

CH0310, ORGANIC CHEMISTRY I

Professor Dennis P. Curran

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Quiz 11, Take home, due midnight *Monday*, April 6, 2009

Submit the quiz in pen, or Xerox/fax/scan your pencil copy

Hand in before/after class on Monday

Drop off at 1101 CSC (before 5 pm Monday)

Fax to 412-624-9861 (till midnight Monday)

Email to lynnec@pitt.edu (till midnight Monday, *pdf file only!*)

Alkenes

To prepare:

- read Chapter 11
- review lecture notes for Mar 27 and Apr 1
- Do problems 26, 27, 45-58 in Chapter 11

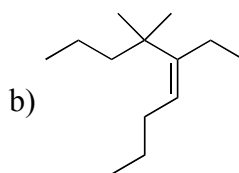
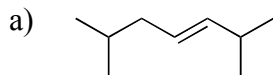
You need to be able to name and draw structures of alkenes. You need to know substitution (mono, di...), relative stability and degrees of unsaturation. You need to know how to prepare alkenes by elimination and dehydration reactions, and to incorporate these into short, multi-step syntheses. You need to know the mechanisms of elimination and dehydration reactions and their regio- and stereochemical features.

NAME

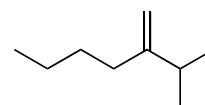
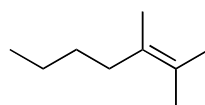
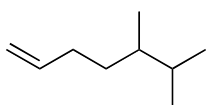
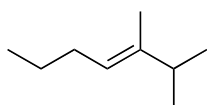
SIGNATURE

Alkenes

- 1) Provide IUPAC names for the following alkenes. Be sure to include E/Z descriptors if needed. (2 points)



- 2) List the following alkenes in order of *increasing* stability (most stable last) and state whether each is mono-, di-, tri-, or tetrasubstituted. (4 points)



- 3) Show the mechanisms for the following E2 reactions. Using your mechanisms, explain the regioselectivity of each reaction. (4 points)

