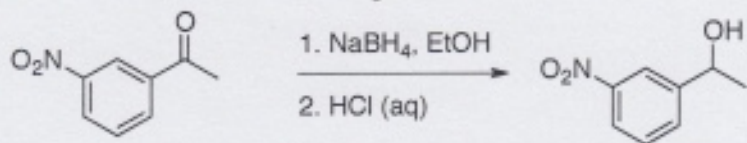
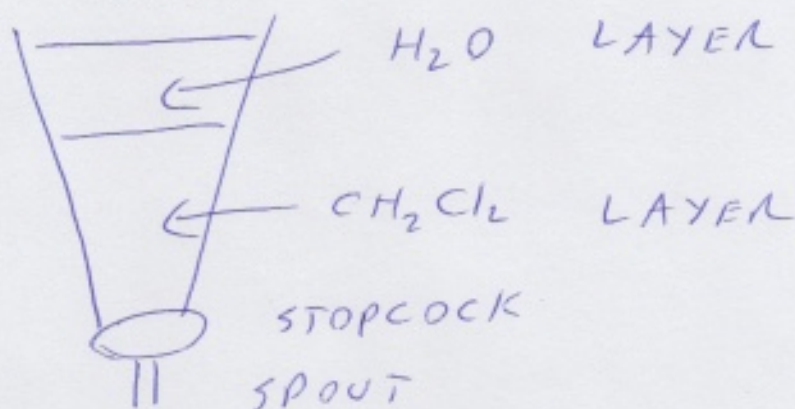


20. Consider the reduction of nitroacetophenone:

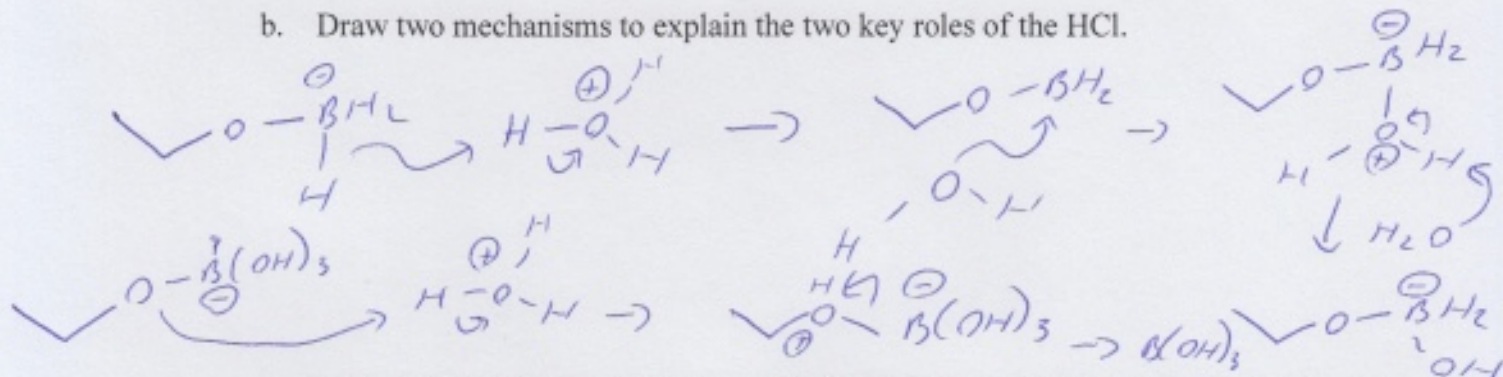


Procedure: After adding a solution of 3M HCl to the reaction mixture, pour the mixture into a separatory funnel and rinse the flask with approximately 5 mL of dichloromethane (density = 1.32 g/mL). Extract the aqueous layer with 2 additional portions of 5 mL portions of dichloromethane and collect all the organic extracts in the same flask.

- a. Draw and label a diagram of the separatory funnel when the mixture (and dichloromethane) are first poured in.



- b. Draw two mechanisms to explain the two key roles of the HCl.



- c. A solution of HCl (aq) contains almost no HCl. What are the species that are actually present?

