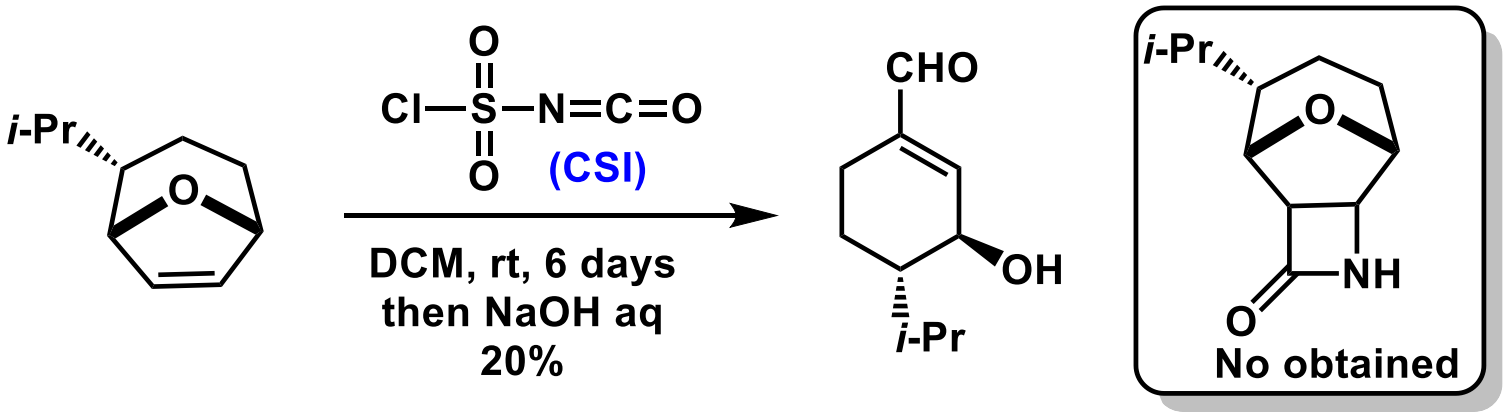
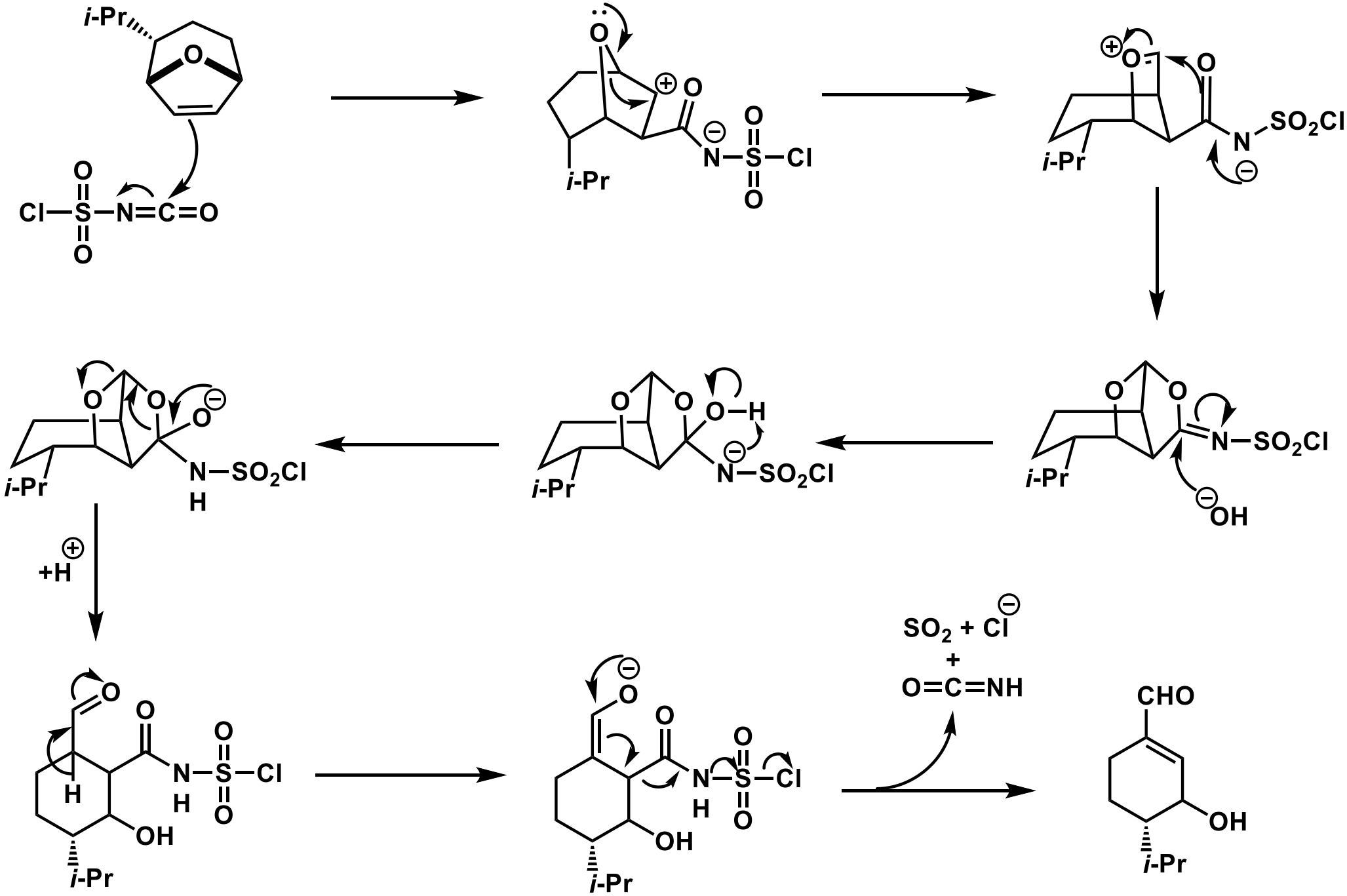
1.

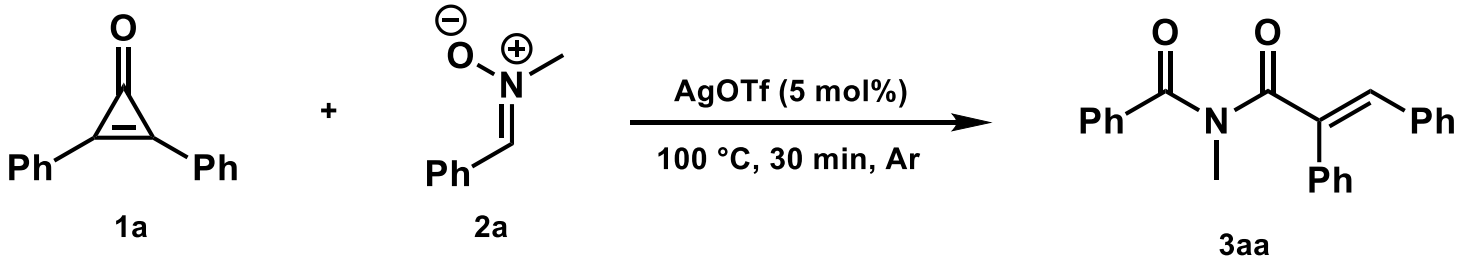


J. Chem. Soc., Perkin Trans I. **1993**, 585.

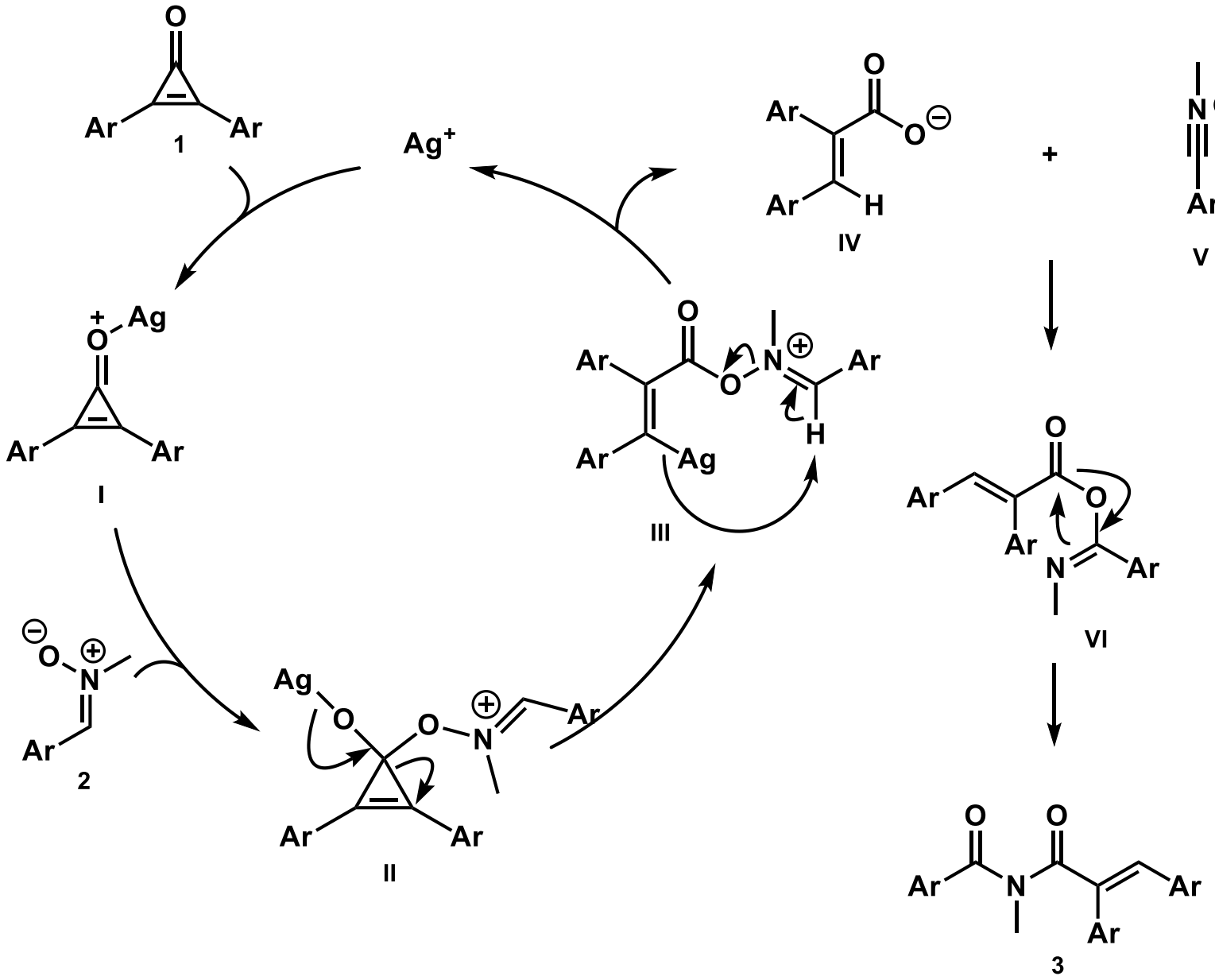


i-Pr
O
Cl—S—N=C=O
O
O
i-Pr
N—S—Cl
O
O
i-Pr
N
SO2Cl
O
O
i-Pr
N—SO2Cl
OH
O
O
O—H
i-Pr
N—SO2Cl
O
O
O
i-Pr
N—SO2Cl
H
+H
O
O
H
N—S—Cl
H
O
OH
i-Pr
O
O
N—S—Cl
H
O
OH
i-Pr
SO2 + Cl
+
O=C=NH
CHO
OH
i-Pr

2.

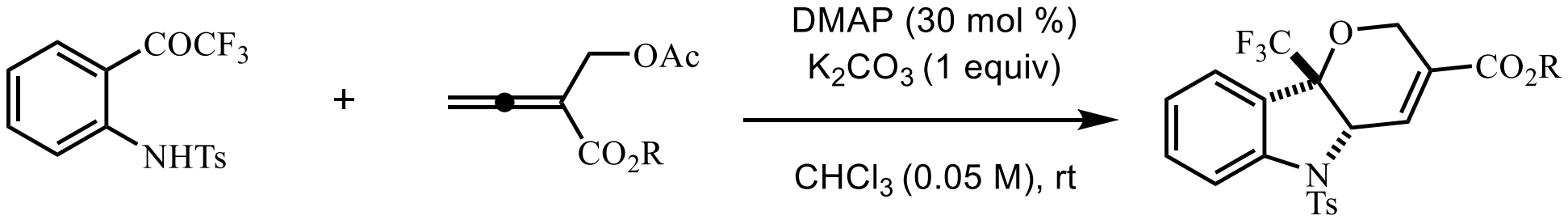


DOI: org/10.1021/acs.orglett.0c02099.



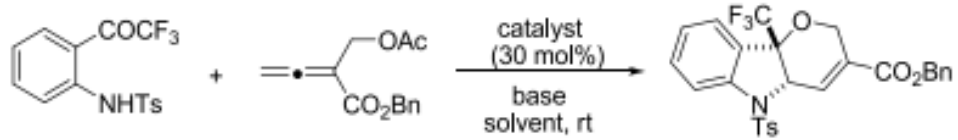
Ag+
1
I
2
II
III
IV
V
VI
3

3.



DOI：10.1021/acs.orglett.0c02164.

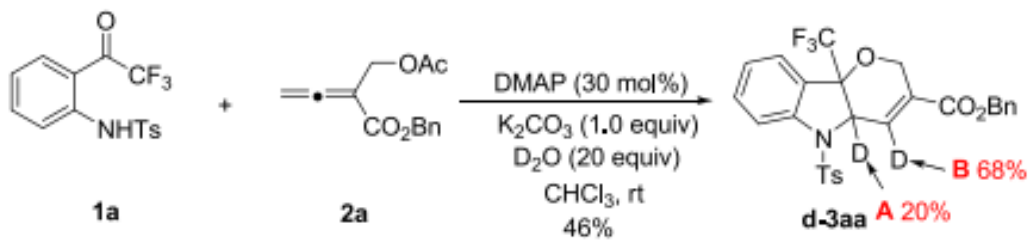
Table 1. Optimization of the Reaction Conditions[a]



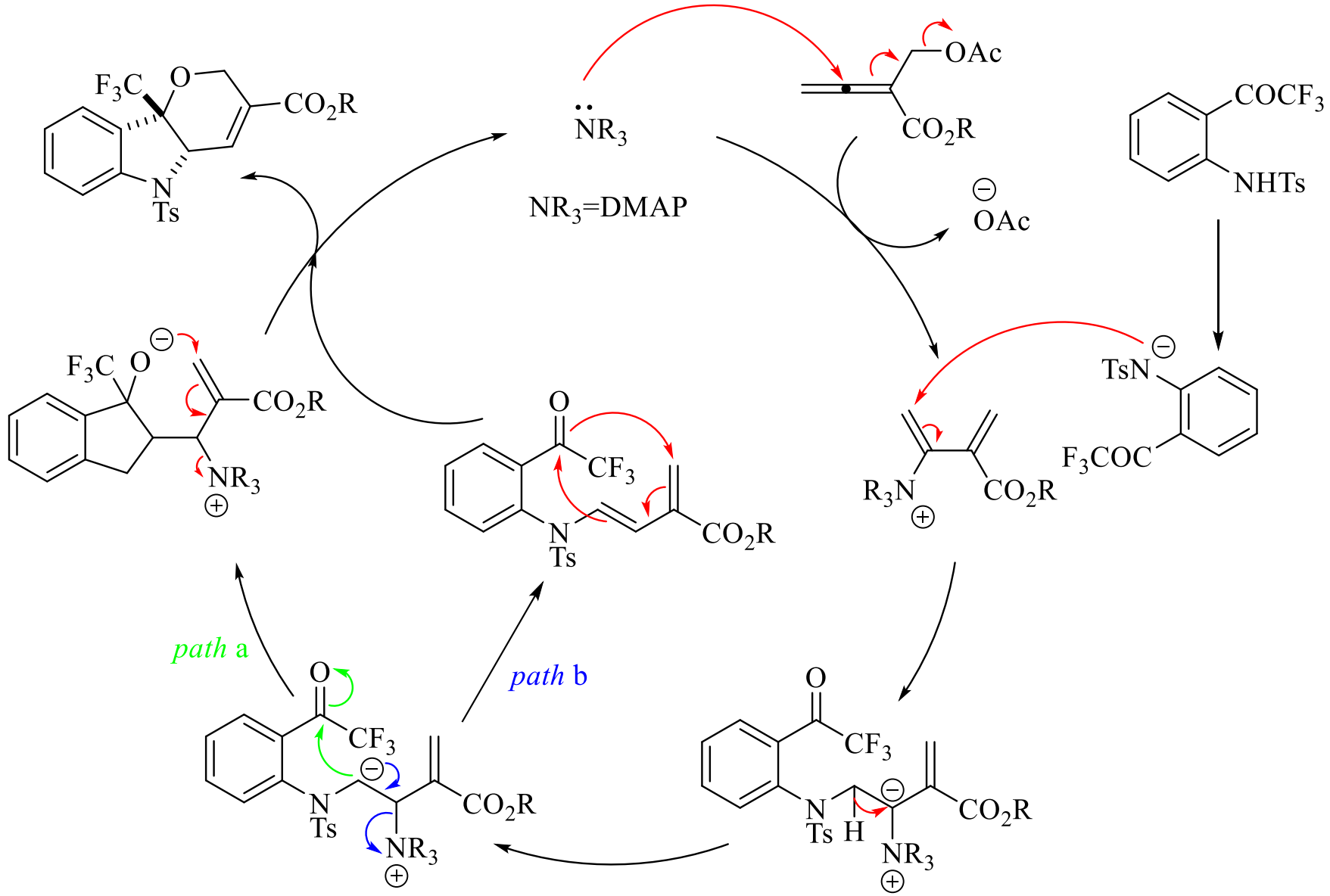
1a 2a 3aa

entry	catalyst	base (equiv)	solvent	yield (%)[b]	dr[c]
1	PPh_3	Cs_2CO_3 (1.2)	$CHCl_3$	0	–
2	DABCO	Cs_2CO_3 (1.2)	$CHCl_3$	0	–
3	DMAP	Cs_2CO_3 (1.2)	$CHCl_3$	44	>20:1
4	–	Cs_2CO_3 (1.2)	$CHCl_3$	0	–
5	DMAP	Na_2CO_3 (1.2)	$CHCl_3$	57	>20:1
6	DMAP	K_2CO_3 (1.2)	$CHCl_3$	61	>20:1
7	DMAP	Et_3N (1.2)	$CHCl_3$	48	>20:1
8	DMAP	CH_3ONa (1.2)	$CHCl_3$	trace	>20:1
9	DMAP	–	$CHCl_3$	45	>20:1

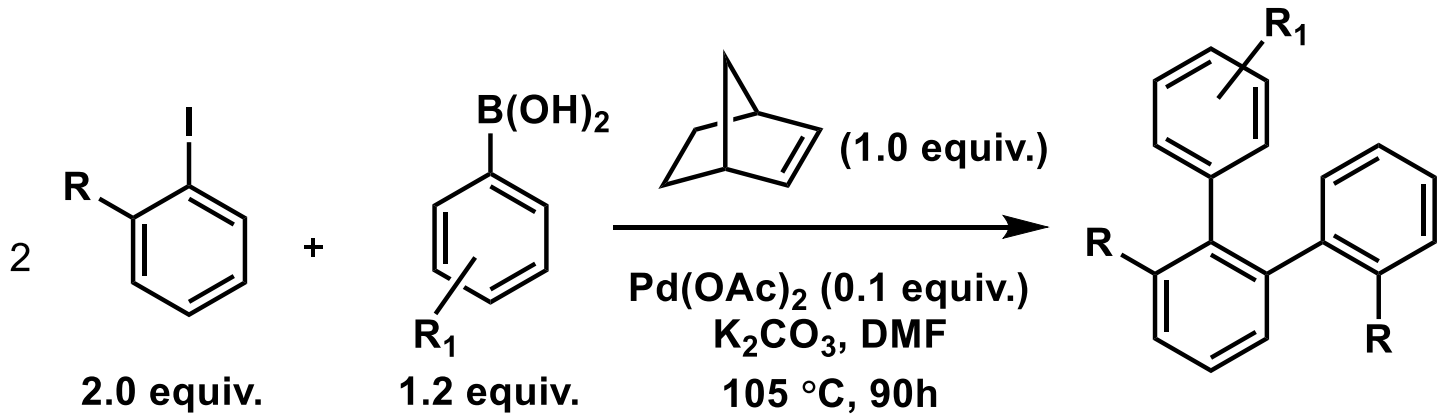
Scheme 5. Deuterium Labeling Experiment



1a 2a d-3aa


F3C
O
CO2R
N
Ts
NR3
NR3=DMAP
OAc
CO2R
OAc
COCF3
NHTs
TsN
F3COC
R3N
CO2R
F3C
O
CO2R
NR3
O
CF3
N
Ts
CO2R
path a
path b
O
CF3
N
Ts
CO2R
NR3
O
CF3
N
Ts
H
CO2R
NR3

4.



2.0 equiv.

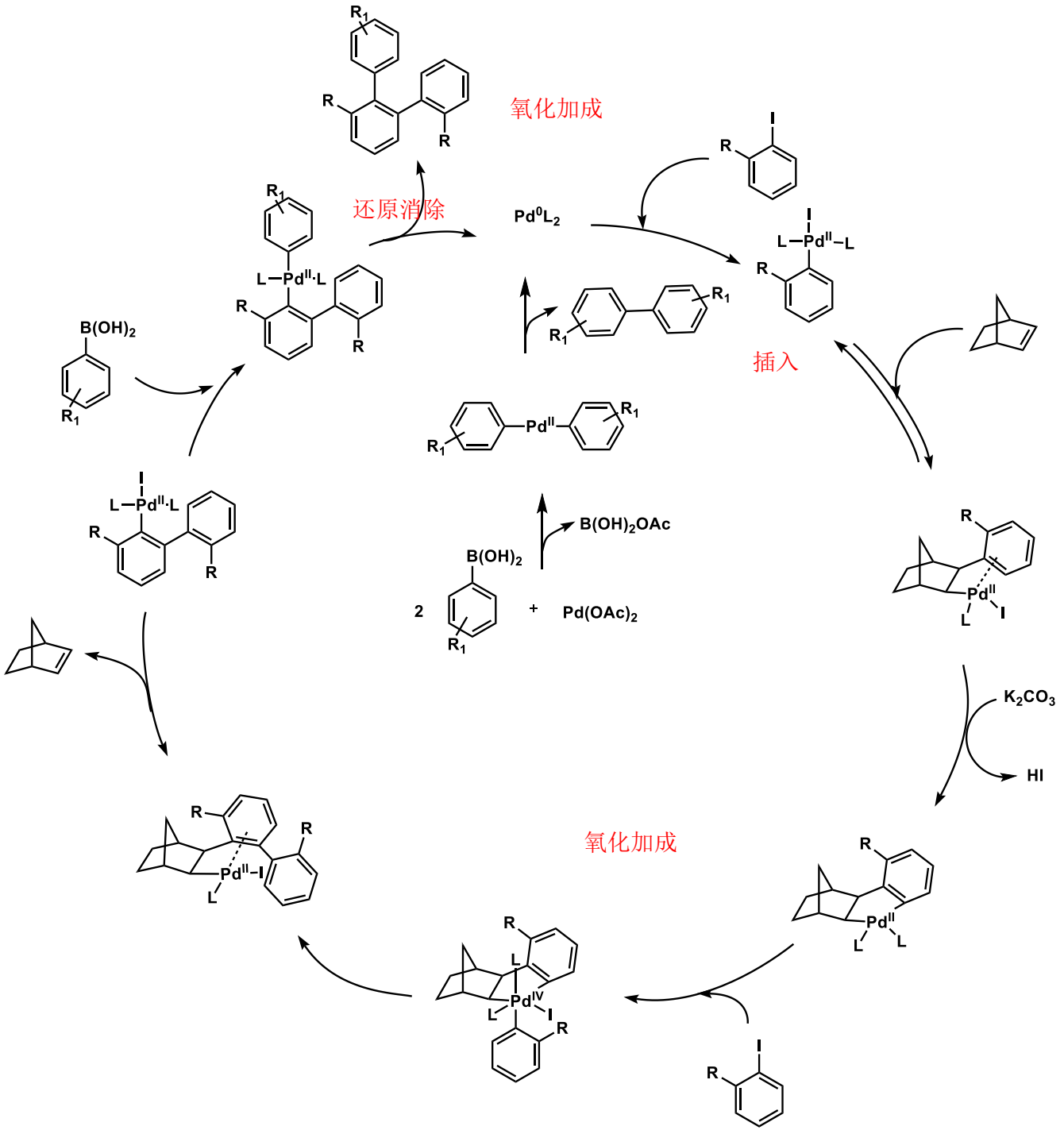
1

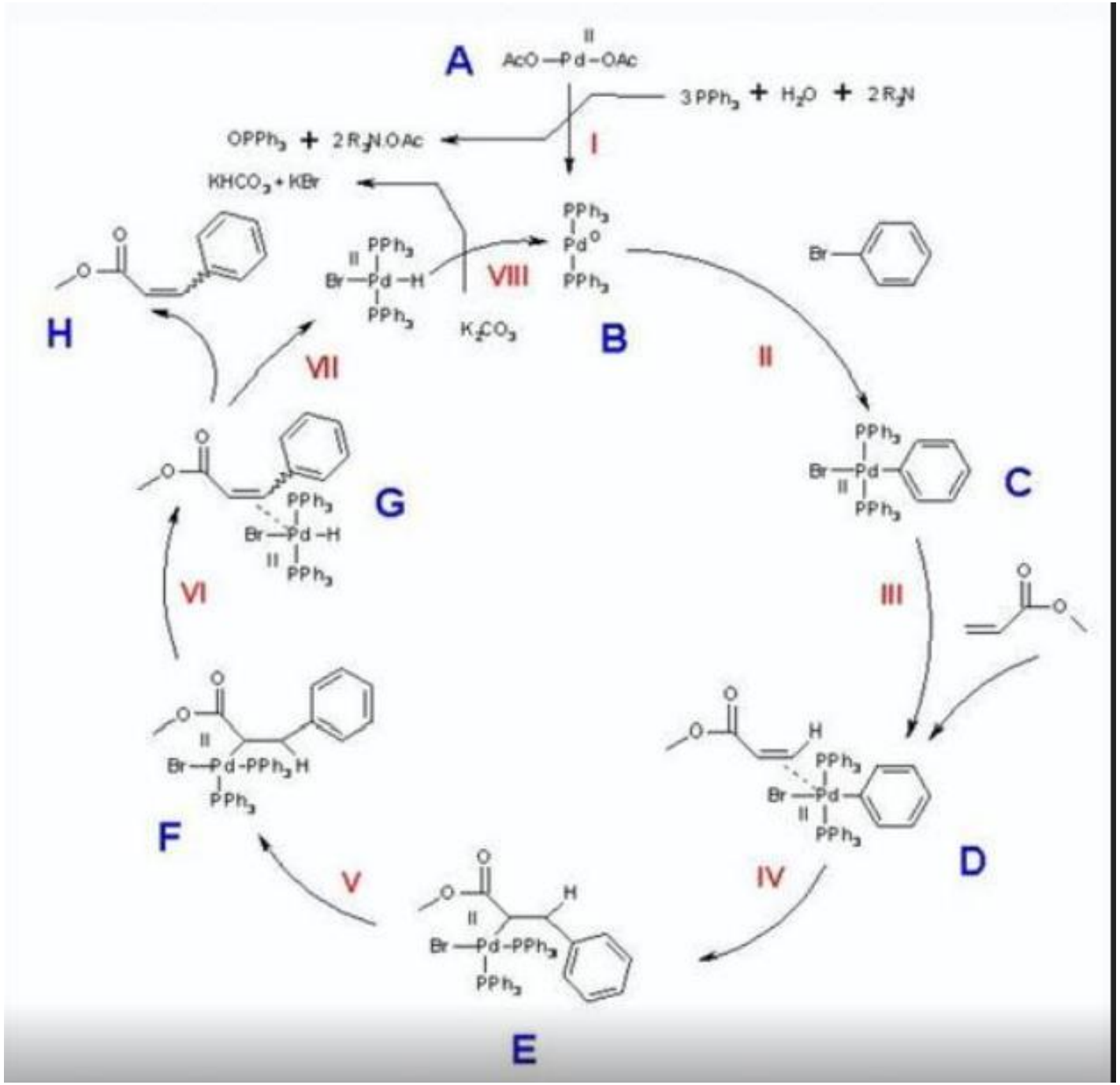
1.2 equiv.

2

49 - 93% yield

Acc. Chem. Res. **2016**, *49*, 1389−1400.


氧化加成
还原消除
插入
氧化加成
Pd^0L_2
$B(OH)_2OAc$
$Pd(OAc)_2$
K_2CO_3
HI


A
AcO—Pd—OAc
3PPh3 + H2O + 2R3N
OPPh3 + 2R3NOAc
I
KHCO3 + KBr
B
II
C
III
D
IV
E
V
F
VI
G
VII
H
VIII
K2CO3