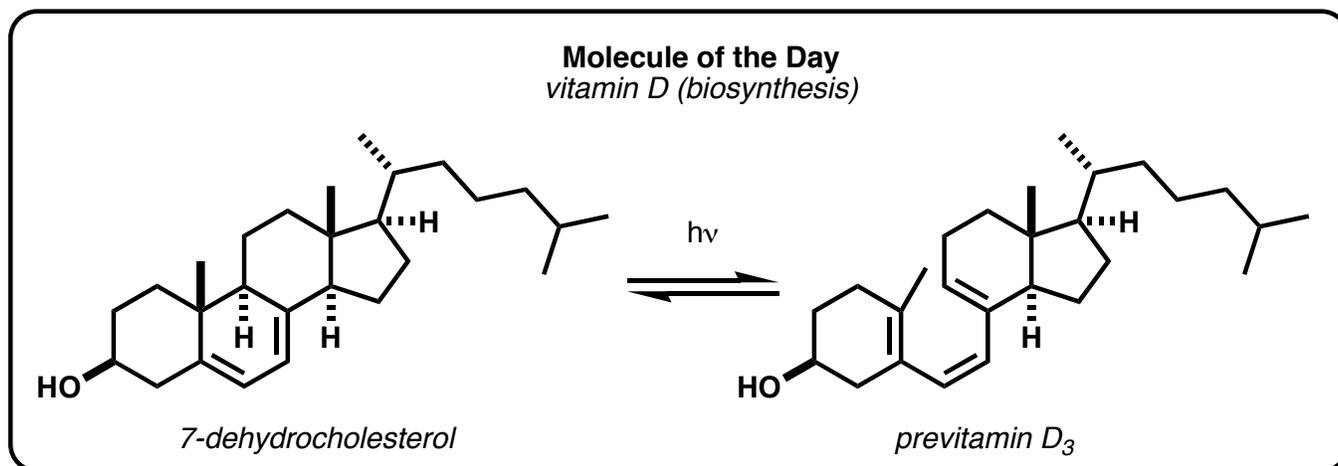


Notes for Lectures 13 and 14
Electrocyclic Reactions



Definition: A pericyclic reaction in which 1 conjugated, overlapping array of orbitals **combines**. Electrocyclic reactions proceed by way of a **cyclic transition state**, and 1 **sigma bond** is formed during the course of the reaction.

Conrotatory: Orbitals rotate in the same direction (both clockwise or both counter-clockwise)

Disrotatory: Orbitals rotate in opposite directions (one clockwise, one counter-clockwise)

Woodward-Hoffmann Rules for Electrocyclic Reactions

# Electrons	Stereochemical Course	
	Thermal Mode	Photochemical Mode
$4n + 2$	disrotatory	conrotatory
$4n$	conrotatory	disrotatory