Welcome everyone!

Today's Experiment α -Pinene Oxide

We will begin at 12:10pm.

Please add your group number to the beginning of your name.

Welcome to the final laboratory experiment!

Use this time to ask questions and chat!

Product Formation Mechanism CHEM 12A Section 311 Laboratory November 11th, 2020 H_3O^+ H_2SO_4 α -pinene oxide sulfuric acid generates the the protonated epoxide oxygen protonated hydronium ion which is now positively charged and can protonate the epoxide to therefore a good leaving group give the oxonium ion to form the 3° carbocation HO HO,, HO_{m_i} H_3O^+ OH H_2O H_2O solid product in acid, water is your best the acid catalyst is regenerated; in acid, water is your strongest nucleophile; as such, water will base; water deprotonates the rapidly add to the carbocation hydronium ion to give the product formed in the rearrangement

Product Degradation Mechanism

CHEM 12A Section 311 Laboratory November 11th, 2020

the electrons in the bridging

bond move to the cation,

forming a π bond, which leaves

a cation on the gem-dimethyl C

in degradation, the bridging

bond shifts to the carbocation

rather than eliminating, forming

an unfavorable 2° carbocation

