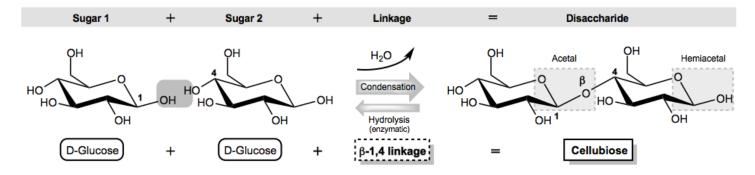
## **CONCEPT: CONDENSATION INTO DISACCHARIDES**

Two monosaccharides bound by an O-glycosidic linkage ( $\alpha$  or  $\beta$ )

- Two alcohols react in a *condensation* mechanism to release water and form an \_\_\_\_\_ linkage
- Will not *mutorotate*, unless hydrolyzed



## Important Disaccharides:

• FUN FACT: Humans can't digest carbohydrates with O-(β-glycosidic) linkages, with *one* important exception

PRACTICE: Identify the following disaccharides as reducing sugars (RS) or non-reducing sugars (NS)

**PRACTICE**: Draw a theoretical acid-catalyzed Fischer Glycosidation mechanism for the condensation of D-Glucose into cellubiose. (Note: This reaction would lead to very poor yields of cellubiose- can you hypothesize why?)