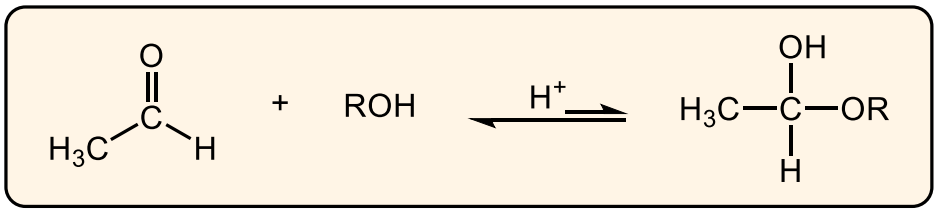
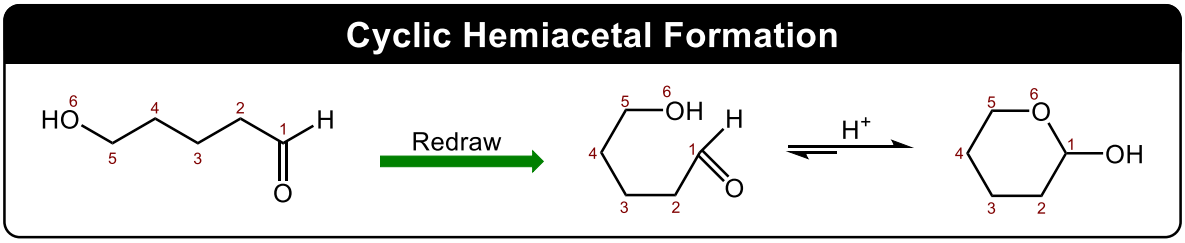
CONCEPT: CYCLIC HEMIACETALS

- **Recall:** An aldehyde or a ketone reacts with an alcohol to form a hemiacetal.
  - □ Acyclic hemiacetals are _____ and convert back to their reactants.

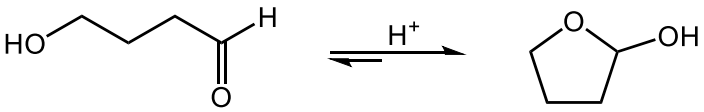


- Cyclic hemiacetals with ____ or ___-membered rings are stable.
  - □ Cyclic hemiacetals are produced in intramolecular reactions.
  - □ **Intramolecular Reaction:** a reaction that takes place *within* a single molecule.



EXAMPLE: Highlight the hemiacetal functional group in the following molecules.

PRACTICE: Does the following cyclization reaction show the correct product?



a) Yes

b) No