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Positive Chemistry Experiences

Video Practice for Topic II.6-9:

Elimination Reactions of Alkyl Halides

Recommended reading for this topic:

Lesson II.6-9 in *Organic Chemistry 1 Primer 2018*,
by Rhett C. Smith, Andrew G. Tennyson and Tania Houjeiry

Additional Videos and how to match videos to your course text book:

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The E1 (Unimolecular Elimination) Mechanism

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An E1 reaction occurs when 2-bromo-2-methylpropane is heated in water. Provide a reasonable arrow-pushing mechanism for this reaction and label the final major neutral organic product that one would isolate after reaction.

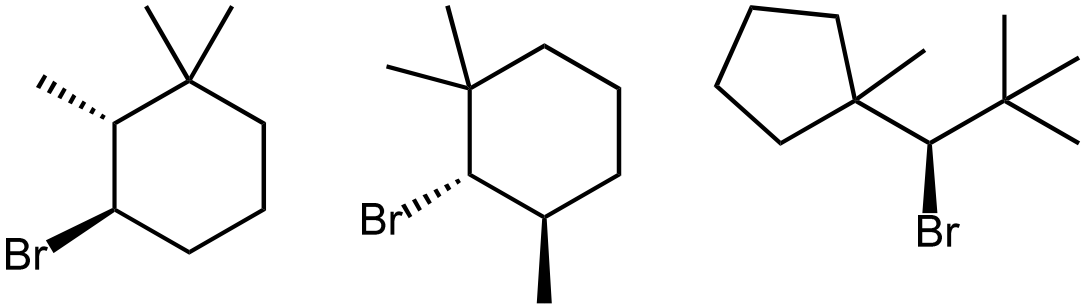
The E1 (Unimolecular Elimination) Mechanism

An E1 reaction occurs when 3-bromo-2,2-dimethylbutane is heated in water. Provide a reasonable arrow-pushing mechanism for this reaction and label the final neutral major organic product that one would isolate after reaction.

The E2 (Bimolecular Elimination) Mechanism

An E2 reaction occurs when 2-bromo-3-methylbutane is heated with $NaOC_2H_5$. Provide a reasonable arrow-pushing mechanism for this reaction and label the final neutral major organic product that one would isolate after reaction.

Which of these potential E2 substrates lack the antiperiplanar leaving group/proton pair that is required to be able to do an E2 reaction?



Factors Leading to Non-Zaitsev Products in E2

There are two possible E2 products for each substrate below. For each pair of reactions, determine which will produce more of the non-Zaitsev (Hofmann_ product and explain your reasoning.