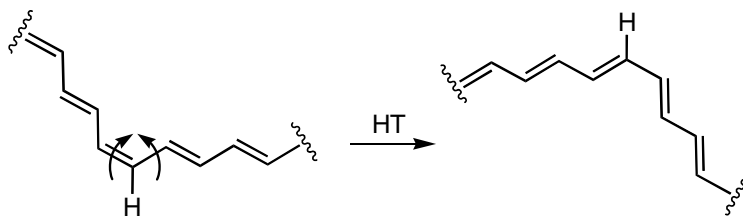


### **hula-twist (HT) mechanism**

Volume-conserving mechanism of *photoisomerization* of a double bond in a conjugated system involving simultaneous configurational and conformational isomerization, e.g., the photoinitiated concerted rotation of two adjacent double and single bonds.



Note: Under unconstrained conditions, the conventional *one-bond-flip* (OBF) process is the dominant process with the hula-twist (HT) being an undetectable higher energy process. It has been proposed that under confined conditions (e.g., a conjugated double bond *chromophore* in a protein cavity or in a solid matrix), the additional viscosity-dependent barriers makes the OBF a less favourable process, allowing the volume-conserving HT to be the dominant process for photoisomerization.

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