# Enantioselective Total Synthesis of (-)-Maoecrystal V

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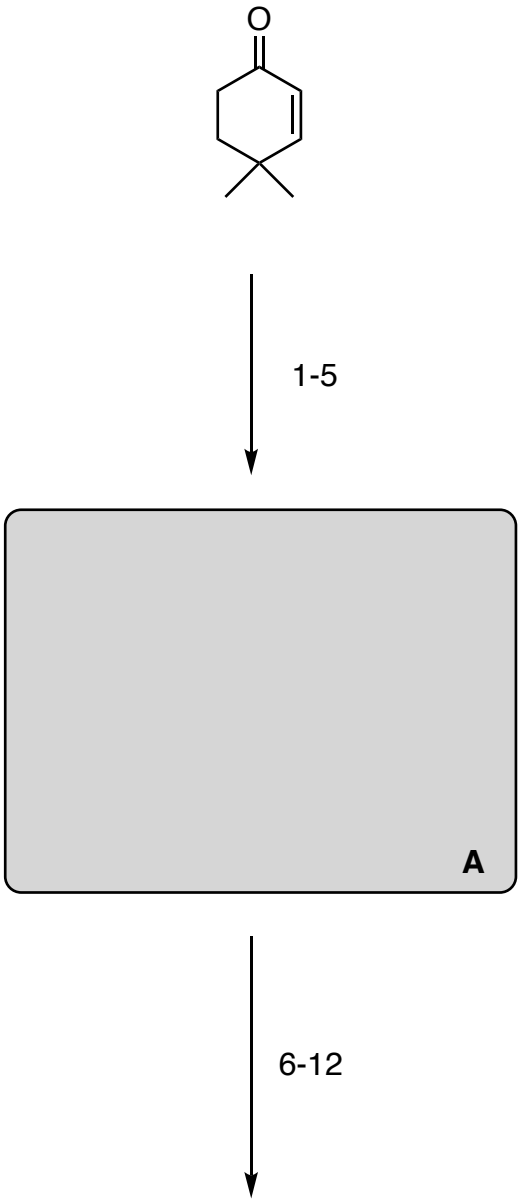
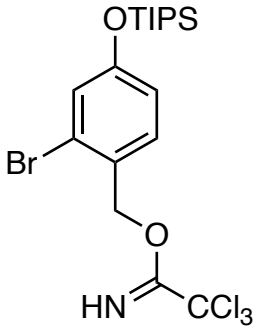
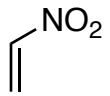



1) $CH_2O$, DMAP
2) (-)-DIPT, Ti(*i*-PrO)$_4$, *t*-BuOOH
3) TfOH, **1**
4) $NaBH_4$
5) $I_2$, $PPh_3$, imidazole




**1**



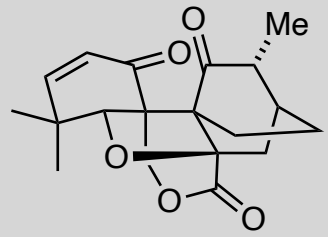

**2**

6) Zn, $NH_4Cl$
7) TESCl, imidazole, DMAP (cat.)
8) Pd($PPh_3$)$_4$, PMP, TBAF
9) PhI(OAc)$_2$
10) Stryker's catalyst, $PhSiH_3$
11) LDA, TMSCl
12) **2** *then* HCl

1) Name of starting material?
2) Name of reaction?
3) Name of reagent **1**?

5) Name of reaction?

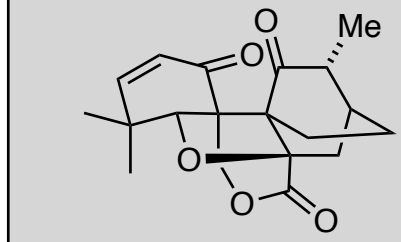
8) Name of reaction?
9) Hint: Oxidative dearomatization
10) Composition of Stryker's catalyst?
10) Hint: Single reduction




**maoecrystal V**

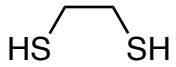
**B**

13-20




**maoecrystal V**

13) **3**, $BF_3{\cdot}OEt_2$, Zn*
14) IBX *then* HCl
15) $K_2CO_3$, paraformaldehyde
16) $NaBH_4$
17) Raney-Ni
18) NBS, $(BzO)_2$
19) $AgBH_4$, DMSO
20) $CrO_3$, AcOH




**3**