

EXPERIMENT**Synthesis of 2,3-diphenylquinoxaline**

Aim:- To synthesis 2,3-diphenylquinoxaline and calculate its percentage yield.

Reference;- Vogels textbook of practical organic chemistry, 5th edition, page no:90.

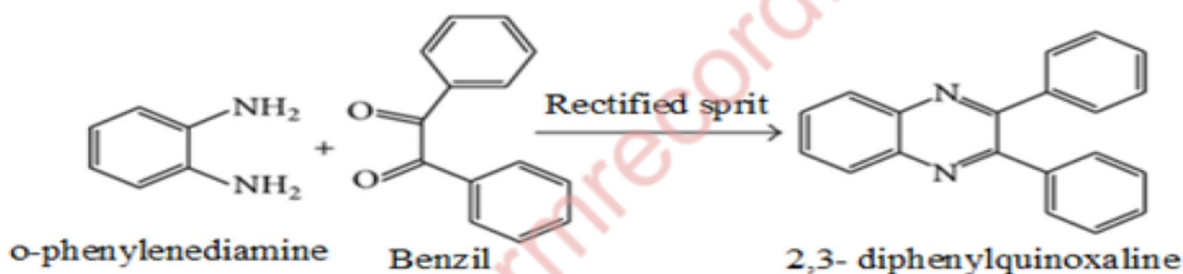
Requirements;-

Chemicals;- o-phenylenediamine, benzil, rectified spirit

Glassware;- Conical flask, Reflex condenser, Beaker, Measuring cylinder, Glass rod

Equipment;- Weighing balance, water bath.

Principle:- 2,3-diphenylquinoxaline can be synthesized by reacting o-phenylenediamine with benzil in a pinacol rearrangement reaction. The reaction is performed in rectified spirit and involves warming the mixture on a water bath.

**Procedure;-**

Add a solution of 1.1g of o-phenylenediamine in 8ml rectified spirit to a warm solution of 2.1g of benzil in 8ml rectified spirit. Warm the mixture for 30 minutes in a water bath. Add water dropwise until slight cloudiness persists. Cool the solution and filter the product.

Calculation:-

Theoretical yield:-.....g

Practical yield:-.....g

Formula:- % yield = Practical yield / Theoretical yield $\times$ 100

Result:- 2,3-diphenylquinoxaline has synthesized successfully and percent yield was found to be%