# 1 December 2015 Group problems

Please write down the mechanism and find the unknown products and/or reactants ... what else?

### Part 1:

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

3

MS 4 Å, CH<sub>2</sub>Cl<sub>2</sub>,  
-20°C

Toluene, 
$$\Delta$$
, 5h

Toluene,  $\Delta$ , 5h

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

3

MS 4 Å, CH<sub>2</sub>Cl<sub>2</sub>,  
-20°C

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

Teluene,  $\Delta$ , 5h

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

Teluene,  $\Delta$ , 5h

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
t-BuOOH

Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
Ti(O-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
Ti(D-i-Pr)<sub>4</sub>/(-)-D-DIPT,  
Ti(

### Part 2:

### Part 3:

## **Part 4:**