

## Saytzeff rule

**Synonym:** Zaitsev rule

Dehydrohalogenation of secondary- and tertiary-alkyl halides proceeds by the preferential removal of the  $\beta$ -hydrogen from the carbon that has the smallest number of hydrogens. Originally formulated by A. Saytzeff (Zaitsev) to generalize the orientation in  $\beta$ -elimination *reactions* of alkyl halides, this rule has been extended and modified, as follows: When two or more olefins can be produced in an elimination reaction, the thermodynamically most stable alkene will predominate. Exceptions to the Saytzeff rule are exemplified by the Hofmann rule.

**See also:** Markownikoff rule

**Source:**

PAC, 1994, 66, 1077 (*Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)*) on page 1162