

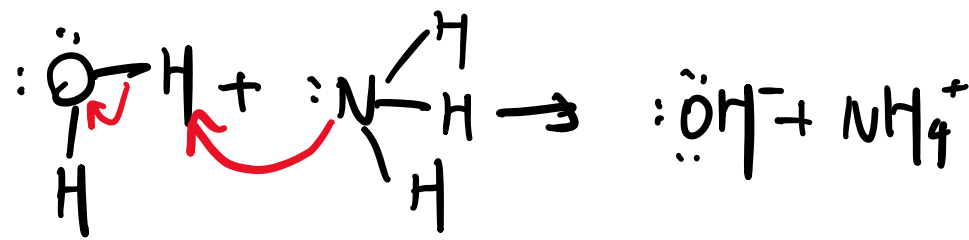
# Acidity of Organic Compounds

2026年3月16日 星期一 08:39

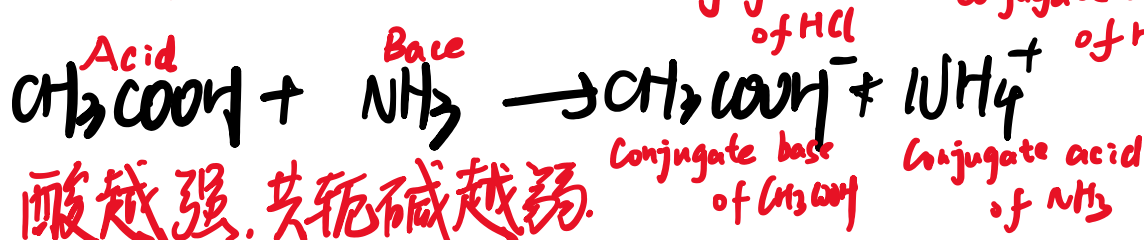
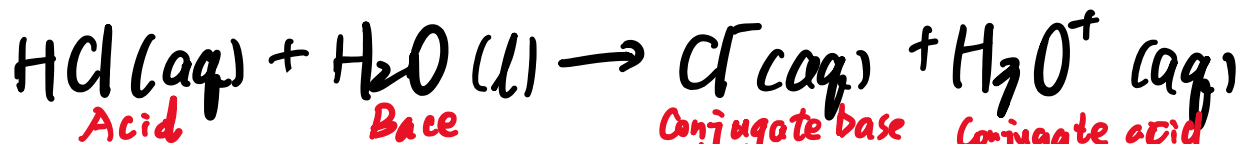
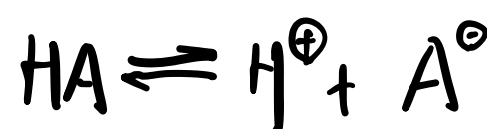
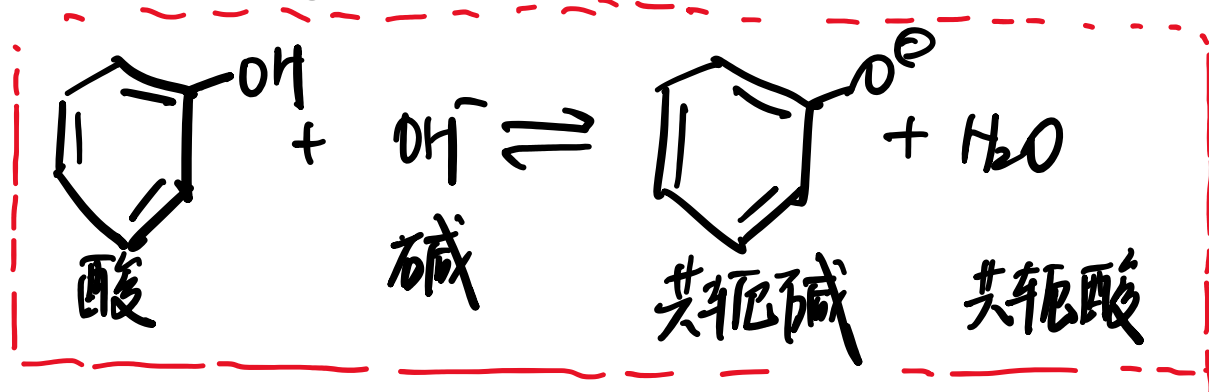
Bronsted 和 Lowry 质子论 给出质子的是酸, 接收质子的是碱

Lewis 提出电子论

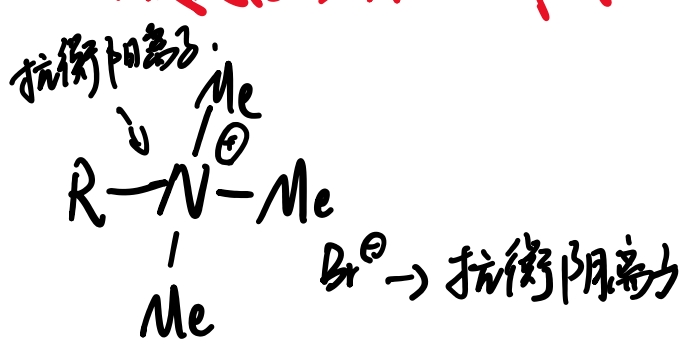
Pearson 软硬酸碱理论



Bronsted-Lowry 质子论



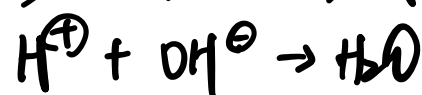
酸越强, 共轭碱越弱



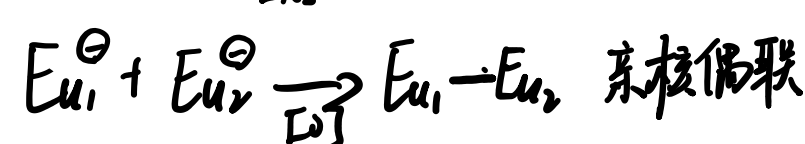
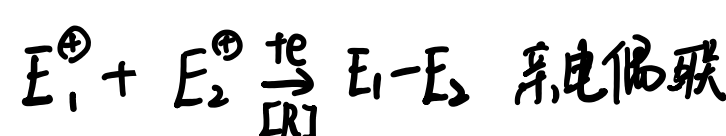
$$K_a = \frac{[\text{H}^+][\text{A}^-]}{[\text{HA}]}$$

pKa 是酸式解离常数的负对数

\* 强酸生弱酸 强碱生弱碱



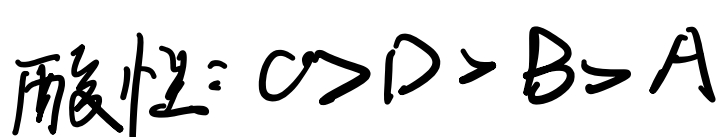
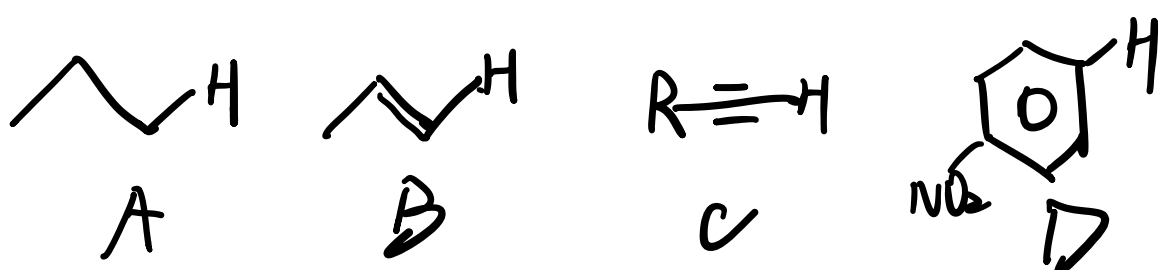
亲电 亲核 亲核亲电



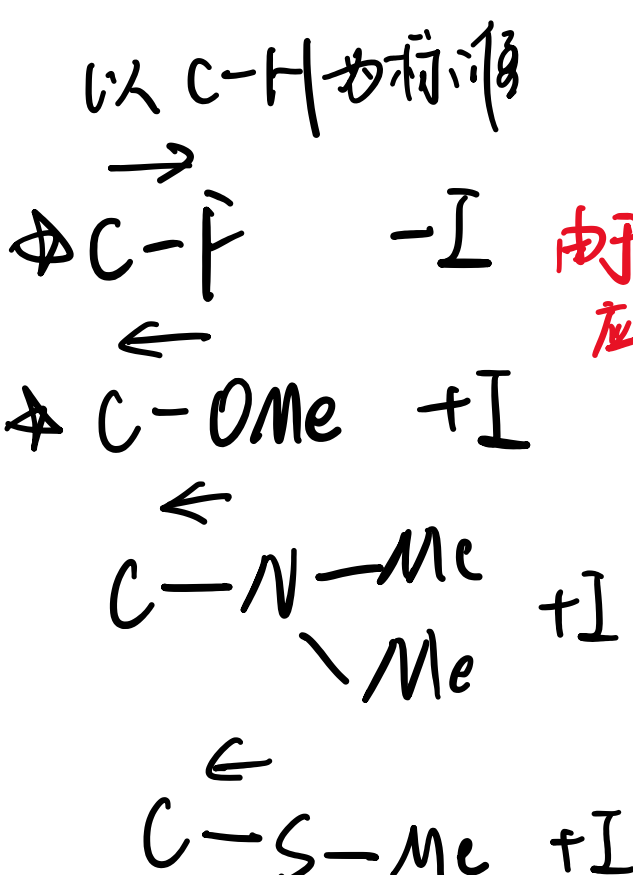
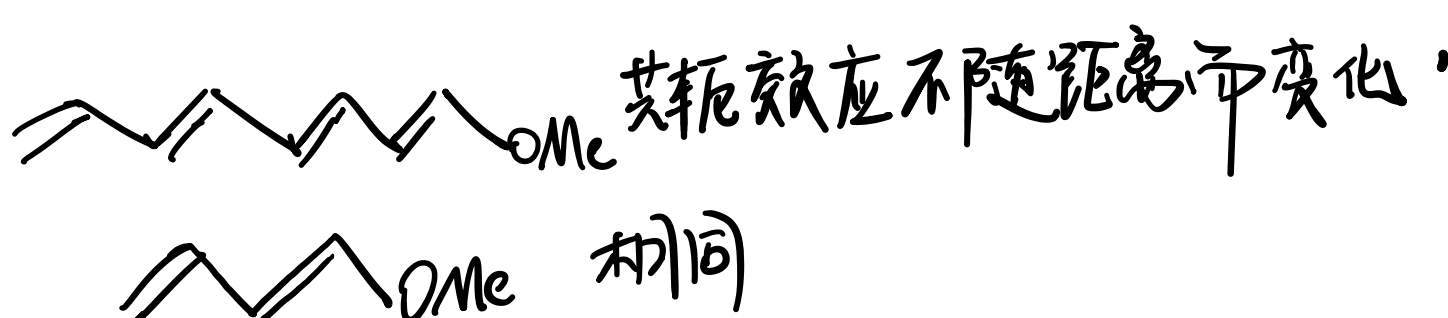
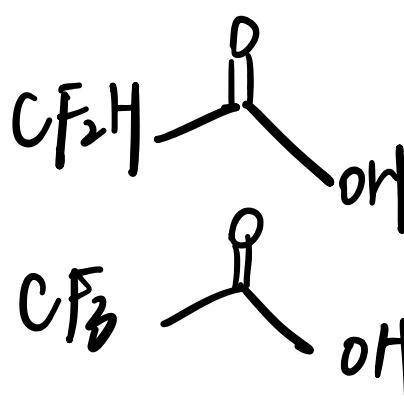
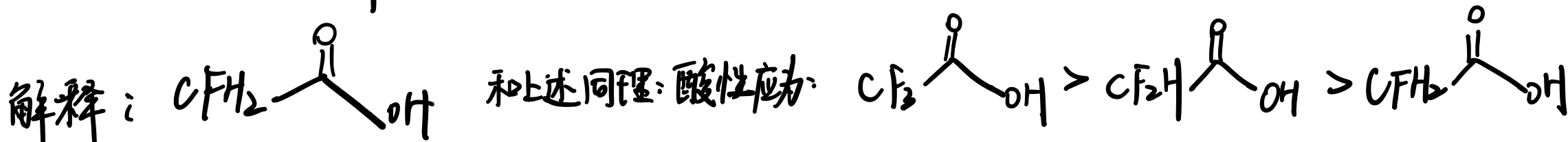
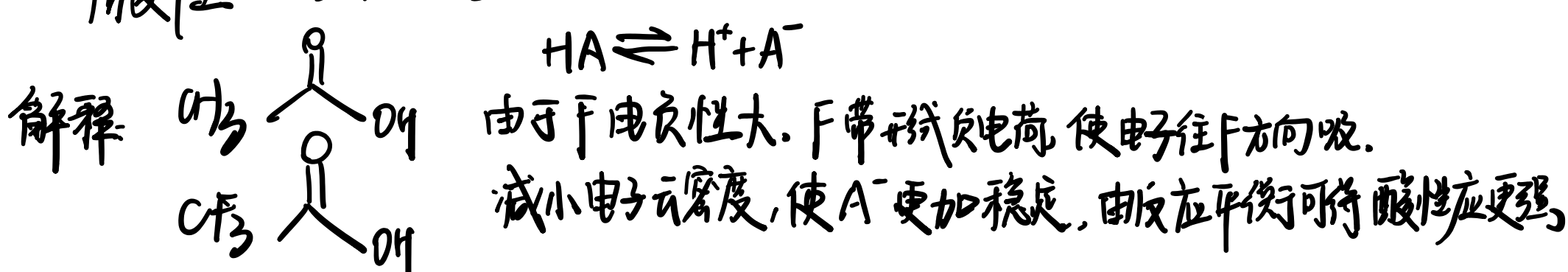
## Acid Strength

1) 电负性

2) inductive effect 诱导效应



于ABC而言, C为sp杂化, B为sp<sup>2</sup>杂化 A为sp<sup>3</sup>杂化. s成分越多, 分散电子的能力越强, 形成的酸根越稳定, 酸性越强;  
D中的酸根可形成共轭结构, 稳定性强, 酸性强



由于F电负性过大, 故只有诱导效应而没有共轭效应。

