Organic Chemistry II CHM 3150 Dr. Laurie S. Starkey, Cal Poly Pomona Chapter 16, Conjugated Dienes, Part 1 – Practice Problems

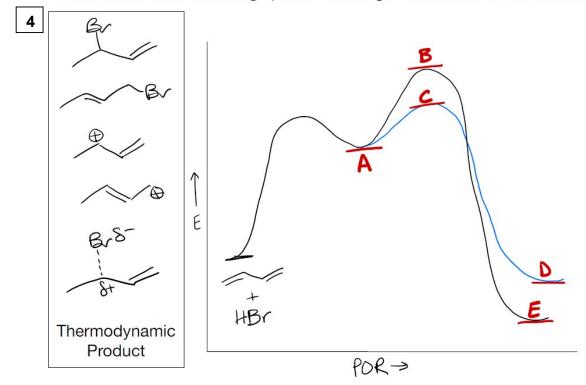


Arrange the following compounds in order of INCREASINGLY NEGATIVE heats of hydrogenation (from smallest ΔH to largest).

Which of the following is an intermediate or likely step in the mechanism for the given reaction?

3 Predict the major 1,4-addition product expected.

Locate each of the following species on the given reaction coordinate diagram.



Identify the kinetic and thermodynamic products, and determine which would be favored in hot temperatures and which is favored in cold temperatures. Explain.

$$\frac{\text{HBr}}{\text{(1 equiv.)}} \qquad \frac{\text{Br}}{\mathbf{X}} \qquad + \qquad \frac{\text{Br}}{\mathbf{Y}}$$