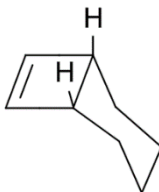
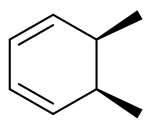
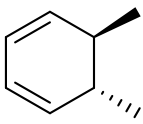
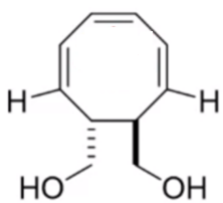
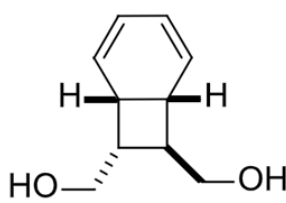
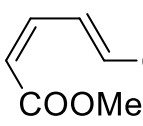
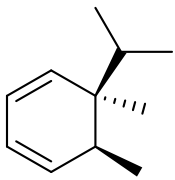
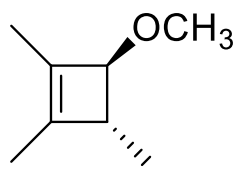
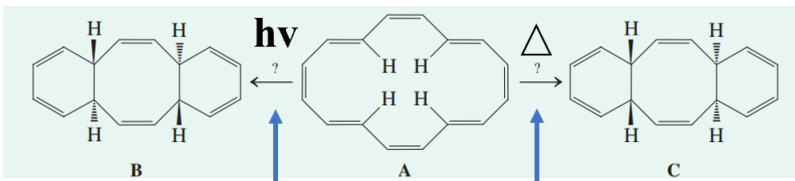
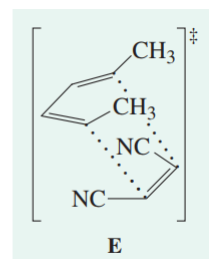


## 练习五 (Pericyclic Reactions) 参考答案

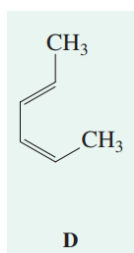
1. (1)  (2)  $\text{H}_3\text{C}-\text{CH}=\text{CH}-\text{CH}=\text{CH}_2$  (3) 
- (4)  (5)  
- (6)  (7)  $\text{MeOOC}-\text{CH}=\text{CH}-\text{CH}=\text{CH}-\text{COOMe}$
2. (1)  (2)  (3) light
3.   
两个顺旋闭环      两个对旋闭环

4.

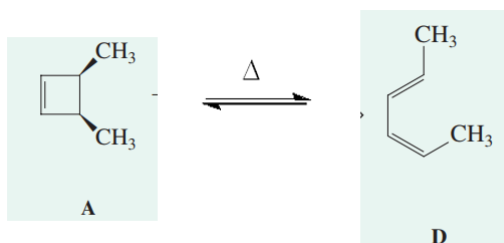
**Diels-Alder cycloadditions follow the endo rule**



So the stereochemistry of 2,4-hexadiene (D) is determined to be cis-trans.



And cis,trans-2,4-hexadiene D must be derived from isomer A by thermal, conrotatory electrocyclic ring opening.



## 5. conrotatory