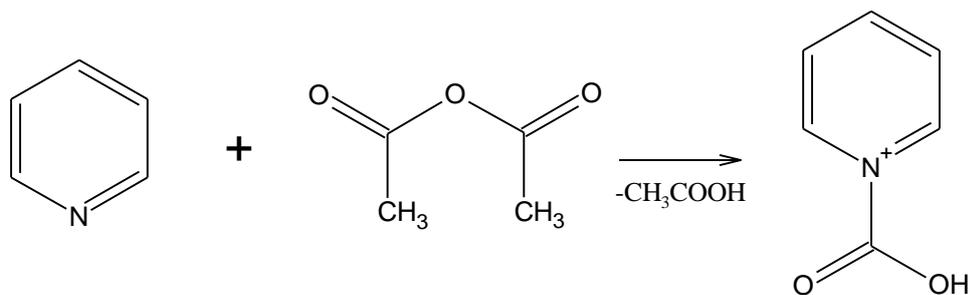


Question:

In Furth and Herrmann reaction where we can detect citric acid using pyridine and acetic anhydride, the solution will turn red if it contains citric acid. Why does it happen? What's the chemical reaction and what substance is form that can change the colour?

Answer:

The reagent for citric acid determination is formed in a reaction between pyridine and acetic anhydride:



Then complex between the reagent and citric acid is formed, which is chromophore and is of red colour.