Iron(III) chloride (15 g) was dissolved in water (200 ml) in a 500 ml beaker followed by addition of 20% aqueous solution of KOH (83 ml) in parts with constant stirring to precipitate the metal as its hydroxide. The suspended precipitate was allowed to settle with the supernatant liquid becoming colourless. The flocculent was washed several times with water by decantation, finally by filtration through Whatman No. 42 filter paper and again washing twice with cold water. Then the precipitate was quantitatively transferred into a 250 ml beaker and the whole was kept on ice-water bath for 15min.. Distilled acetylacetone (30.55 ml) was added to the slurry and mixed thoroughly with a glass rod. The whole mixture was continued to stand on ice-water bath for 30 min and then at room temperature for 30 min with occasional stirring. An exothermic reaction sets in leading to the formation of deep red shiny crystals of Iron(III) acetylacetonate, $Fe(acac)_3$. The reaction container was then placed in an ice-water bath for 15 min. The compound was filtered through Whatman No.42 filter paper and dried *in vacuo* over fused $CaCl_2$.

Yield: 28.6g (87.56%)

Mp 180-181°C.