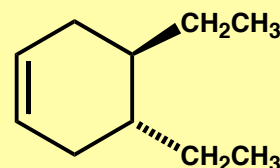
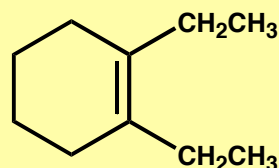
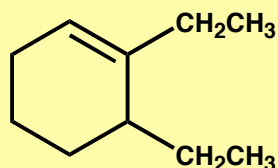
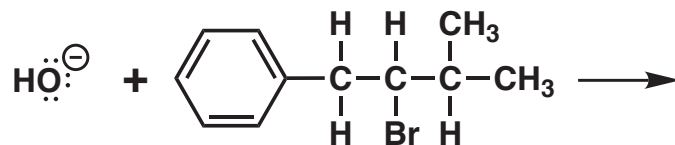
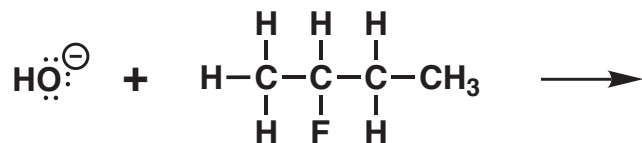
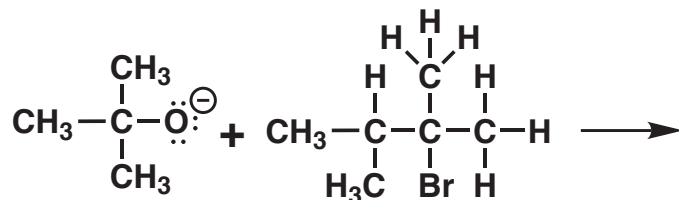
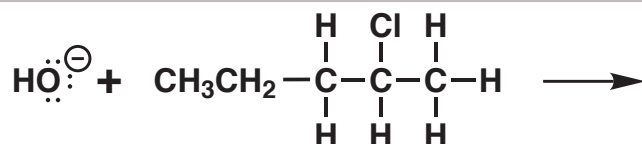


# Discussion Problems

Rank these alkenes from most to least stable. Which one will have the largest heat of hydrogenation?



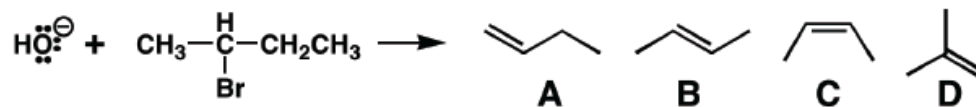
## E2 Elimination Regiochemistry



# Discussion Problems

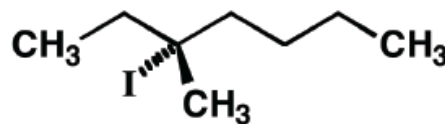
(1) What is the major product of this [E2] reaction?

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



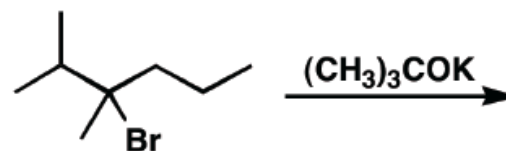
(2) How many distinct alkene products are possible when the alkyl iodide below undergoes [E2] elimination?

- (a) 1  
 (b) 2  
 (c) 3  
 (d) 4  
 (e) 5



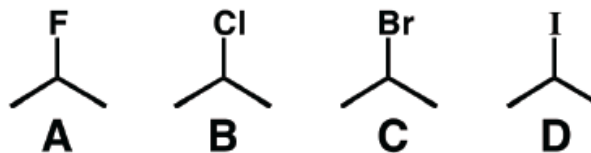
(3) What is the major product of this [E2] reaction?

- (a) 2,3-dimethyl-1-hexene  
 (b) 2,3-dimethyl-2-hexene  
 (c) 2-isopropyl-1-pentene  
 (d) (Z)-2,3-dimethyl-3-hexene  
 (e) (E)-2,3-dimethyl-3-hexene



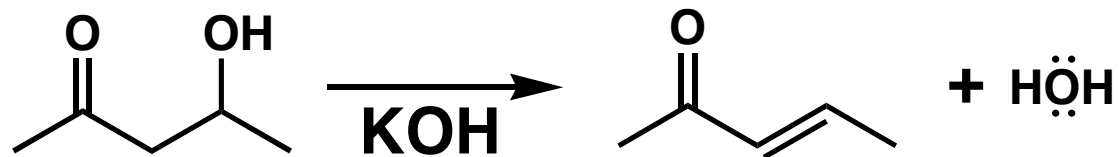
(4) Which alkyl halide undergoes the [E1] reaction at the fastest rate?

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



# Discussion Problem - The [E1cb] Pathway

In the [E1cb] mechanism, a strong base must be present, the leaving group will generally be poor, and the beta hydrogen must be acidic. The transformation below meets all these criteria. Write the mechanism for this transformation using the [E1cb] pathway.



Elimination	E2 bimolecular examples
Electrophilic aromatic substitution	E1 unimolecular
Enols and Enolates as	E1cb unimolecular conjugate base

<http://www.chemtube3d.com/Elimination%20-%20E1cb.html>