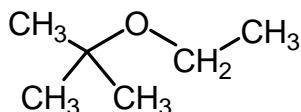


Grade 10 of 10 points

Points

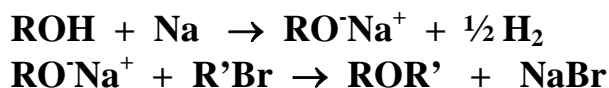
1. (a). Give both the **common name** and the **IUPAC** name for the following ether.  
(2) **1 pt each. -0.5 pts if groups not in alphabetical order.**



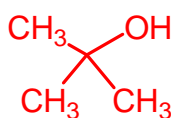
Common Name t-butyl ethyl ether

IUPAC Name 2-ethoxy-2-methylpropane

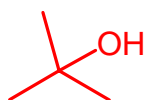
- (2) (b) This ether can be synthesized by the Williamson reaction according to the following scheme: **1 pt each structure**



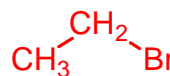
where **ROR'** represents the ether. Draw the structure of **ROH** and **R'Br**:



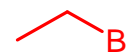
or



**ROH**



or



**R'Br**

- (3) 2. Fill in the blanks in the following statement with the letter corresponding to the items in the key list at the right.

**0.5 pts each blank**

The **Tollens test** is a test for A (A,B,C, or D?) which are K (K or L?) to D (A,B,C, or D?) in the test.

The reagent used in the test is G (E,F,G,H,I, or J?) which is L (K or L?) to H (E,F,G,H,I, or J?)

in the reaction.

- A. aldehydes
- B. ketones
- C. alcohols
- D. carboxylic acids
- E.  $\text{Cr}_2\text{O}_7^{2-}$
- F.  $\text{Cr}^{3+}$
- G.  $\text{Ag}^+$
- H.  $\text{Ag}(s)$
- I.  $\text{Cu}^{2+}$
- J.  $\text{Cu}_2\text{O}(s)$
- K. oxidized
- L. reduced

- (3) 3. Indicate the products of the following acid-base reactions. If the reaction does not proceed predominantly to the right, enter **No Reaction** as the product.

**1 pt each**

