**Experiment name :** Triphenylcarbinol (triphenylmethanol)

**Classification:** Grignard reaction

**Reaction scheme:**



**Experimental procedure and purification technique:**

Prepare a solution of phenylmagnesium bromide from magnesium turnings (0.7 g; 30 mmol, 20% excess), bromobenzene (4 g; 25 mmol) and anhydrous ether (10 ml). Treat this Grignard reagent with a solution of ethyl benzoate (1.5 g; 10 mmol) prepared in absolute ether (5 ml). Decompose the reaction product by pouring it slowly, with constant stirring, into a mixture of crushed ice and concentrated hydrochloric acid (1:1). Continue the stirring until all the solid dissolves; when all the solids have passed into the solution, separate the ether layer and wash it with water, then collect the organic layers and add to the previously separated ether phase. The presence of benzaldehyde may be indicated by its characteristic smell, in this case evaporate the half of the solution and shake intermittently the ether phase with NaHSO3 (40%) solution until the smell of benzaldehyde has totally dissappeared. The precipitate and the aqueous phase are then discarded. The ether phase dried over anhydrous CaCl2 and evaporated to give the target product. The oily residue solidifies when it is allowed to stand at room temperature. The crude reaction product can be recrystallised from ethanol (preferably from isopropanol). m.p: 162 °C, predicted yield: 2 g (80%).

Reference source (1): “Vogel’s Textbook of Practical Organic Chemistry (5th edition)”: 540.

Reference source (2): “Denel Organik Kimya (6th edition)”: 402.