



CHEM 251 Organic Chemistry I

Ninth Week
November 2 – 6, 2009

Assignments

- ☐ You should have completed reading chapters 1-8. If you have not already done so, please read these chapters!
- ☐ **Problem set #13 due Tuesday (10/27/09)**
- ☐ The third mid-term exam will be held **Thursday, November 5, 2009**. The exam will focus on material from Chapters 6 and 7, but you will still be responsible for everything covered this quarter. *This includes laboratory experiments and study questions!*

Reminders

- ☐ The keys for all problem sets and for Exam I & II have been posted on the course website. Looking over the keys is highly recommended.
- ☐ The CHEM 251L laboratory experiment will be **Dehydration of Isoborneol** (p. 77). The experiment will be performed in pairs, with a formal report.
- ☐ Review session: 5:15 PM Tuesday, 11/3/09 in O-203

“Tertiary alkyl bromides can undergo dehydrobromination unimolecularly as well as bimolecularly, since the inductive effect of three alkyl groups facilitates formation of the requisite carbocation. The bimolecular reaction involving hydroxide ion is favored by high alkalinity of the medium; in the absence of strong base, the E2 reaction is suppressed, and E1 elimination occurs at a slower pace.” – Fieser & Fieser, *Organic Chemistry*, 1956.

“An early observation that is explainable in terms of a two-step but not a one-step mechanism [for addition of halogen] is that bromination of ethylene in the presence of sodium chloride leads to the formation, in addition to ethylene dibromide, of bromoethyl chloride (Francis, 1925). The reaction evidently affords an intermediate cation, which is then capable of combination with any available anion. . . . A similar interpretation can be made of the reaction of an alkene with bromine in the presence of water or of an alcohol with formation of a bromohydrin or a bromoether. [based on the] results of a kinetic study of the bromination of stilbene in methanol (Bartlett and Tarbell, 1936), which results in formation of the methoxybromide in 99% yield.” – Fieser & Fieser, *Organic Chemistry*, 1956.