2O
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Br
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Ph
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Br
-HBr.
H⊕
isomerization
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-H+/+H+
H2O
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CHO
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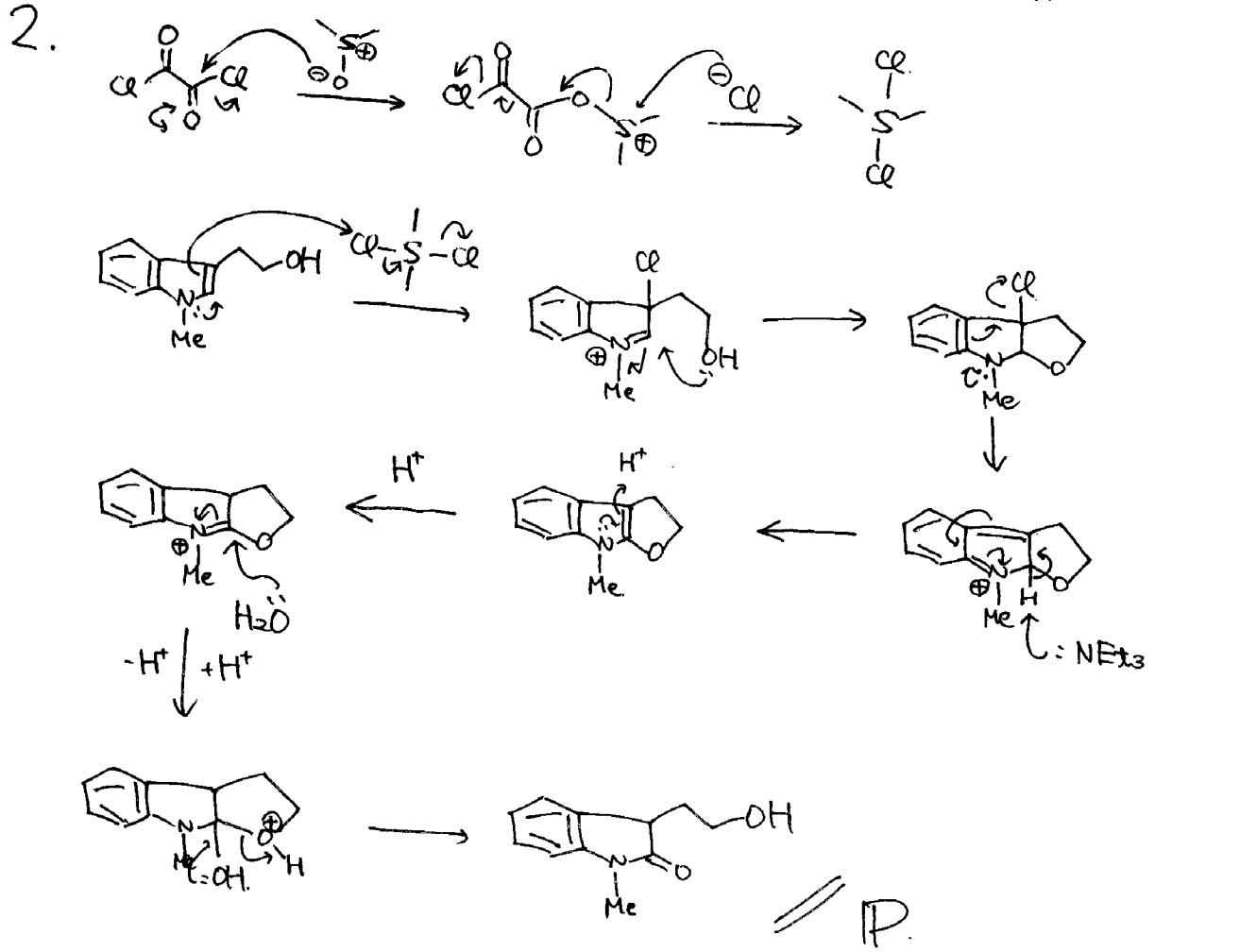
Ph
CHO
P

2.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Me
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H+
H+
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Me
N
Me
H
: NEt3
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+H+
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OH
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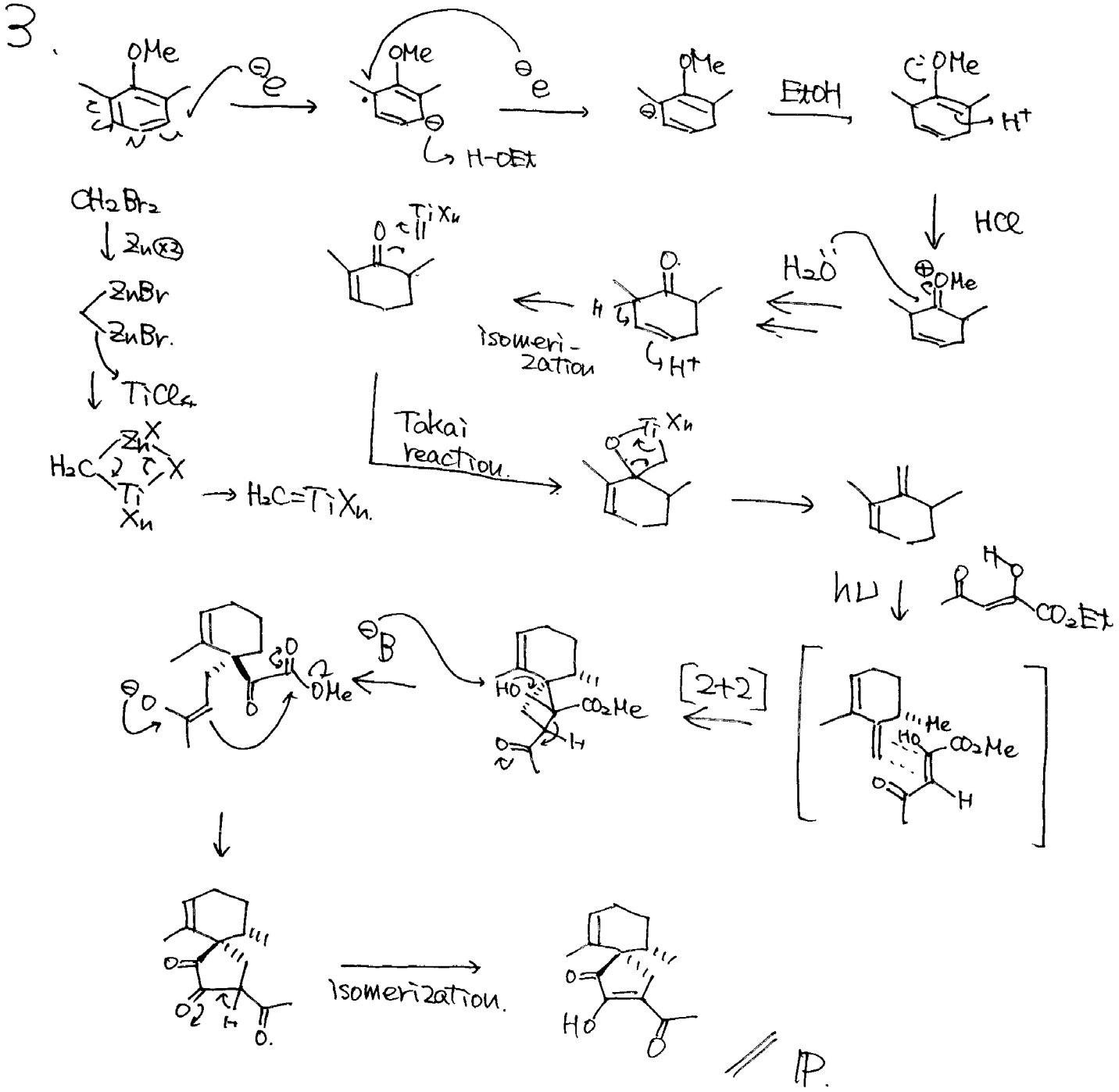
OH
N
O
Me
P

3.


OMe
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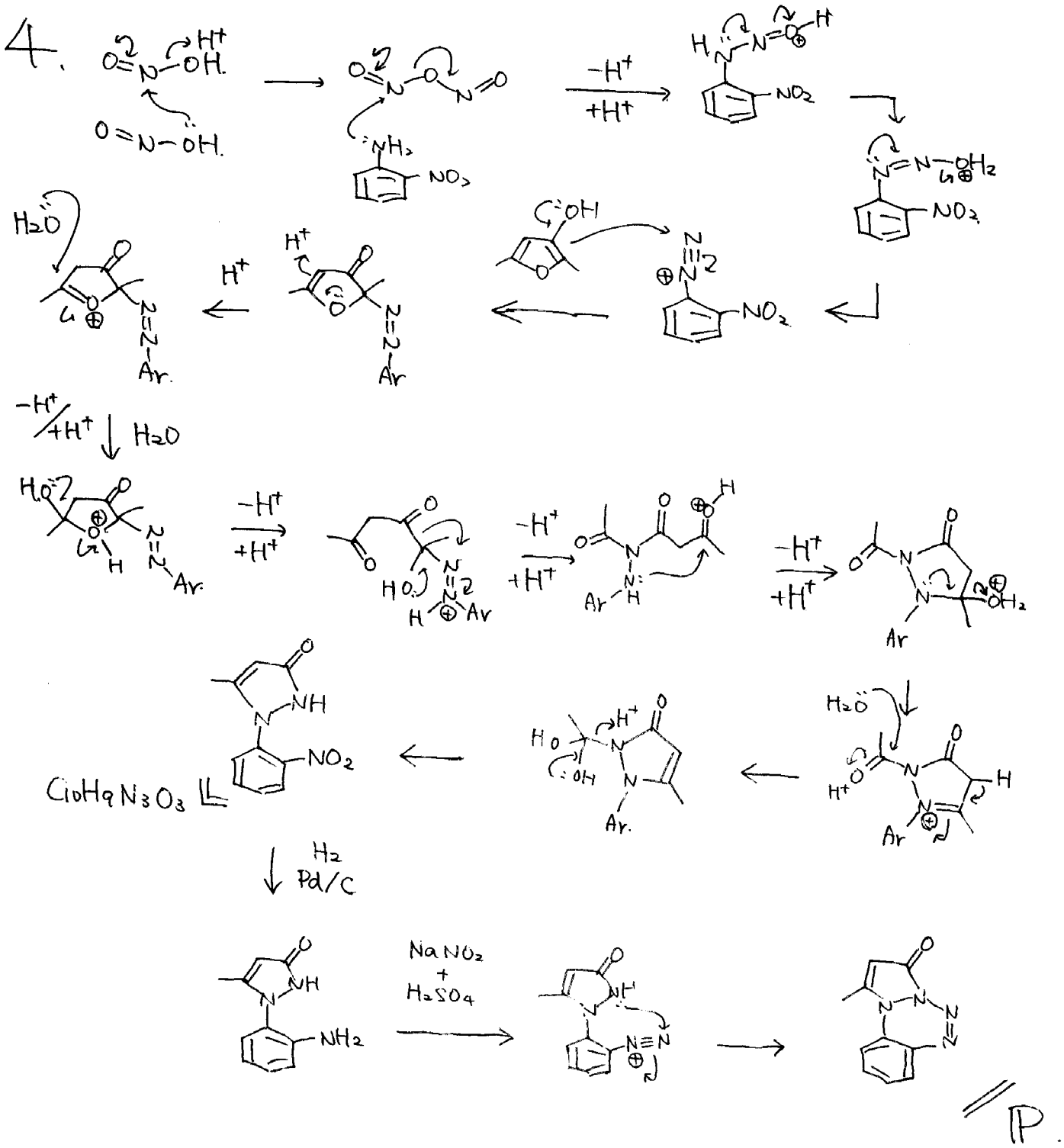
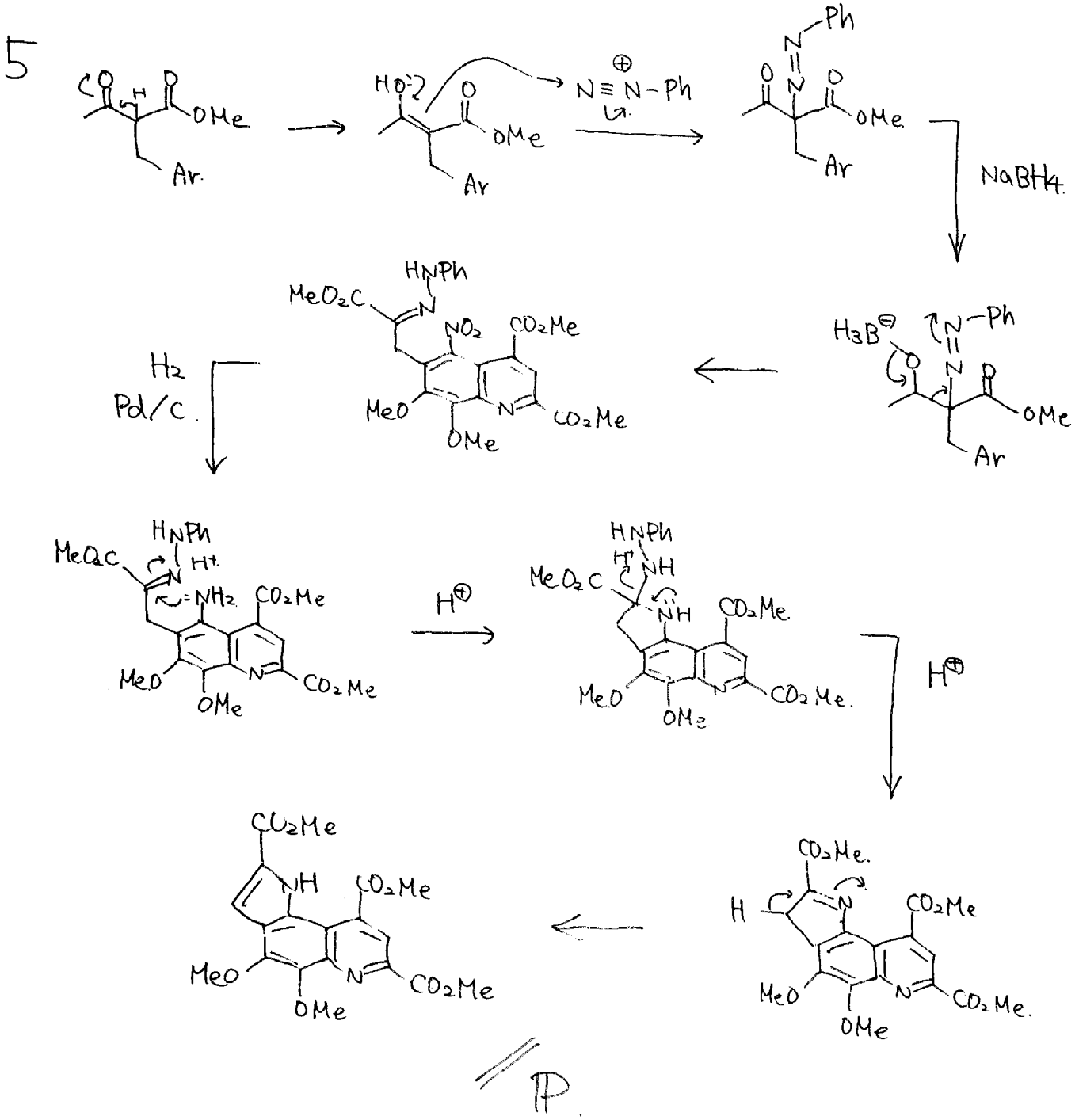
H-OEt
EtOH
H+
HCl
H2O
isomeri-
zation
H+
CH2Br2
Zn(x2)
ZnBr
ZnBr.
TiCl4
H2C=TiXn.
Takai
reaction.
hν
CO2Et
B
CO2Me
[2+2]
Me
CO2Me
isomerization.
HO
IP.

4.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