

# [Organic chemistry klein chapter 9 alkenes addition](https://assignbuster.com/organic-chemistry-klein-chapter-9-alkenes-addition/)

Are addition reactions exothermic or endothermic? exothermicAre elimination reactions exothermic or endothermic? endothermicReactions that proceed with a regiochemical preference are said to be... ? regioselectiveDoes a peroxide cause Markovnikov or anti-Markovnikov? anti-MarkovnikovCan there be a carbocation arrangement with hydrohalogenation? yesWhat is the rate-determining step of a hydrohalogenation--proton transfer or nucleophilic attack? proton transferProducts of hydrohalogenation where chirality is present tend to be... what kind of mixtures? racemicDoes acid-catalyzed hydration proceed via Markovnikov or anti-Markovnikov? MarkovnikovDo more alkyl substituents branching off a side of a double bond increase the rate of an acid-catalyzed hydration reaction? yesWhat is used for the initial proton transfer in acid catalyzed hydration... hydronium ion or water? hydronium ionWhat is used as nucleophile to attack carbocation during acid catalyzed hydration... hydronium ion or water? waterWhat functions to deprotonate the oxonium ion during acid catalyzed hydration... hydronium ion or water? waterDoes increasing the dilution of an acid movie the equilibrium toward producing alcohol during acid-catalyzed hydration? yesProducts of acid-catalyzed hydration where chirality is present tend to be... what kind of mixtures? racemicWhat results from acid-catalyzed hydration? alcohol, H3O+What are the reagents for oxymercuration-demercuration? (In addition to a nucleophile such as water)Hg(OAc)2, NaBH4Is there carbocation rearrangement with oxymercuration-demercuration? noDoes oxymercuration-demercuration proceed via Markovnikov or anti-Markovnikov? MarkovnikovIs oxymercuration-demercuration syn or anti? antiWhat are reagents for hydroboration-oxidation? BH3, THF, H2O2, NaOHIs hydroboration-oxidation Markovnikov or anti-Markovnikov? anti-MarkovnikovWhat kind of product does hydroboration-oxidation create? alcoholIs hydroboration-oxidation syn or anti? synDoes the -OH in hydroboration-oxidation go to most-substituted or least-substituted? least-substitutedIs metal a reagent in catalytic hydrogenation? yesIs H2O a reagent in catalytic hydrogenation? noIs H2 a reagent in catalytic hydrogenation? yesIs catalytic hydrogenation syn or anti? synWhen the alkene is symmetrical, during catalytic hydrogenation you must watch out for... this type of compound? mesoMetal is what type of catalyst... heterogeneous or homogeneous? heterogeneousWilkinson's catalyst is what type of catalyst... heterogeneous or homogeneous? homogeneousWhich halogens work with halogenation (full names, alphabetical)? bromine, chlorineIs halogenation anti or syn? antiWhat is the reagent for halogenation (in addition to halogen itself, abbreviation)CCl4Can the configuration of the starting alkene (cis/trans) determine the configuration of the product for halogenation reactions? yesIs halogenation syn? noWhat is the reagent for halohydrin formation? (in addition to the halogen)H2ODoes OH end up at more-substituted or less-substituted in halohydrin formation? more-substitutedIs halohydrin formation anti or syn? antiHow many -OH groups result from dihydroxylation? 2What are the reagents for performing anti dihydroxylation? RCO3H, H3O+What is a common RCO3H used to create an epoxide during anti dihydroxlyation? MCPBAWhat kind of ring is created on an epoxide? (It's a three-membered, cyclic \_\_\_\_\_.)etherWhat are the most common reagents for syn dihydroxylation? OsO4, NaHSO3In oxidative cleavage, each C= C double bond becomes how many C= O bonds? 2What is the most common reagent for oxidative cleavage? O3A peroxide is used in oxidative cleavage for ... reductive workup? or oxidative workup? oxidative workupDMS is used in oxidative cleavage for ... reductive workup? or oxidative workup? reductive workup ONORGANIC CHEMISTRY KLEIN CHAPTER 9 ALKENES ADDITION SPECIFICALLY FOR YOUFOR ONLY$13. 90/PAGEOrder Now