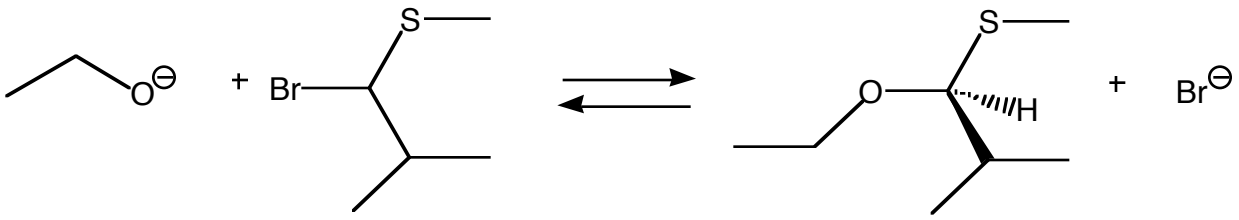
Problem 52, Chemistry 301X - 2006

For the reaction:



A **B** **C** **D**

i. What must be the stereochemistry of **B** if the reaction proceeds by an S_N2 reaction? Draw a 3D picture of **B**.

ii. Draw an energy diagram for this reaction. Draw a 3-D picture of the transition state for the S_N2 reaction.

iii. Is **C** *R* or *S*? Is **B** *R* or *S*? Is this odd? Explain.