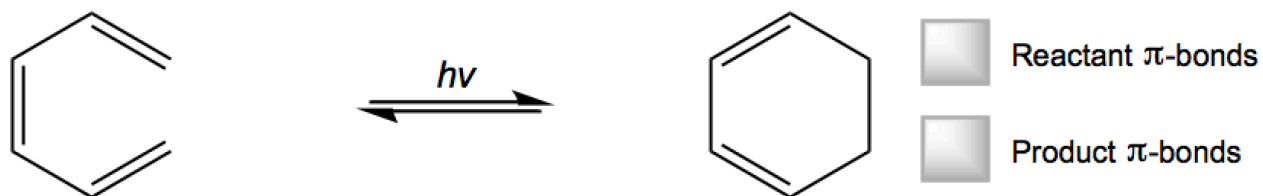
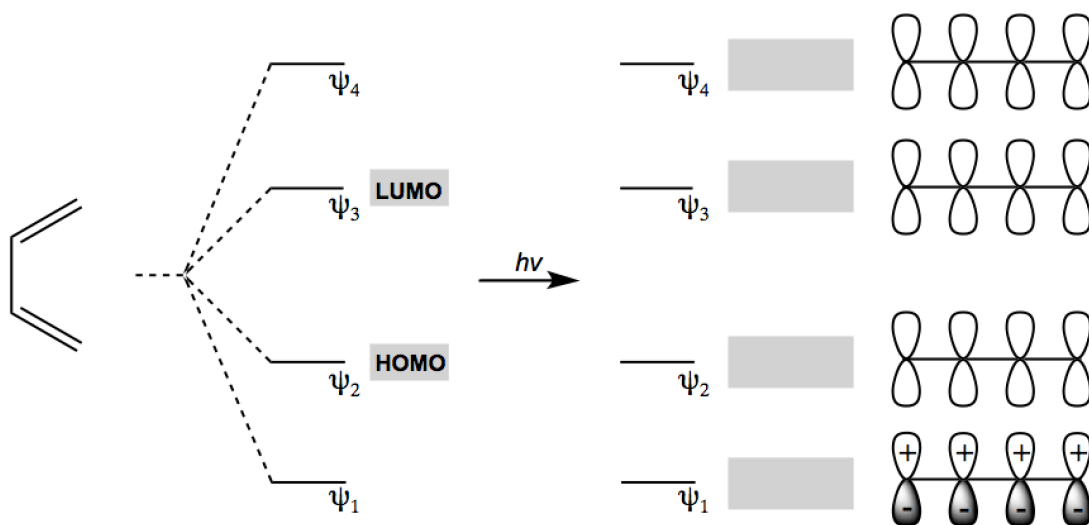


CONCEPT: PHOTOCHEMICAL ELECTROCYCLIC REACTIONS

- Intramolecular pericyclic reactions in which _____ **π -bond** is destroyed after a _____-activated cyclic mechanism



- All conjugated polyenes are capable of intramolecular electrocyclic reactions, however stereochemistry is variable.
 - Light excites ground-state electrons to a _____ energy state ($\psi \rightarrow \psi^*$). HOMO / LUMO orbitals change.



- When substituents are involved in cyclization, stereochemistry is dependent on rotation type.

EXAMPLE: Predict the product in the following electrocyclic reaction. Label the reaction as either conrotatory or disrotatory.

