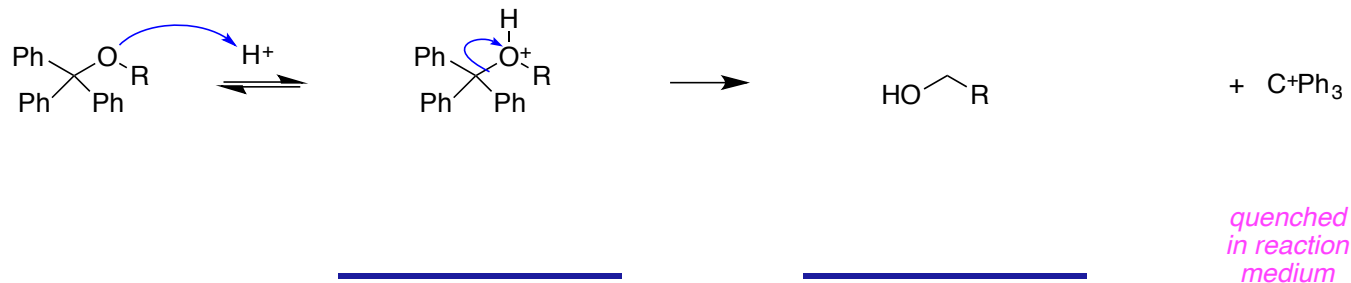


DNA Synthesis And Sequencing

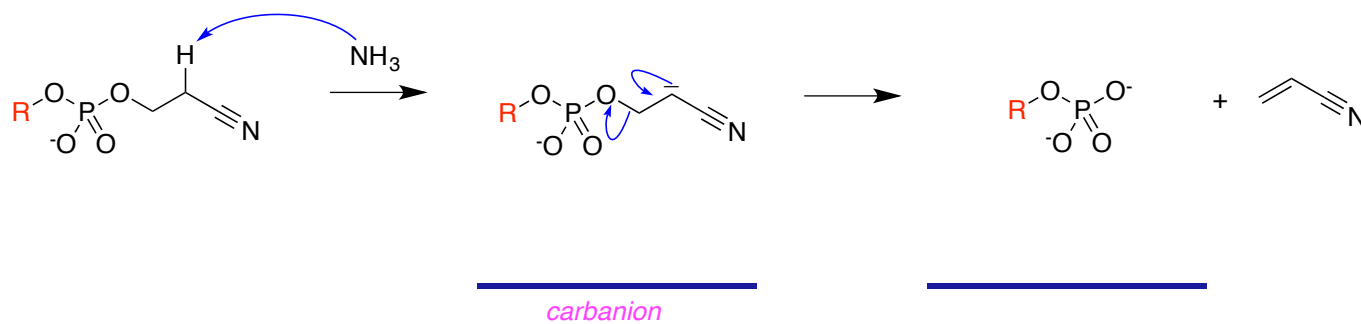
from chapter(s) _____ in the recommended text

A. Introduction

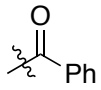
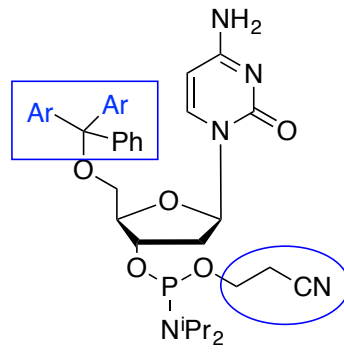
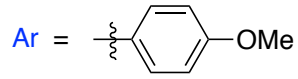
B. Chemical Synthesis Of DNA



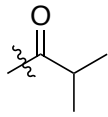
S_N1
easier
more



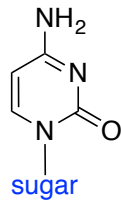
This is an *E1cb*



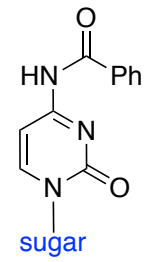
benzoyl
Bz



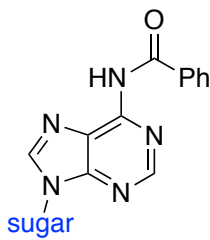
iso-butyl
COⁱBu



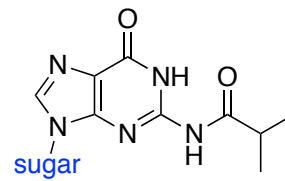
no protection
required



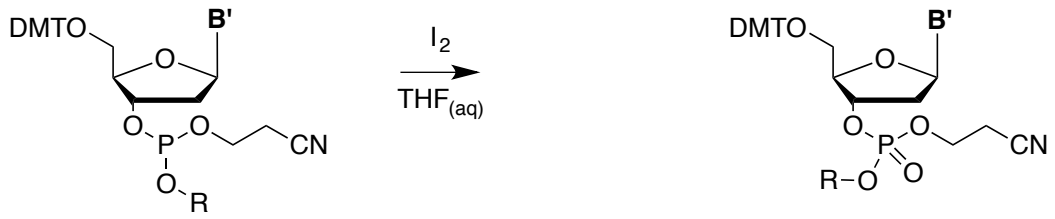
N-Bz C



N-Bz A



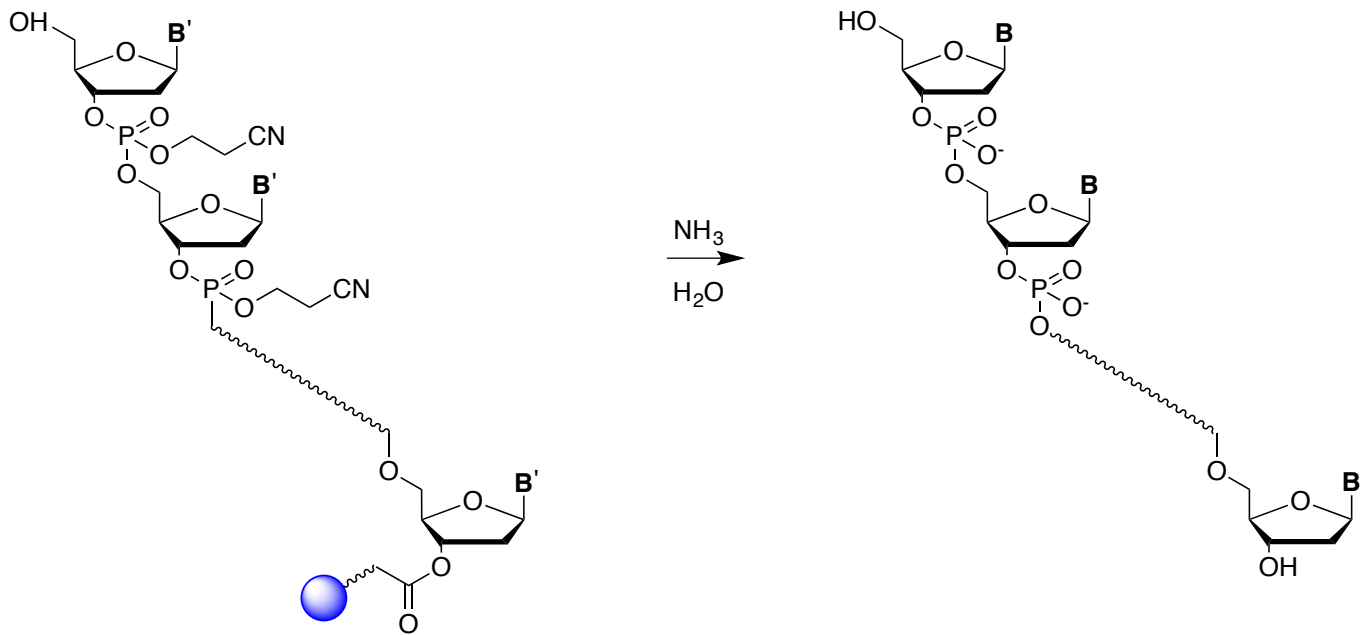
N-iso-butyl G

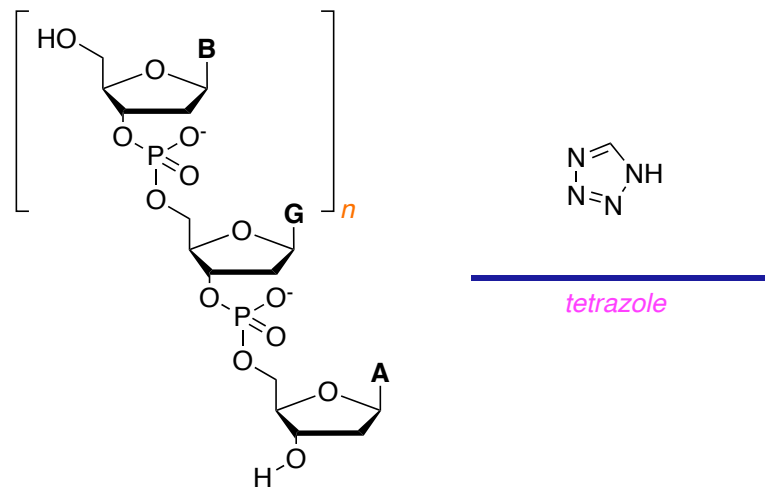
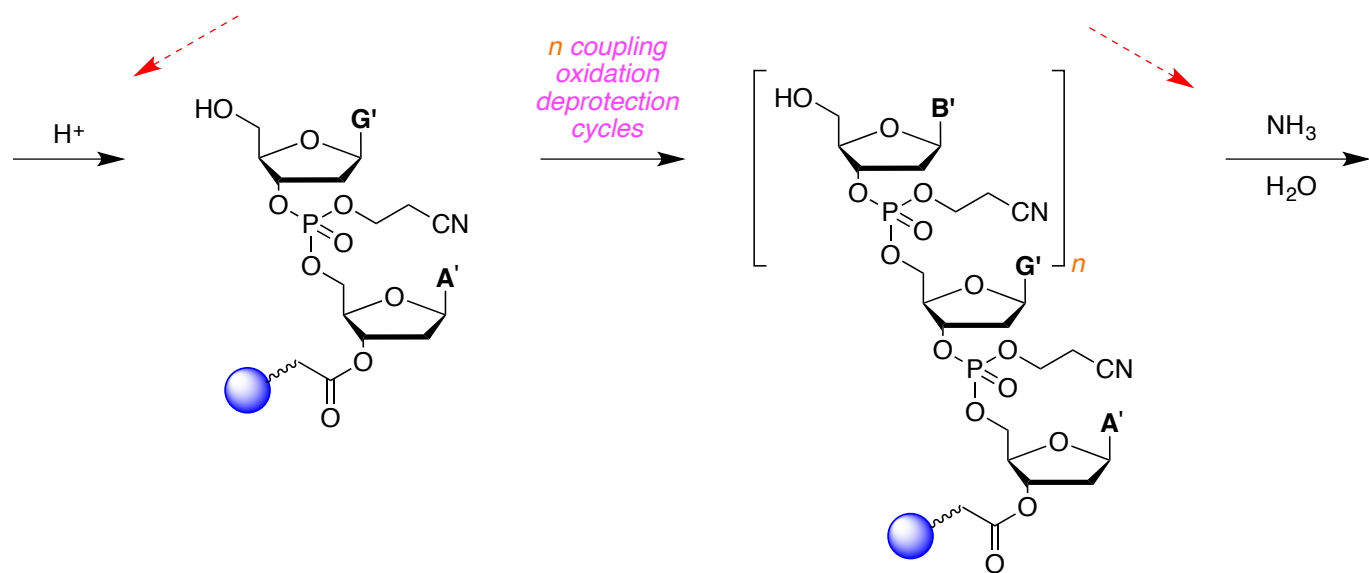
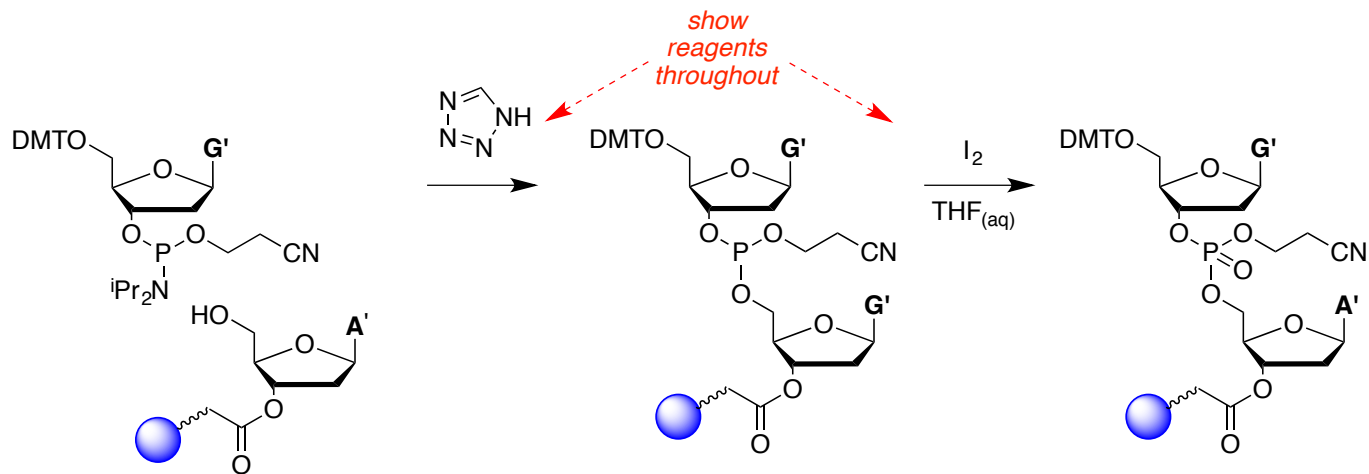


phosphotriester

3,
5.

also removes



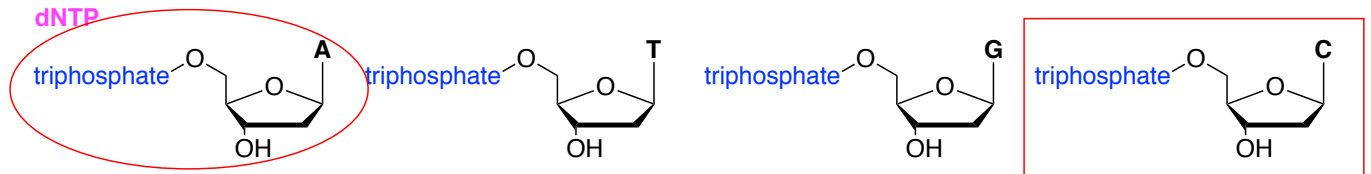


C. DNA Sequencing

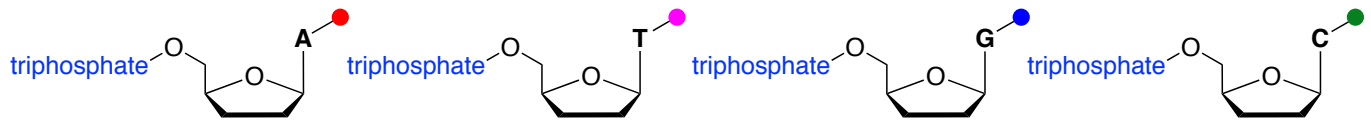
Sanger's Method

primer

template.

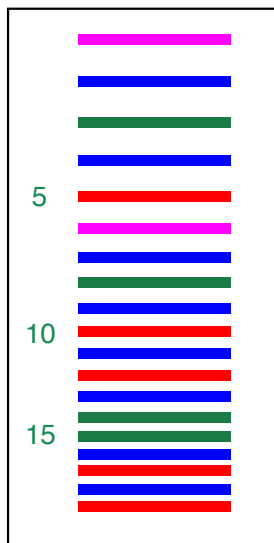


fluorescently labeled ddNTPs



G
cannot

increasing
size
↓



only one.

can
can

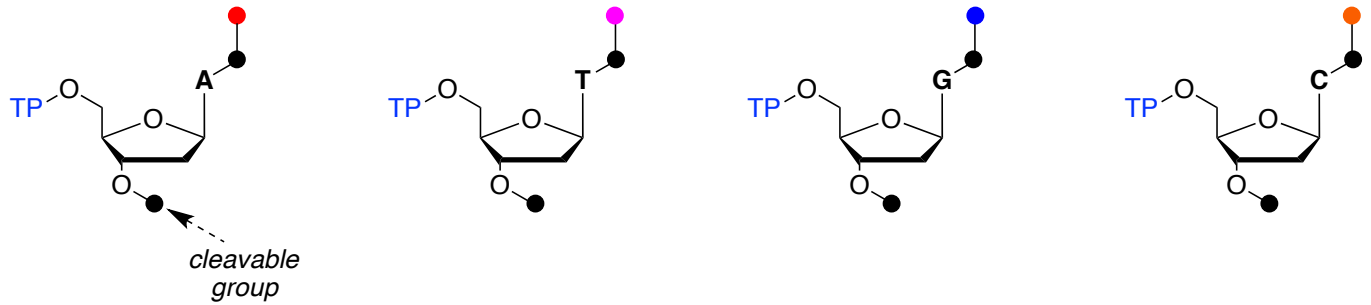
5'-TGCGATGCGAGAGCCGAGA-3'

5'-TCTCGGCTCTCGCATCGCA-3'

Sequencing By Synthesis

higher

fluorescently labeled, blocked, dNTPs



*would not
could*

would

Sanger.

*different
different*

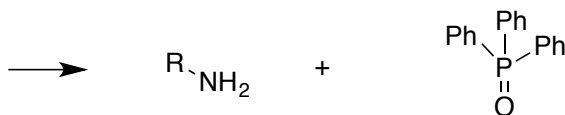
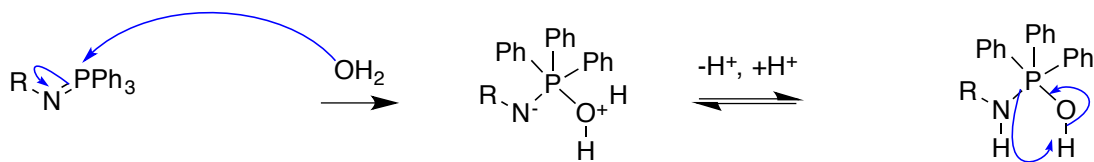
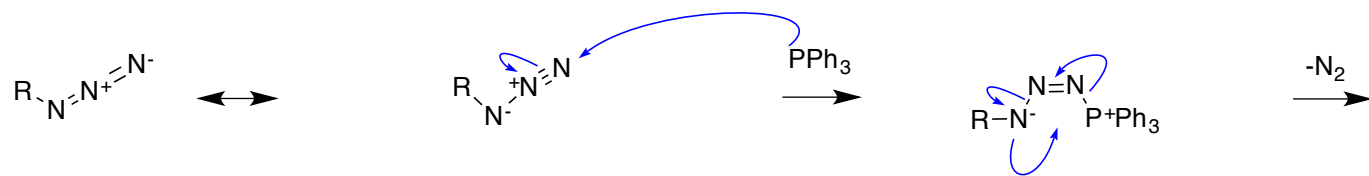
*y x n
more*

Reduction Of Azides By Phosphines And Azidomethyl Protection

remains annealed

gentle.

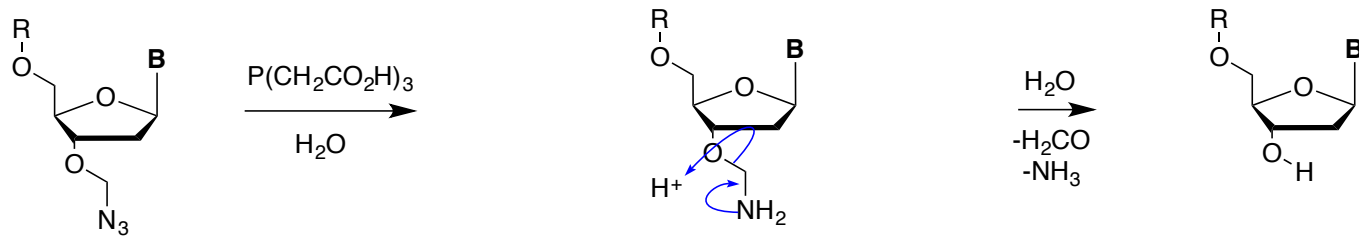
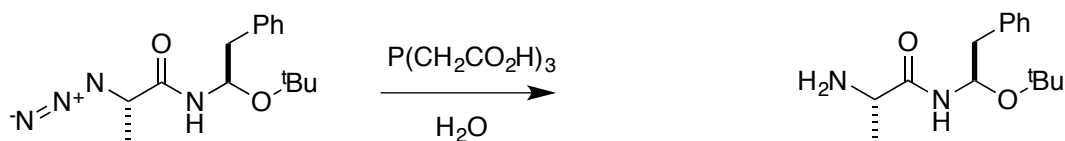
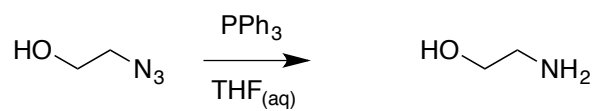
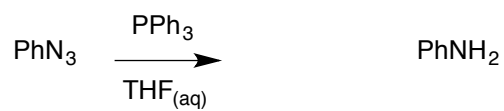
Staudinger



+3

+5

*oxidized.**reduced.*



aminal

azidomethyl