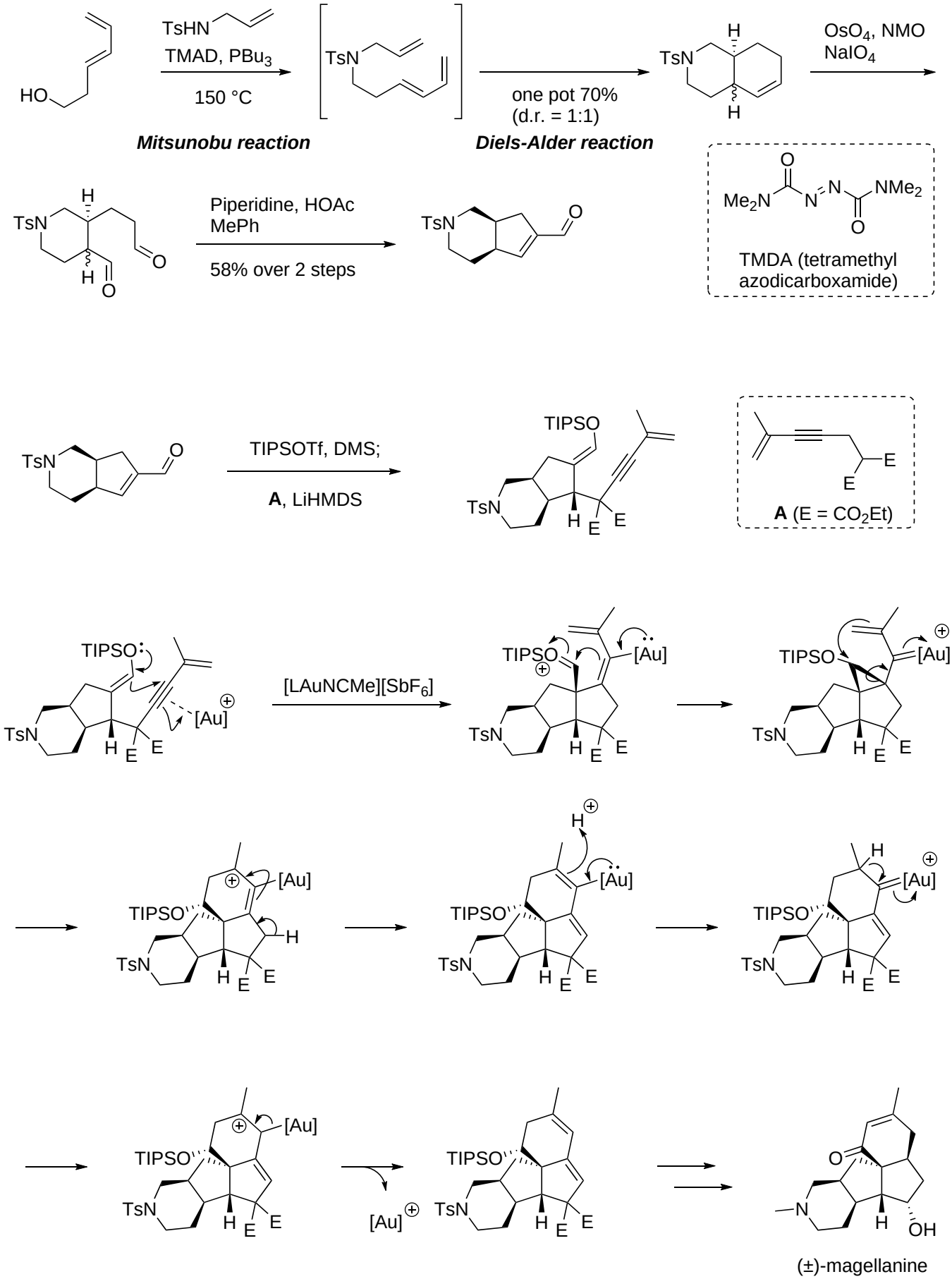
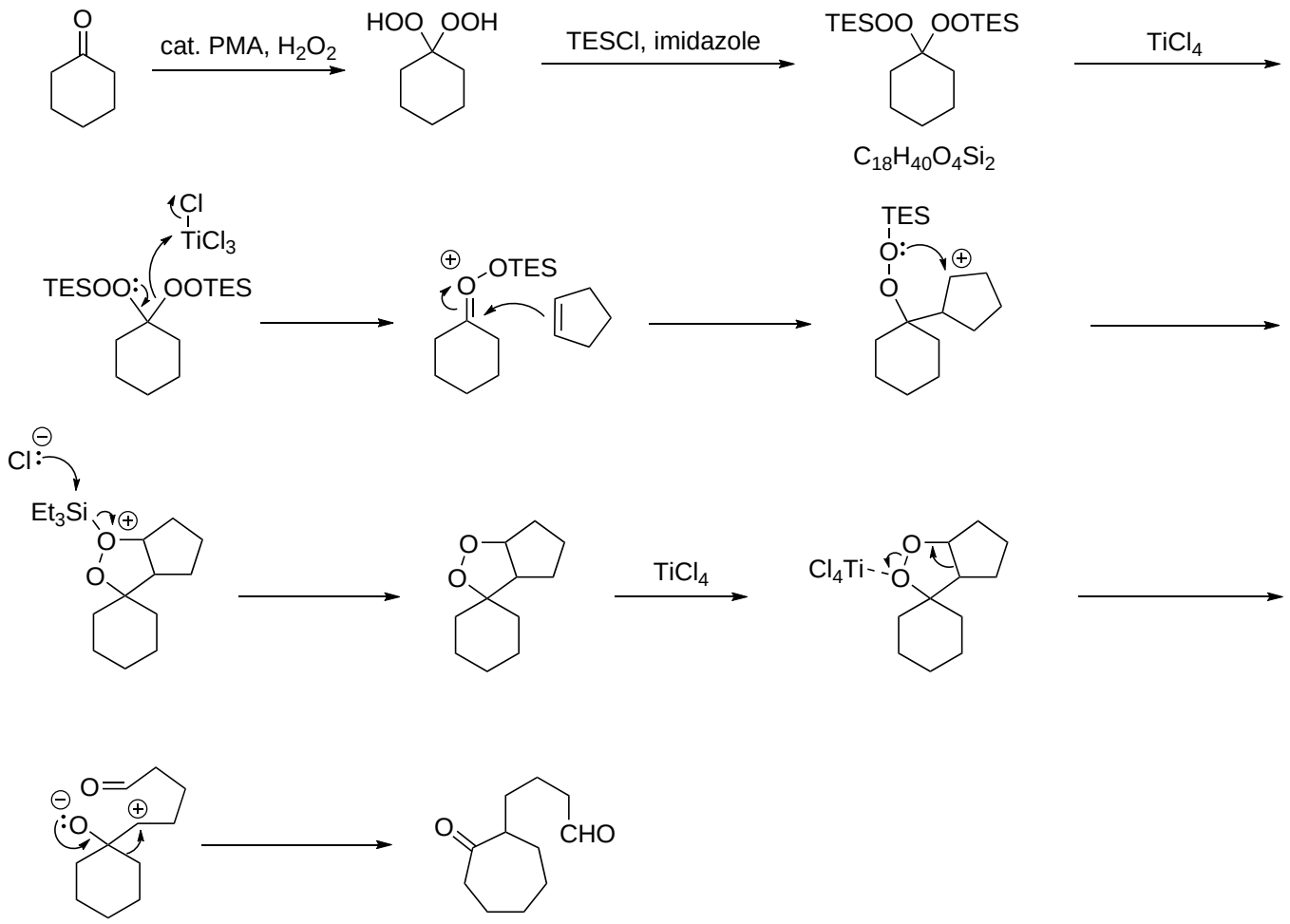

TsHN
TMAD, PBu3
150 °C
HO
TsN
Mitsunobu reaction
one pot 70%
(d.r. = 1:1)
Diels-Alder reaction
H
OsO4, NMO
NaIO4
Piperidine, HOAc
MePh
58% over 2 steps
O
Me2N
NMe2
TMDA (tetramethyl azodicarboxamide)
TIPSOTf, DMS;
A, LiHMDS
TIPSO
E
A (E = CO2Et)
[LAuNCMe][SbF6]
[Au]
(±)-magellanine
OH


O
cat. PMA, $H_2O_2$
HOO OOH
TESCl, imidazole
TESOO OOTES
$C_{18}H_{40}O_4Si_2$
$TiCl_4$
Cl
$TiCl_3$
TESOO
OOTES
OTES
TES
$Et_3Si$
$TiCl_4$
$Cl_4Ti$
CHO