

東海大學

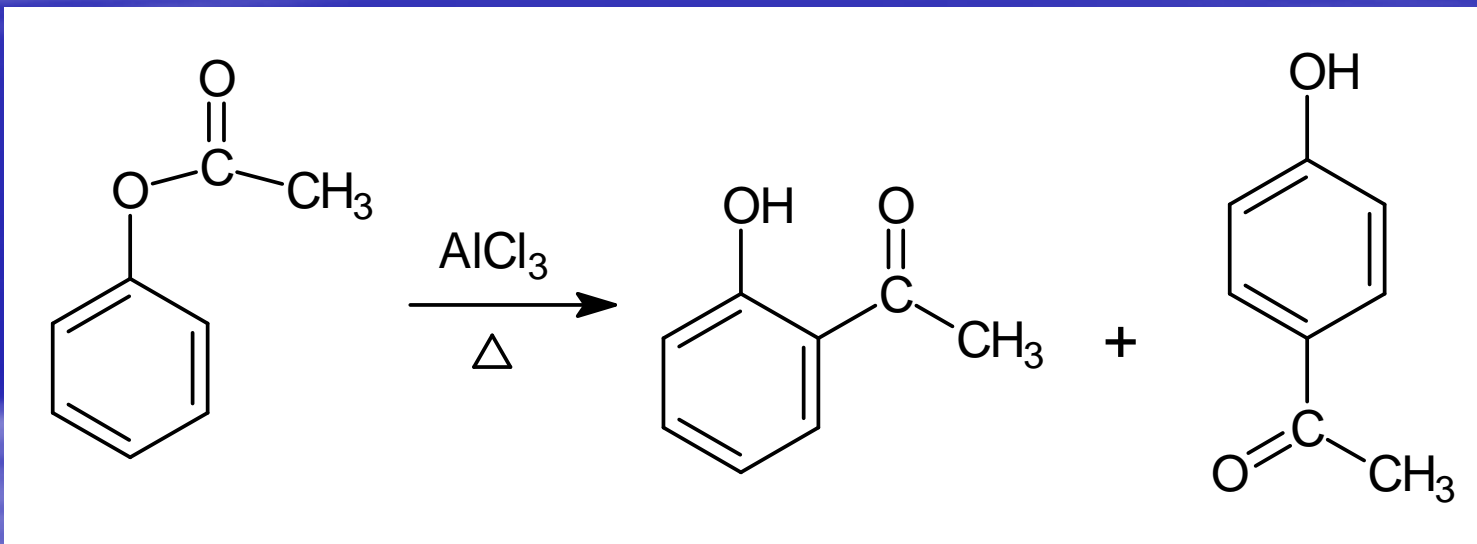
TUNG HAI UNIVERSITY

有機化學實驗

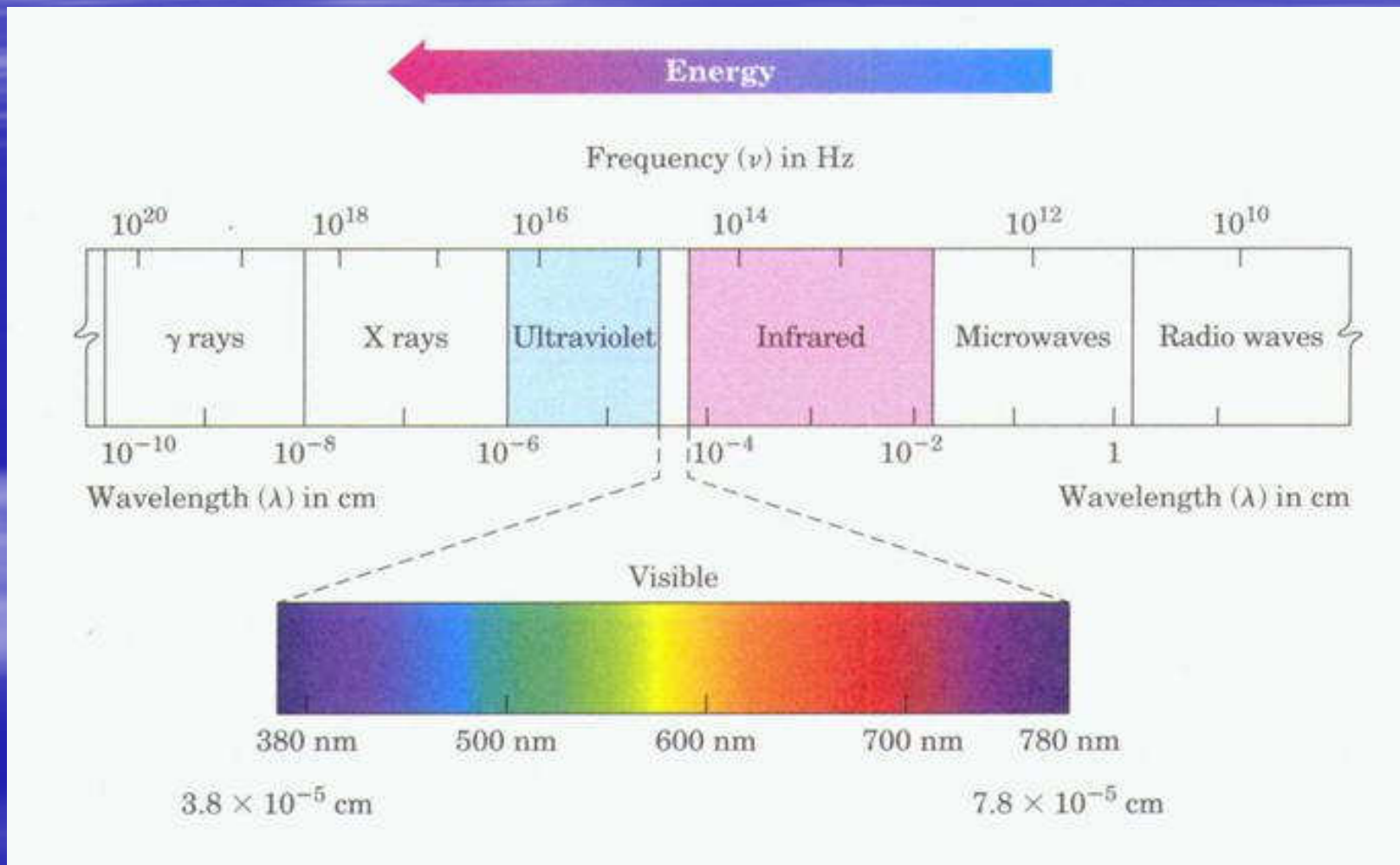
Fries Rearrangement Accelerated by Microwave Radiation

富萊士重排之微波加速反應

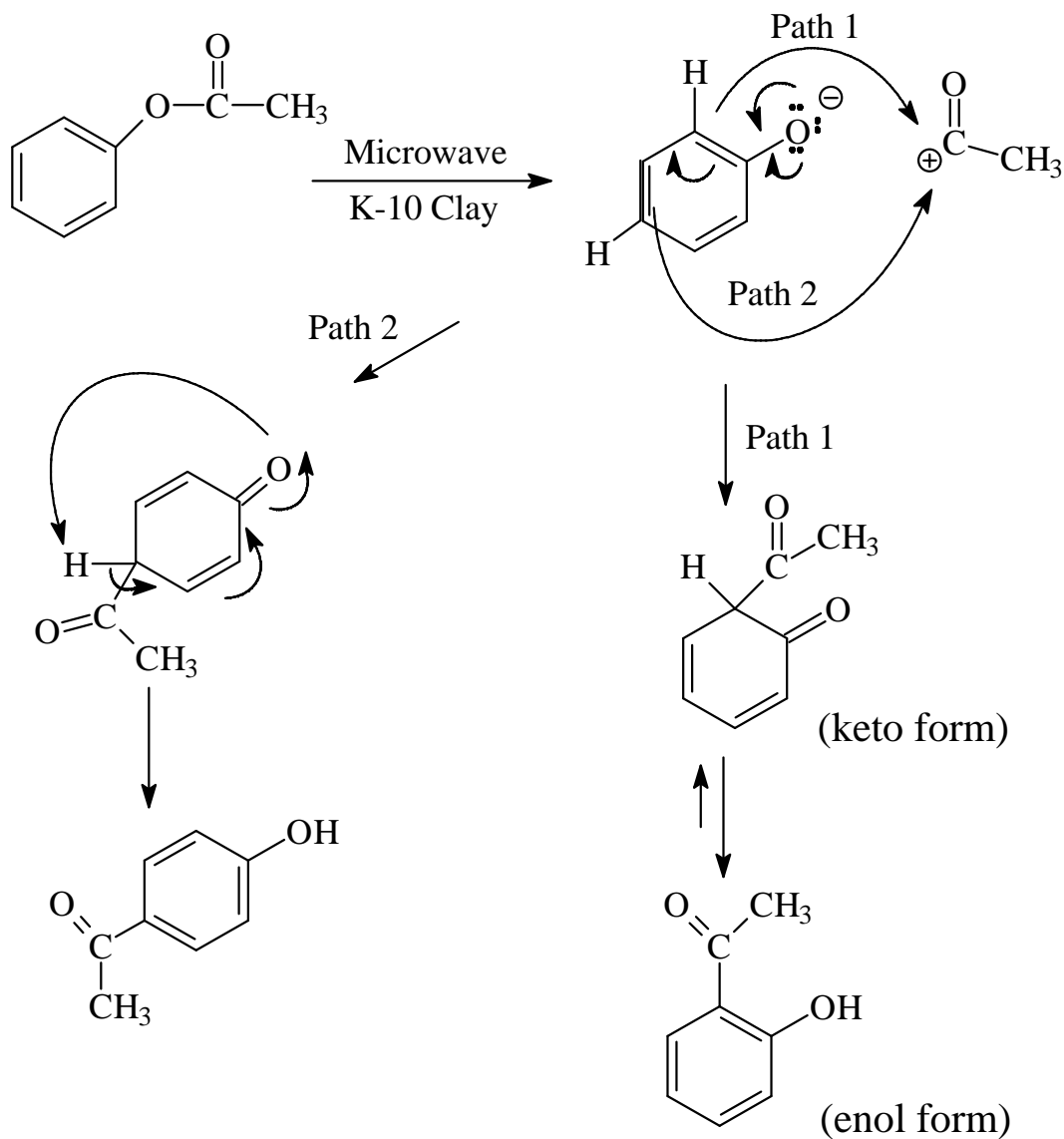
1. Fries rearrangement:



2. The electromagnetic spectrum.



3. Mechanism:



2d phenyl acetate + 3mL CH_2Cl_2 + 0.5g K-10 clay
in a 50ml beaker



stir for 2 min



water bath in hood ($\sim 60^\circ\text{C}$) $\rightarrow \text{CH}_2\text{Cl}_2 \uparrow$



microwave oven (set: 中火, 10min)



cool



add 5 mL CH_2Cl_2 and stir 3min (yellow liquid)



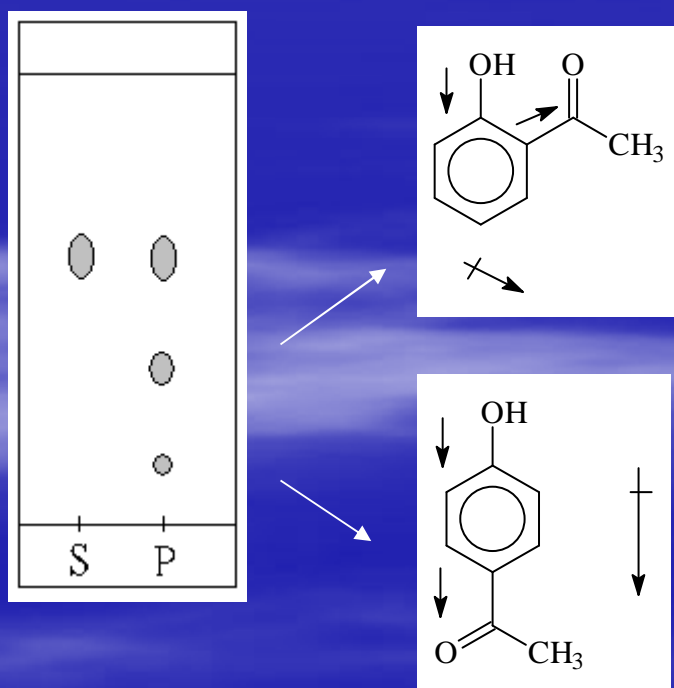
filter



TLC test (elute with n-Hexane/E.A.= 5/1)



column (elute with n-Hexane → n-Hexane /E.A.= 5/1)



Check out

1. 檢查TLC片，需貼在報告本上，少的TLC片用畫的。
2. 實驗問題：2, 5