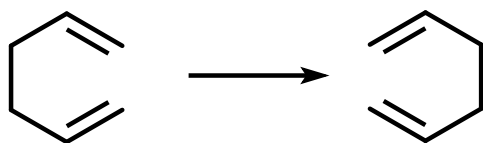


## degenerate rearrangement

A molecular rearrangement in which the principal product is indistinguishable (in the absence of isotopic labelling) from the principal reactant. The term includes both 'degenerate intramolecular rearrangements' and reactions that involve intermolecular transfer of atoms or groups ('degenerate intermolecular rearrangements'): both are degenerate isomerizations. The occurrence of degenerate rearrangements may be detectable by isotopic labelling or by dynamic NMR techniques. For example: the [3,3]sigmatropic rearrangement of hexa-1,5-diene (Cope rearrangement):



Synonymous but less preferable terms are 'automerization', 'permutational isomerism', 'isodynamic transformation', 'topomerization'.

**See also:** fluxional, molecular rearrangement, valence isomer

**Source:**

PAC, 1994, 66, 1077 (*Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)*) on page 1104