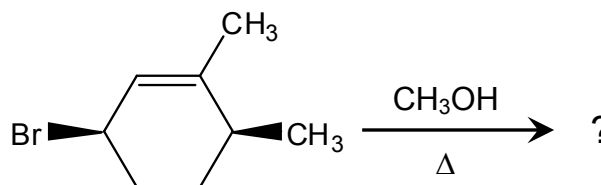


Chemistry 2302

Workshop 1 Structure Determination by UV/Vis Spectroscopy

The molecule drawn on the right reacts with methanol and heat to eliminate HBr, providing three E1 products. All three products are dienes.



1. What are the structures of the three products, and how are they formed? Show the mechanism for each elimination using “electron pushing”.
2. After separating the three products by column chromatography, one way to determine which structure went with which product would be to analyze the materials by UV/vis spectrophotometry. Of the three products you drew, which would you expect to absorb at the longest wavelength (have the highest λ_{\max})? Which would absorb at the shortest λ_{\max} ? (You might want to look at your lecture notes for this one.)

