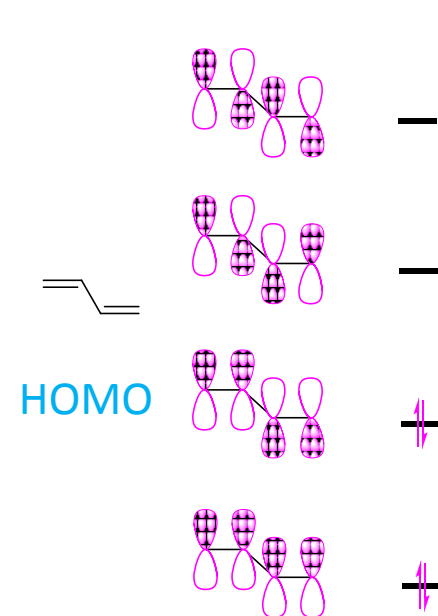
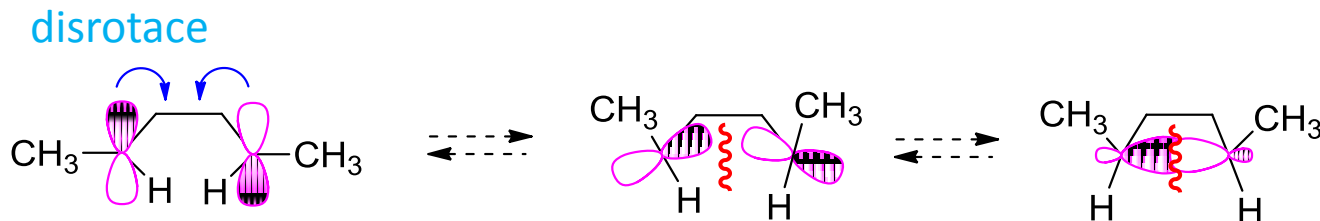
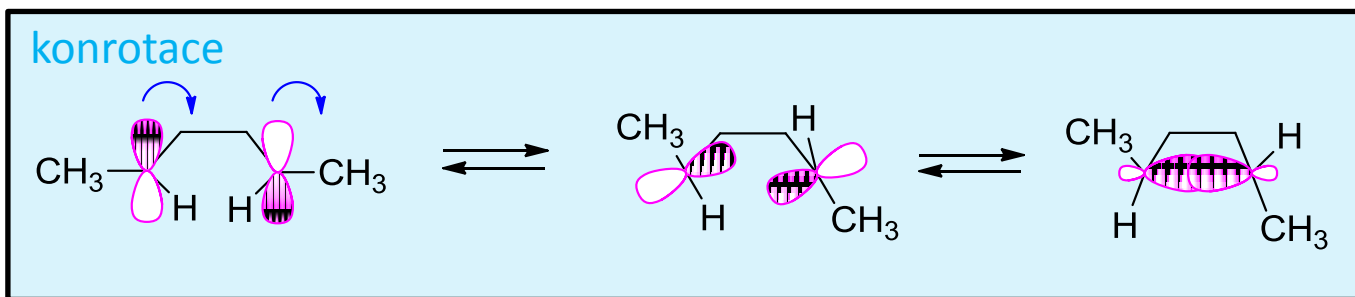
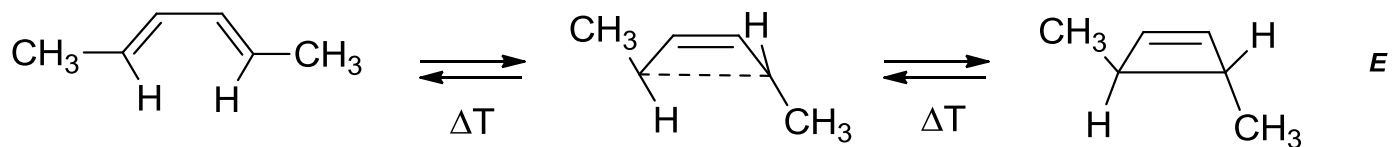


Se zvyšující se energií se mění symetrie molekulových orbitalů.

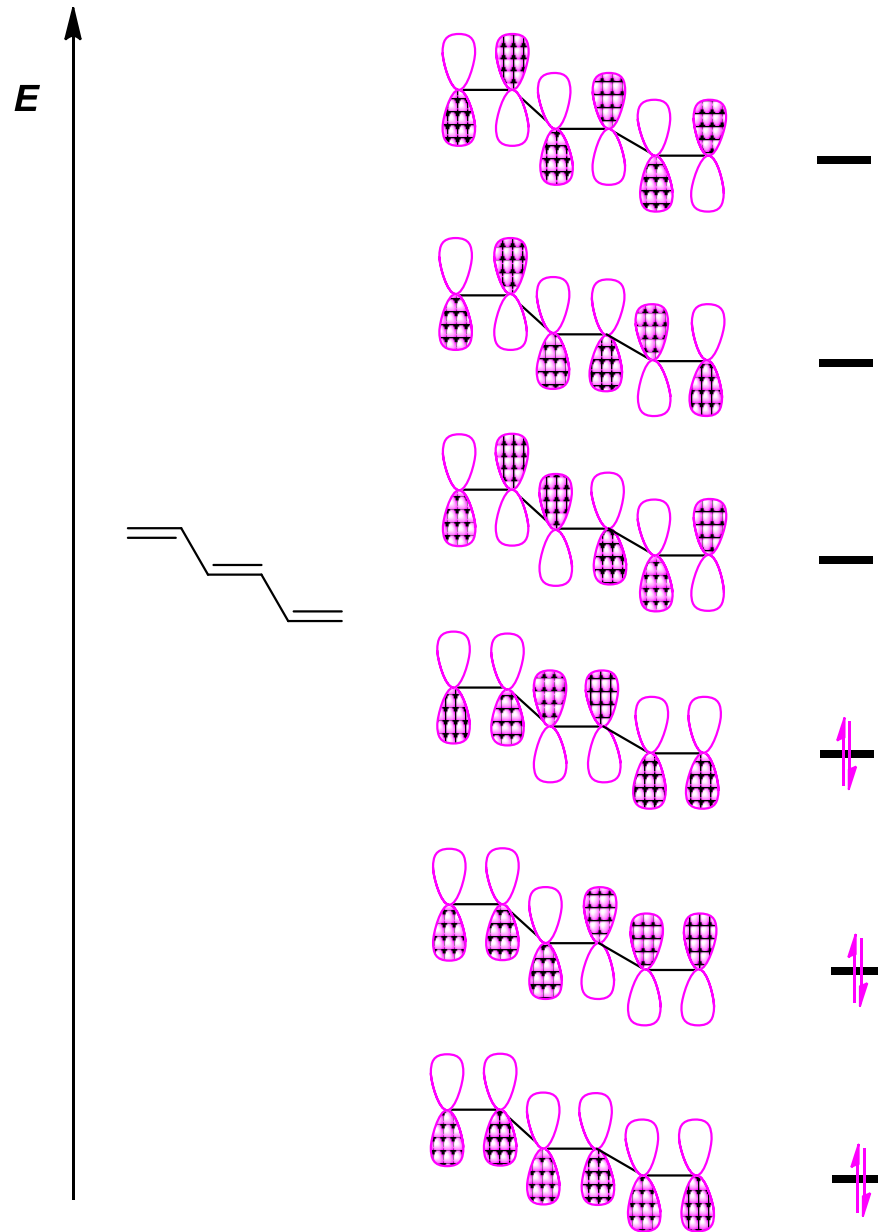
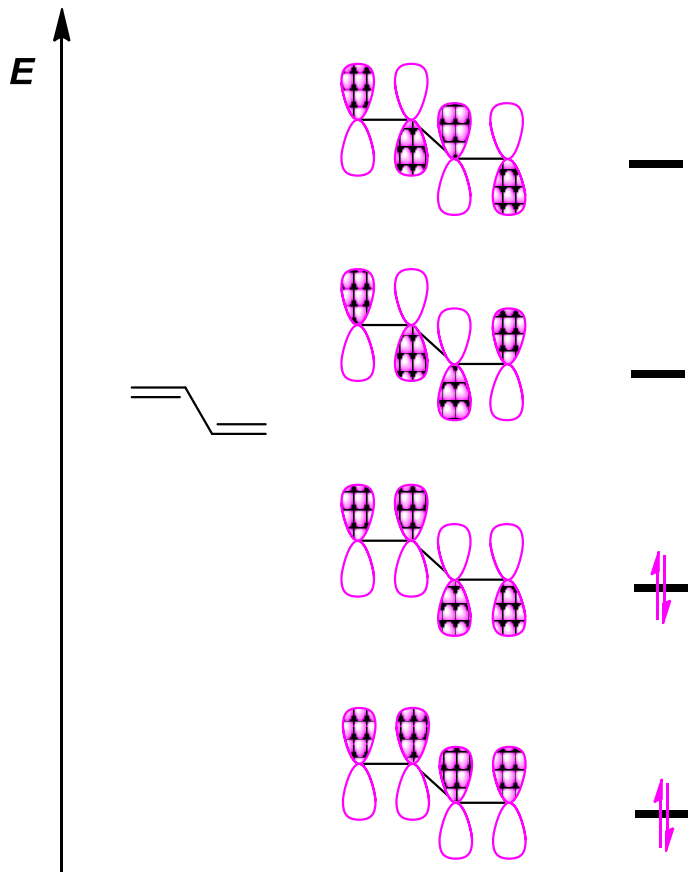
Při termických electrocylizačních reakcích zvažujeme symetrii HOMO.



▪ Analýza pomocí molekulových orbitalů

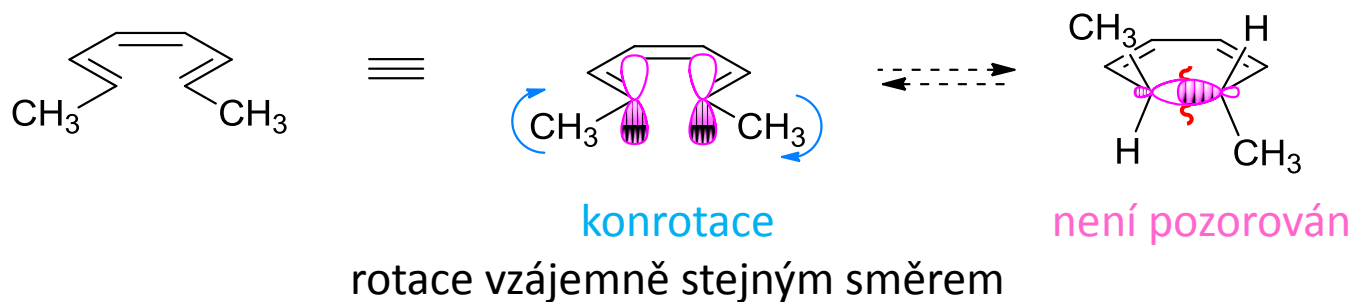
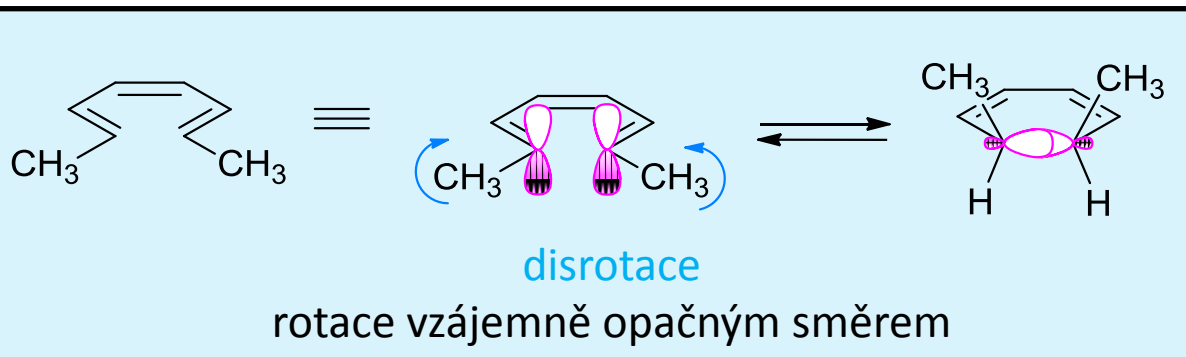
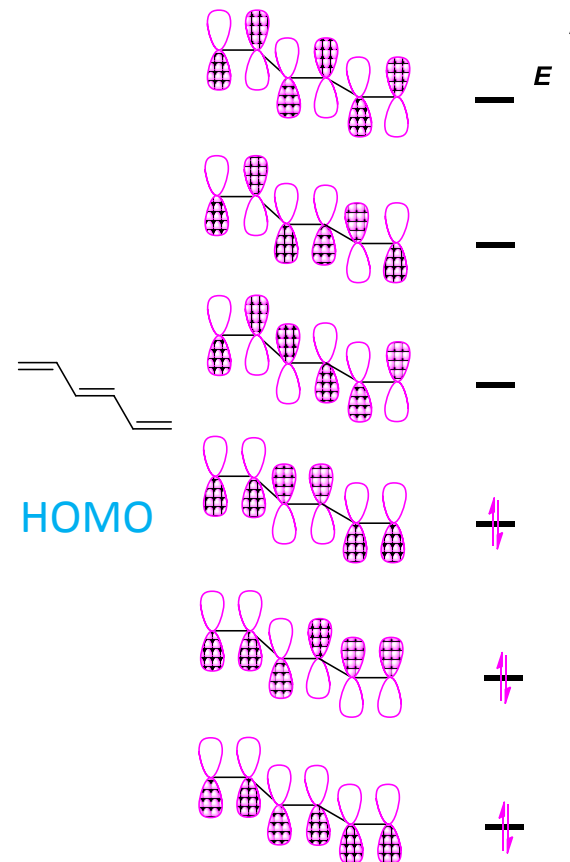


Elektrocyclizace je rovnovážná reakce a lze její mechanismus analyzovat v obou směrech (**princip mikroskopické reversibility**).

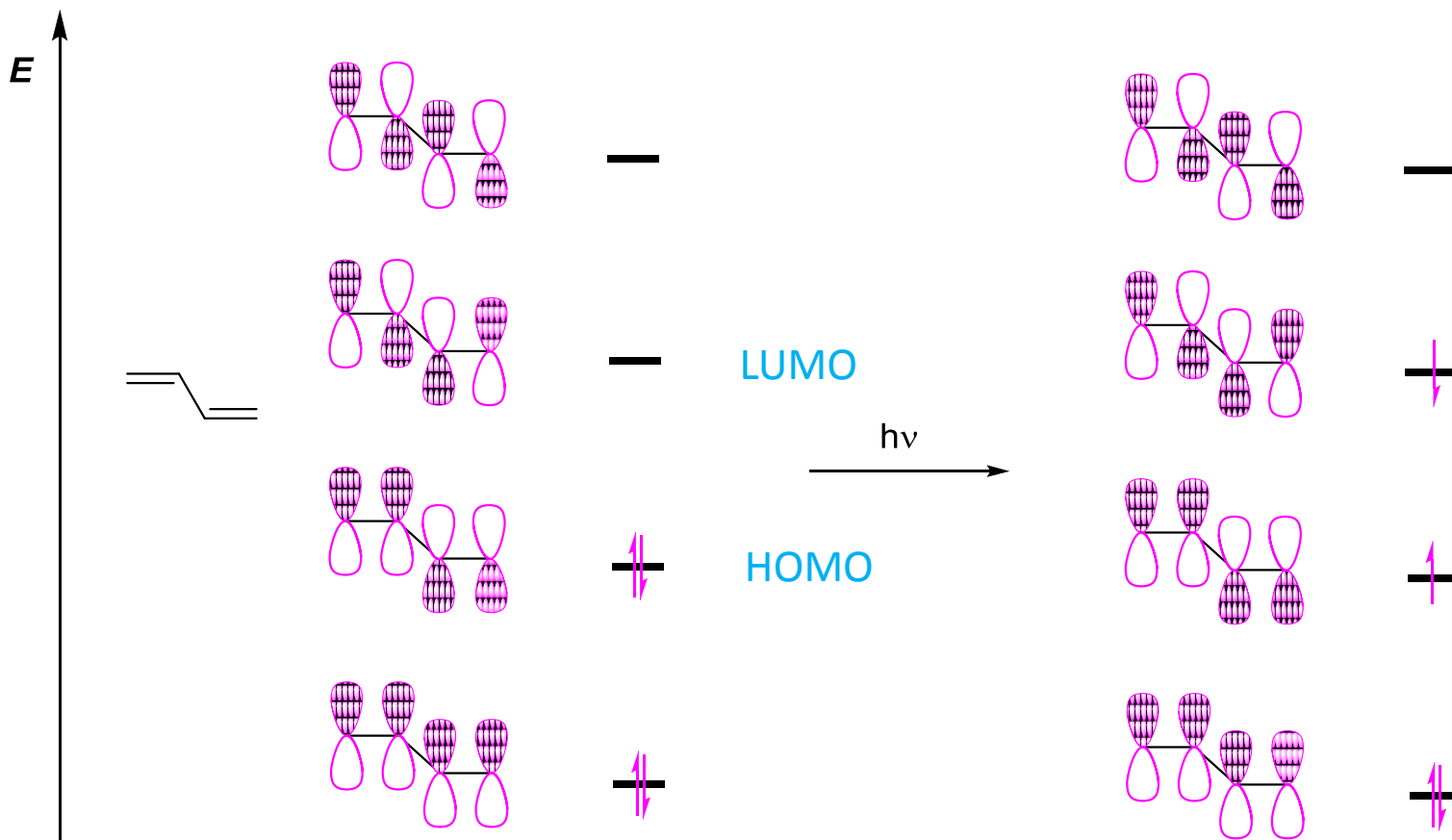




- Analýza pomocí molekulových orbitalů
- Experimentální pozorování ...



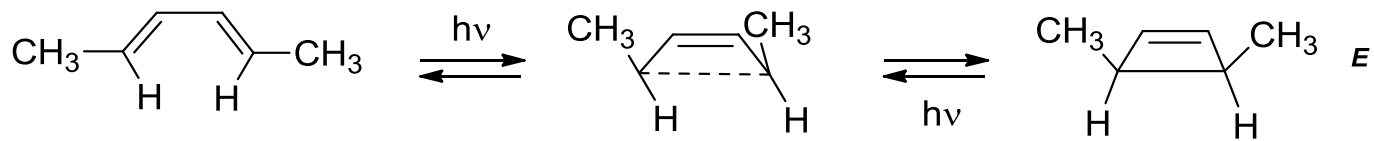




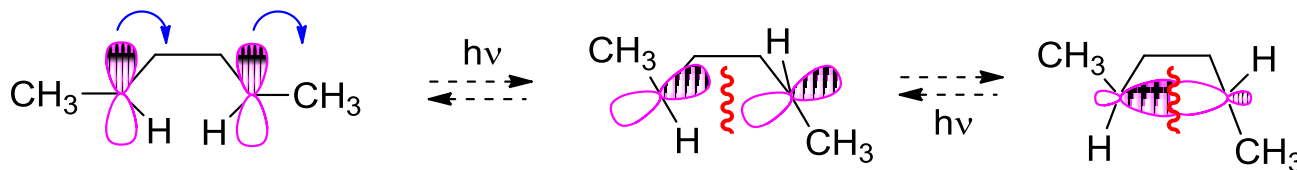
Při fotochemických electrocyklizačních reakcích zvažujeme symetrii LUMO.



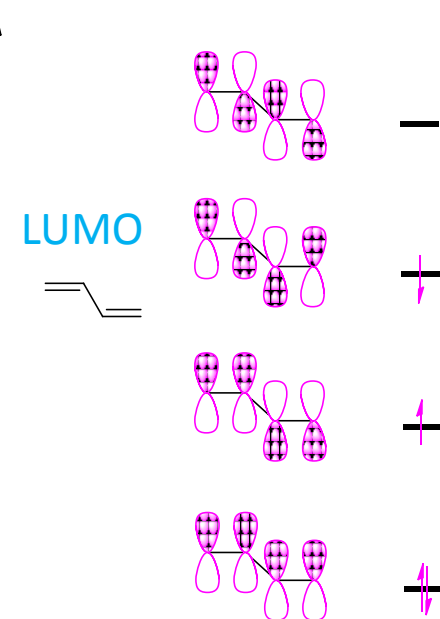
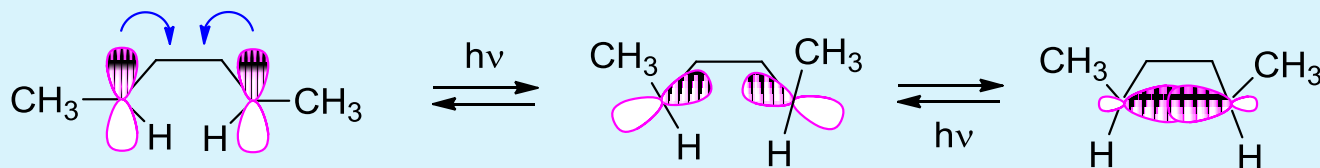
▪ Analýza pomocí molekulových orbitalů



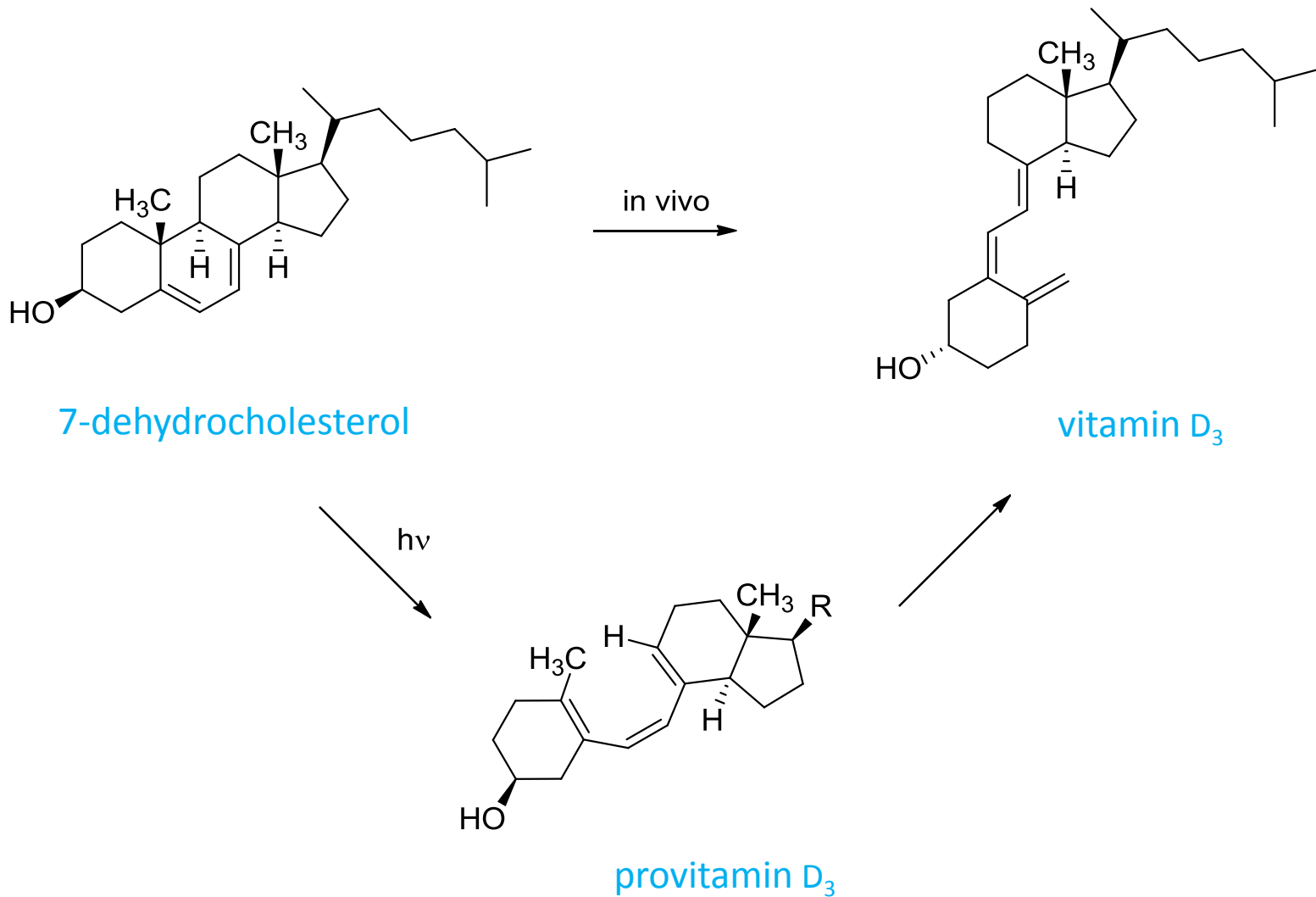
konrotace



disrotace



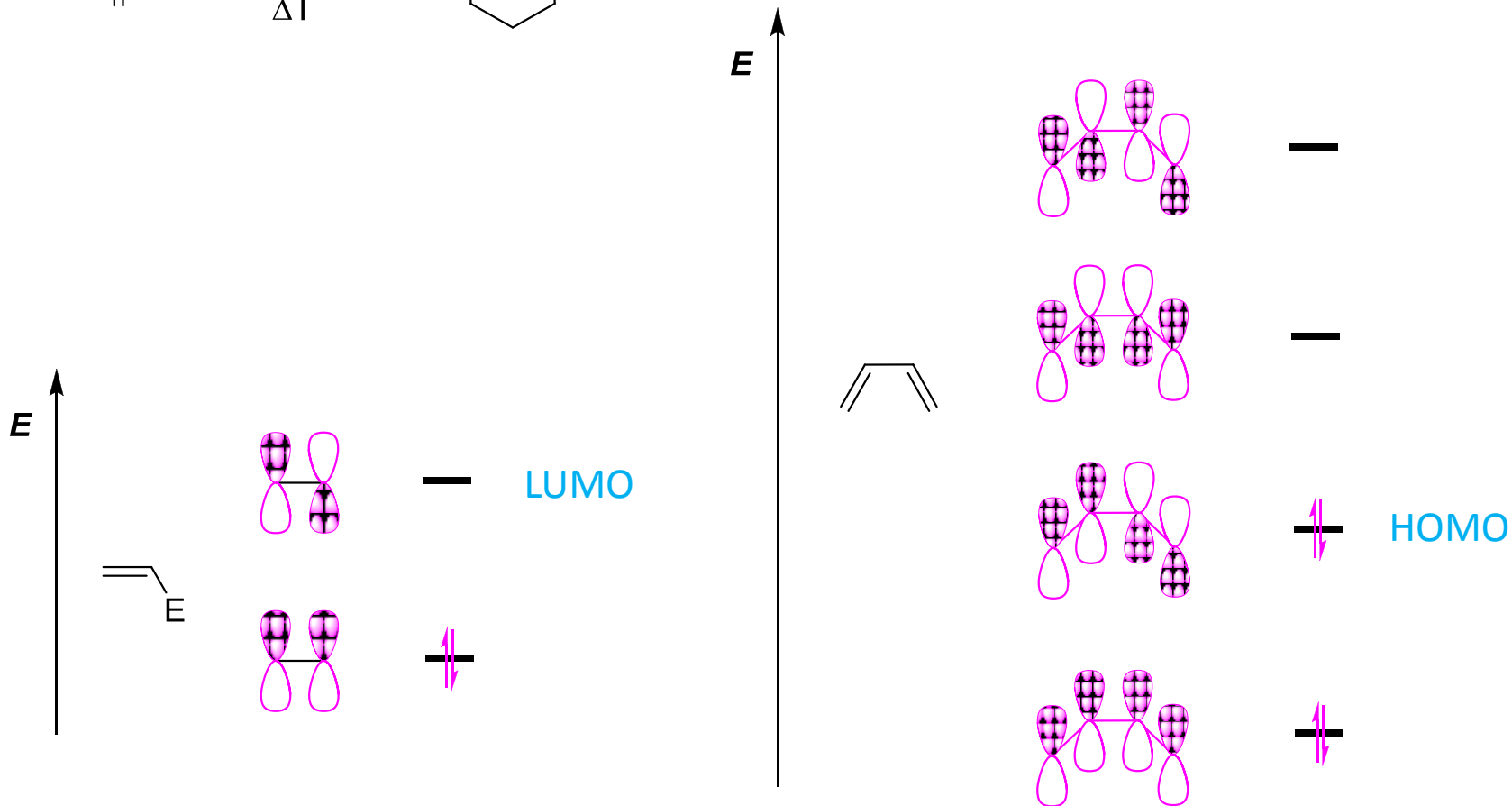
Elektrocyclizace je rovnovážná reakce a lze její mechanismus analyzovat v obou směrech (princip mikroskopické reversibility).



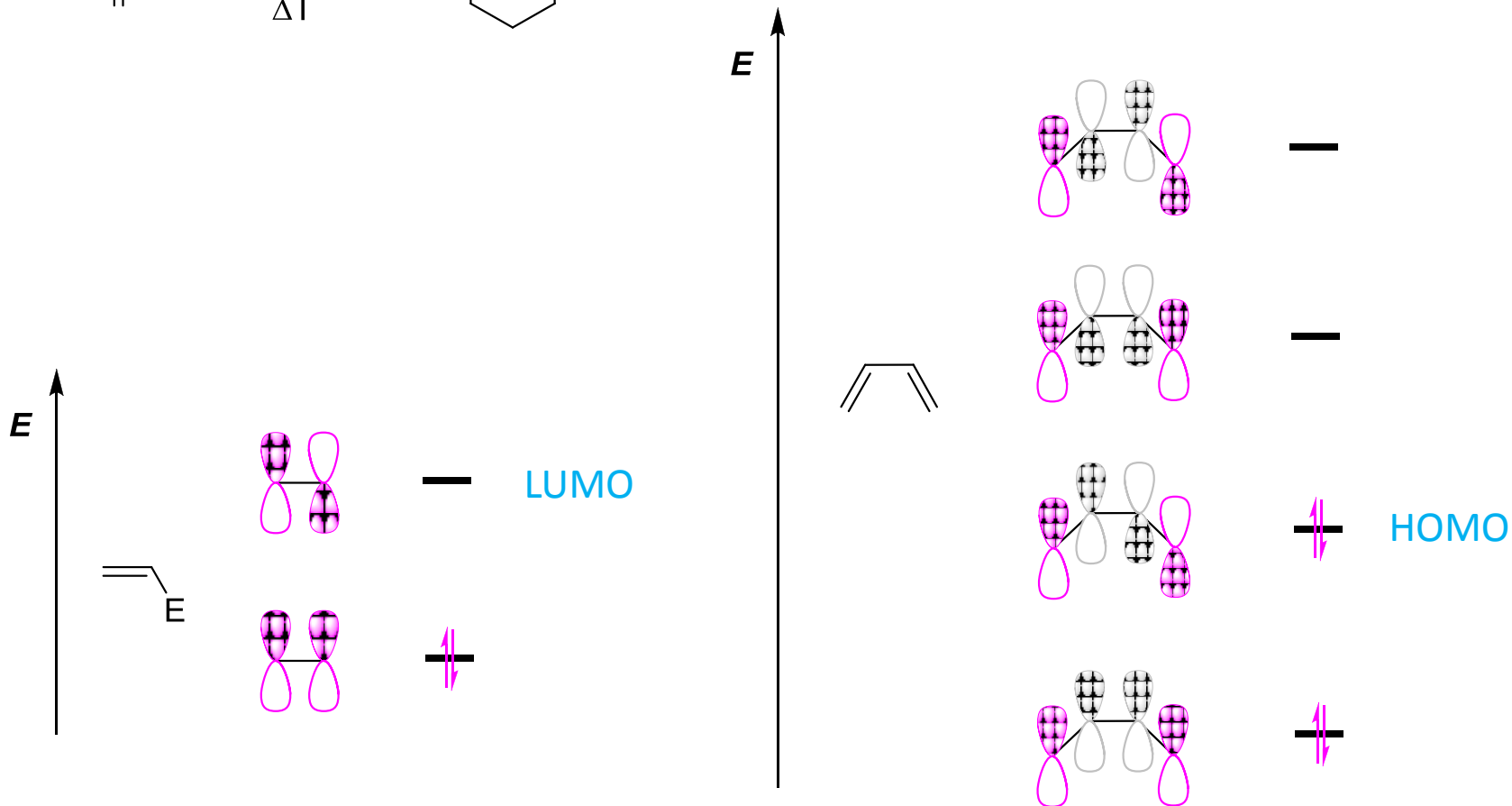


**Průběžný test 3: pátek 5.12.**

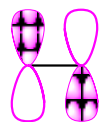
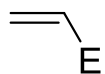
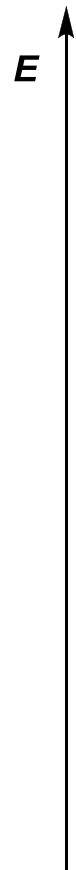
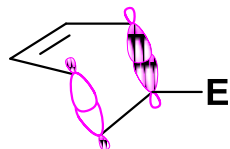
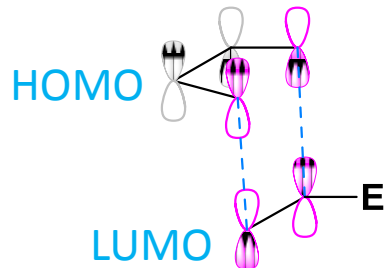
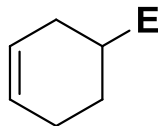
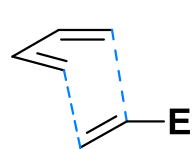
	7.11.	Průběžný test 2	
16	7.11.	Dieny a polyeny	<i>M</i> : 464-497; 1134-1158
17	12.11	Dieny a polyeny	
18	14.11.	Dieny a polyeny	
19	19.11.	Aromatické sloučeniny	<i>M</i> : 498-586; 915-922
20	21.11.	Aromatické sloučeniny	
21	26.11.	Aromatické sloučeniny	
22	28.11.	Alkany	
23	3.12.	Alkany	
	5.12.	Průběžný test 3	
25	10.12.	Organokovové sloučeniny	
26	12.12.	Fotochemie	
27	17.12.	TBA	
28	19.12.	TBA	



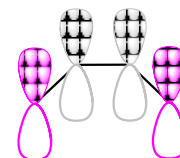
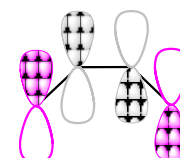
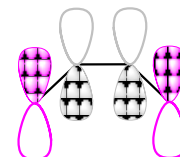
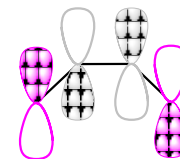
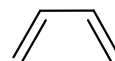
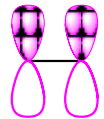
reakce probíhá na terminálních atomech alkenů a dienu



reakce probíhá na terminálních atomech alkenů a dienu



— LUMO

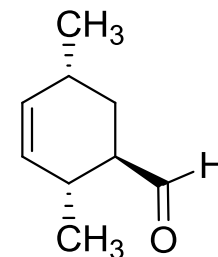
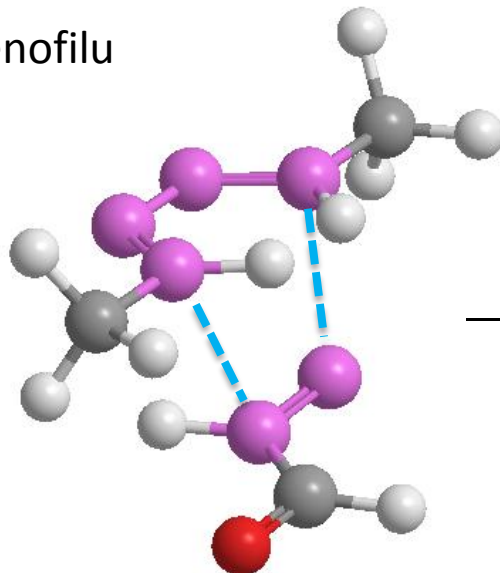
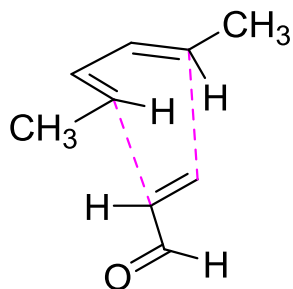


HOMO

reakce probíhá na terminálních atomech alkenu a dienu

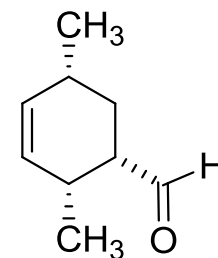
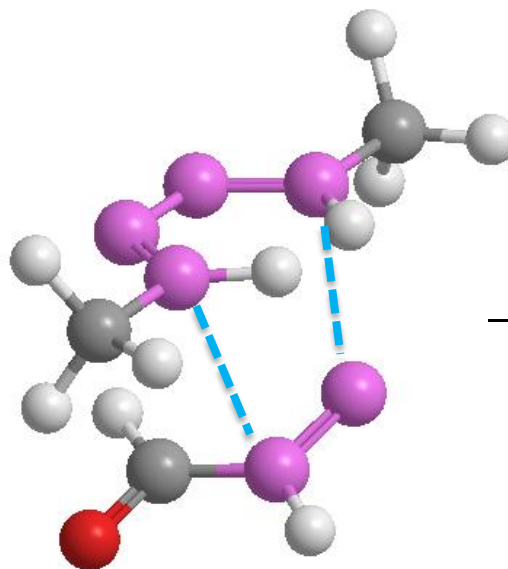
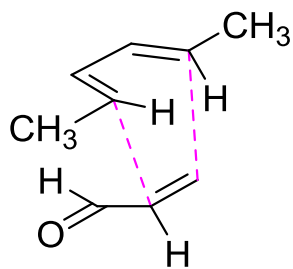


Exo a endo orientace dienu a dienofilu



exo

diastereomery



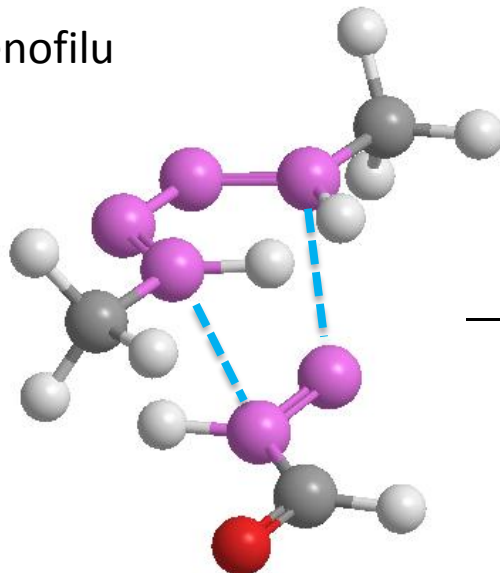
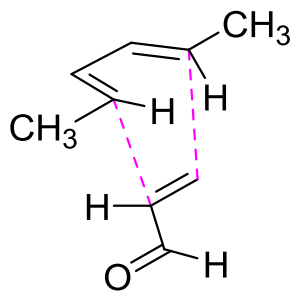
endo

Q: jaký produkt by vznikl přístupem dienu ze spodní strany dienofilu?

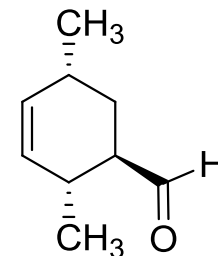
Q: jaký produkt by vznikl přístupem dienu ze spodní strany dienofilu?



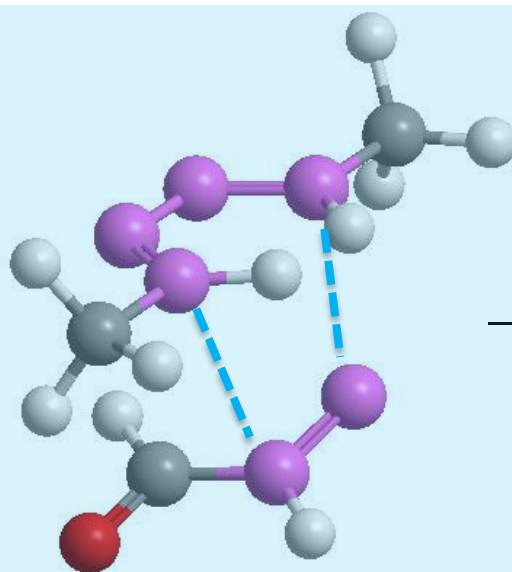
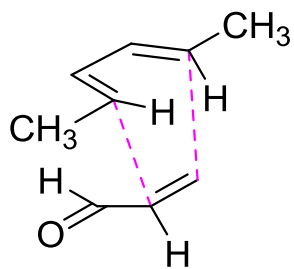
Exo a endo orientace dienu a dienofilu



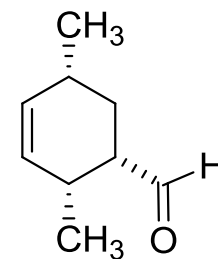
exo



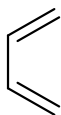
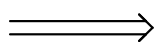
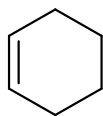
diastereomery



endo



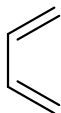
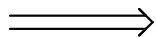
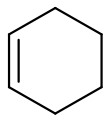
Endo produkt vzniká rychleji  
(kinetický produkt)



+



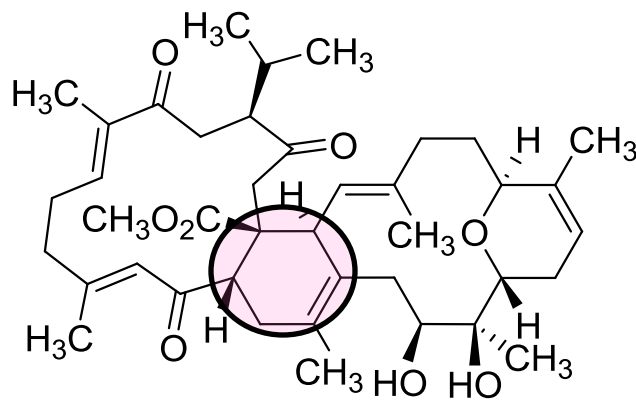
“retrosyntetické oko”



+



“retrosyntetické oko”

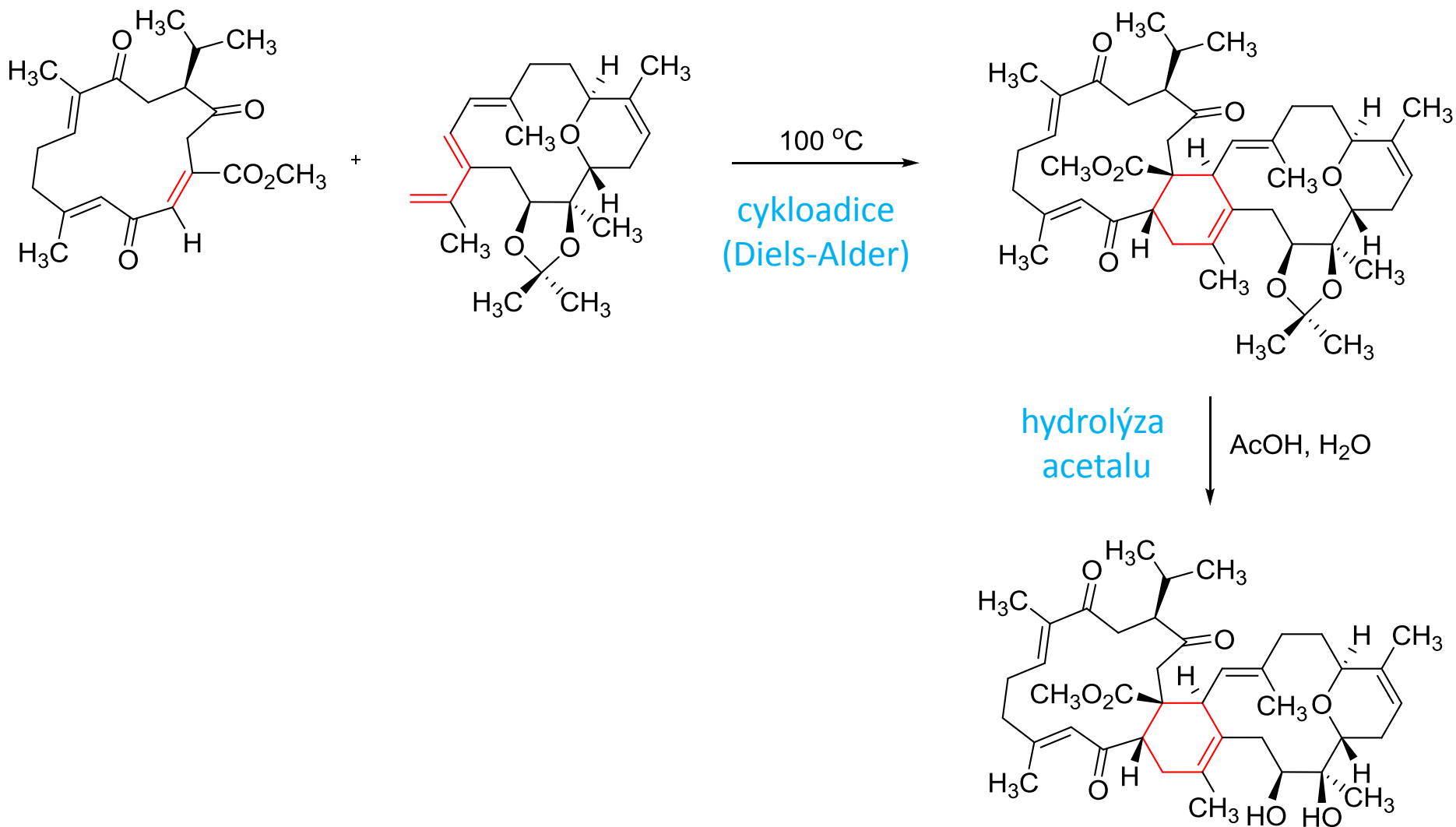


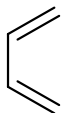
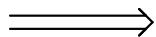
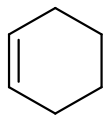
Methyl sarcophytoate





## Syntéza

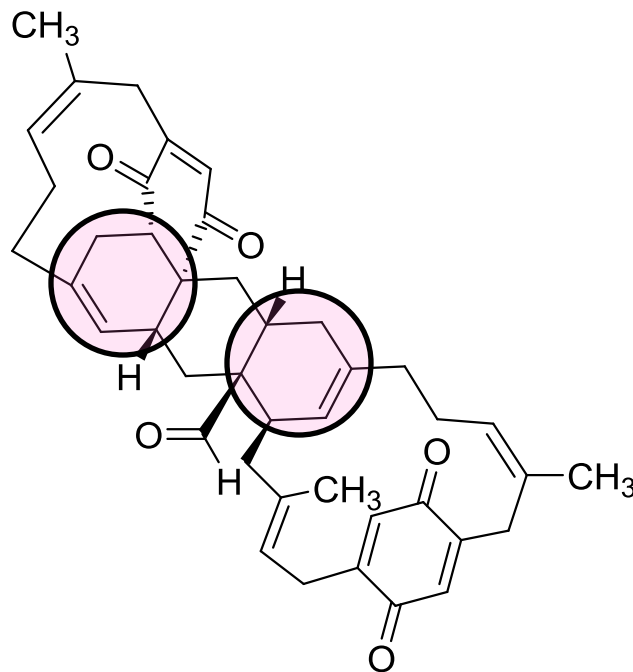




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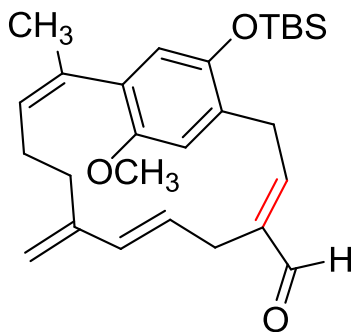
“retrosyntetické oko”



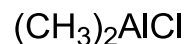
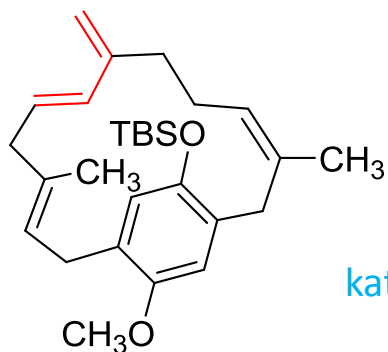
Longithorone A

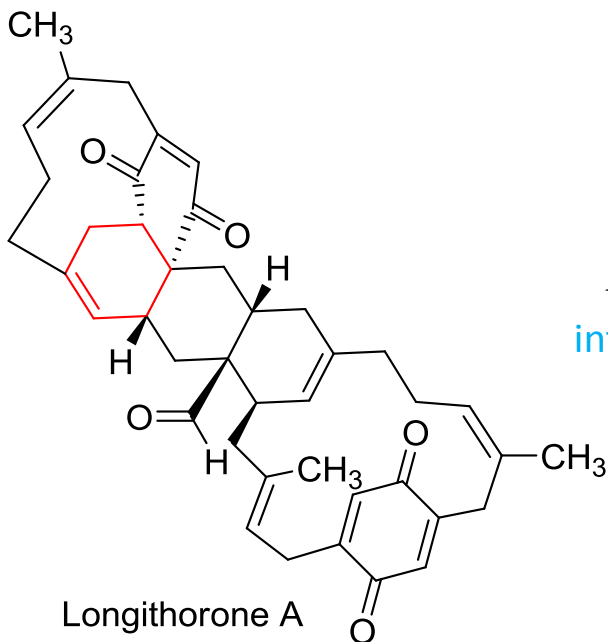
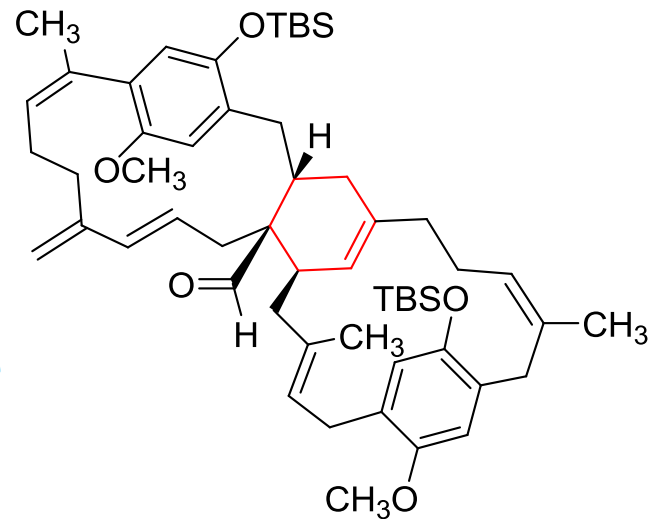


## Syntéza



+


 $-20\text{ }^\circ\text{C}$ 

 katalyzovaná cykloadice  
 (nižší teplota)

 $25\text{ }^\circ\text{C}$ 

 intramolekulární  
 cykloadice
