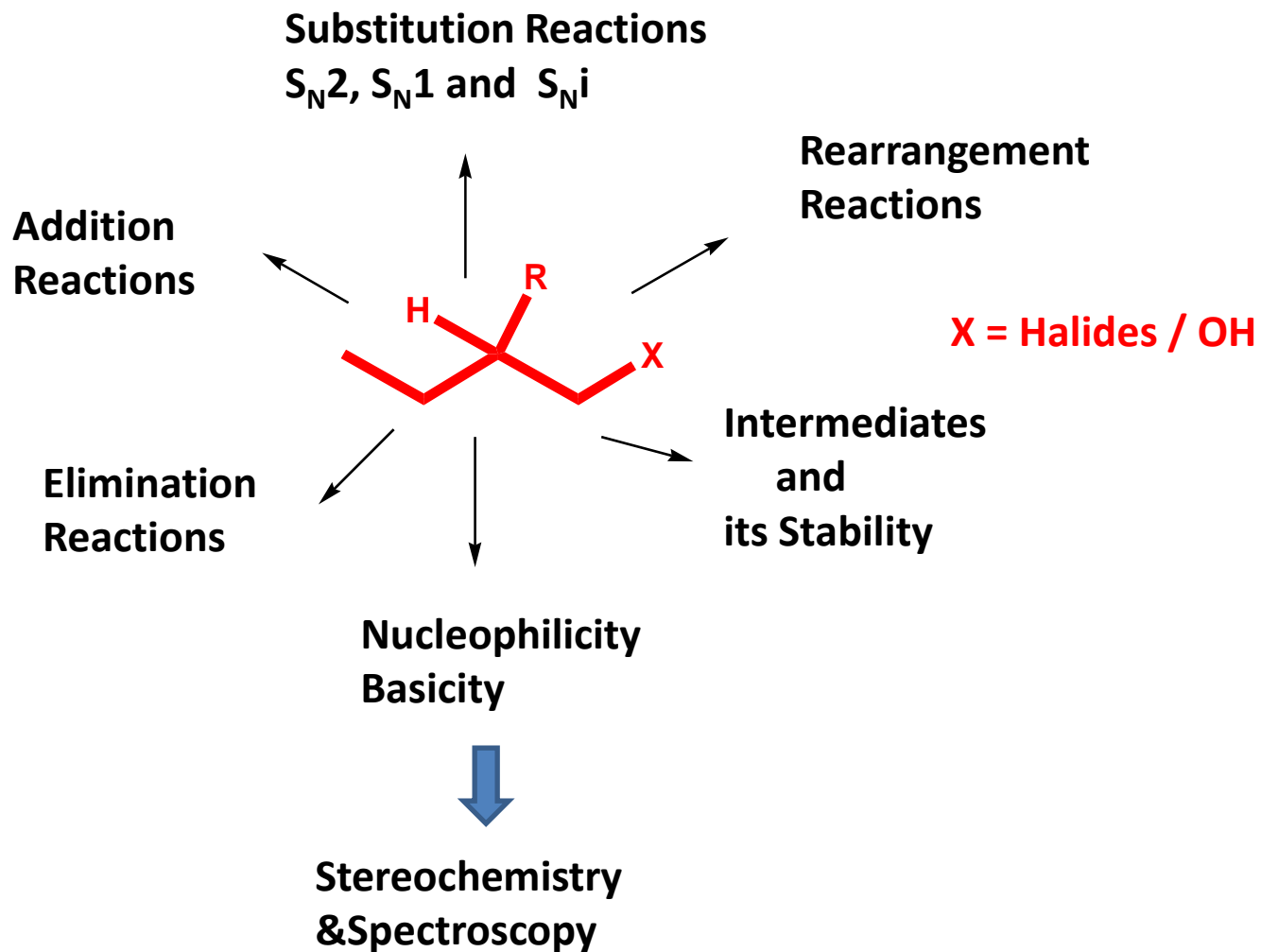


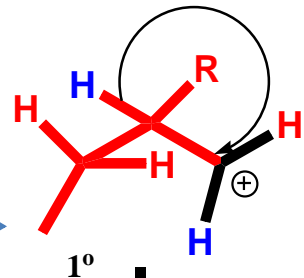
Reaction Mechanism

Dr. Lokesh A. Shastri
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Basics of Organic Chemistry

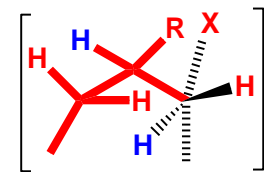
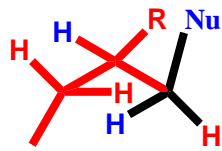


Carbocation Intermediate



Rearrangement

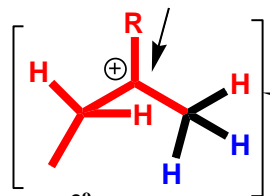
Shift H⁻



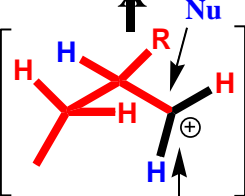
Walden Inversion

S_N2
Strong Nucleophile,
Good Leaving Group
Aprotic polar solvents

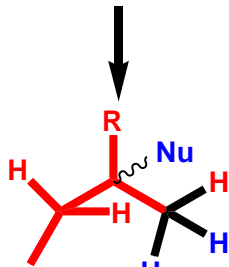
Strong Nucleophile,
Good Leaving Group
Protic polar solvents
S_N1



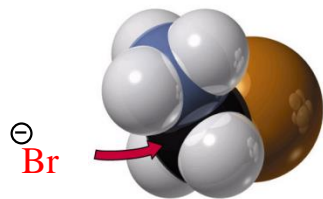
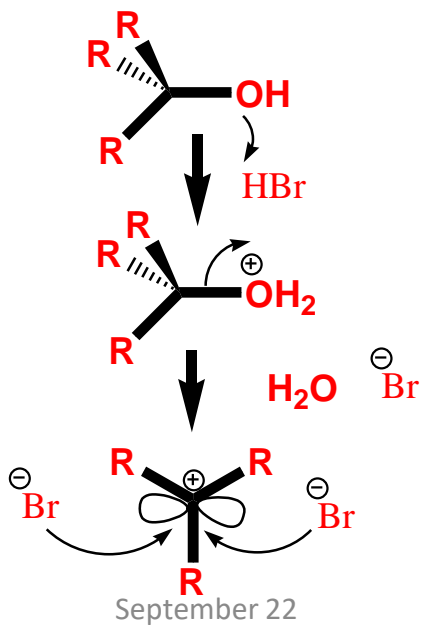
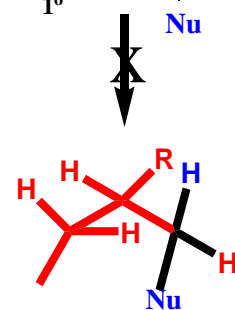
3°



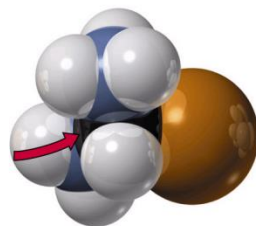
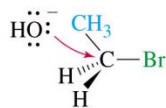
1°



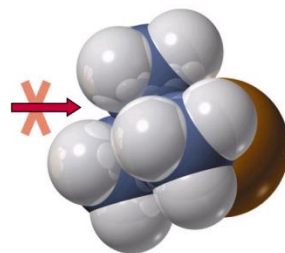
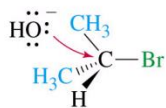
Racemic Mixture



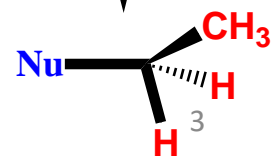
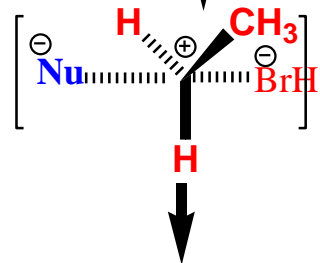
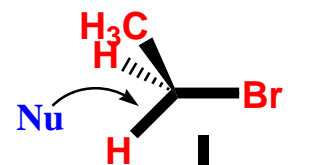
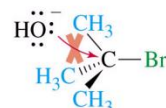
ethyl bromide (1°)
attack is easy

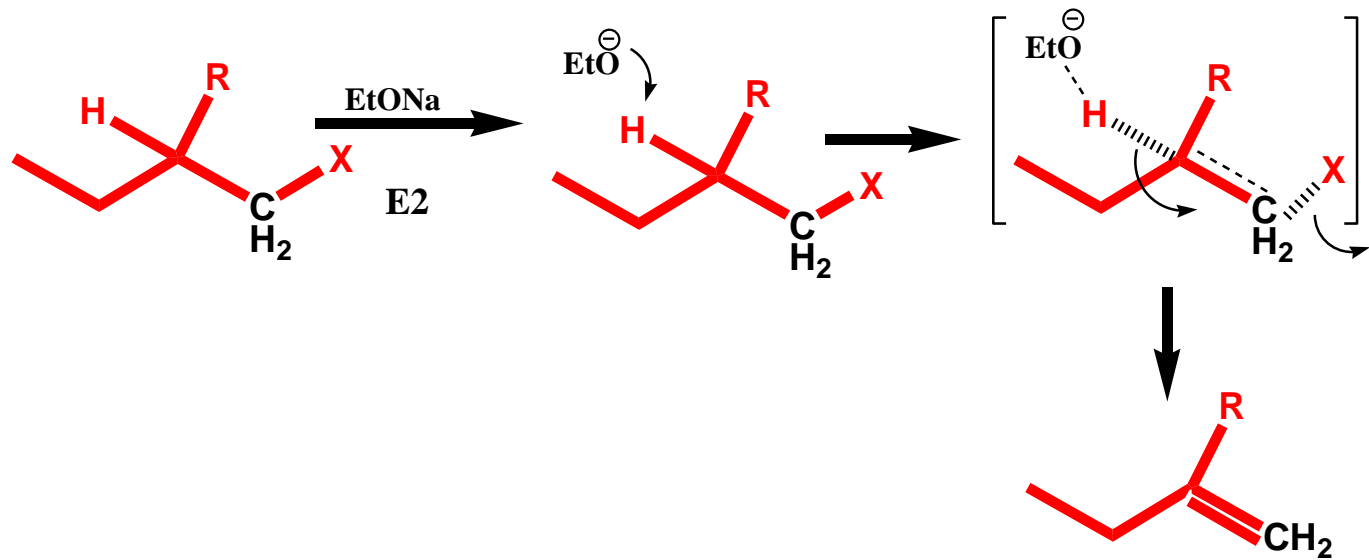
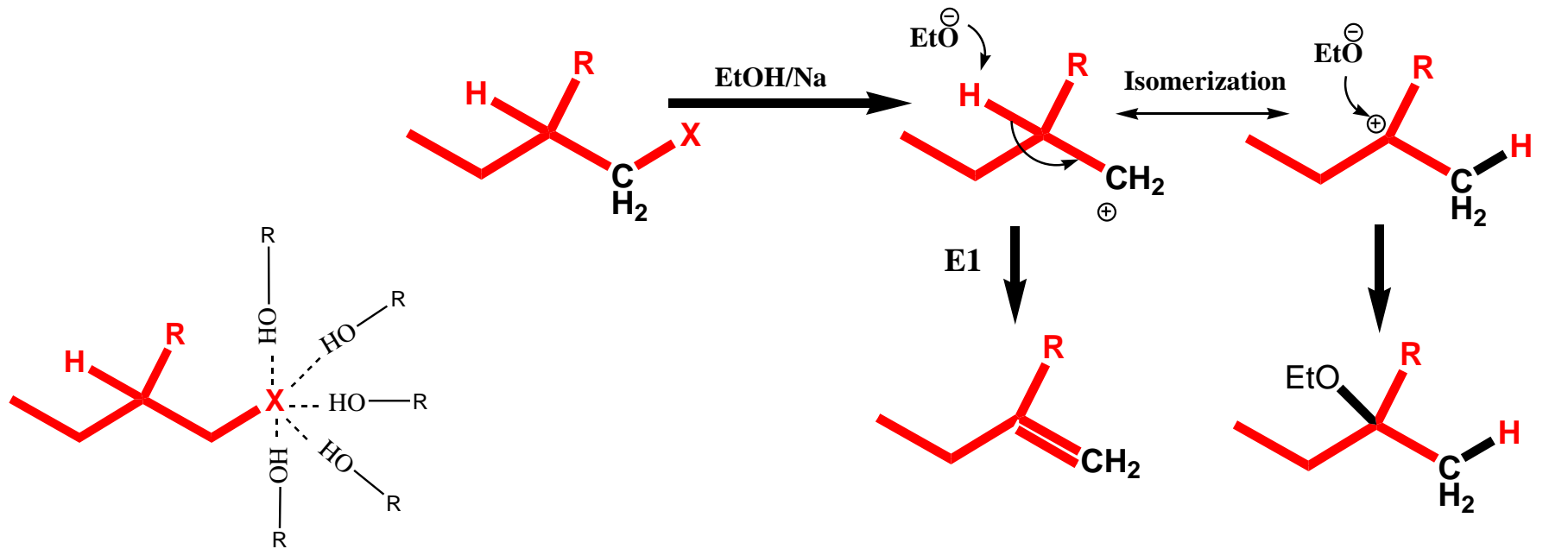


isopropyl bromide (2°)
attack is possible

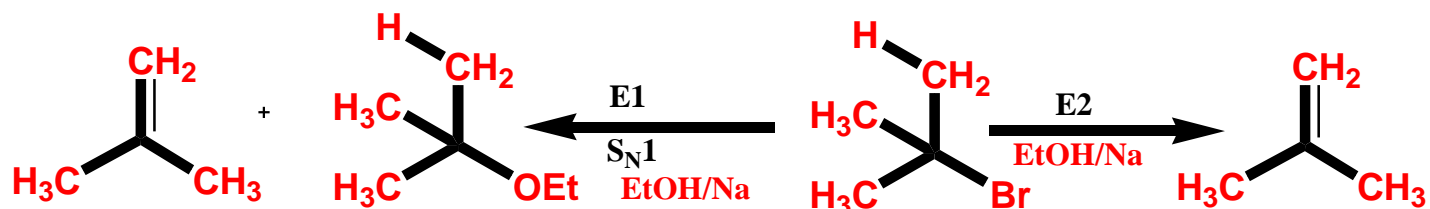
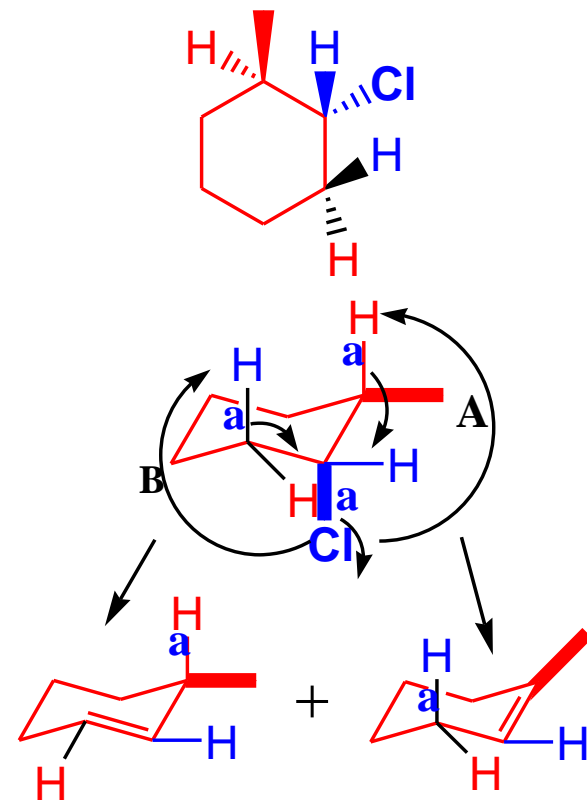
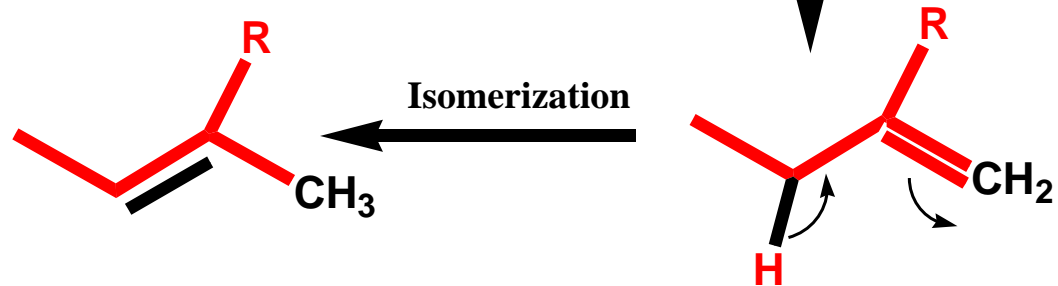
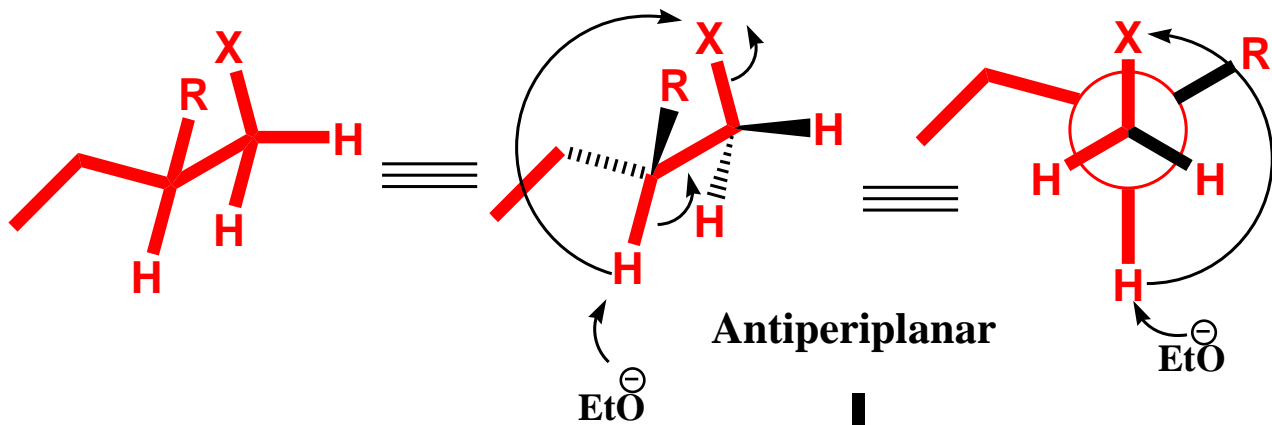


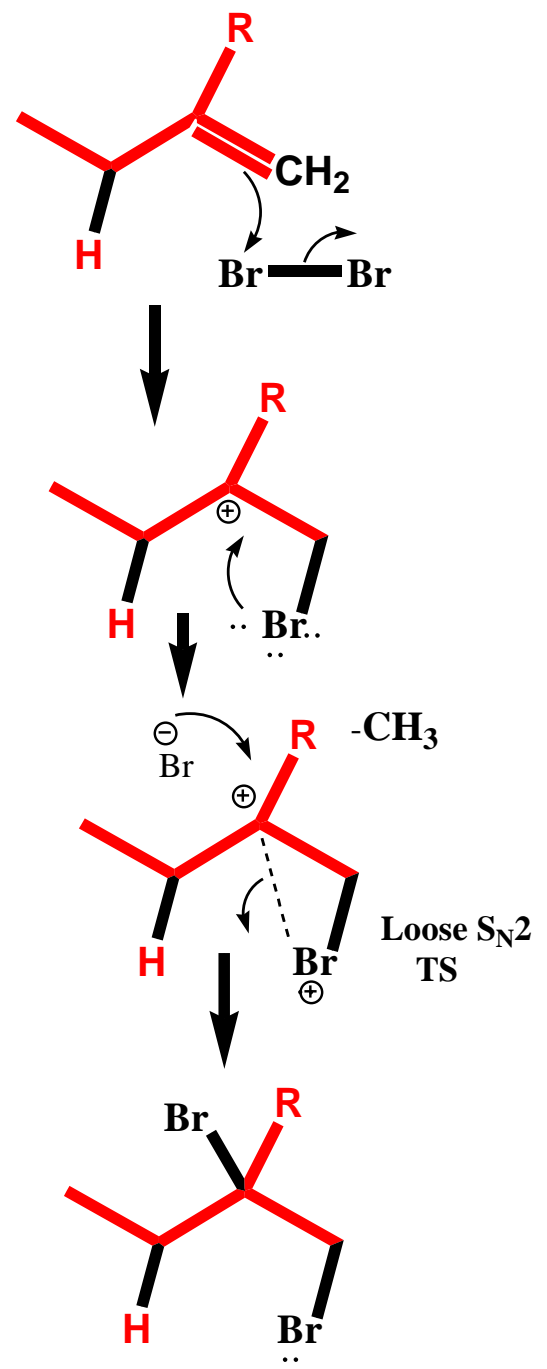
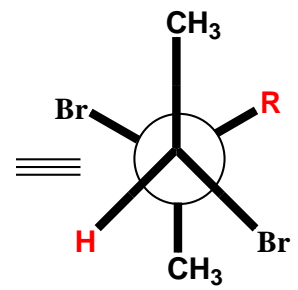
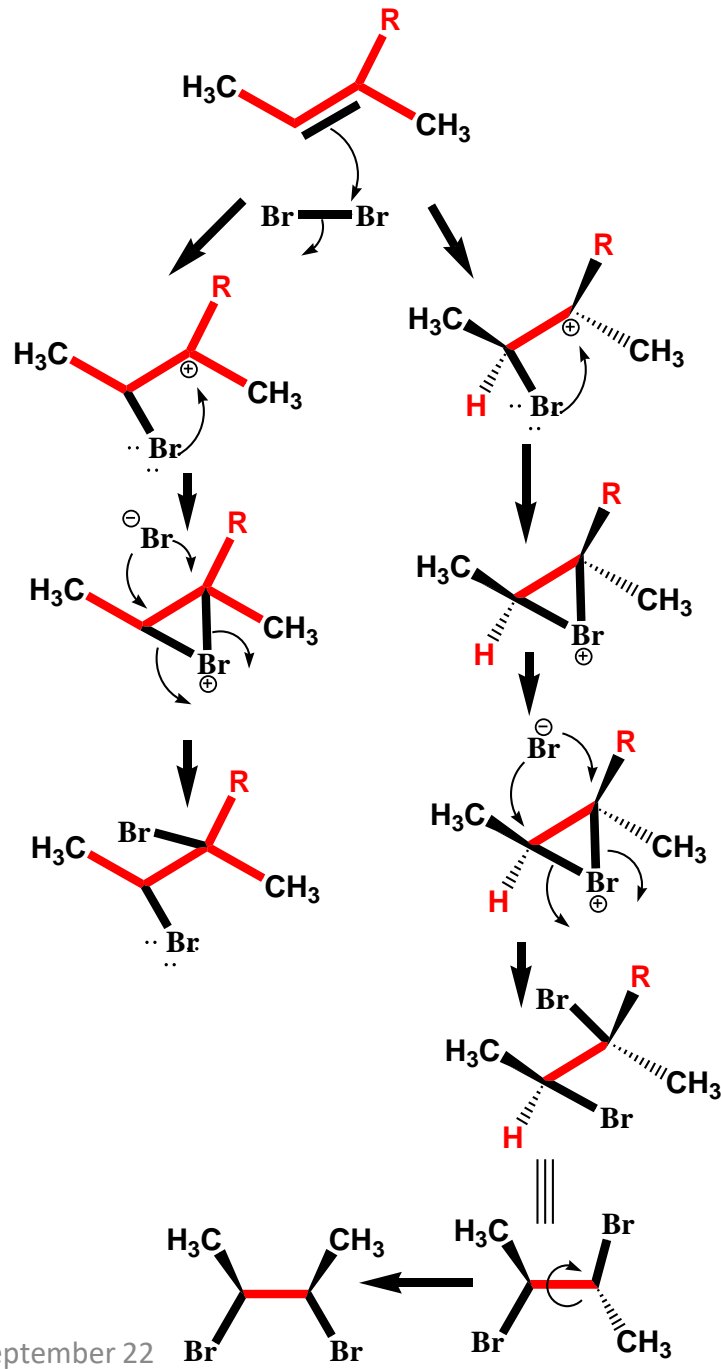
t-butyl bromide (3°)
attack is impossible





E2 Elimination – Anti-periplanar





THANK YOU