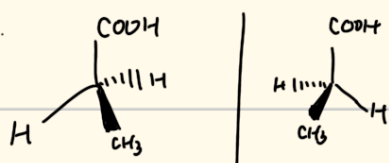


Stereoisomerism 立体异构

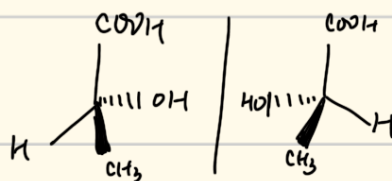
1. 手性 (chirality)

丙酸



非手性分子

乳酸



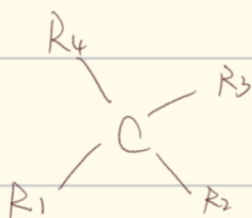
手性分子

$\Rightarrow$ 对映异构体, 简称对映体

2. 对称因素:

1) 对称面: 有对称面分子为非手性分子

2) 对称中心: 有对称中心 为非手性分子



$\rightarrow$ 4个不同 $\Rightarrow$ 一定是手性

3) 性质差: $[\alpha]_D$ 旋光度 (+/-)

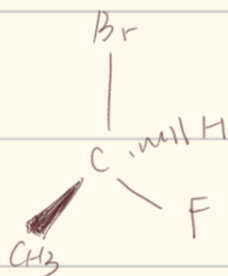
外消旋体: 等量对映异构体混合物, 用 $(\pm)$ 表示
meso 内消旋: 分子内有手性中心而无手性

R/S 标记法.

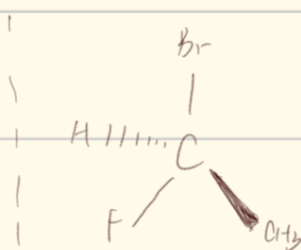
① 将手性碳原子上相连四原子/基团按从大到小排序 ($a > b > c > d$)

② 将 d 远离观察者

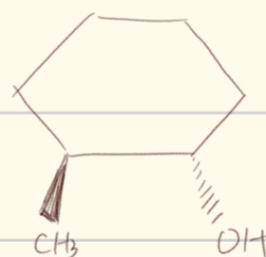
③ 观察其系 $\begin{cases} a-b-c & R \\ a-b-c & S \end{cases}$



R.

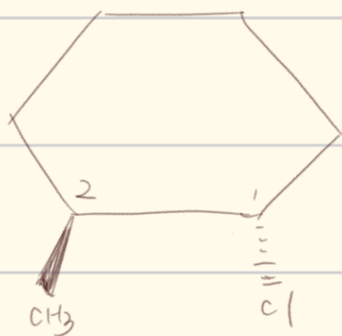


S



(S)

(S)



(S)

(S)



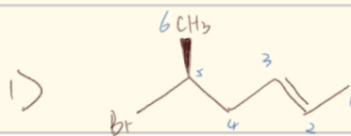
R

R

(1S, 2S) - 1-chloro-2-methylcyclohexane

(1R, 2R) - 1-bromo-2-ethylcyclohexane

差向异构: 有多手性中心而只有一个手性不同



(E,S) - 5-bromo hex-2-ene



(E,R) - 4,7-dimethylnona-1,4-diene