

Chapter 6 Reactions Of Alkenes Addition Reactions

[#alkenes](#) [#addition reactions](#) [#organic chemistry](#) [#electrophilic addition](#) [#reaction mechanisms](#)

Chapter 6 delves into the fundamental principles of alkene addition reactions, a cornerstone of organic chemistry. This section explores various reaction mechanisms, detailing how alkenes, with their carbon-carbon double bonds, undergo transformations to form new products. Understanding these key electrophilic addition processes is crucial for predicting reactivity and synthesizing complex organic molecules.

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Chapter 6 Reactions Of Alkenes Addition Reactions

Alkene Reactions - Alkene Reactions by The Organic Chemistry Tutor 448,366 views 3 years ago 1 hour, 10 minutes - This video provides a basic introduction into **reactions of alkenes**,. It covers hydrohalogenation of **alkenes**, with carbocation ...

Introduction

Mechanism of Reaction 1

Practice Problems

Example Problem

GCSE Chemistry - Addition Reactions of Alkenes #55 - GCSE Chemistry - Addition Reactions of Alkenes #55 by Cognito 242,966 views 4 years ago 5 minutes, 45 seconds - This video covers: - The idea that the carbon-carbon double bond can break, which allows the carbons to bond to new atoms ...

Types of Addition Reactions

Reaction of an Alkene with Water

Ethanol

Fractional Distillation

Reaction of Alkenes with Halogens

Alkene Addition Reactions: Crash Course Organic Chemistry #16 - Alkene Addition Reactions: Crash Course Organic Chemistry #16 by CrashCourse 214,281 views 3 years ago 12 minutes, 53 seconds - Like a trendy dance, a fighting combo, or a secret handshake, organic **reactions**, can be broken down into simpler steps. In this ...

ALKENE ADDITION REACTIONS

SYN ADDITION

HALOGENATION

BROMONIUM ION

CHLORONIUM ION

RACEMIC MIXTURE

HALOHYDRIN FORMATION REACTION

CONCERTED REACTION

OXIDATION

ACID-CATALYZED HYDRATION

OXYMERCURATION

HYDROBORATION

8 - Reactions of Alkenes - 8 - Reactions of Alkenes by Chad's Prep 47,956 views 3 years ago 1 hour, 21 minutes - Chad breaks down 15 different **Alkene Addition reactions**, including the **alkene reaction**, mechanisms, the **alkene reaction**, ...

Alkene Reaction Shortcuts and Products Overview by Leah Fisch - Alkene Reaction Shortcuts

and Products Overview by Leah Fisch by Leah4sci 445,227 views 8 years ago 15 minutes - Finally, for questions and comments, find me on social media here: Facebook: <https://www.facebook.com/Leah4sci> Twitter: ...

Introduction

Catalytic Reduction

Hydrohalogenation

Halogenation

Hydration

Oxymercuration

Epoxidation

Oxidative cleavage

Cyclopropane

Organic Chemistry - Reaction Mechanisms - Addition, Elimination, Substitution, & Rearrangement -

Organic Chemistry - Reaction Mechanisms - Addition, Elimination, Substitution, & Rearrangement by

The Organic Chemistry Tutor 617,385 views 5 years ago 34 minutes - Electrophilic **Addition Reac-**

tions of Alkenes, 2. Nucleophilic **Addition Reactions**, of Ketones 3. Carbocation Rearrangements

and ...

Addition Reaction

Elimination Reaction

Practice Problems

Electrophilic Addition Reaction

Sodium Borohydride

Partial Charges and Formal Charges

Nucleophilic Addition Reaction

Ring Expansion

Hydride Shift

Driving Force for a Rearrangement Reaction

E1 Reaction

E2 Elimination Reaction

Beta Hydroxy Ketone

Sn2 Reaction

Substitution Reaction

Nucleophilic Substitution Reaction

Free-Radical Substitution Reaction

Nitration

Nucleophilic Aromatic Substitution Reaction

Mechanism

Addition-Elimination Reaction

Elimination Addition Reaction

Hydrohalogenation - Alkene Reaction Mechanism - Hydrohalogenation - Alkene Reaction Mecha-

nism by The Organic Chemistry Tutor 165,462 views 5 years ago 12 minutes, 19 seconds - This

organic chemistry video tutorial provides a basic introduction into hydrohalogenation of **alkenes**,. It

provides the **reaction**, ...

react this alkene with hydrobromic acid

producing another secondary carbo cation

place the hydrogen on the secondary carbon

Markovnikov's Rule vs Anti-Markovnikov in Alkene Addition Reactions - Markovnikov's Rule vs

Anti-Markovnikov in Alkene Addition Reactions by Leah4sci 242,823 views 4 years ago 18 minutes -

Asymmetrical **alkenes**, can form 2 different **addition**, products: one major and one minor as predicted by Markovnikov's rule.

Mechanism for hydrogen halogenation

Hydrogen halogenation on asymmetrical molecule

Principles for Markovnikov reactions

Nucleophile attacks carbocation

Review of hydride shift

Sample Anti-Markovnikov problems

Adding non-hydrogen atoms

Anti Addition vs Syn Addition - Alkene Reactions - Anti Addition vs Syn Addition - Alkene Reactions

by The Organic Chemistry Tutor 26,839 views 11 months ago 6 minutes, 15 seconds - This organic

chemistry video covers a test question that focuses on **alkene reactions**, that proceed via anti **addition**, and syn ...

E/Z Alkenes, Electrophilic Addition, & Carbocations: Crash Course Organic Chemistry #14 - E/Z Alkenes, Electrophilic Addition, & Carbocations: Crash Course Organic Chemistry #14 by Crash-Course 157,342 views 3 years ago 14 minutes, 2 seconds - Alkenes, are an important type of molecule in organic chemistry that we're going to see a lot more of in this series. But before we ...

CARBOCATIONS

BROMO-4-ETHYLHEX-4-EN-1-YNE

ADDITION REACTIONS

TERTIARY CARBOCATION 3 CARBONS SURROUNDING THE CARBOCATION
SUBSTITUTED

1,2-HYDRIDE SHIFT

Half Reaction Method, Balancing Redox Reactions In Basic & Acidic Solution, Chemistry - Half Reaction Method, Balancing Redox Reactions In Basic & Acidic Solution, Chemistry by The Organic Chemistry Tutor 1,160,279 views 6 years ago 16 minutes - This chemistry video tutorial provides a basic introduction into the half **reaction**, method which is useful for balancing redox ...

a net charge of positive to the right side

start with the first one

add 3 electrons to the side with a higher charge

add the two half reactions we need

add these two half-reactions

add six H^+ ions to the left

add 6 electrons to the left side

need to cancel the 6 electrons on both sides

check the total charge the

start by balancing it under acidic conditions

add four hydroxide ions to the left side

add the 3 electrons to the left side

add 4 water molecules on the right side

add eight hydroxide ions to both sides

produces 1 chloride ion and 8 hydroxide

the charges

add 8 electrons to the left

produce three chloride ions and 24 hydroxide ions

subtract both sides by 24 hydroxide ions

Did you know how to remember reactivity series? - Did you know how to remember reactivity series? by LKLogic 585,856 views 1 year ago 30 seconds – play Short

Alkanes & Alkenes | Organic Chemistry | FuseSchool - Alkanes & Alkenes | Organic Chemistry | FuseSchool by FuseSchool - Global Education 594,385 views 10 years ago 5 minutes, 54 seconds - Alkanes & **Alkenes**, | Organic Chemistry | FuseSchool Learn the basics of alkanes and **alkenes**.

After watching the covalent bonds ...

Alkanes

Single covalent bonds

Shared pair of electrons

aka. natural gas

Double covalent bond

Structural formula

General formula

Halogenation of Alkenes & Halohydrin Formation Reaction Mechanism - Halogenation of Alkenes & Halohydrin Formation Reaction Mechanism by The Organic Chemistry Tutor 199,831 views 5 years ago 13 minutes, 13 seconds - This organic chemistry video tutorial provides a basic introduction into the halogenation of **alkenes**. It also covers the halohydrin ...

Halo Hydrogen Reaction

Resonance Structures

Stereochemistry

Electrophilic Addition of Hydrogen Halides - Alkene Reactions Part 1 of 9 - Organic Chemistry 101 - Electrophilic Addition of Hydrogen Halides - Alkene Reactions Part 1 of 9 - Organic Chemistry 101 by The Animated Chemist 6,169 views 2 years ago 8 minutes, 47 seconds - In this video, we will begin our journey into the basic **reactions**, of the **alkenes**, by starting with the electrophilic **addition**, of

the ...

Introduction to Addition

The Role of Structure on Outcome

Intermediates!

Introduction to Regioselectivity

Detailed Mechanism Example

Markovnikov's Rule

Summary

Closing

7.7 How to Distinguish Between Substitution and Elimination Reactions (SN2 SN1 E2 E1) | OChem -

7.7 How to Distinguish Between Substitution and Elimination Reactions (SN2 SN1 E2 E1) | OChem by Chad's Prep 55,686 views 3 years ago 14 minutes, 26 seconds - Chad begins this lesson comparing SN2, SN1, E2, and E1 **reactions**,. Based upon the differences between **substitution**, and ...

Lesson Introduction

Comparing and Contrasting SN1, SN2, E1, E2

How to Predict the Products Example #1

How to Predict the Products Example #2

How to Predict the Products Example #3

How to Predict the Products Example #4

How to Predict the Products Example #5

Syn and Anti Addition - Enantiomers, Meso Compounds, Constitutional Isomers & Diastereomers -

Syn and Anti Addition - Enantiomers, Meso Compounds, Constitutional Isomers & Diastereomers by

The Organic Chemistry Tutor 108,562 views 7 years ago 31 minutes - It discusses how to determine if you get 1 or 2 major products in an electrophilic **alkene addition reaction**,. It also explains how to ...

Cyclohexene

Anti Addition Reaction

Practice Problems

Reaction between Cyclohexene and Deuterium

Requirements for It To Be an Enantiomer

Constitutional Isomers

Chlorine in Dichloromethane

Stereochemistry

GCSE Chemistry - Alkanes: properties & combustion #52 - GCSE Chemistry - Alkanes: properties & combustion #52 by Cognito 273,987 views 4 years ago 5 minutes, 27 seconds - In this video, you'll learn: - The properties of alkanes, and the specific trends you can observe as the length of carbon chain ...

Properties

Combustion

Summary

Electrophilic Addition 1 - Electrophilic Addition 1 by MaChemGuy 36,600 views 10 years ago 8 minutes, 46 seconds - Description of the mechanism for the **reaction**, between ethene and bromine.

The Electrophilic Addition Mechanism

Products

Addition Reactions - Addition Reactions by Professor Dave Explains 193,184 views 9 years ago 3 minutes, 25 seconds - Now that we've mastered nucleophilic substitution and elimination, we must move on to new territory. **Addition reactions**,!

Intro

Addition reactions

Outro

Alkene Addition Reactions Made Easy! - Product Prediction Tips! - Organic Chemistry - Alkene

Addition Reactions Made Easy! - Product Prediction Tips! - Organic Chemistry by Frank Wong

276,464 views 11 years ago 8 minutes, 52 seconds - This video is mean't to just help you guys out with Product Prediction in case you're stuck and you only have a few minutes left ...

Hydrohalogenation

An Alkene with Bromine and Water

Hydro Halogenation Reaction

Acid Catalyzed Hydration Reaction

Acid Catalyzed Alkoxy Addition

Hydration by Hydroboration

Acid Catalyzed Hydration

Organic Chapter 6: Reactions of Alkenes Video 1 of 6 - Organic Chapter 6: Reactions of Alkenes Video 1 of 6 by Corey Damon 729 views 3 years ago 19 minutes - Bruice Organic Chemistry 6.1-6.3 JCC CHE 2530.

Chapter 6

Electrophilic Additions

The Mechanism of an Electrophilic Addition Reaction

Features Reactions Have in Common

Features That All Electrophilic Addition Reactions Have in Common

First Alkene Reaction: Addition of Hydrogen Halides

Relative Stabilities of Carbocations

How do alkyl groups stabilize? Hyperconjugation

How do we get there? Transition State

Similar Energies = Similar Structures

The Hammond Postulate

Carbocation T.S.

Why the Difference in Rate?

The Relative Rates of Carbocation Formation Determine the Relative Amounts of Products

Organic Chemistry Reactions Summary - Organic Chemistry Reactions Summary by The Organic Chemistry Tutor 642,861 views 5 years ago 38 minutes - This organic chemistry video tutorial provides a basic introduction into common **reactions**, taught in the first semester of a typical ...

Cyclohexene

Free-Radical Substitution Reaction

Radical Reactions

Acid Catalyzed Hydration of an Alkene

Hydroboration Oxidation Reaction of Alkanes

Oxymercuration Demotivation

Alkyne 2-Butene

Hydroboration Reaction

Acetylene

Sn1 Reaction

E1 Reaction

Pronation

Review Oxidation Reactions

Reducing Agents

Lithium Aluminum Hydride

Mechanism

Greener Reagent

8.1 Introduction to Alkene Addition Reactions; Markovnikov's Rule and Syn vs Anti | OChemistry - 8.1 Introduction to Alkene Addition Reactions; Markovnikov's Rule and Syn vs Anti | OChemistry by Chad's Prep 33,819 views 3 years ago 8 minutes, 37 seconds - Chad introduces the anatomy of an **alkene addition reaction**,; how a pi bond is broken and two sigma bonds are formed. He then ...

Lesson Introduction

Intro to Alkene Addition: Markovnikov vs anti-Markovnikov

The Number of Products in Alkene Addition Reactions and Syn vs Anti

Quick Revision - Alkenes (reactions) - Quick Revision - Alkenes (reactions) by MaChemGuy 14,682 views 3 years ago 5 minutes, 35 seconds - Overview of the **reactions of alkenes**, with hydrogen, halogens, hydrogen halides and steam.

Reactions of alkenes

Reaction with hydrogen - hydrogenation

Reaction with halogens - halogenation

Reaction with hydrogen halides

Reaction with steam - hydration

Ch#16|Lec#8|Reactions Of Alkenes, Hydrogenation, hydro Halogenation, hydration, Halogenation, - Ch#16|Lec#8|Reactions Of Alkenes, Hydrogenation, hydro Halogenation, hydration, Halogenation, by Chemistry by Prof. Javed Iqbal 37,391 views 1 year ago 36 minutes - Ch.#16|Lec#8|**Reactions Of Alkenes**,, Hydrogenation, hydro Halogenation, hydration, Halogenation,Markownikovs Rule ...

20.1 Electrophilic addition reactions (HL) - 20.1 Electrophilic addition reactions (HL) by Mike Sugiya-

ma Jones 34,205 views 3 years ago 5 minutes, 52 seconds - Applications and skills: Electrophilic **Addition Reactions**,: Deduction of the mechanism of the electrophilic **addition reactions of**, ...

Introduction

Mechanism

Summary

8.8 How to Predict the Products of Alkene Addition Reactions | Organic Chemistry - 8.8 How to Predict the Products of Alkene Addition Reactions | Organic Chemistry by Chad's Prep 16,324 views 3 years ago 6 minutes, 39 seconds - In this lesson, Chad works four examples of predicting the products of **alkene addition reactions**,. He provides examples of both ...

Lesson Introduction

Example #1 Hydrohalogenation of Alkenes

Example #2 Addition of HBr with Peroxide (ROOR)

Example #3 Halogenation of Alkenes

Example #4 Catalytic Hydrogenation of Alkenes

10.2 Addition reactions of the alkenes (SL) *Updated* - 10.2 Addition reactions of the alkenes (SL)

Updated by Mike Sugiyama Jones 28,568 views 5 years ago 3 minutes, 28 seconds - Understandings: **Alkenes**, are more reactive than alkanes and undergo **addition reactions**, Application and skills: Writing equations ...

Introduction

Hydrogenation

Halogenation

Hydration

Unsymmetrical

Alkene Addition Reactions: Practice Problems, Step by Step Walkthrough - Alkene Addition Reactions: Practice Problems, Step by Step Walkthrough by Samuel Schmid 792 views 1 year ago 21 minutes

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