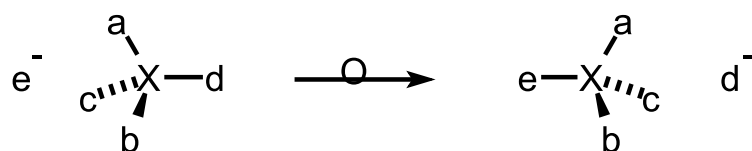


Walden inversion

Also contains definition of: retention of configuration

Retention of configuration is the preservation of integrity of the spatial arrangement of bonds to an chiral centre during a chemical reaction or transformation. It is also the configurational correlation when a chemical species $Xabcd$ is converted into the chemical species $Xabce$ having the same relative configuration. The configurational change when a chemical species $Xabcd$ (where X is typically carbon), having a tetrahedral arrangement of bonds to X , is converted into the chemical species $Xabce$ having the opposite relative configuration (or when it undergoes an identity reaction in which $Xabcd$ of opposite configuration is produced) is called a Walden inversion or inversion of configuration. The occurrence of a Walden inversion during a chemical transformation is sometimes indicated in the chemical equation by the symbol shown below in place of a simple arrow pointing from reactants to products.



Source:

PAC, 1996, 68, 2193 (*Basic terminology of stereochemistry (IUPAC Recommendations 1996)*) on page 2221