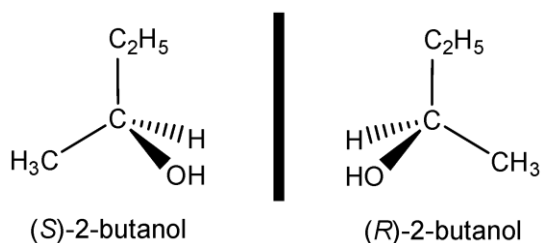


Explain stereochemistry R and S.

Stereochemistry is the study of the spatial arrangement of atoms in a molecule and the way in which this arrangement affects the chemical and physical properties of the molecule. In stereochemistry, molecules are classified as either chiral (having the ability to exist in two or more non-superimposable mirror image forms) or achiral (not having the ability to exist in two or more non-superimposable mirror image forms).

The terms R and S are used in stereochemistry to describe the absolute configuration of chiral molecules. R and S refer to the specific arrangement of substituents on a chiral center, and they are based on the Cahn-Ingold-Prelog (CIP) priority rules.

According to the CIP priority rules, the substituents on a chiral center are ranked based on their atomic number, with the substituent having the highest atomic number given the highest priority. The chiral center is then oriented in such a way that the substituent with the lowest priority is pointing away from the viewer. If the substituents are arranged in a clockwise direction, the molecule is designated as an R enantiomer. If the substituents are arranged in a counterclockwise direction, the molecule is designated as an S enantiomer.



Overall, the terms R and S are used in stereochemistry to describe the absolute configuration of chiral molecules and are based on the CIP priority rules.