## SR2024 - POW12

Spot the reactivity pattern! What is the structure of **A**?

Provide a reasonable mechanism showing the most relevant intermediates.

TBSO 
$$Co_2(CO)_8$$
  $NMO$   $CH_2Cl_2$ , THF

TBS =  $\sqrt{Si}$ NMO =  $\sqrt{N}$   $\sqrt{O}$ 

- What is the name of this transformation?
- Illustrate its mechanism by drawing key intermediates.
- Product **B** is formed with a diastereomeric ratio of 97:3. Try you come up with a justification for this selectivity?

*Note*: NMO is a frequently used additive for this transformation. It accelerates the reaction (by oxidizing one CO ligand to CO<sub>2</sub> helping to free a coordination site on Co, and can thus be ignored in your analysis.