CHEM 342 – Lecture 18 *14/04/2015*

Notes: Clean up lockers by MONDAY at noon:

- Empty Vials into waste containers
- Rinse vials with acetone into solvent waste
- Remove labels ONLY if they come off easily
- Put vials into boxes in hood
-

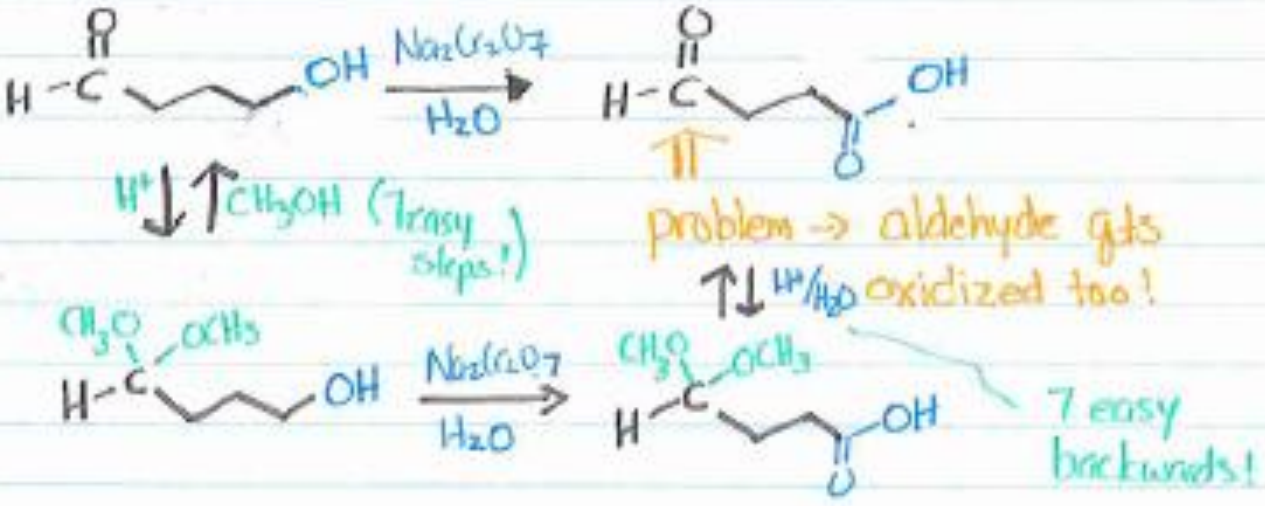
Group Projects!

Protecting Groups (aka protective groups)

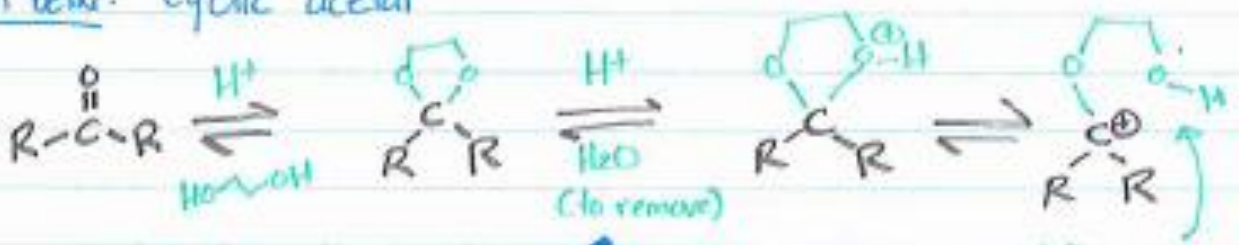
- sometimes need to do reaction on one group in presence of another group that would also react, or will interfere in reaction

- need to protect that other group first
  - ↳ introduce group that is easily added in high yielding reaction, then easily removed when no longer needed.

e.g.



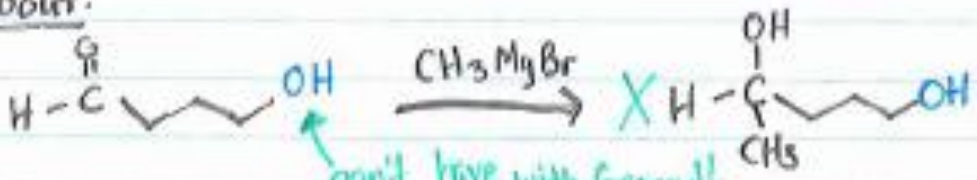
Even better: cyclic acetal



need stronger acid, Δ ∴ harder to remove

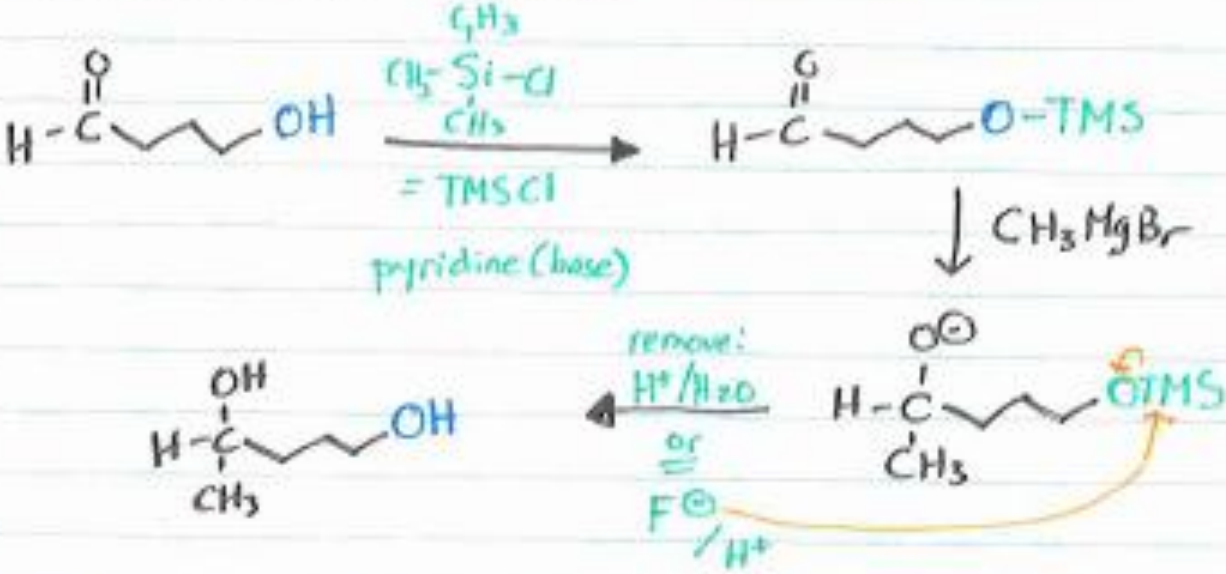
still attached so comes back (intramolecular!)

How about:



can't have with Grignard!

To protect OH - silanes



- Bulkier silanes harder to remove
  e.g. Et_3SiCl, $t\text{-}BuMe_2SiCl$

Greene's Protective groups in Organic Synthesis
→ handout for more examples