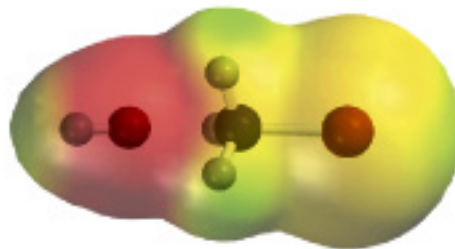
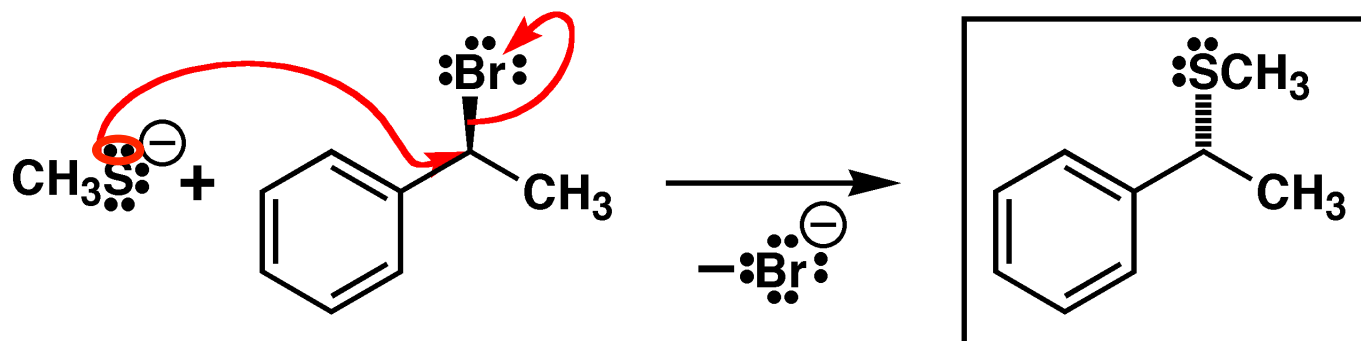


Stereochemistry of the [S_N2] Pathway

Stereospecific Reaction: A reaction in which the stereochemistry of the reactant completely determines the stereochemistry of the product without any other option.

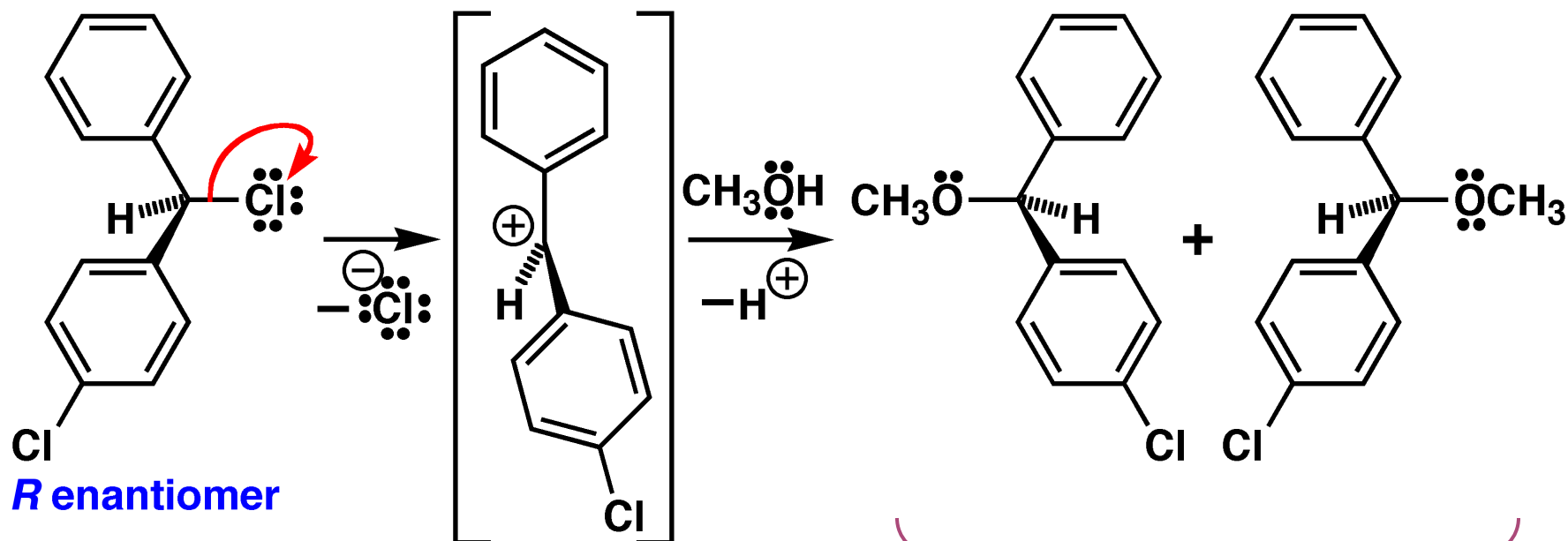
Stereoselective Reaction: A reaction in which there is a choice of pathway, but the product stereoisomer is formed preferentially because its reaction pathway is more favorable than the others available.



The S_N2 reactions proceeds with inversion of configuration.
Stereospecific or Stereoselective?



Stereochemistry of the [S_N1] Pathway



R enantiomer

Starting with a single enantiomer

planar carbocation (achiral)

The nucleophile will attack both faces of the planar carbocation with equal probability resulting in a **racemic mixture**.

Nucleophilic substitution	Simple S _N 2 reaction
Elimination	S _N 1 and S _N 2
Electrophilic aromatic substitution	Carbocation structure and stability

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