Biomimetic Synthesesof (±)-Isopalhinine A, (±)-Palhinine A, and (±)-Palhinine D

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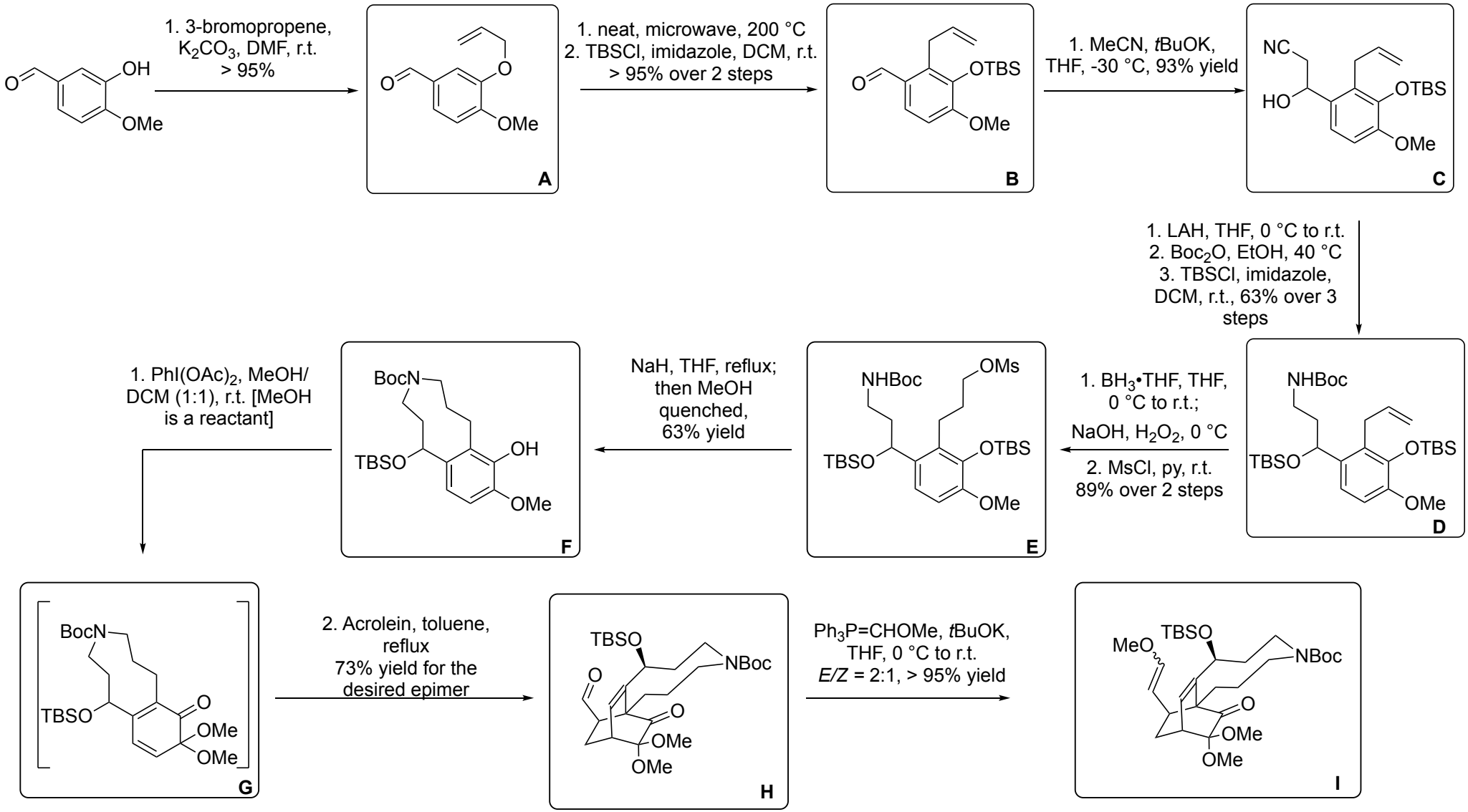
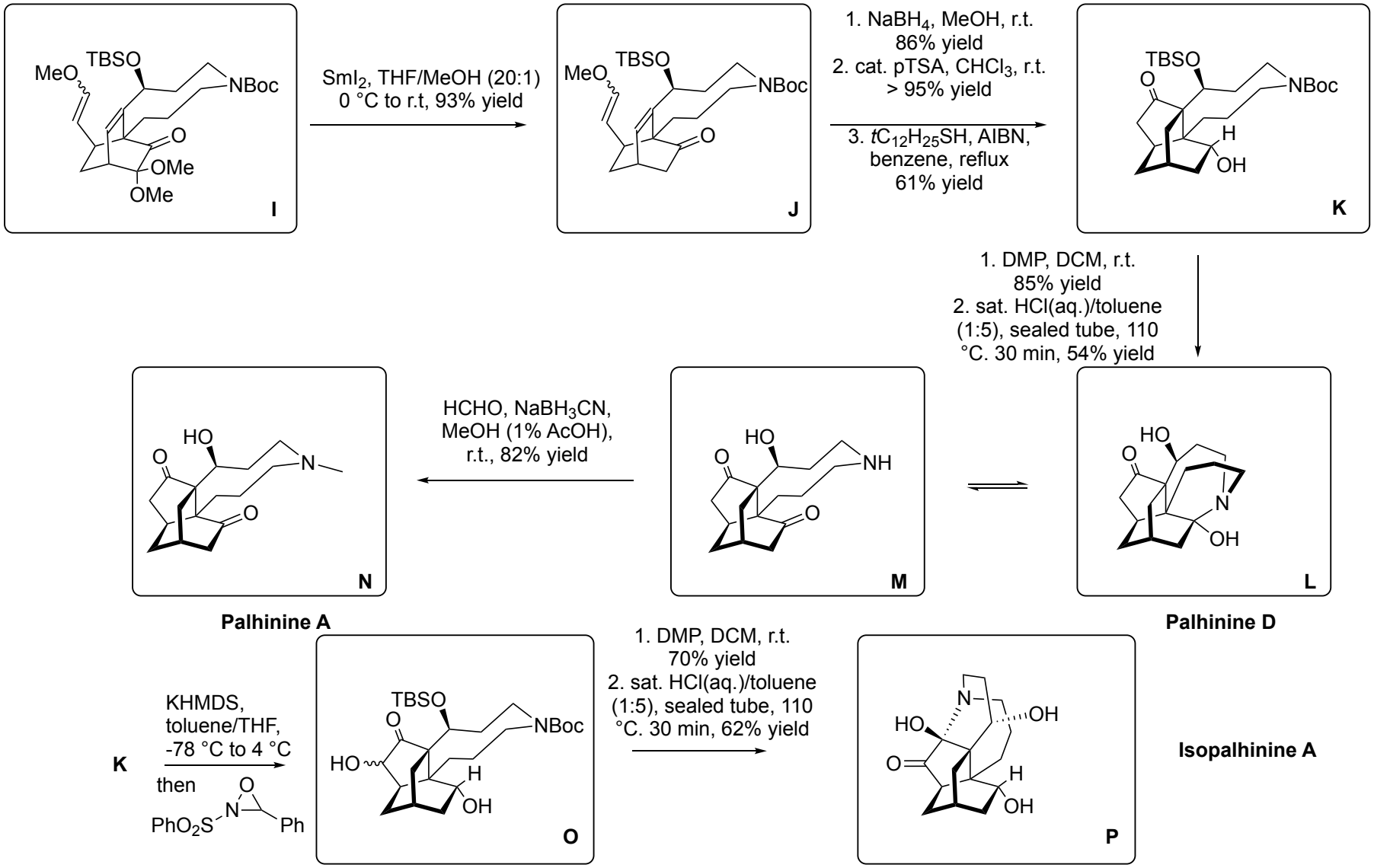
Date 29.03.21




MeO
TBSO
NBoc
O
OMe
OMe
I
SmI2, THF/MeOH (20:1)
0 °C to r.t, 93% yield
J
1. NaBH4, MeOH, r.t.
86% yield
2. cat. pTSA, CHCl3, r.t.
> 95% yield
3. tC12H25SH, AIBN,
benzene, reflux
61% yield
K
1. DMP, DCM, r.t.
85% yield
2. sat. HCl(aq.)/toluene
(1:5), sealed tube, 110
°C. 30 min, 54% yield
HO
N
NH
OH
L
M
N
HCHO, NaBH3CN,
MeOH (1% AcOH),
r.t., 82% yield
Palhinine A
Palhinine D
KHMDS,
toluene/THF,
-78 °C to 4 °C
then
PhO2S
Ph
HO
H
O
1. DMP, DCM, r.t.
70% yield
2. sat. HCl(aq.)/toluene
(1:5), sealed tube, 110
°C. 30 min, 62% yield
Isopalhinine A