

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



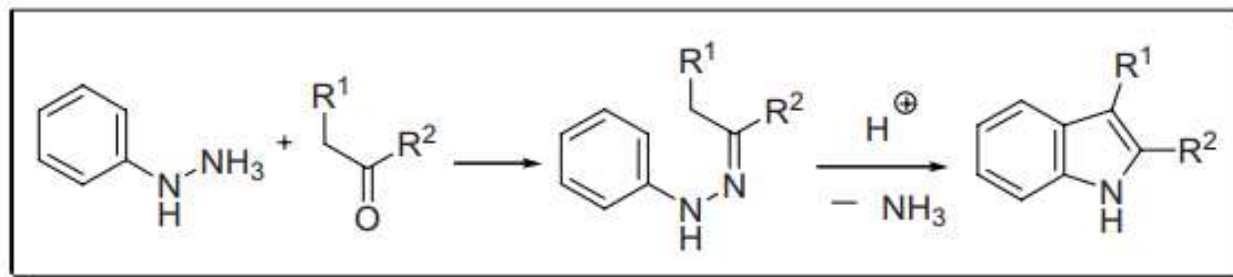
III. Heterocyclic Compounds 5. Fischer Indole Synthesis



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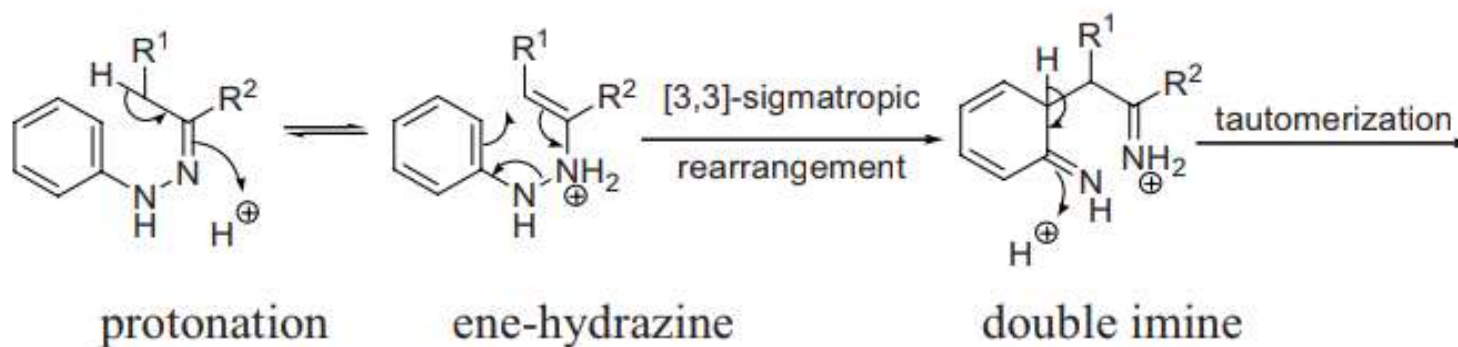
Fischer indole synthesis

Cyclization of arylhydrazones to indoles.



phenylhydrazine

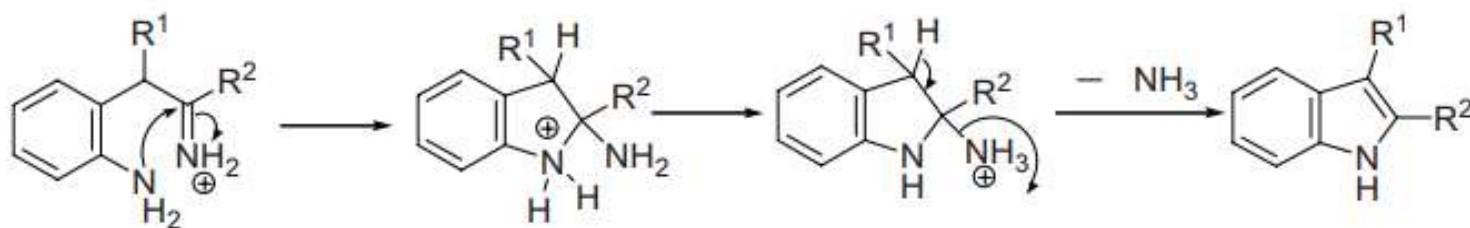
phenylhydrazone



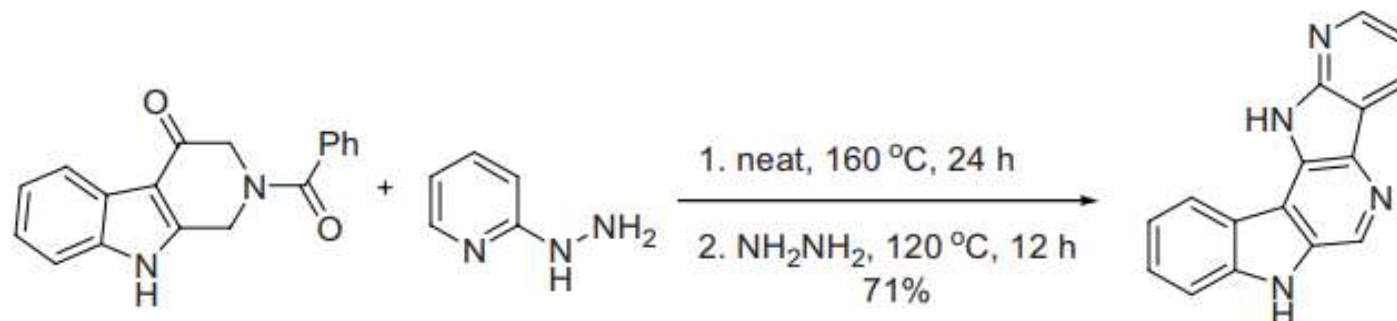
protonation

ene-hydrazone

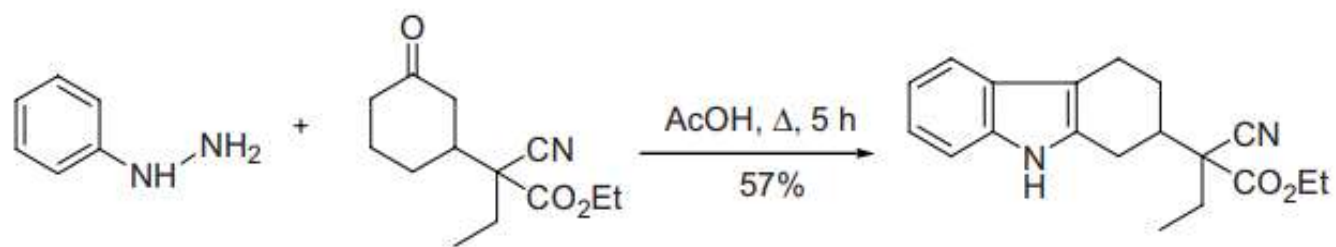
double imine



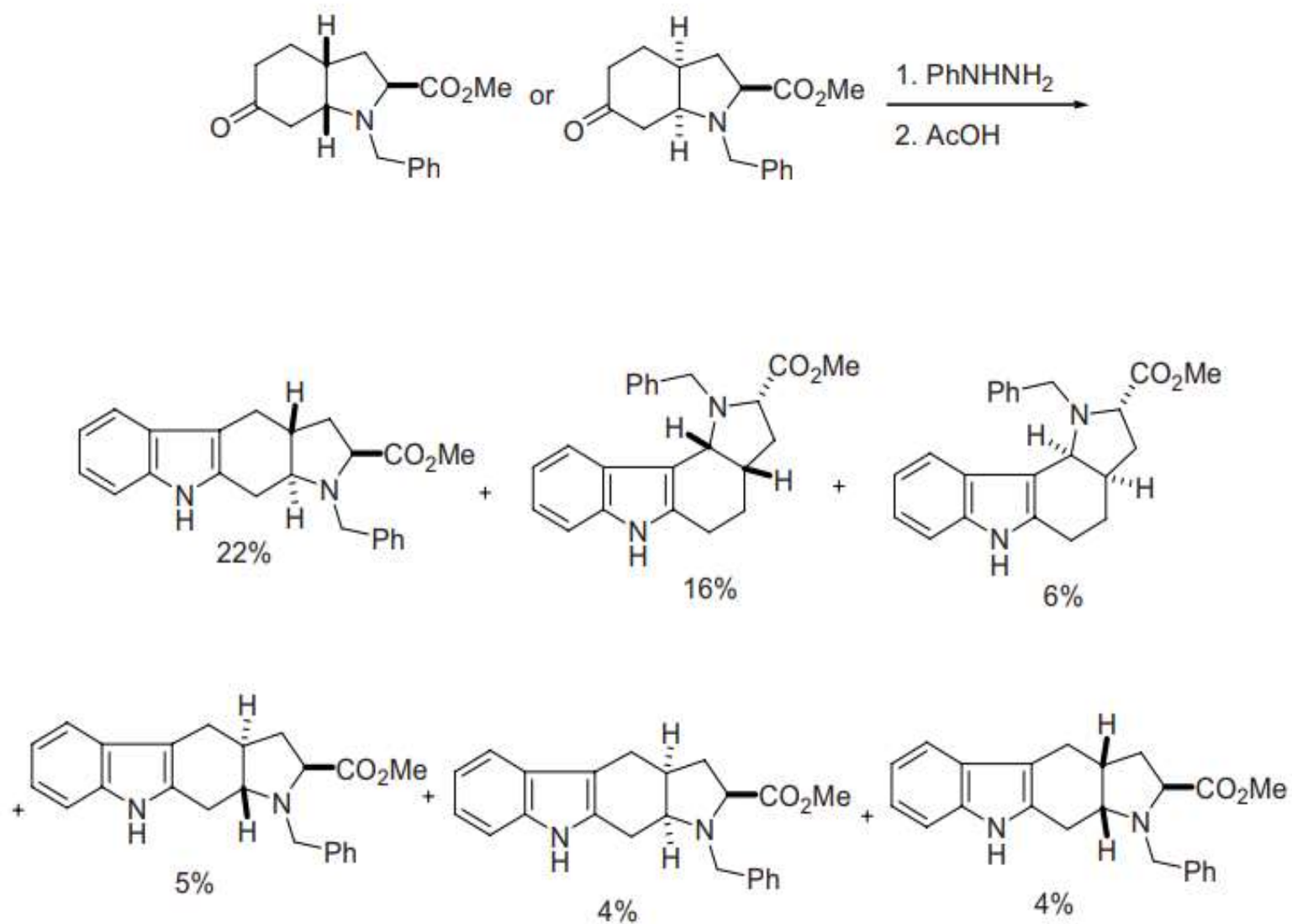
Example 1³



Example 2¹³



Example 4 (Severe racemization)⁹



References

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