

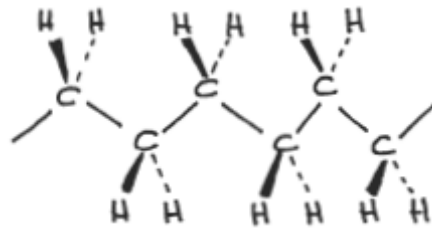
聚合物固态

吹塑高密度聚乙烯
牛奶瓶（可回收）



半结晶性微结构

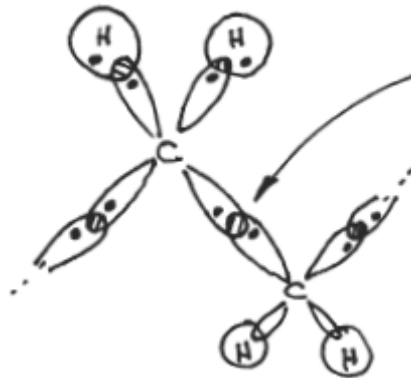
长链分子



共价键的碳氢化合物

键合

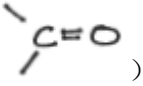
- 单键 $2s^2 2p^2 \rightarrow sp^3$

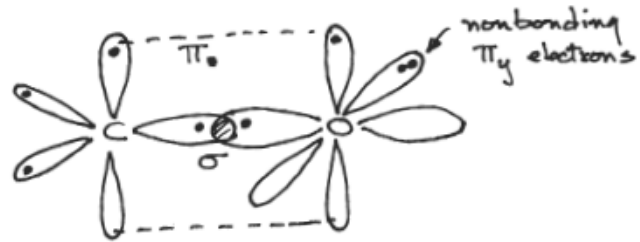
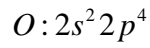
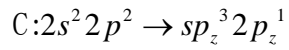


σ 键易旋转

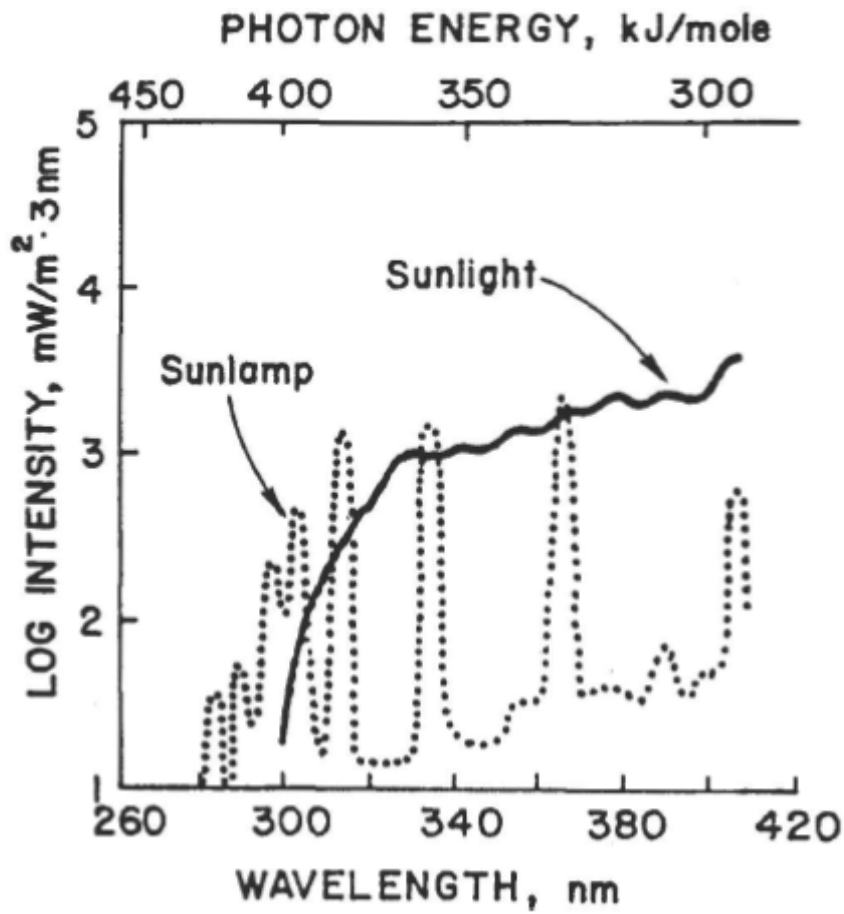
$l=154\text{pm}$

$E_d=346\text{kJ/mol}$

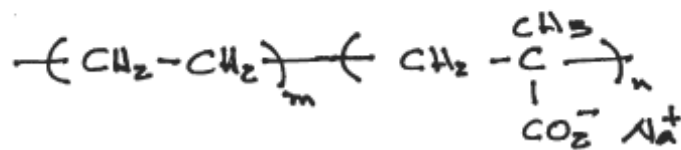
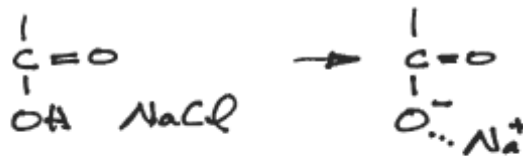
- 双键（例如羰基 )



$$\Delta E_{n \rightarrow \pi^*} = 400 \text{ kJ/mol}, \lambda = \frac{hc}{\Delta E} = 300 \text{ nm}$$

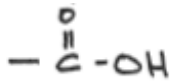


- 离子 (例如 离聚物 Surlyn)

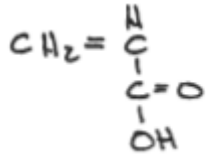


命名-例子

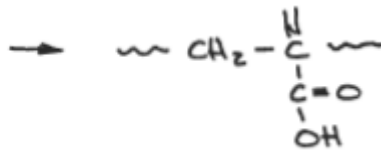
- 羧酸



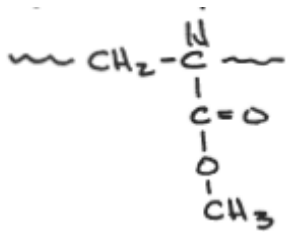
- 丙烯酸



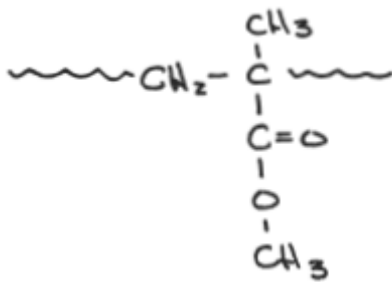
聚丙烯酸



- 聚甲基丙烯酸酯

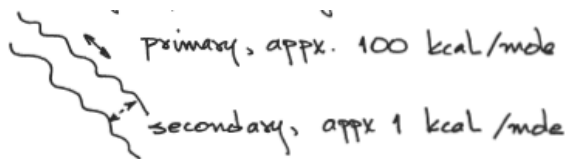


- 聚甲基丙烯酸甲酯 (PMMA)

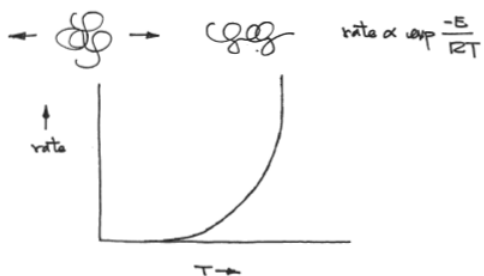


一些主要特征

- 键的各向异性



- 构象变化



网络联接

