

Experiment

Synthesis of Benzocaine

Aim;- To synthesize benzocaine and calculate its percentage yield.

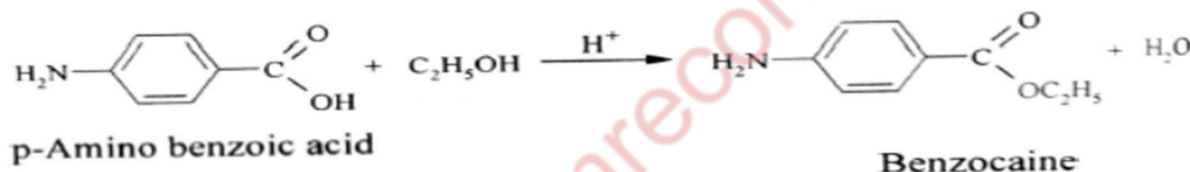
Reference;- B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell, Vogel's Textbook of Practical Organic Chemistry, 5th Edition, Pg. 1163.

Requirement;-

-  **Chemicals-** p- amino benzoic acid, ethyl alcohol, H₂SO₄ conc, sodium carbonate solution (10%).
-  **Glassware-** round bottom flask, Measuring cylinder, Glass rod.
-  **Equipment:-** condenser, water bath.

Principal;-

Benzocaine is prepared from p-aminobenzoic acid by Fisher esterification. It is obtained as rhombohedra crystals from ether, mp 88-90 C, and fairly stable in air.



Procedure

1. Take 100 ml flask, mix 1.25 g of p-aminobenzoic acid hydrochloride, 10 ml of EtOH, and 0.5 ml H₂SO₄ (conc.).
2. Heat the mixture at reflux for 2 h.
3. After cooling the mixture, neutralize with an aqueous sodium carbonate solution (10%).

Calculation:-

Theoretical yield :-.....g

Practical yield:-.....g

Formula:- % yield= Practical yield/Theoretical yield ×100

Result:- Benzocaine has synthesized successfully and percent yield was found to be%