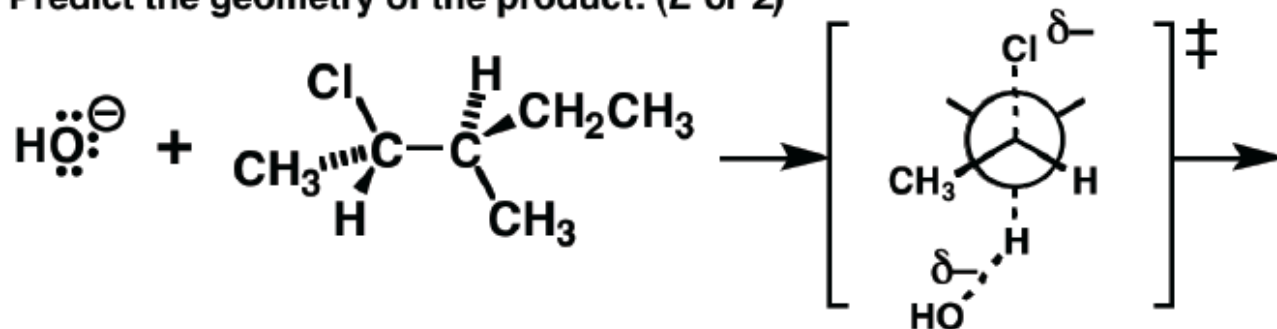


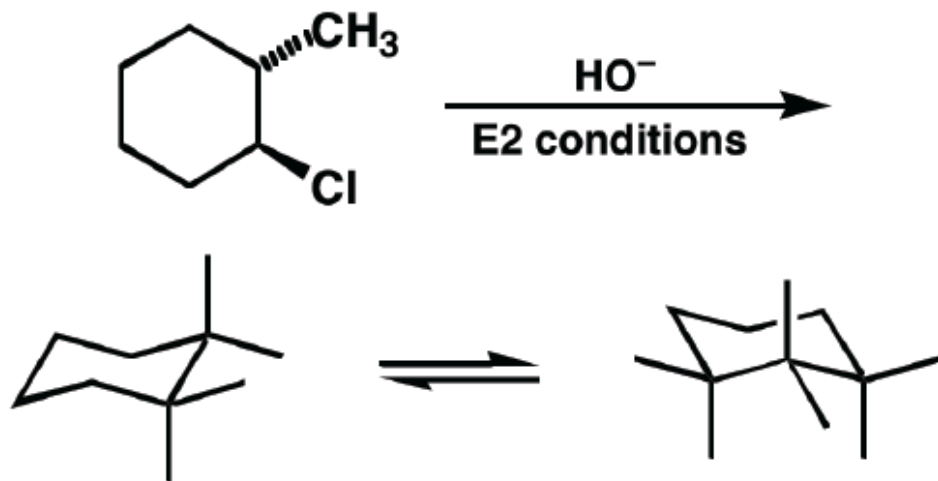
Discussion Problems

E2 Stereochemistry

Predict the geometry of the product: (*E* or *Z*)



E2 Eliminations from Cyclic Compounds



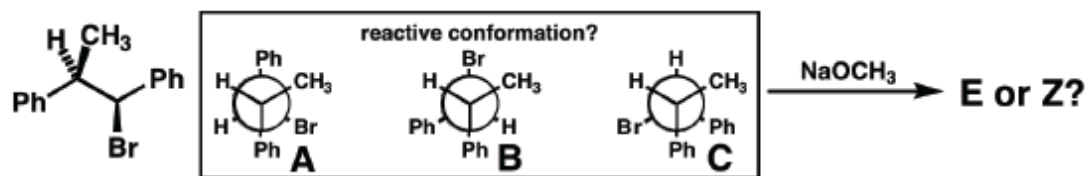
<http://wps.prenhall.com/wps/media/objects/725/742549/0042f.html>

<http://wps.prenhall.com/wps/media/objects/725/742549/0043f.html>

Discussion Problems

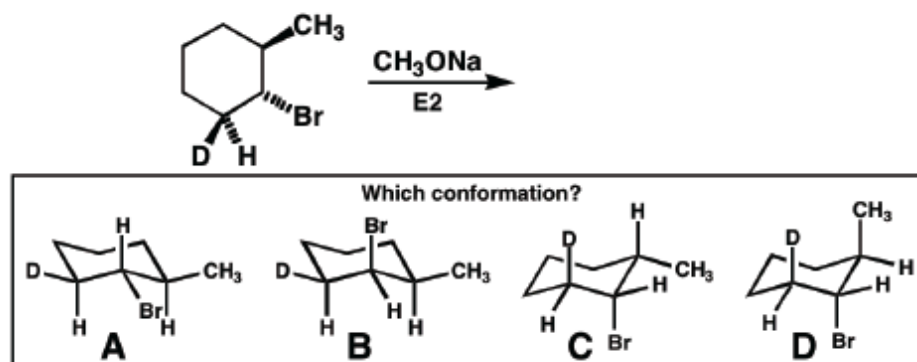
(1) Indicate the reactive conformation and the product's geometry for this E2 elimination.

- (a) A, E
- (b) A, Z
- (c) B, E
- (d) B, Z
- (e) C, E
- (f) C, Z



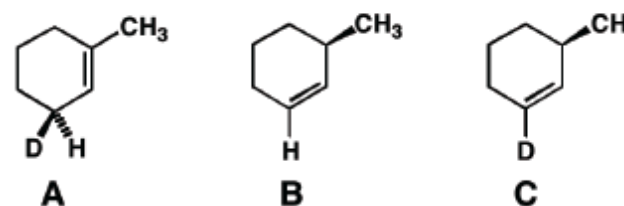
(2) Through which conformation does the E2 elimination reaction proceed?

- (a) A
- (b) B
- (c) C
- (d) D



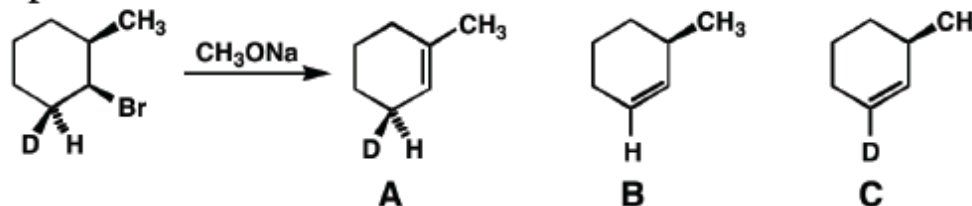
(3) Which of these is the major product of question (2).

- (a) A
- (b) B
- (c) C
- (d) none



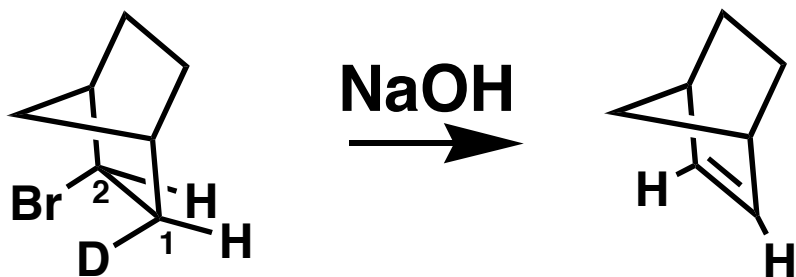
(4) What is the major product?

- (a) A
- (b) B
- (c) C
- (d) none



Discussion Problem

Although the antiperiplanar geometry is preferred for [E2] elimination pathway, there are exceptions. The deuterated bromo compound shown here reacts with strong base to yield an undeuterated alkene. Clearly this [E2] elimination could not have happened through the usual antiperiplanar geometry. Draw a Newman projection looking down the C1-C2 bond. Explain why this molecule is still capable of undergoing an [E2] elimination.



One of the dichloro isomers shown at the right reacts 100 times faster than the other one. Circle the more reactive isomer. Explain. Be prepare to a molecular model to explain your reasoning.

