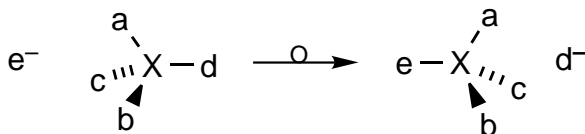


## Walden inversion

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.



1996, 68, 2221