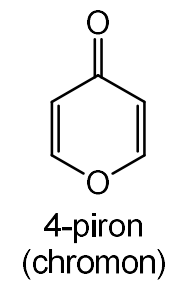
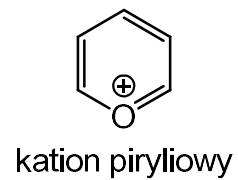
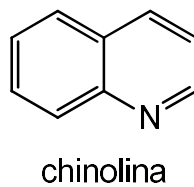
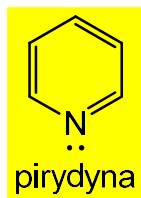
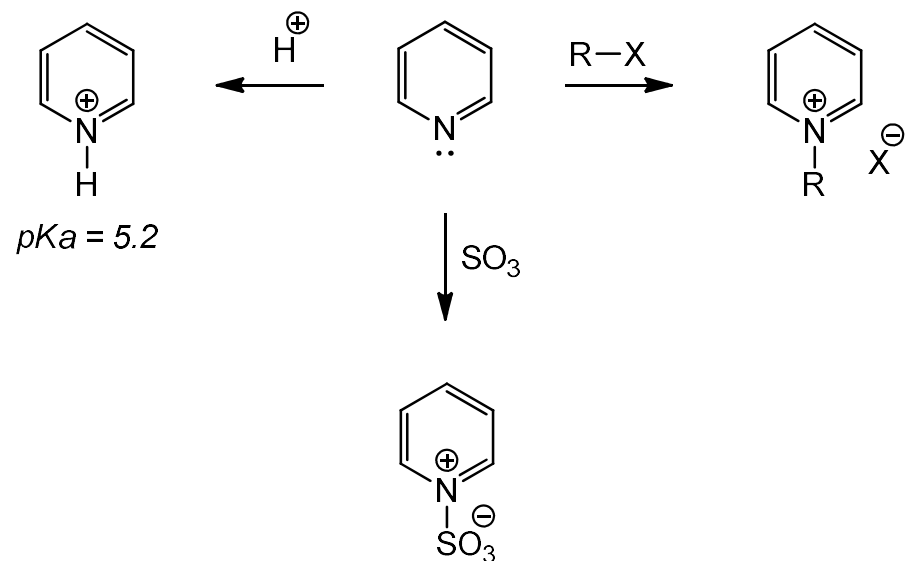


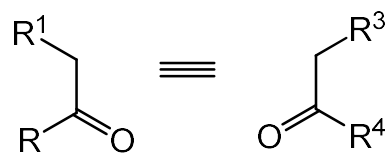
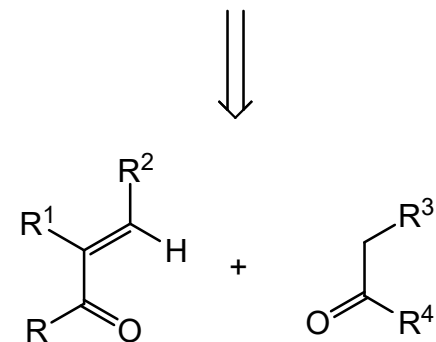
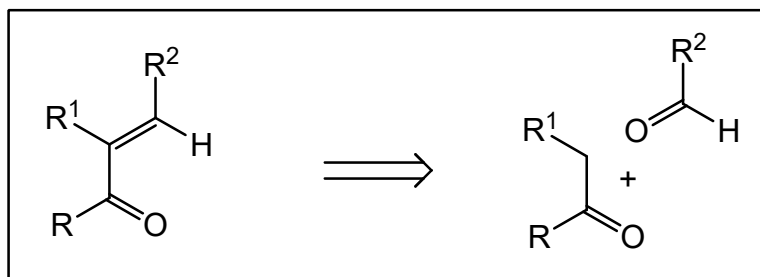
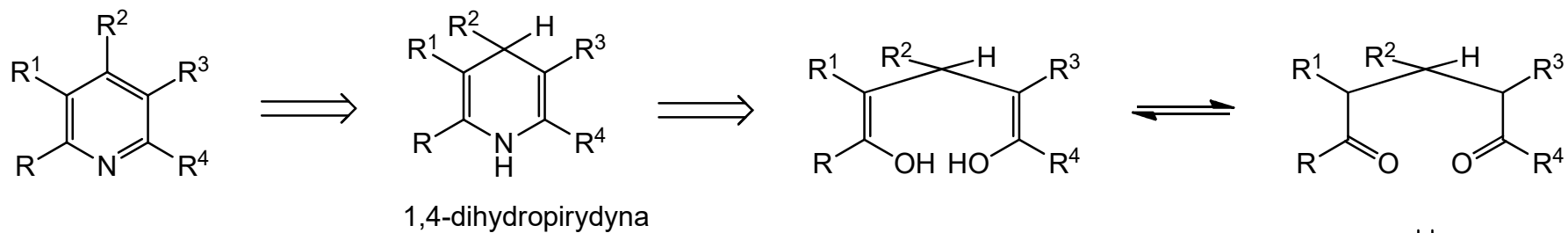
7. Pierścienie sześciocznowe z jednym heteroatomem, pirydyny



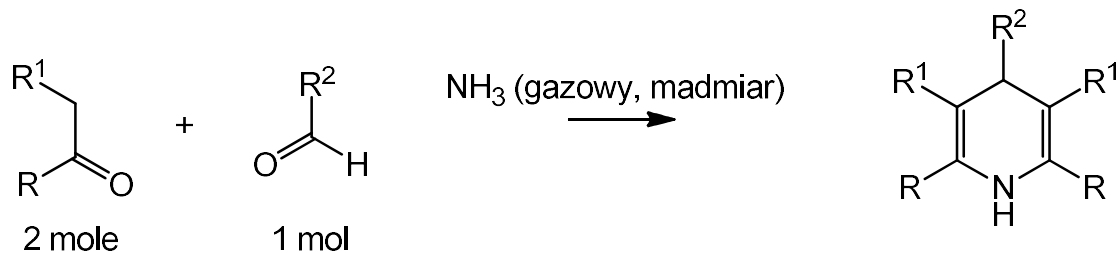
7.1. Pirydyny - reakcje pirydyny z udziałem atomu azotu



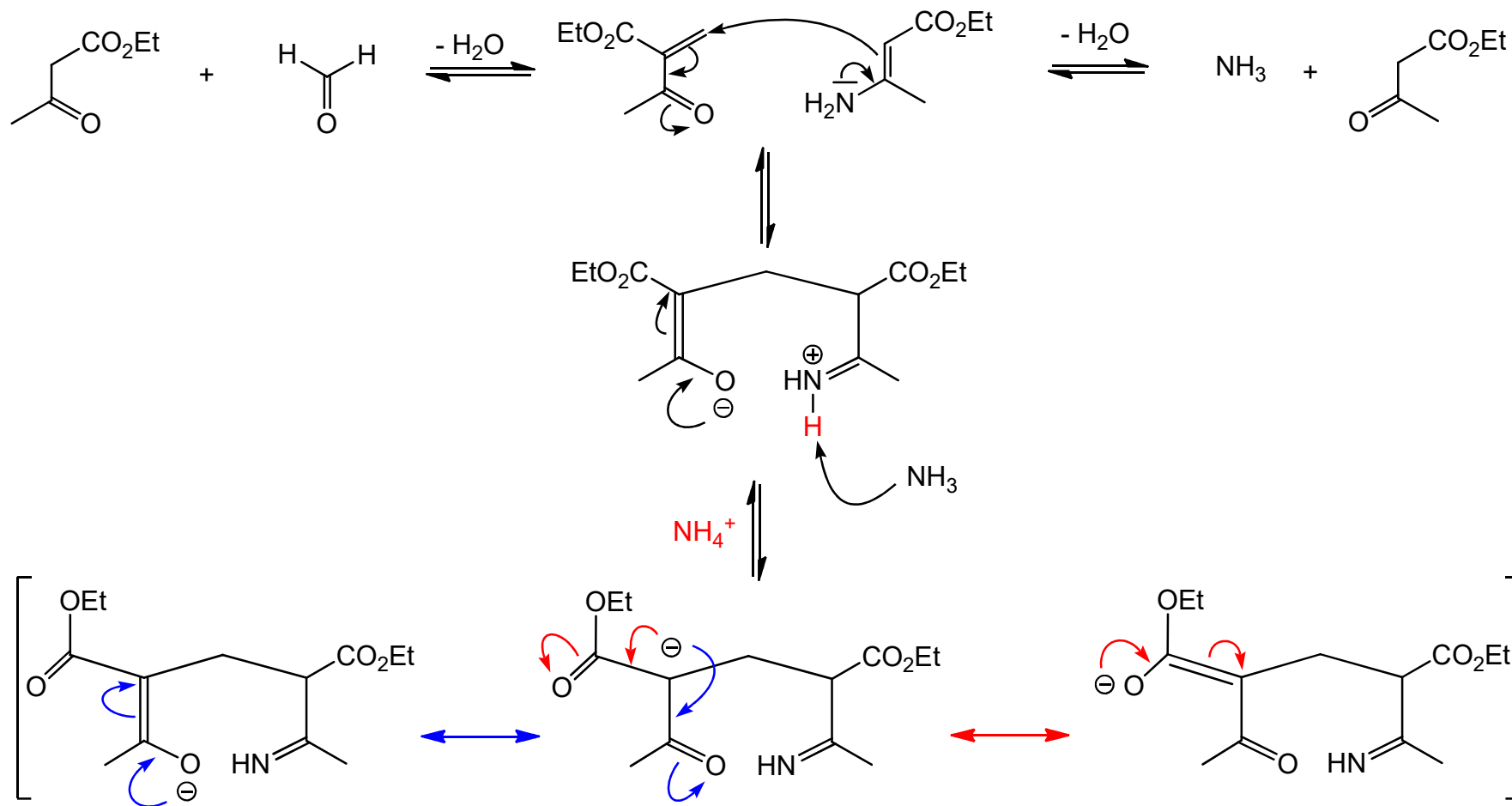
7.2. Pirydyny - analiza dyskonekcyjna



Synteza Hantzsch 1,4-dihydropirydyn

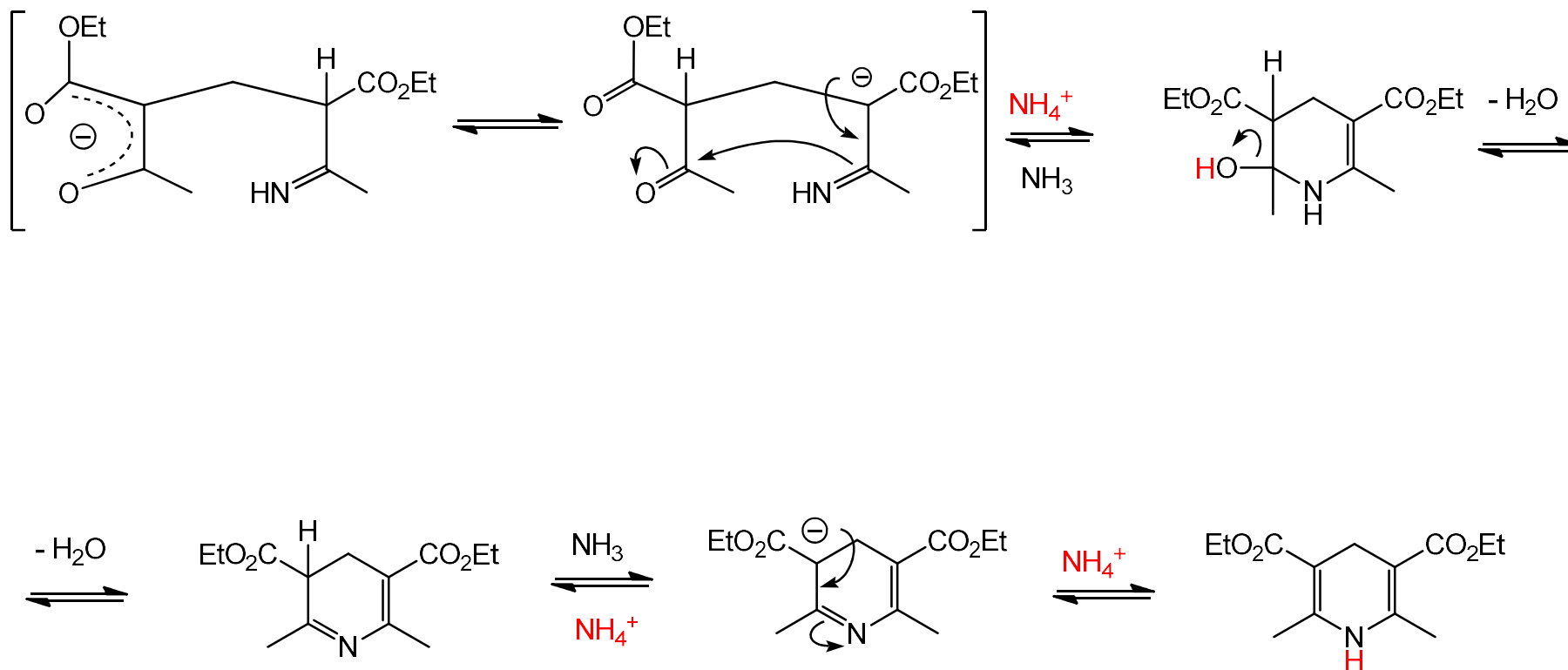


7.3. Pirydyny - synteza, przebieg syntezy Hantzsch 1,4-dihdropirydyn

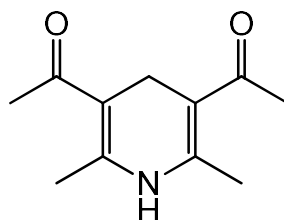
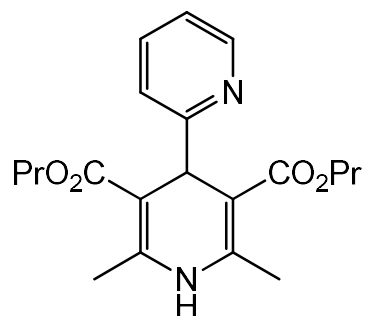
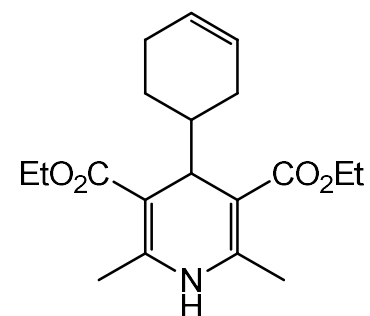
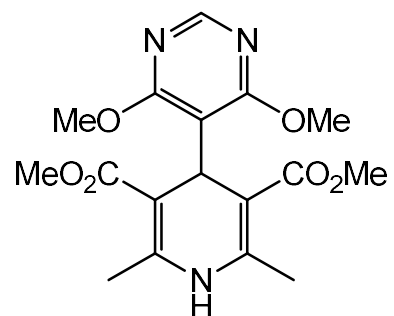
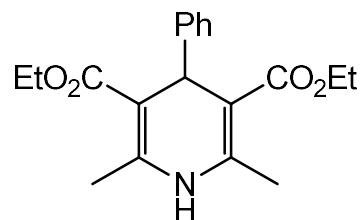
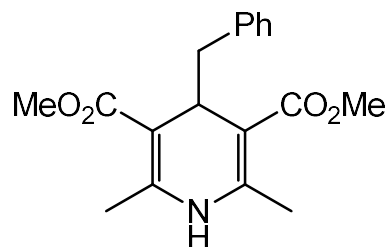


<http://www.organic-chemistry.org/namedreactions>

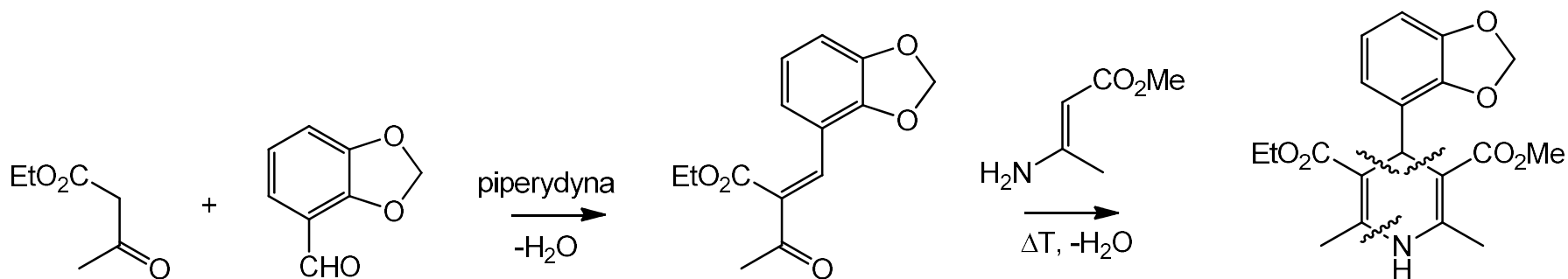
7.3.cd. Pirydyny - synteza, przebieg syntezy Hantzsch 1,4-dihydropirydyn



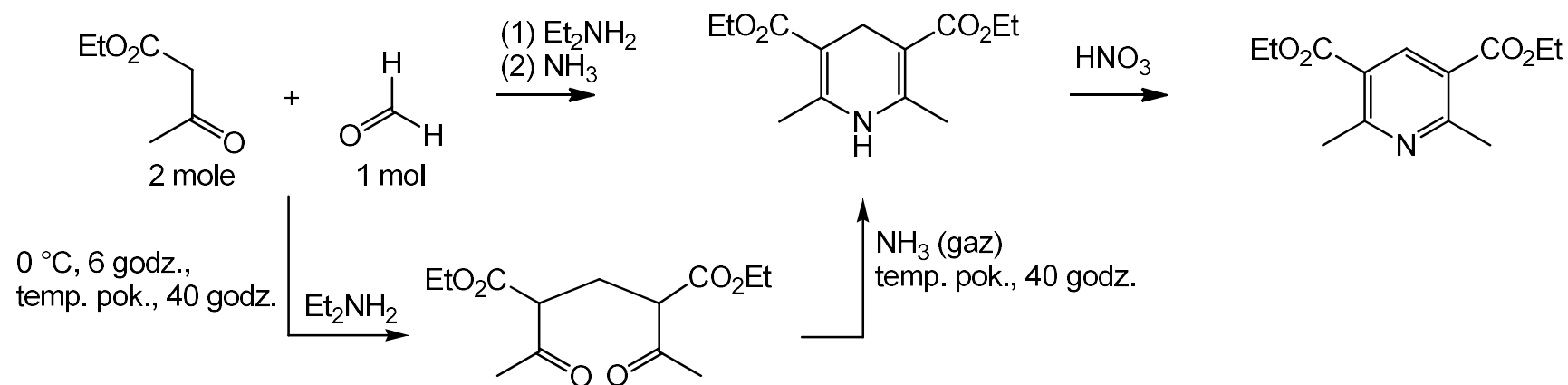
7.3.1. Pirydyny - synteza 1,4-dihydropirydyn, przykłady związków otrzymanych metodą Hantzsch



Zadanie domowe: zidentyfikować substraty.

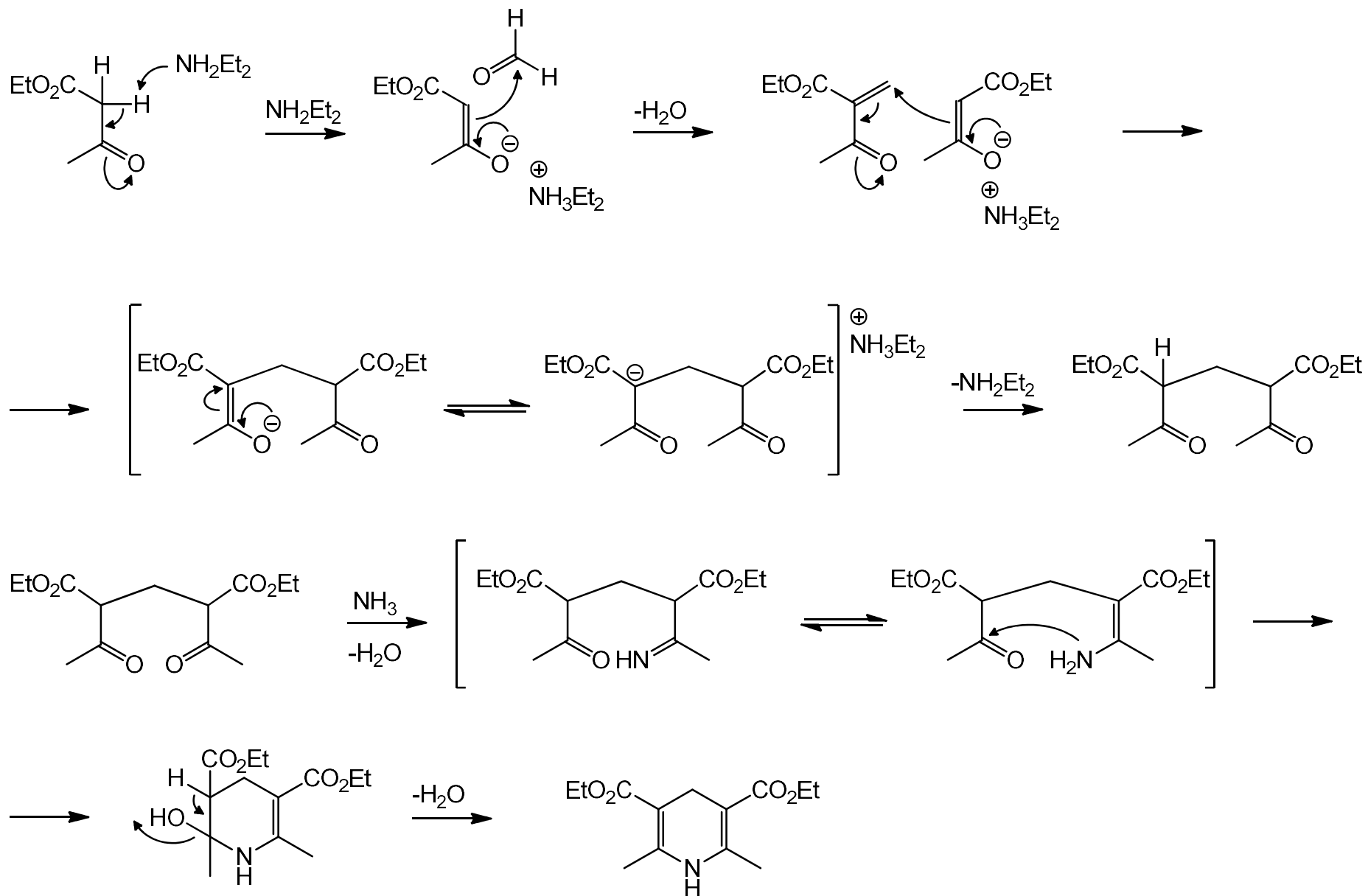


7.4. Pirydyny - synteza 1,4-dihydropirydyn, wariant dwuetapowy - schemat reakcji

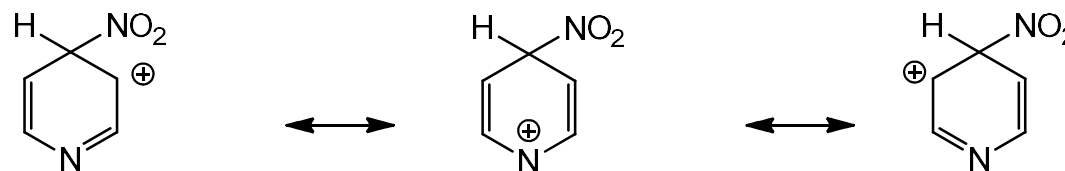
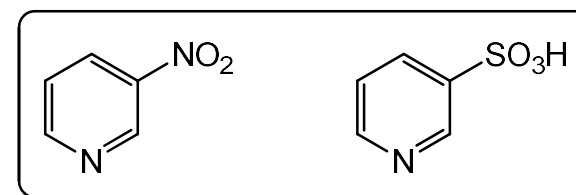
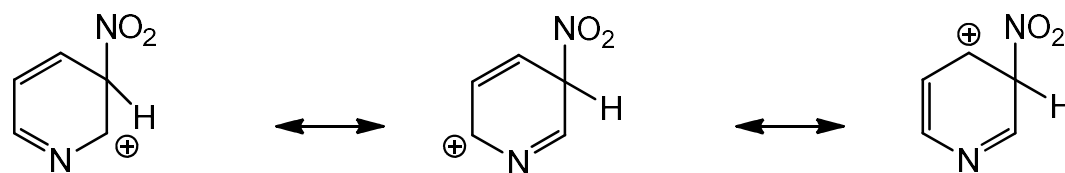
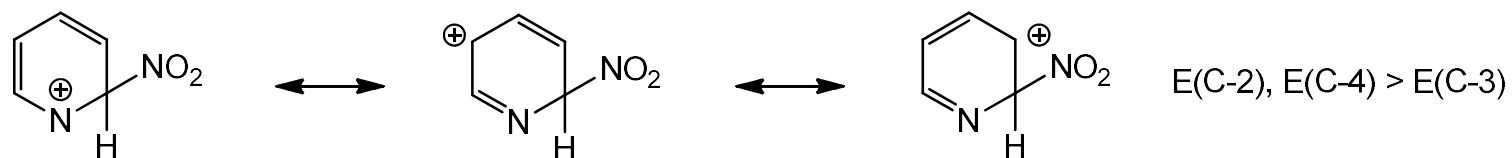


procedura: "Vogel preparatyka organiczna", Wydanie trzecie zmienione, PWN Warszawa 2006, Preparat 8.29, str. 1131.

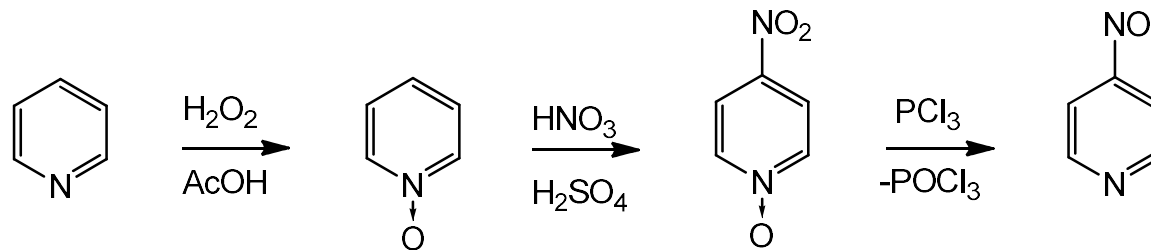
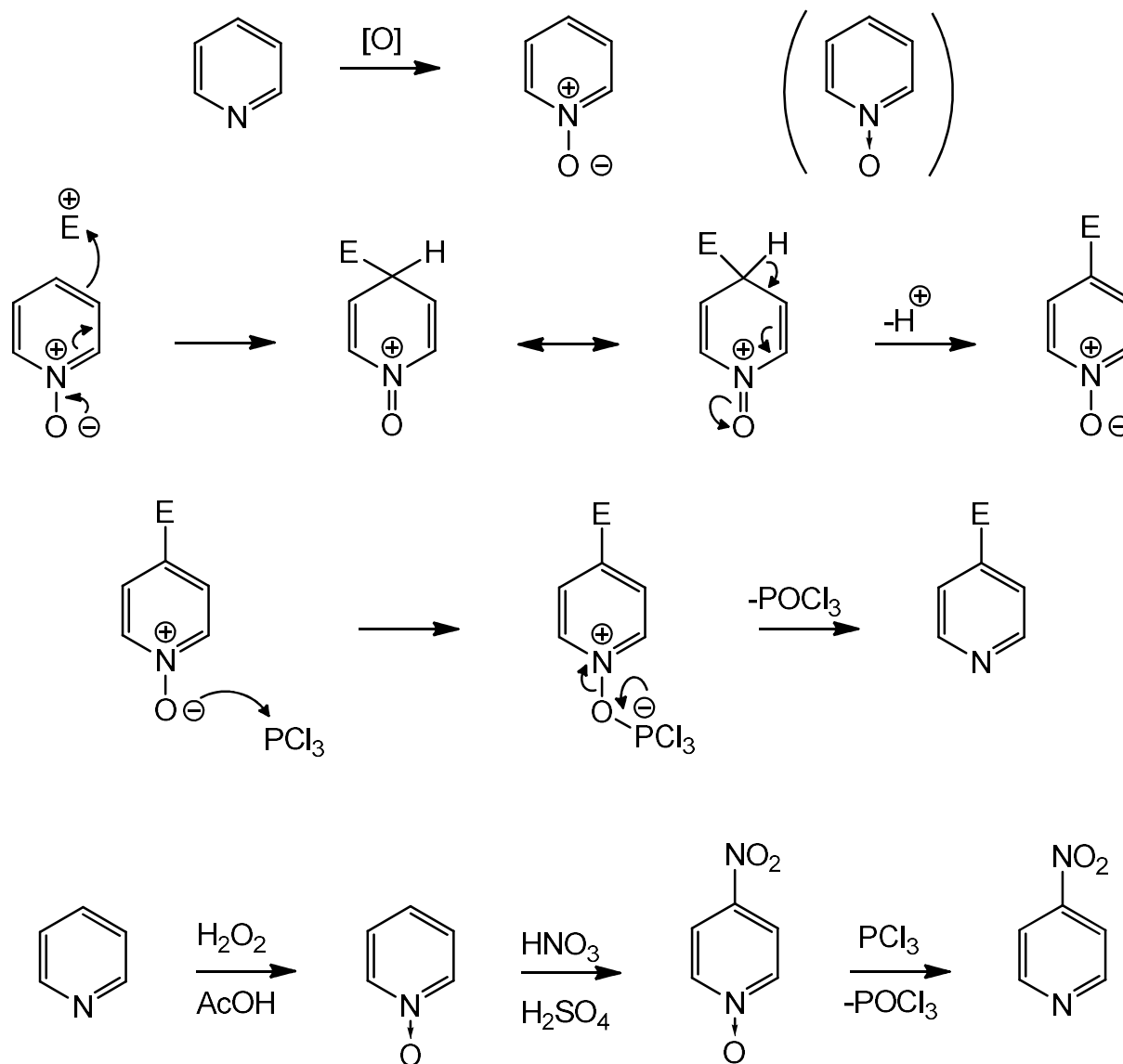
7.4.1. Pirydyny - synteza 1,4-dihdropirydyn, wariant dwuetapowy - przebieg reakcji



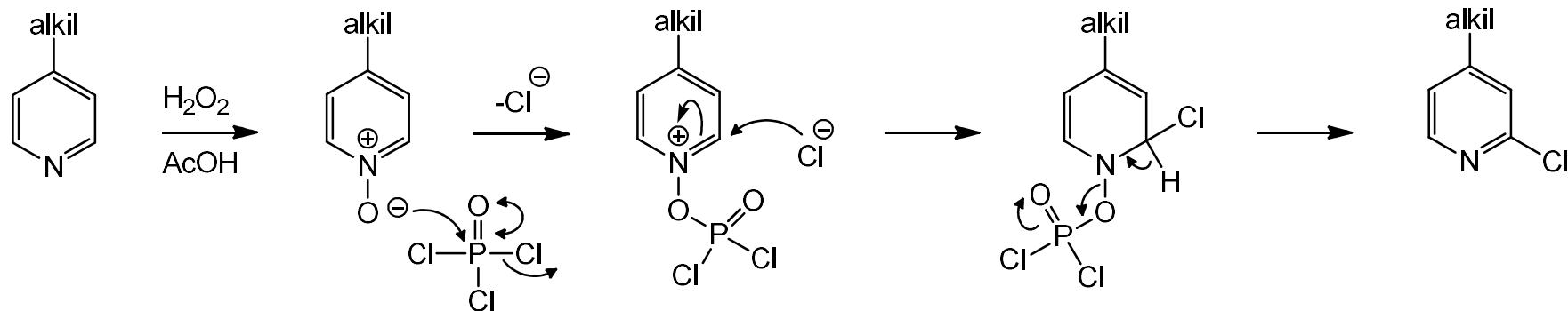
7.5. Pirydyny - substytucja elektrofilowa zdeaktywowanej pirydyny



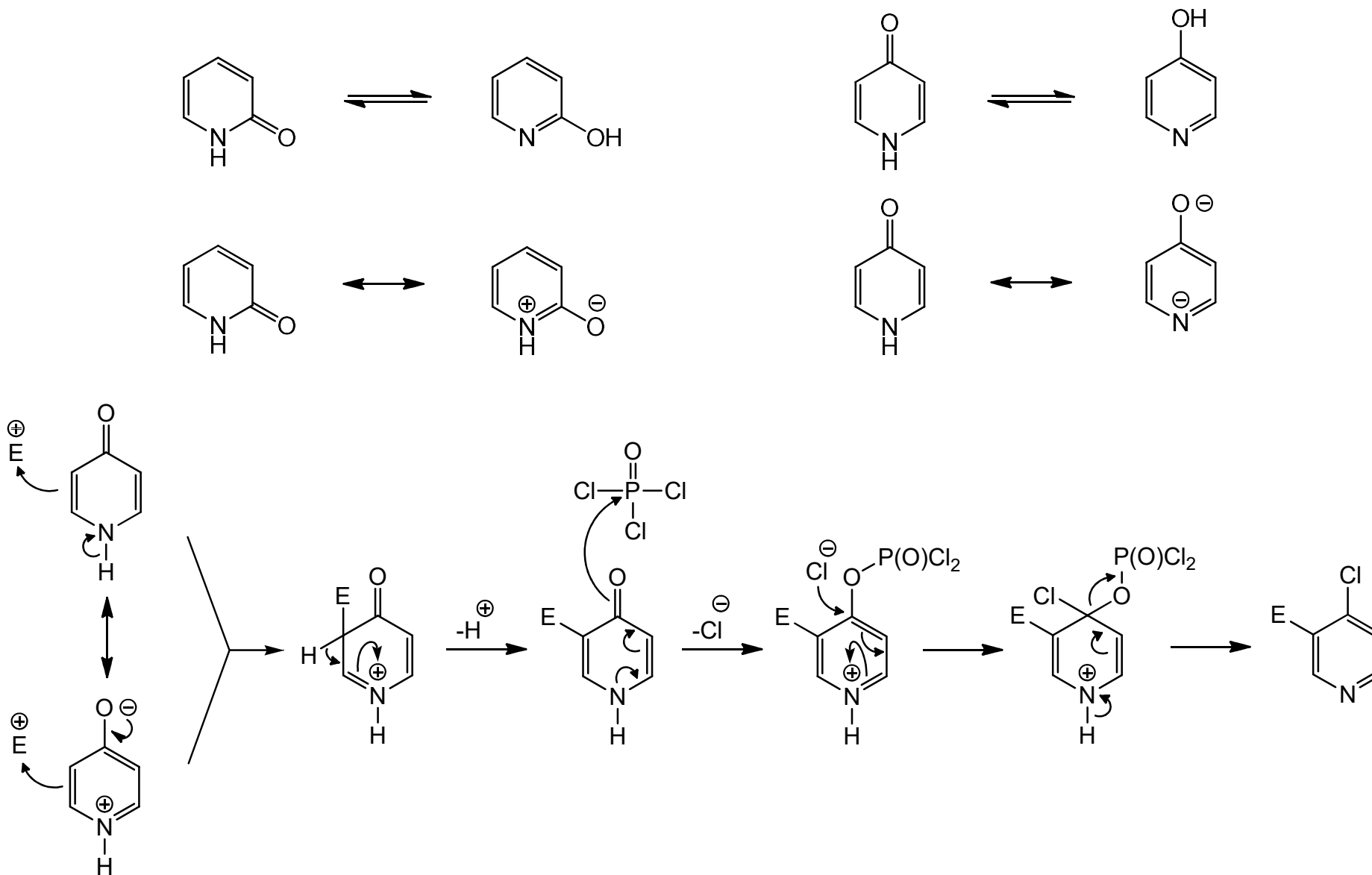
7.6. Pirydyny - substytucja elektrofilowa N-tlenku pirydyny, nitrowanie



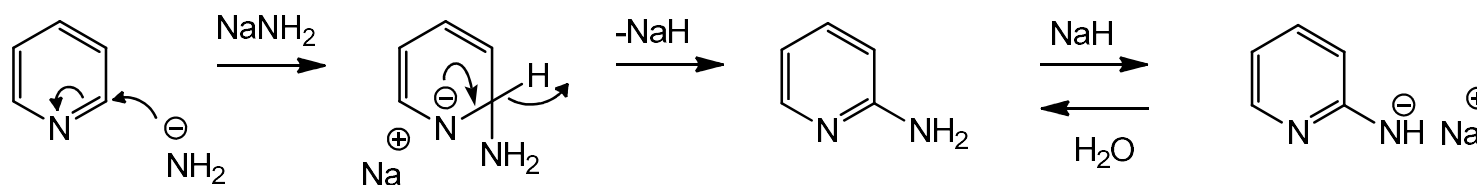
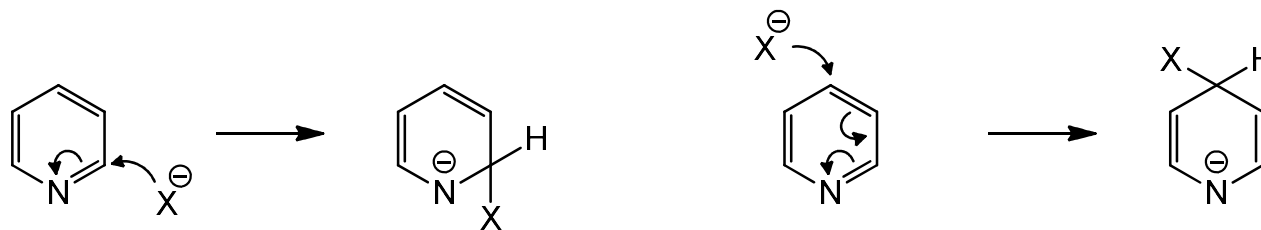
7.7. Pirydyny - substytucja elektrofilowa 4-alkilo-N-tlenków pirydyny, chlorowanie



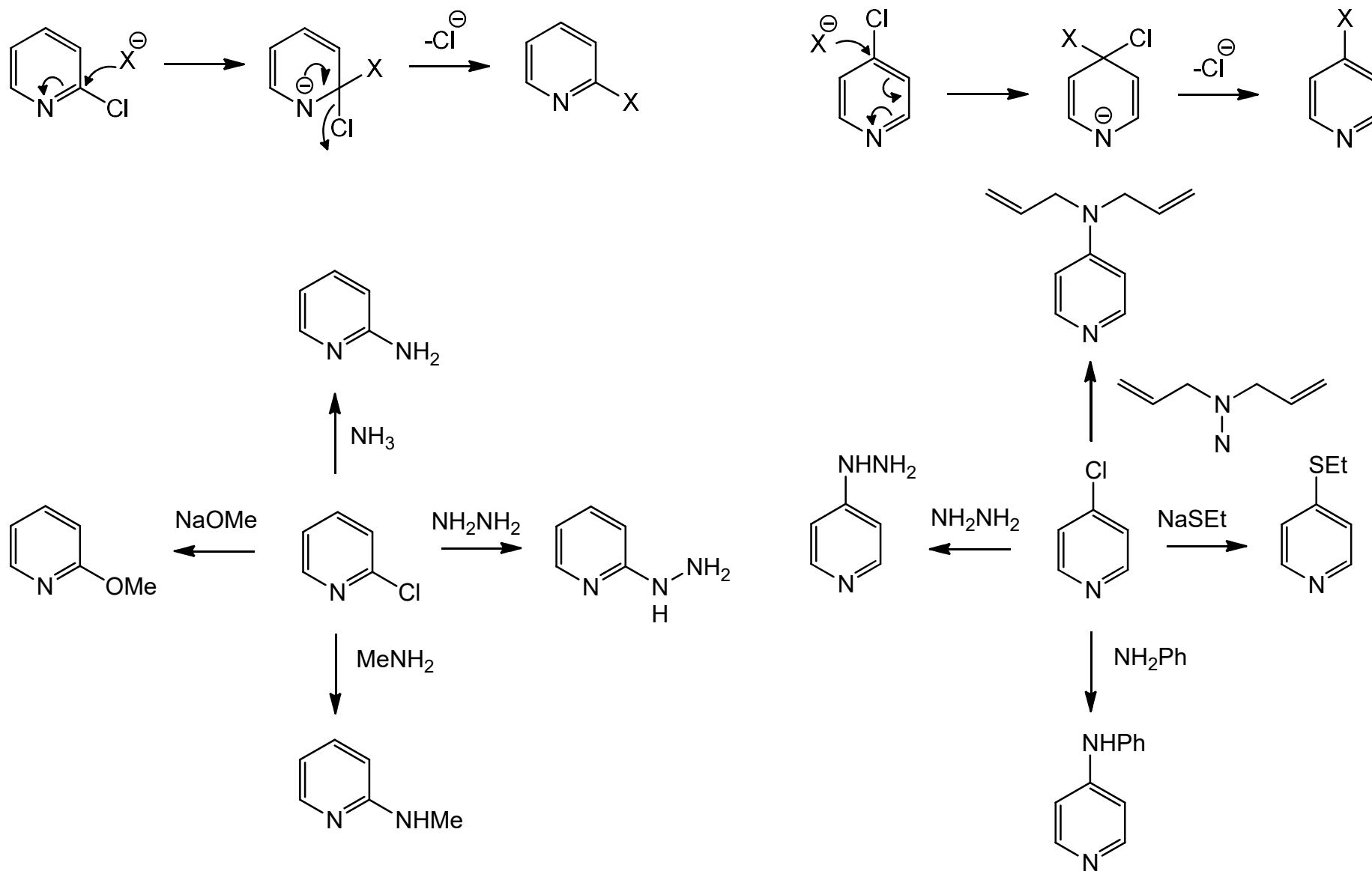
7.8. Pirydyny - substytucja elektrofilowa 2- lub 4-pirydonów



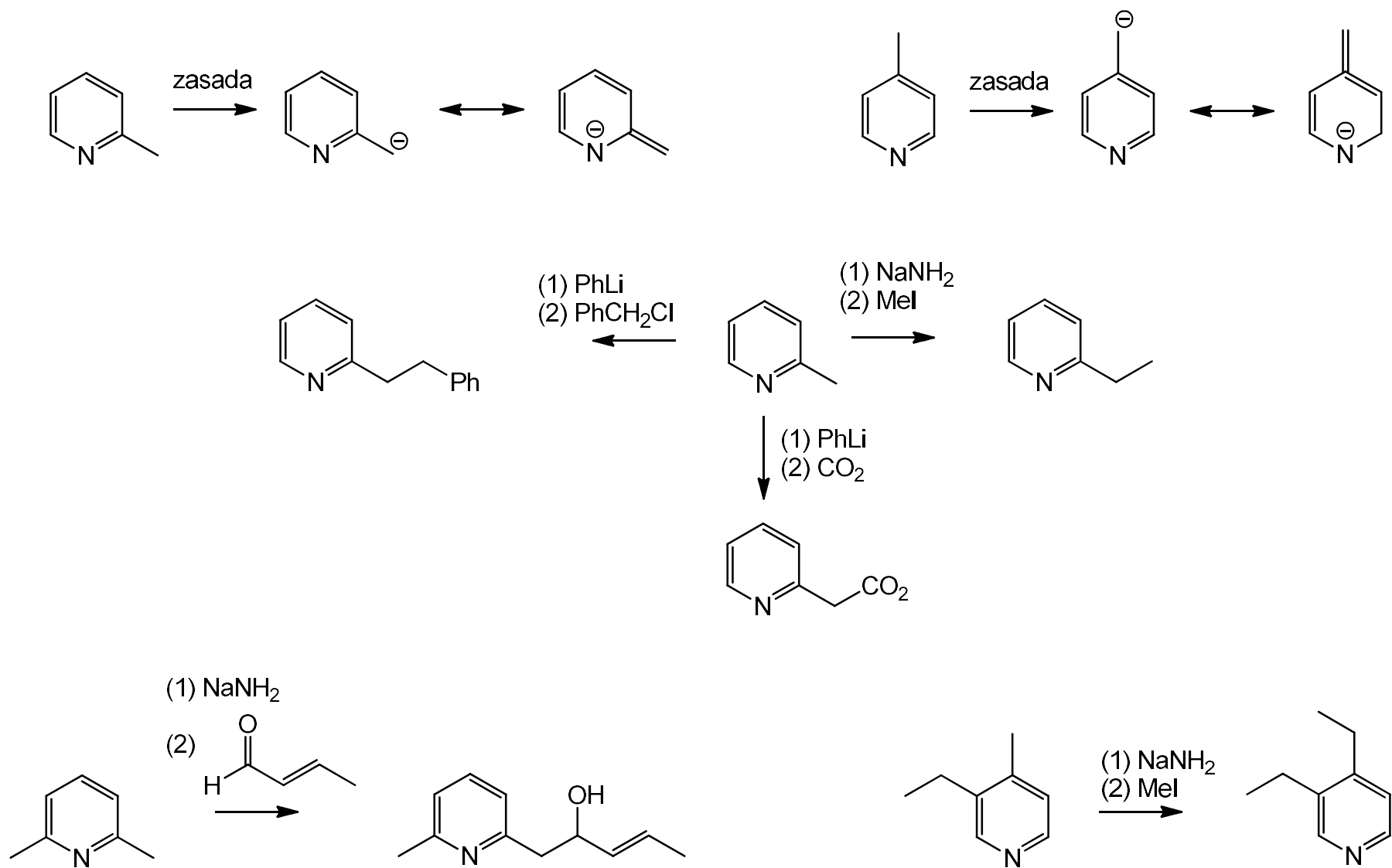
7.9. Pirydyny - substytucja elektrofilow, reakcja Chichibabina



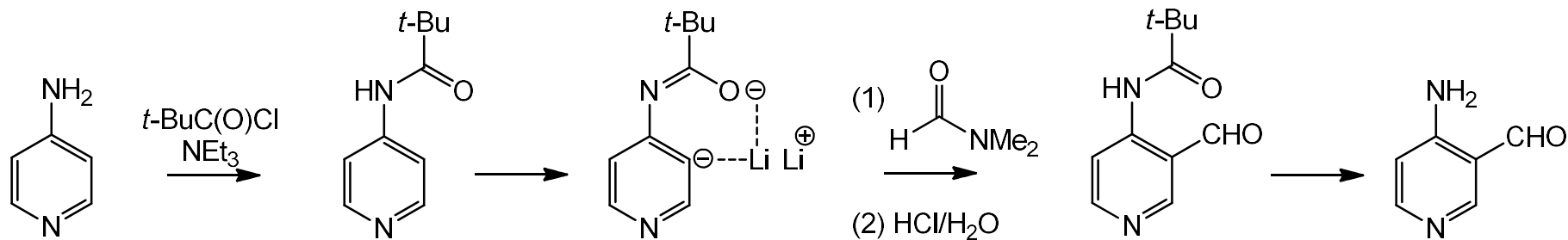
7.10. Pirydyny - substytucja nukleofilowa chloropirydyn



7.11. Pirydyny - reaktywność anionów generowanych z 2- lub 4-metylopirydyn



7.12. Pirydyny - reaktywność anionów generowanych z aminopirydynyn



7.13. Pirydyny - przykład syntezy złożonej pochodnej pirydyny

