

**B.Sc. Semester-IV  
Core Course-IX (CC-IX)  
Organic Chemistry-III**



## **III. Heterocyclic Compounds**

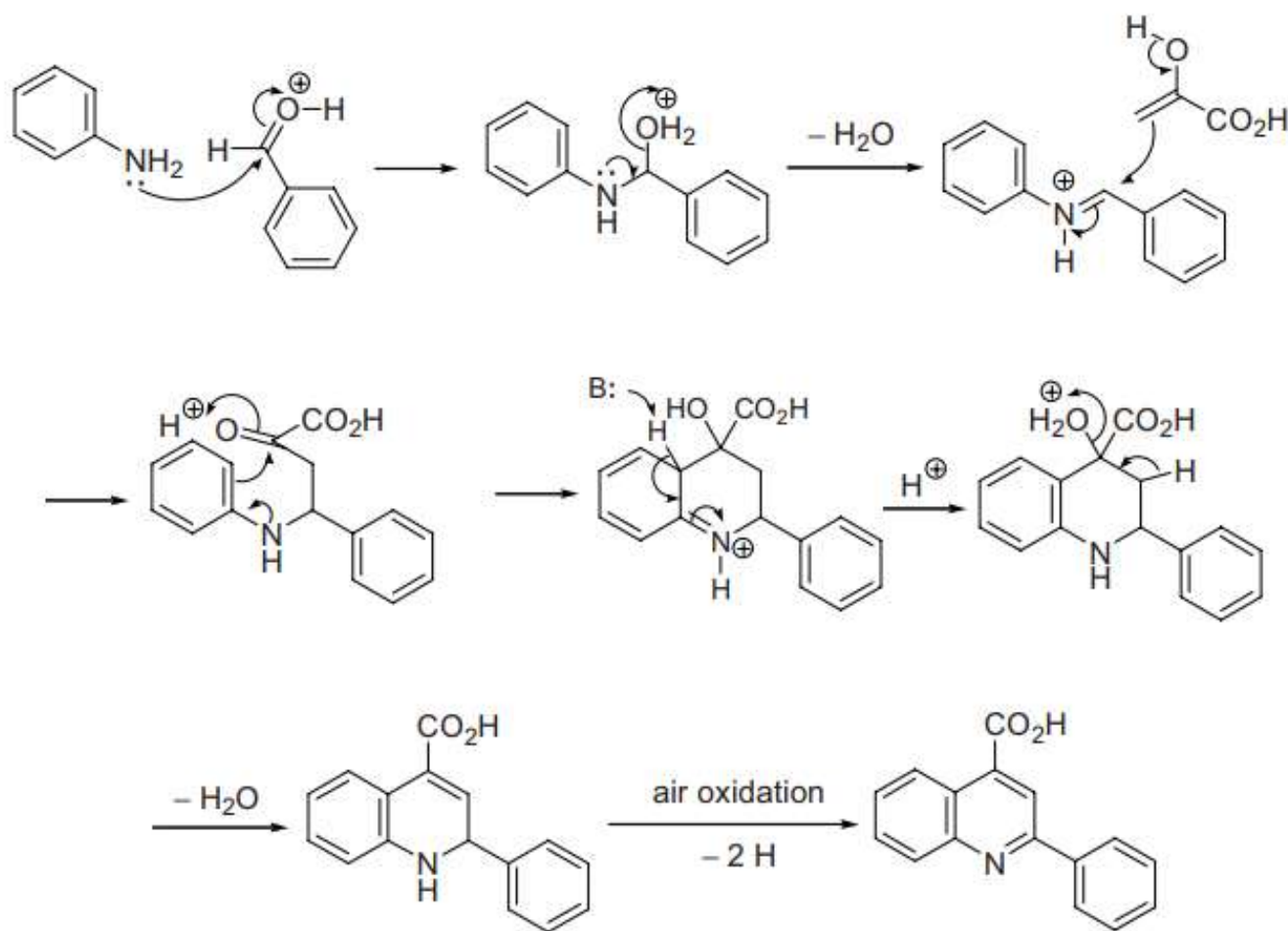
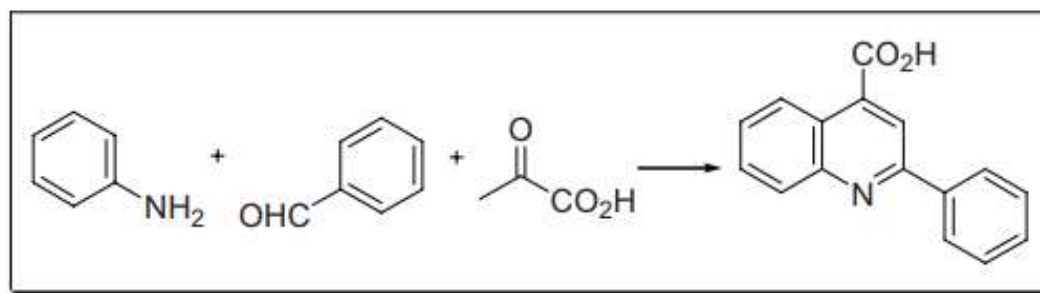
### **9. Doebner Quinoline Synthesis**



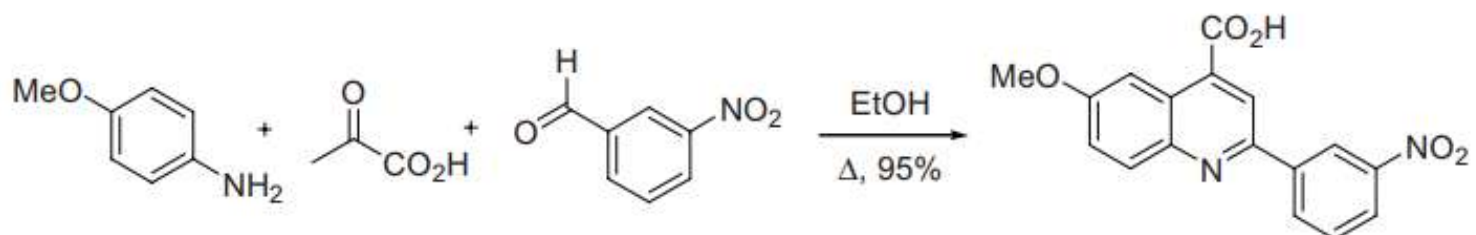
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## Doebner quinoline synthesis

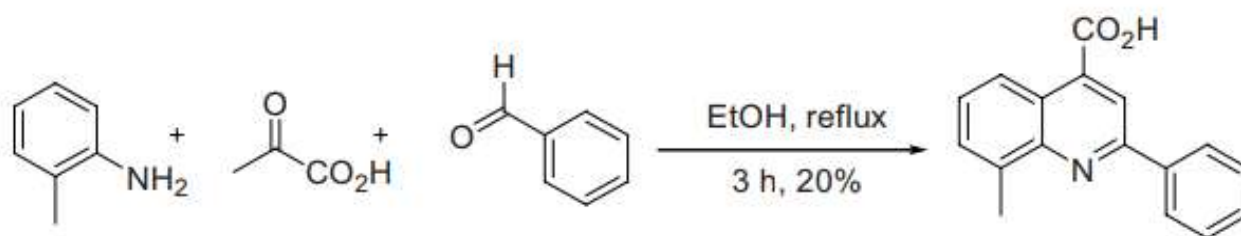
Three-component coupling of an aniline, pyruvic acid, and an aldehyde to provide a quinoline-4-carboxylic acid.



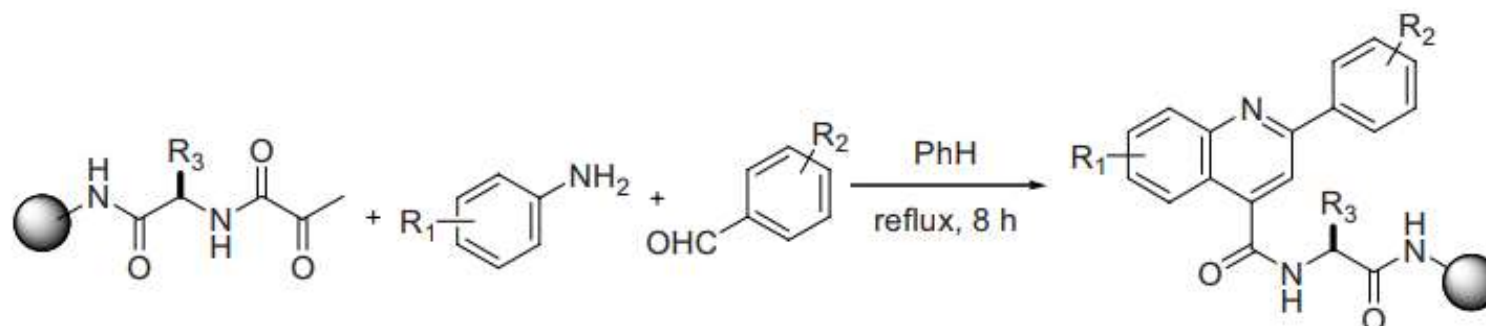
Example 1<sup>2</sup>



## Example 2<sup>6</sup>



## Example 3, Combinatorial Doebner reaction<sup>7</sup>



## References

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