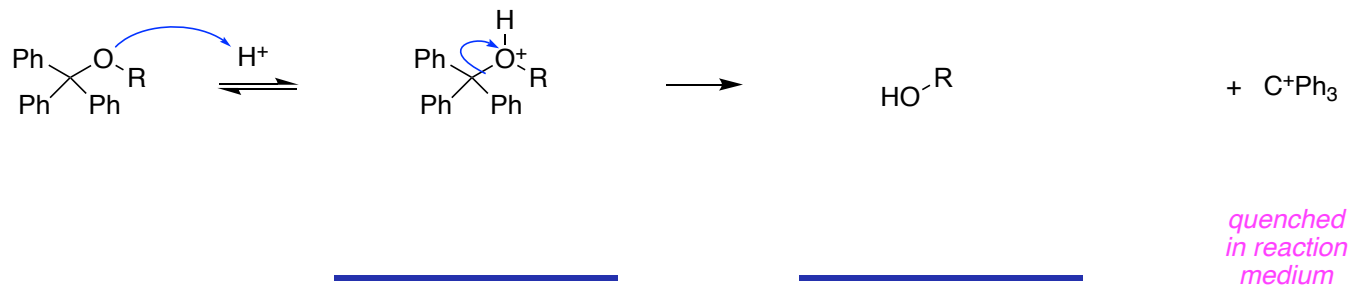


DNA Synthesis And Sequencing

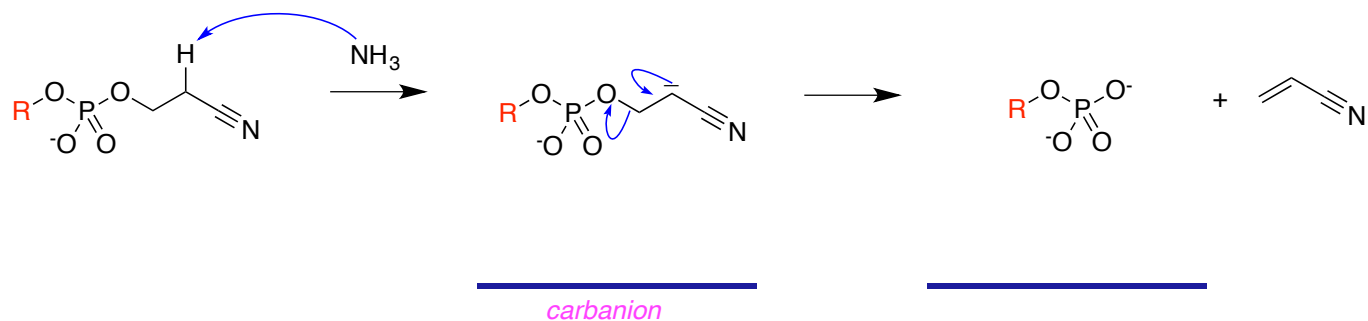
from chapter(s) _____ in the recommended text

A. Introduction

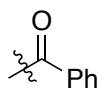
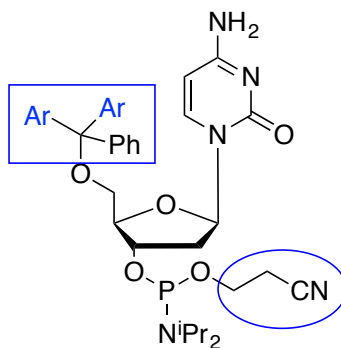
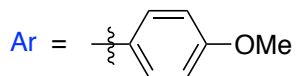
B. Chemical Synthesis Of DNA



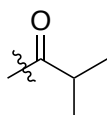
*S_N1
easier
more*



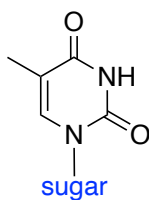
This is an *E1cb*



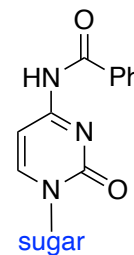
benzoyl
Bz



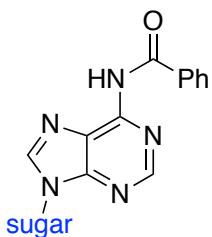
iso-butryl
CO^tBu



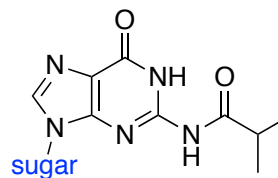
no protection
required



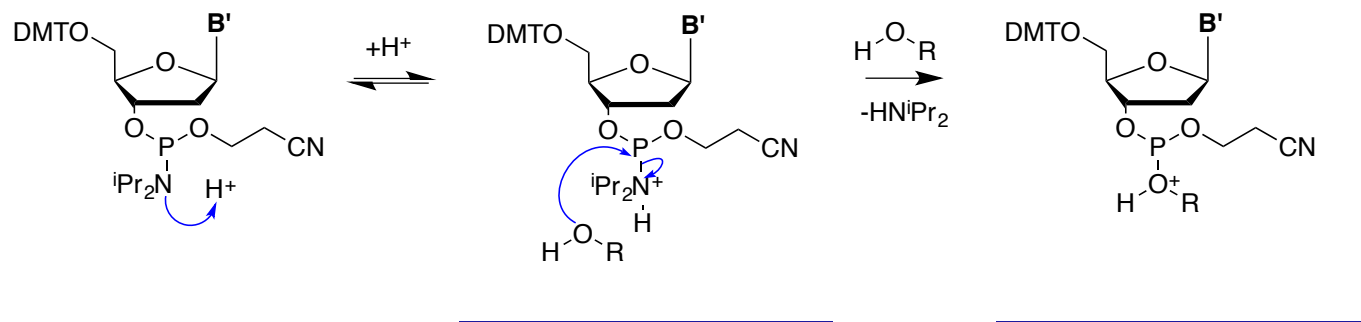
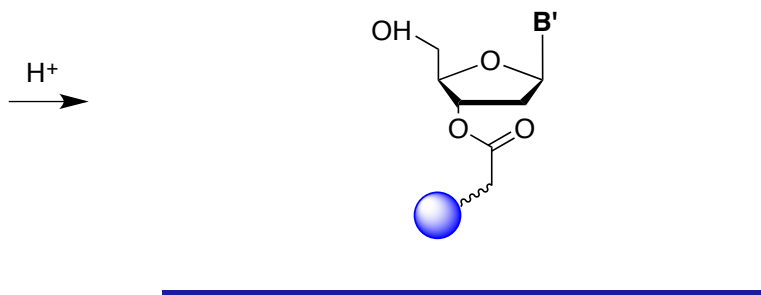
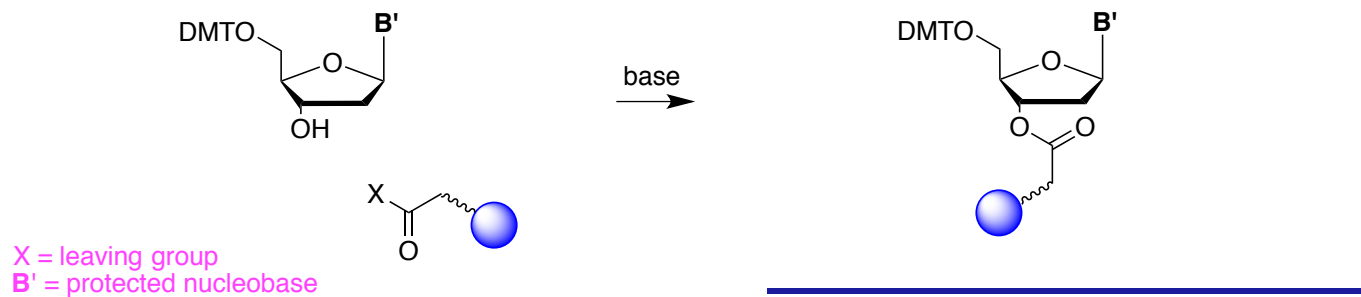
N-Bz C



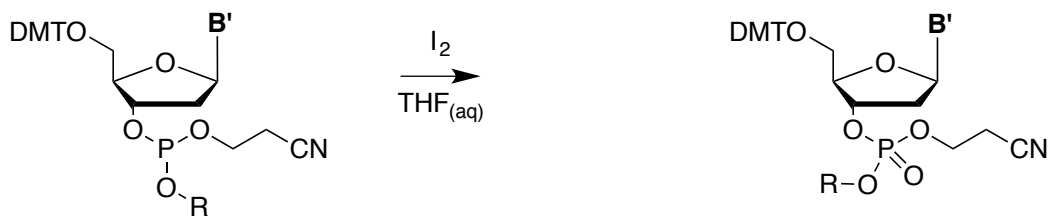
N-Bz A



N-iso-butryl G



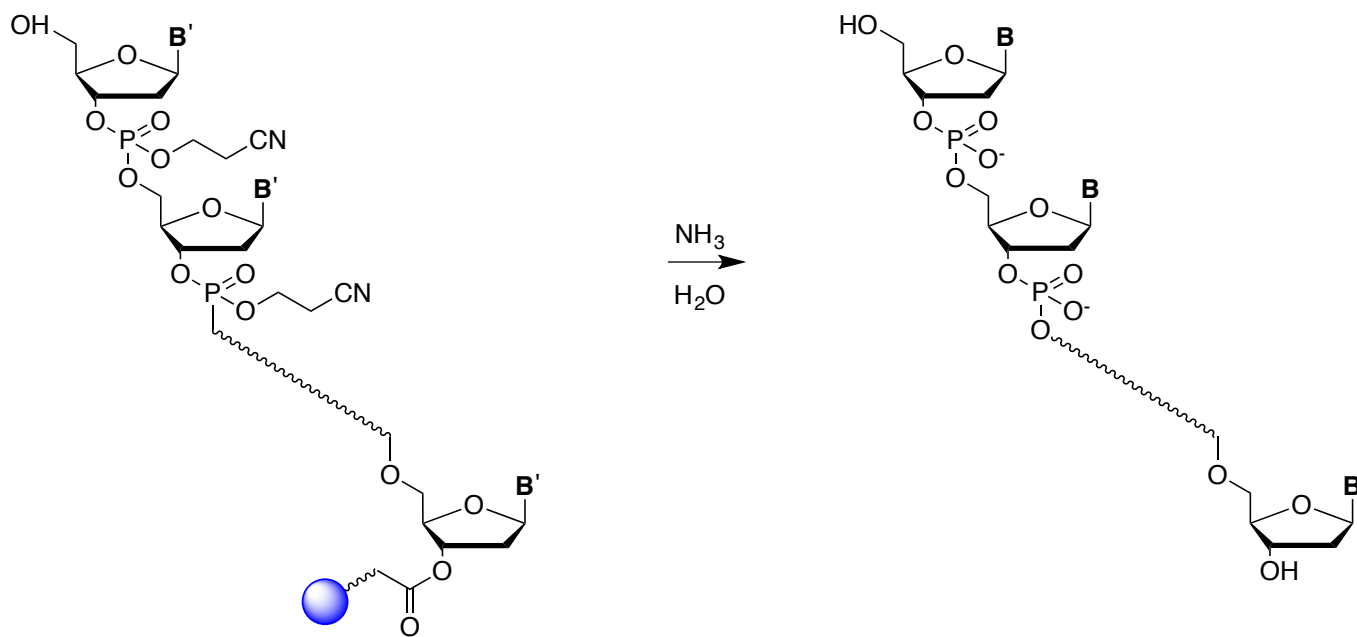
Tetrazole
oxidation

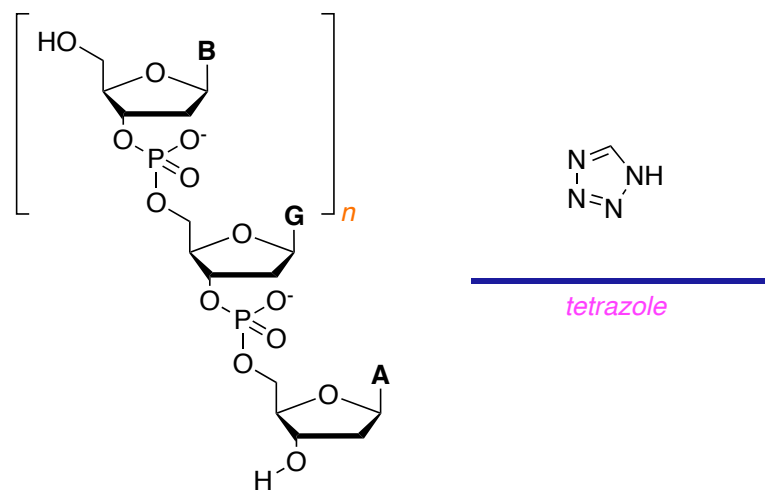
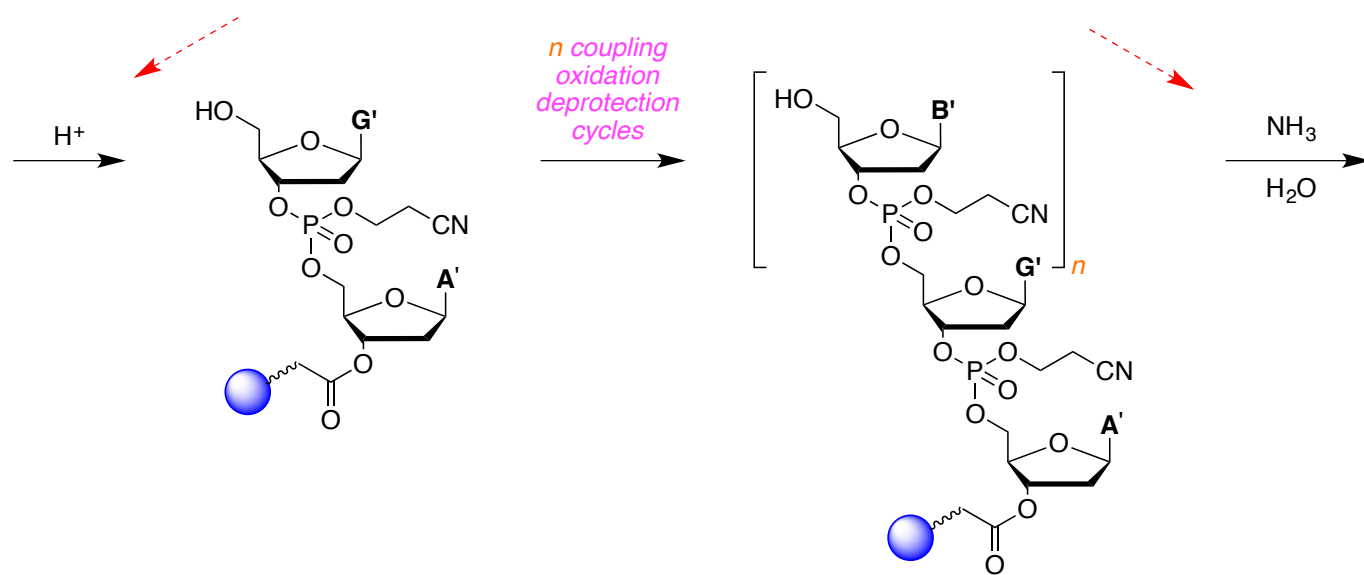
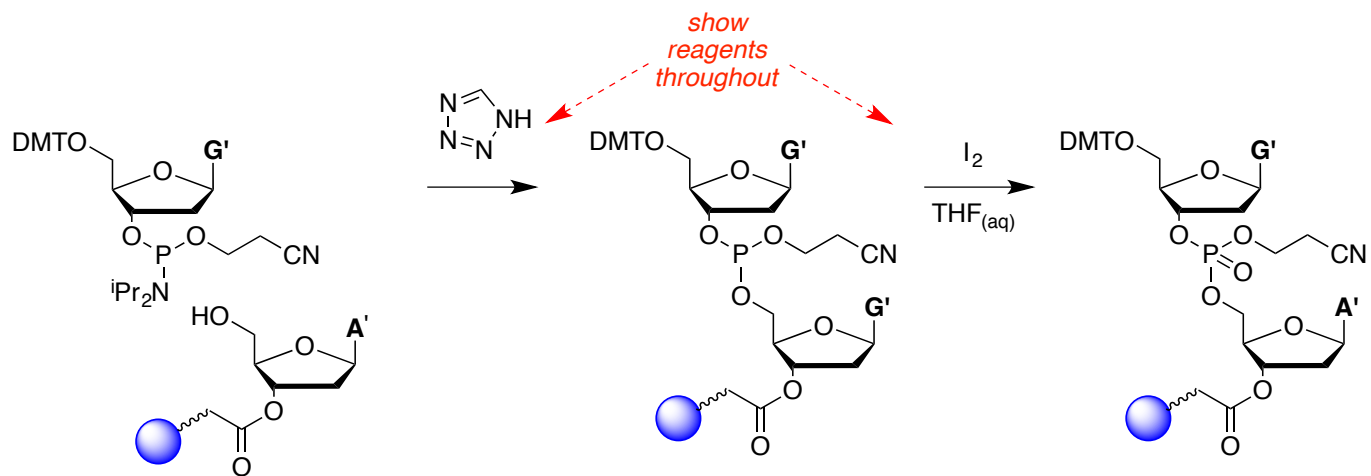


phosphotriester

3,
5.

also removes

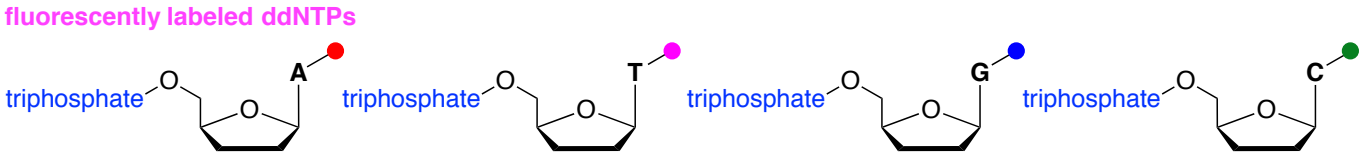
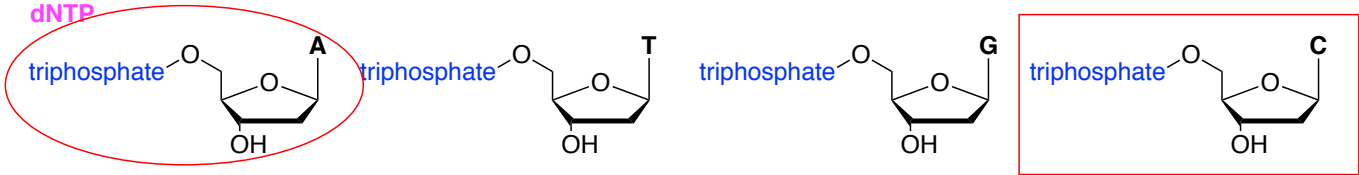




C. DNA Sequencing

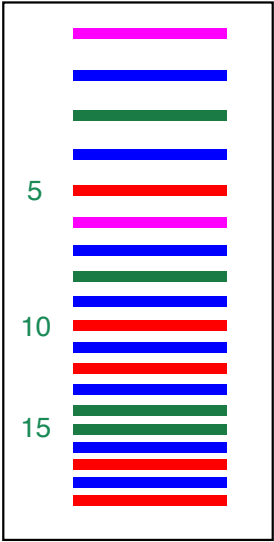
Sanger's Method

primer
template.



G
cannot

increasing size
↓



only one.

can
can

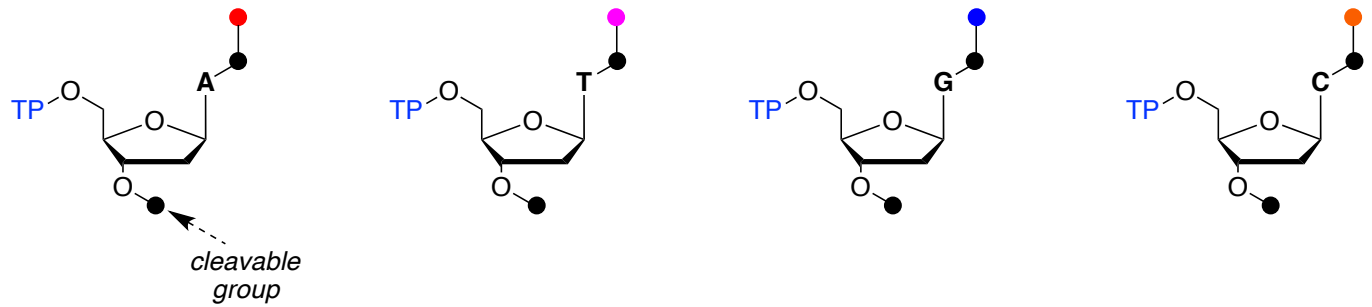
5'-TGCGATGCGAGAGCCGAGA-3'

5'-TCTCGGCTCTCGCATCGCA-3'

Sequencing By Synthesis

higher

fluorescently labeled, blocked, dNTPs



*would not
could*

would

Sanger.

*different
different*

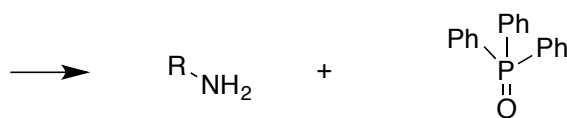
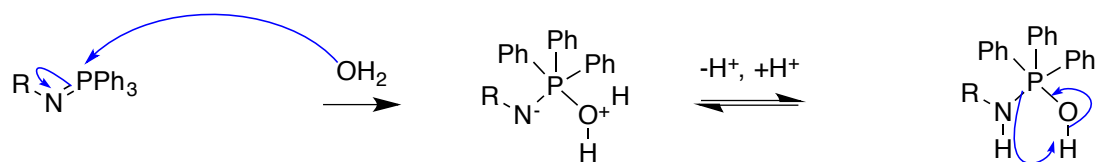
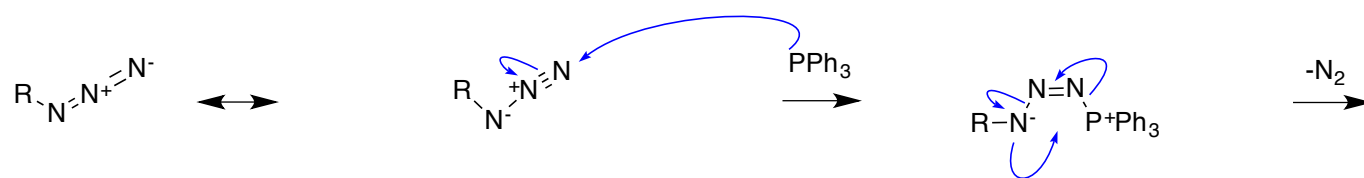
*y x n
more*

Reduction Of Azides By Phosphines And Azidomethyl Protection

remains annealed

gentle.

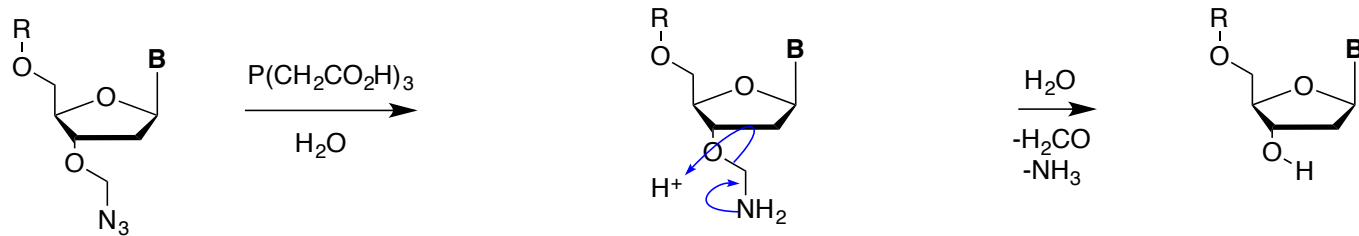
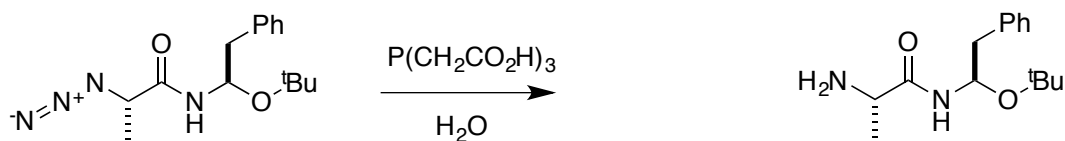
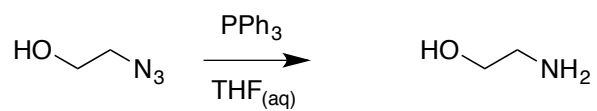
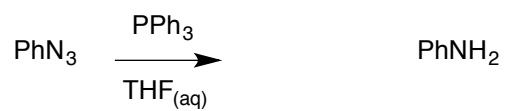
Staudinger



+3

+5

*oxidized.**reduced.*



aminal

azidomethyl