

## photoisomerization

Photochemical process leading to an isomerization of the substrate, either by bond rotation, skeletal rearrangement or atom- or group- transfer.

Notes:

1. Typical examples are *cis-trans* photosomerization of alkenes, polyenes and phototautomerization.
2. Photochemical pathways have the advantage over thermal and catalytic methods of giving isomer mixtures (photostationary states) rich in thermodynamically unstable isomers.
3. Photoisomerization is the primary photochemical reaction of the chromophore in several biological photoreceptors such as retinal proteins (e.g., rhodopsin), phytochromes, and the photoactive yellow protein.

**Source:**

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 393