

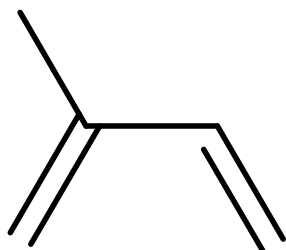
第十七章 蕈类与留族

第一节 蕈类

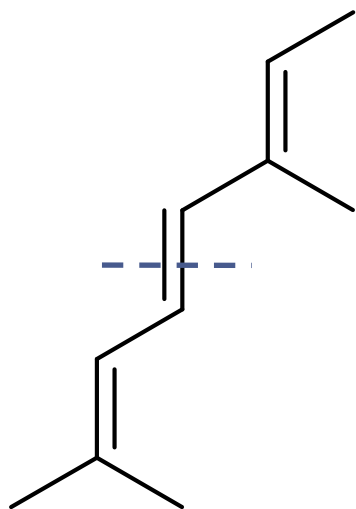
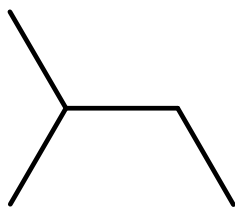
什么是萜

- 萜类：

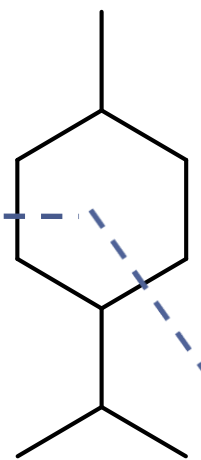
由两个或两个以上**异戊二烯单位**按不同的方式连接形成的化合物及其衍生物



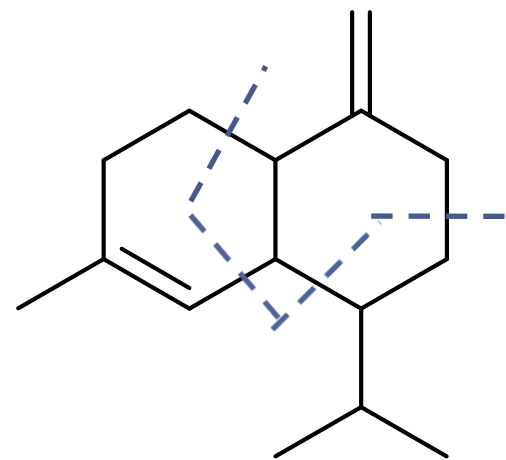
异戊二烯



4-反-6-反别罗勒烯



萜烷

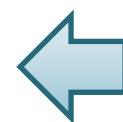


杜松烯

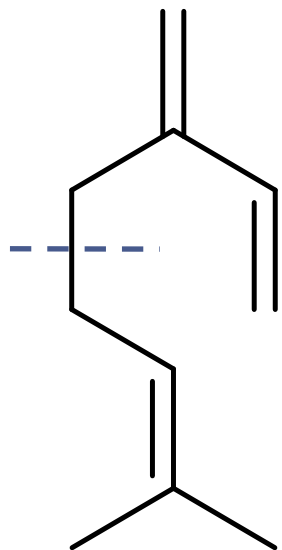


有什么萜

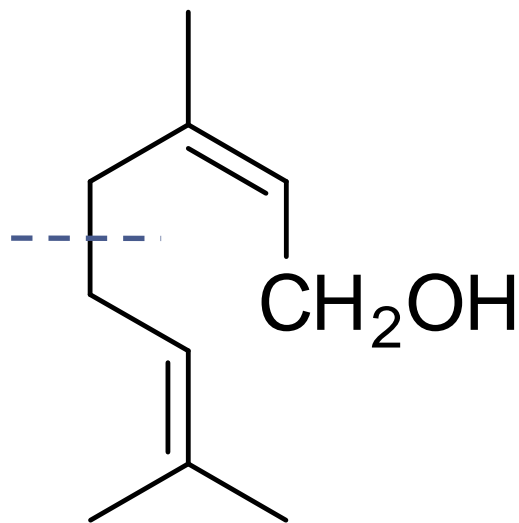
	异戊二烯单位	碳原子数
单萜	2	10
倍半萜	3	15
二萜	4	20
三萜	6	30
多萜	>6	>30



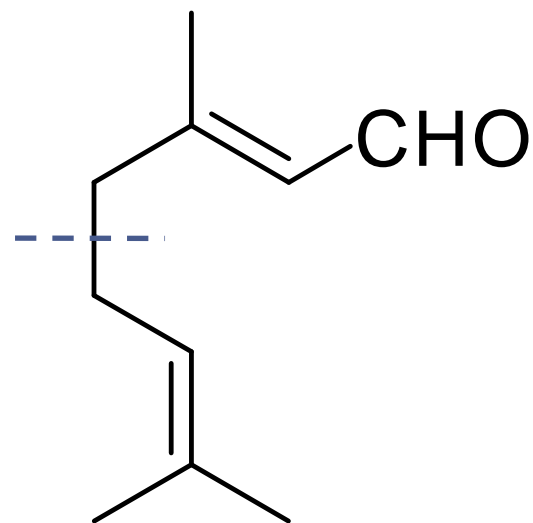
开链单萜



β -月桂烯

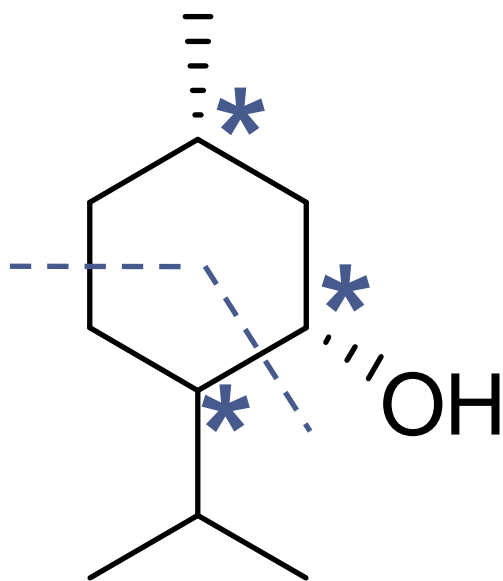


橙花醇



α -柠檬醛

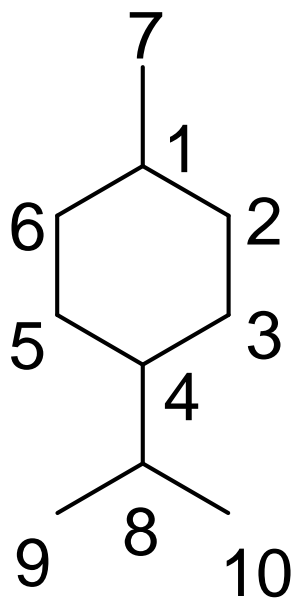
单环单萜



左旋薄荷醇

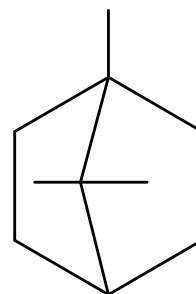
- 天然薄荷中提取的萜类化合物
- 三个手性中心
- 共存在八个立体异构体

双环单萜



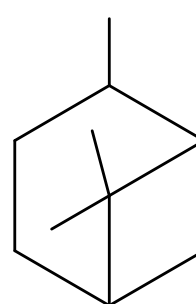
萜烷

C_8-C_1 相连

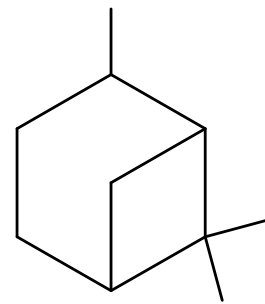
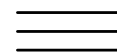


蒎烷

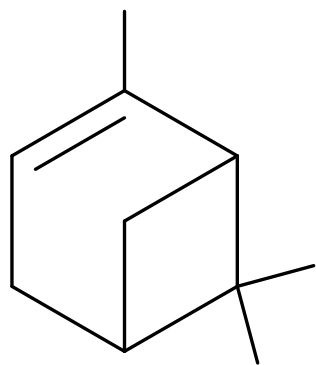
C_8-C_2 相连



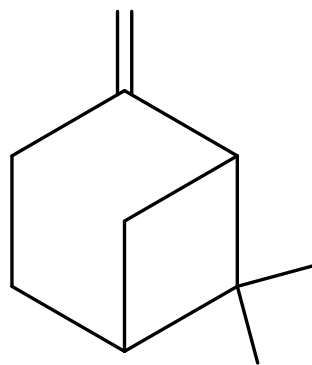
蒎烷



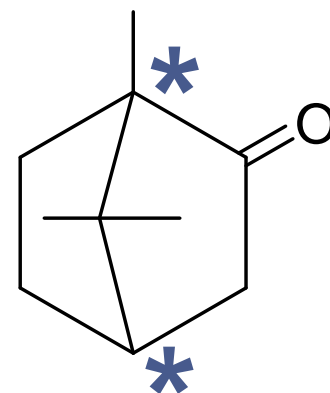
蒎烷与茨烷的衍生物



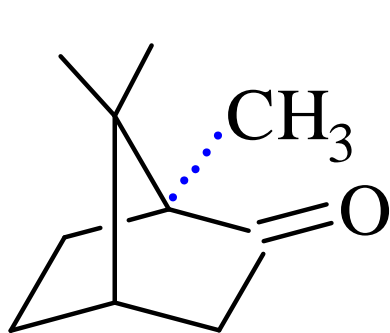
α -蒎烯



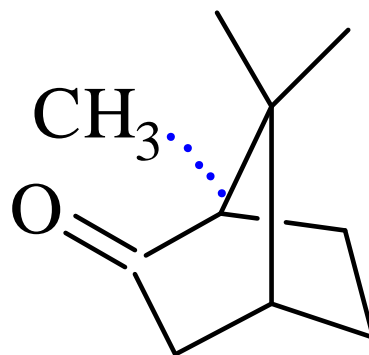
β -蒎烯



樟脑(α -茨酮)

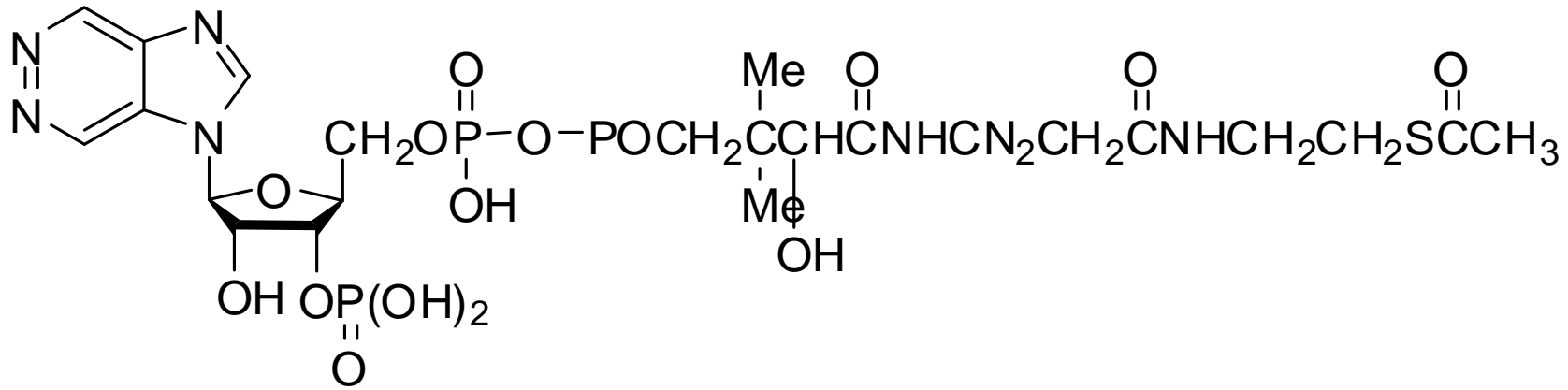


(-)-樟脑

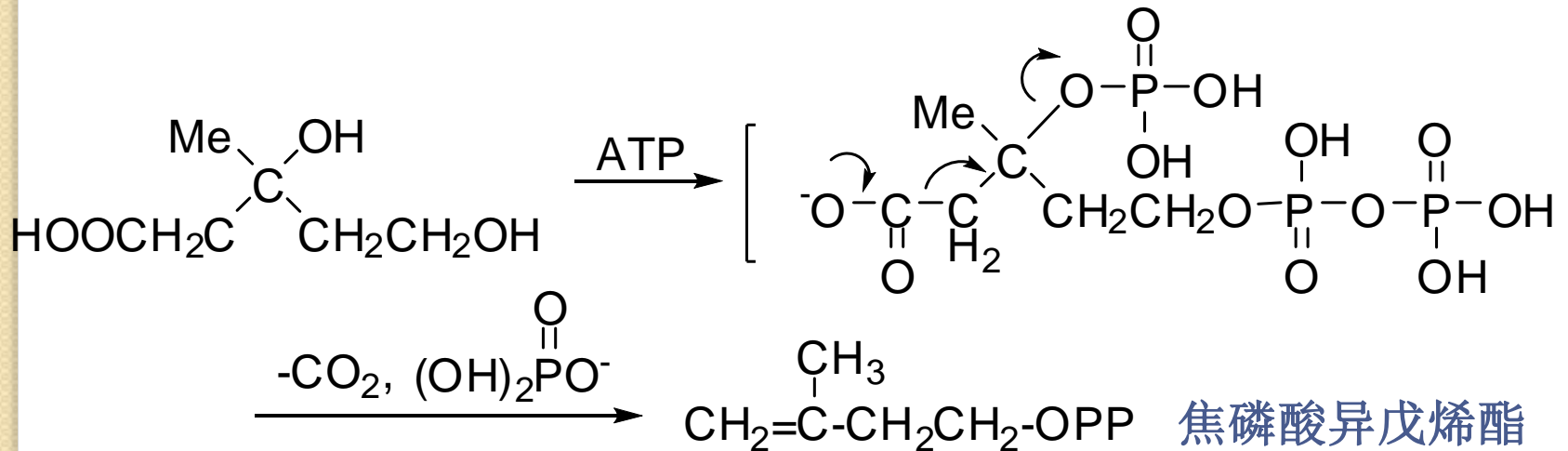
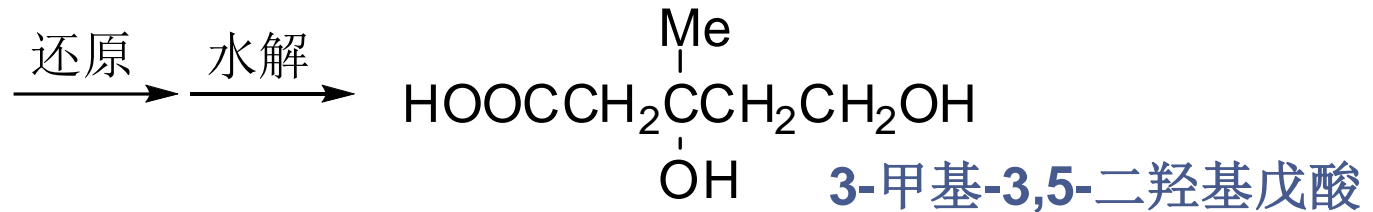
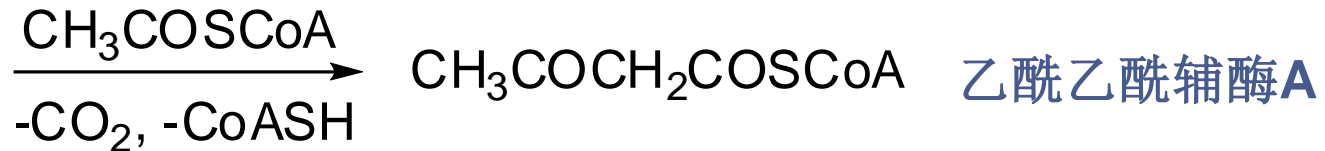


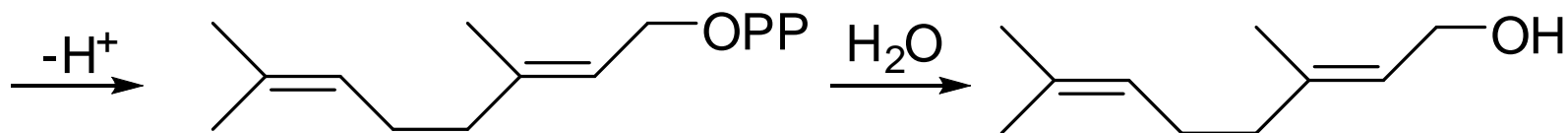
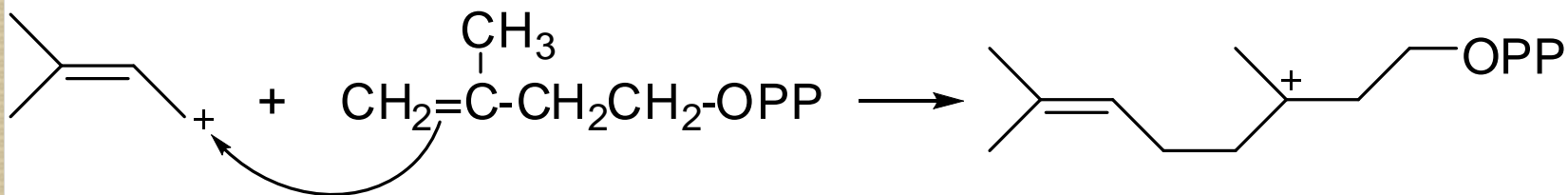
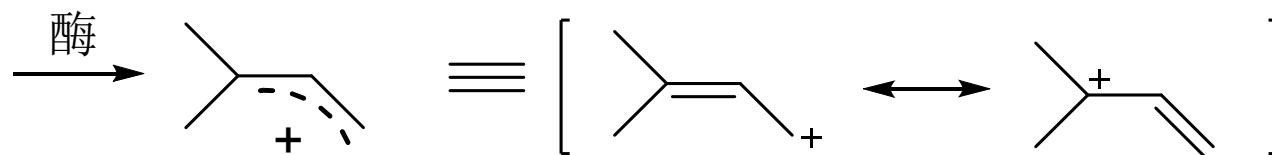
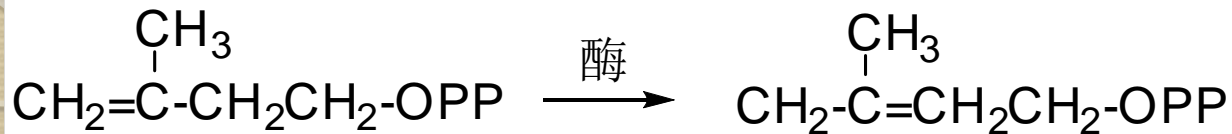
(+)-樟脑

为什么有萘



乙酰辅酶A (CH₃COSCoA)





牻牛儿醇

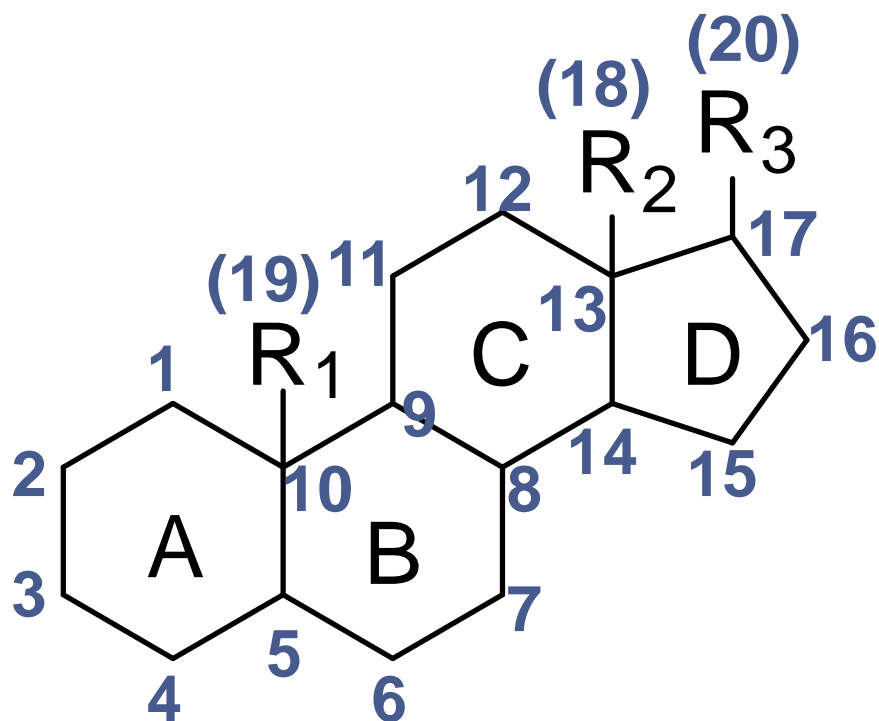
萜类小结

- 萜的定义，异戊二烯规则
- 萜的分类，单萜、倍半萜、二萜……
- 如何判定一个萜的类型
- 典型的化合物，薄荷醇、樟脑、龙脑

第十七章 萜类与甾族

第二节 甾族化合物

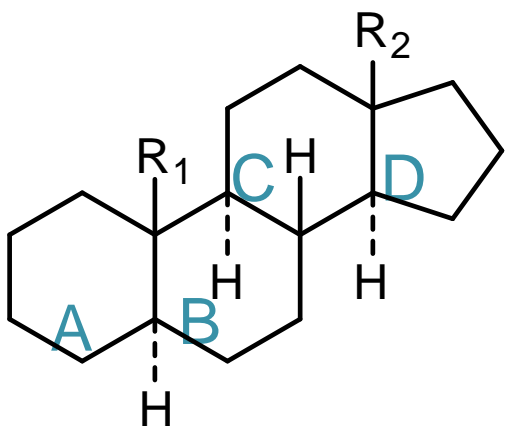
甾



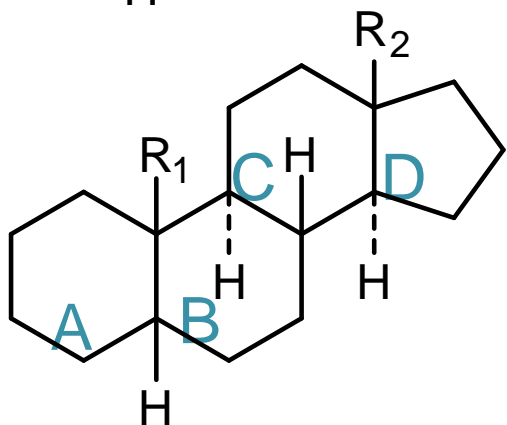
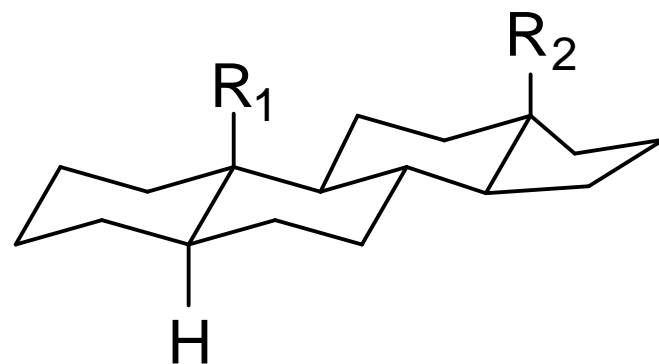
编号次序:

- A-B
- C
- D

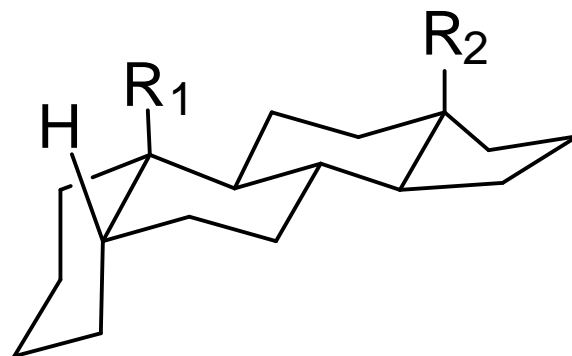
甾族化合物的构型



别系
A/B反式
B/C、C/D反式
(5 α 型)

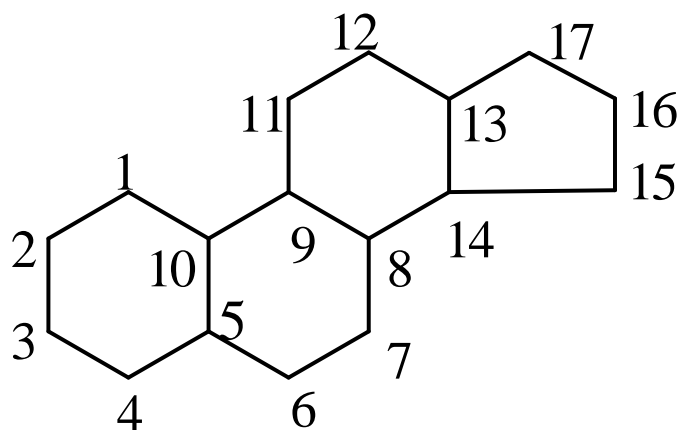


正系
A/B顺式
B/C、C/D反式
(5 β 型)

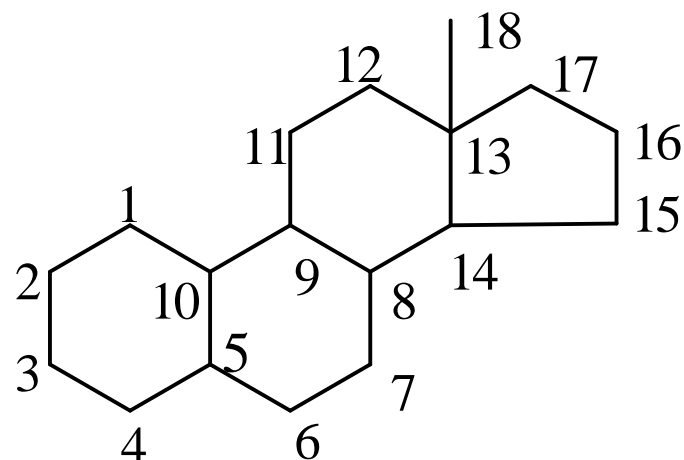


取代基处于环平面上方(与R₁同侧): β
取代基处于环平面下方(与R₁异侧): α

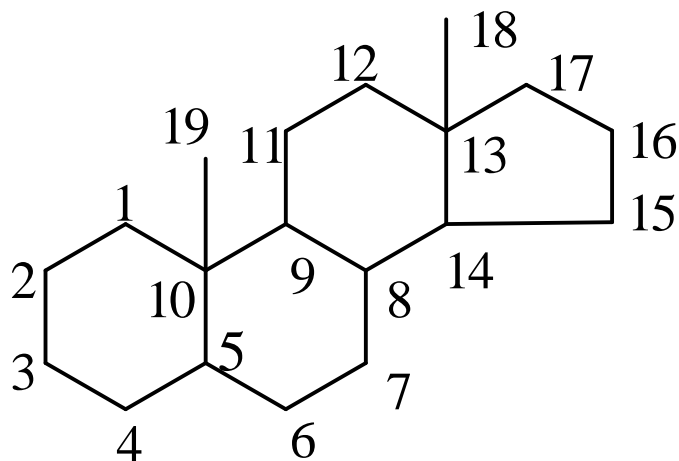
甾族化合物的母核



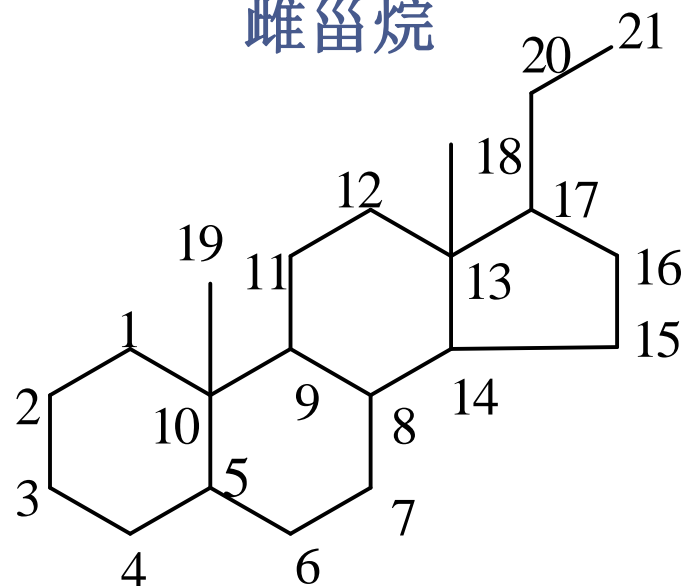
甾烷



雌甾烷

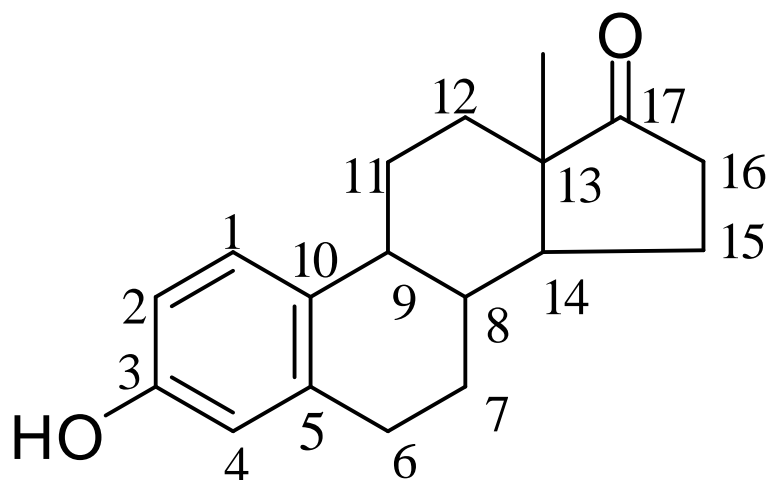


雄甾烷

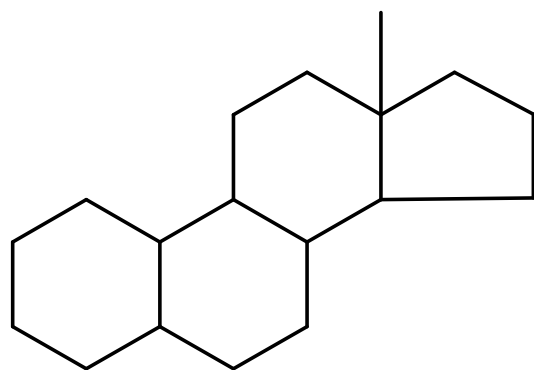


孕甾烷

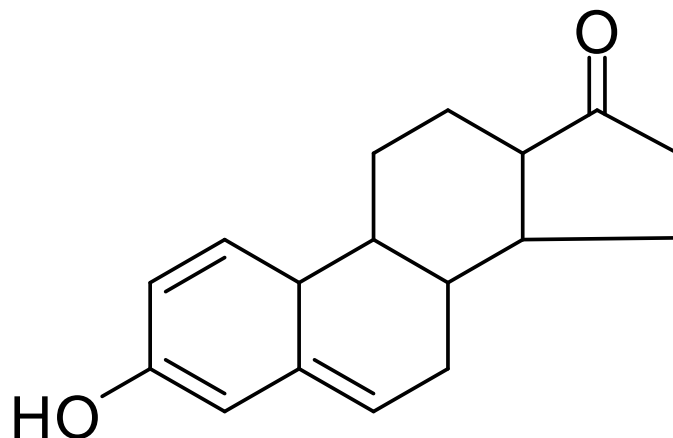
甾族化合物的命名



3-羟基雌甾
-1,3,5(10)-三烯-17-酮
雌酮激素(雌酚酮)

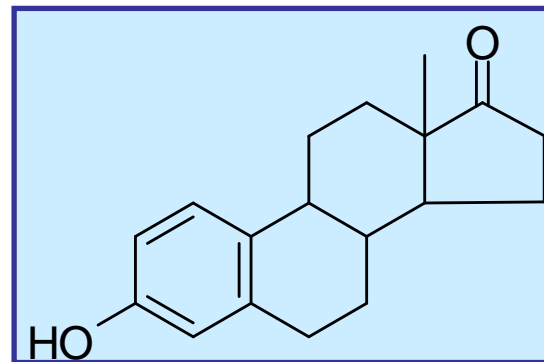
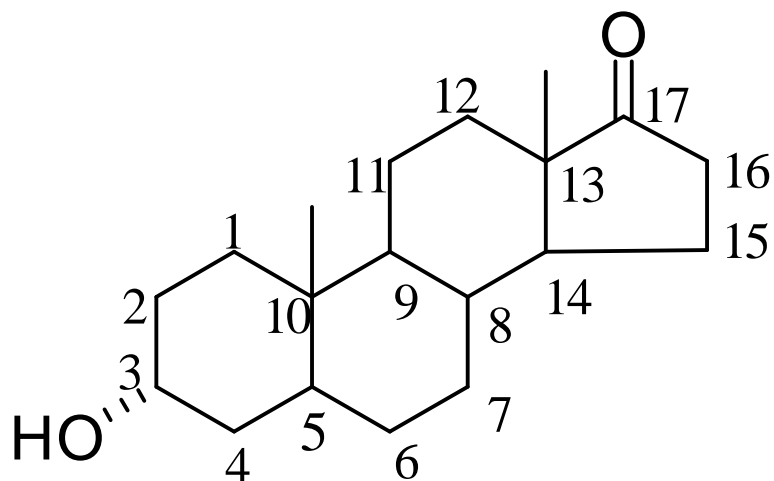


母体：雌甾烷

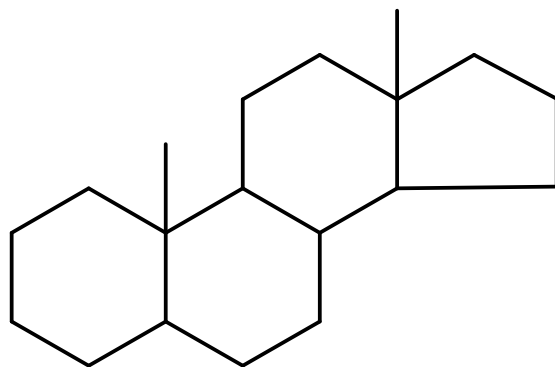


3-羟基雌甾
-1,3,5-三烯-17-酮

甾族化合物的命名

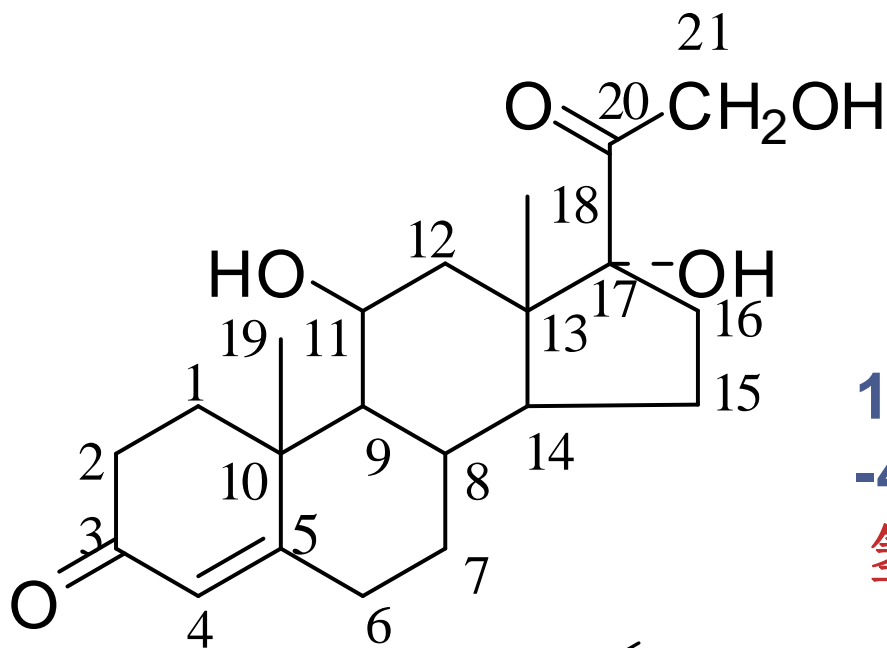


3 α -羟基雄甾-17-酮
雄酮激素

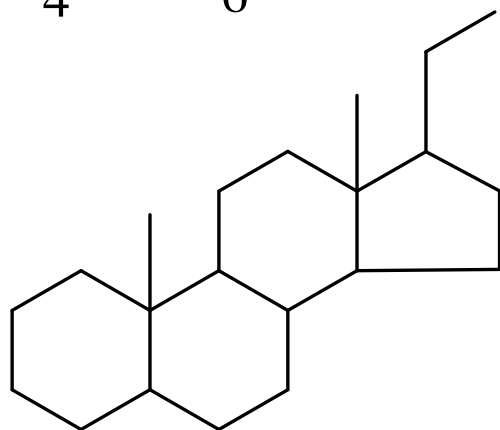


母体：雄甾烷

甾族化合物的命名



11 β ,17 α ,21-三羟基孕甾
-4-烯-3,20-二酮
氢化可的松



母体：孕甾烷

甾族小结

- 什么是甾族化合物，甾族的基本骨架
- 甾族化合物的构型，正系/别系， α/β
- 甾族化合物的编号
- 甾族化合物的四种母核，命名