Experiment 5: Reduction of *p*-Nitrophenol to *p*-Aminophenol

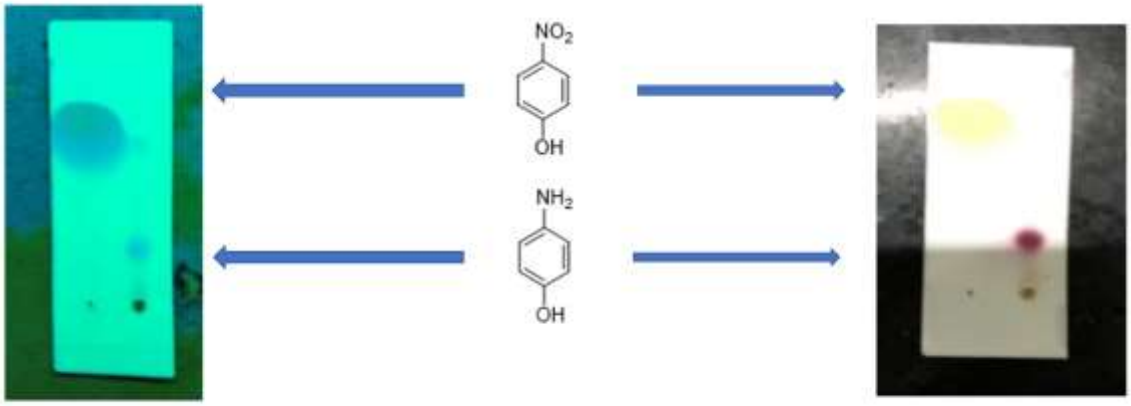
Name: Vidhi Shah

Reg. No.: 21BCE1297

Slot: L11-L12

Date: 09/11/21

Thin Layer Chromatography (TLC) Observation

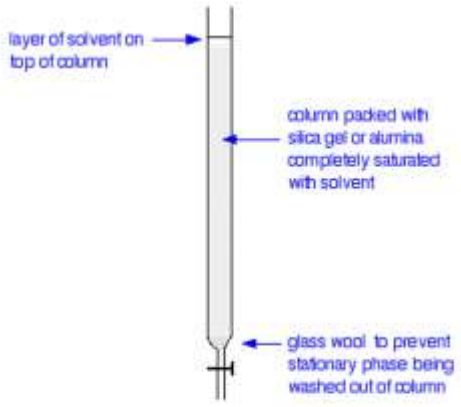


Under UV light

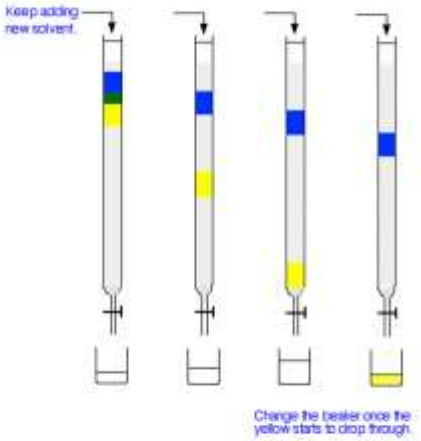
Mobilephase: 10 % Ethyl acetate/Hexane

Ninhydrin stain

COLUMN CHROMATOGRAPHY

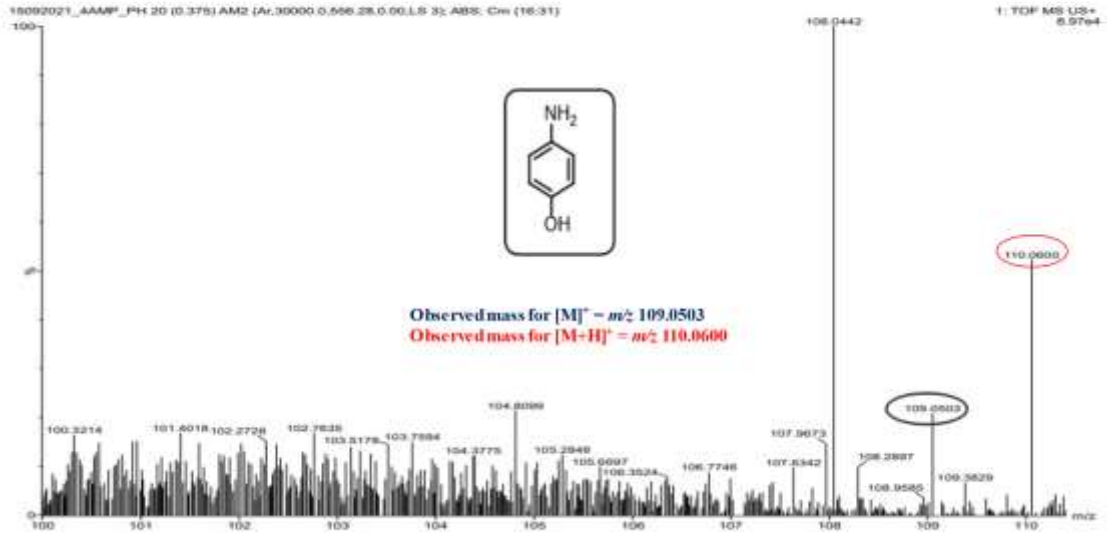


Picture -1

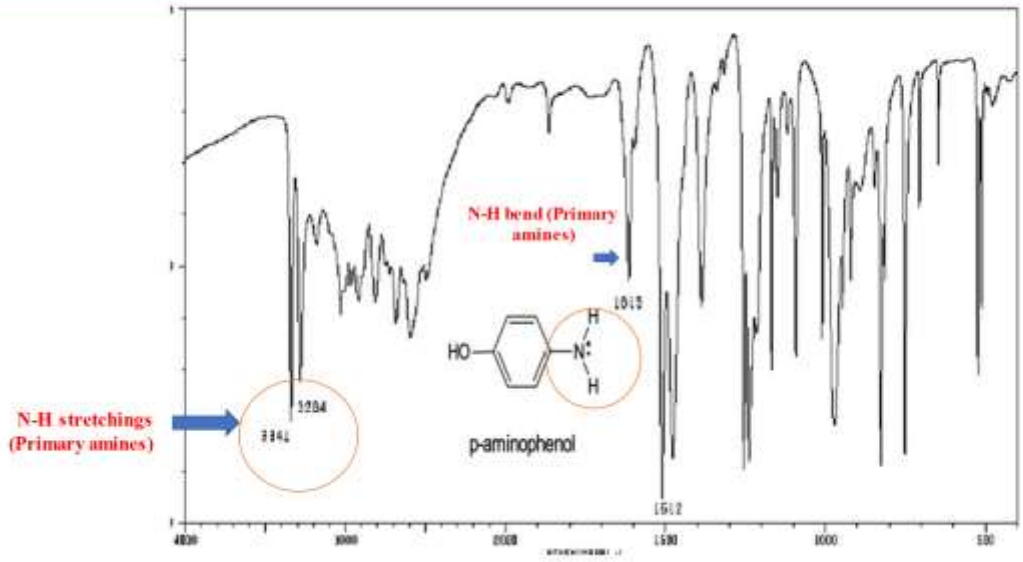


Picture -2

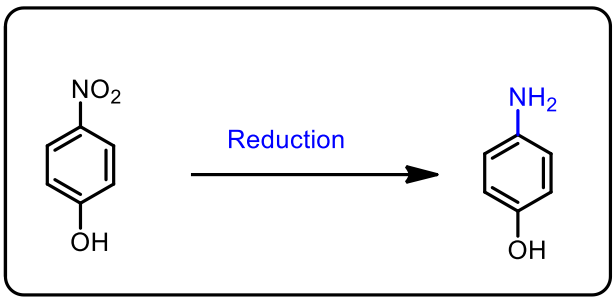
High resolution mass spectrometry



IR



Results:



- Weight of the product calculated (Theoretical yield): 10.9 g
- Weight of the product obtained by the experiment (practical yield) = 9.1 g

$$\textbf{\% Yield} = \frac{\textbf{Weight of the product obtained by the experiment}}{\textbf{Weight of the product calculated}} \textbf{ x 100}$$

$$\textbf{\%Yield} = \frac{9.1}{10.9} \text{ x } 100$$

$$\textbf{\%Yield} = 0.83486 \text{ x } 100$$

$$\therefore \boxed{\textbf{\%Yield = 83.486\%}}$$