

Chapter 13: isolated, conjugated, cumulated dienes; electrophilic addition to conjugated dienes gives 1,4-addition and 1,2-addition; evaluate kinetic vs thermodynamic products; Diels-Alder reaction; concerted mechanism; addition to the dienophile and to the diene is syn; s-cis conformation of the diene is necessary; draw stereochemically correct products, the exo product is thermodynamically favored; the endo product is kinetically favored

[We covered 13.4, 13.6, 13.7, 13.8, 13.10, 13.11 in Ch 13.
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The final exam will contain the following types of questions:

a question or two from Ch 13 (~10%)

4 or 5 mechanisms, where both the reactant and product structures are provided (~25%)

resonance (~10%)

a combined ^{13}C NMR, ^1H NMR spectroscopy problem like the problem on your Exam 1 (~10%)

acidity/basicity (~5 to 10%)

synthesis, including a question where the allowed starting materials are specified (~25%)

other stuff, including major topics like aromaticity (~10%)

There will not be any questions where you are simply given reactants/reagents and then must predict the products. The goal is for the exam to be less than 6 pages in length (less than double the length of a midterm exam), although I may space out the questions to fill 6 pages. You will be given 2 hr and 20 minutes to complete the exam.

Office hours leading up to final exam (Friday, May 18, 11a-1:20p; 200 points):

Mon 5/14 12:15-1:15p

Wed 5/16 1:30-3p

Thurs 5/17 10a-noon