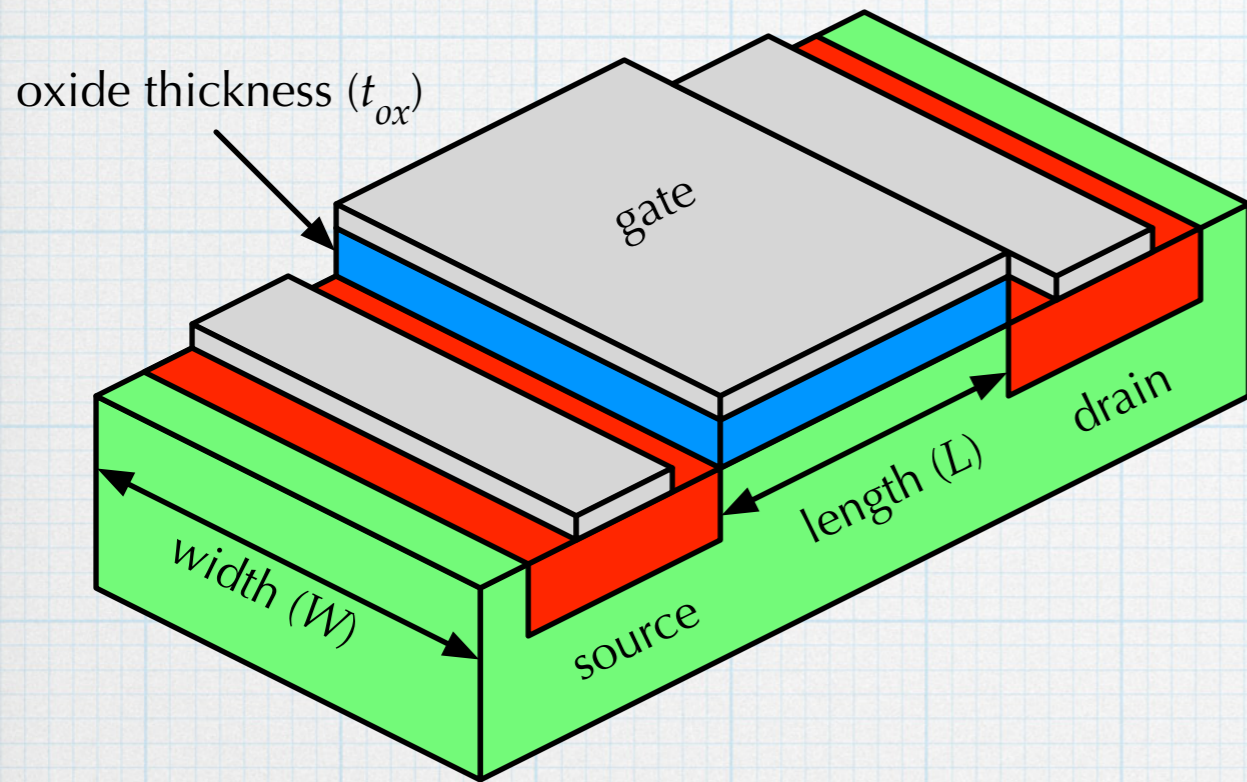


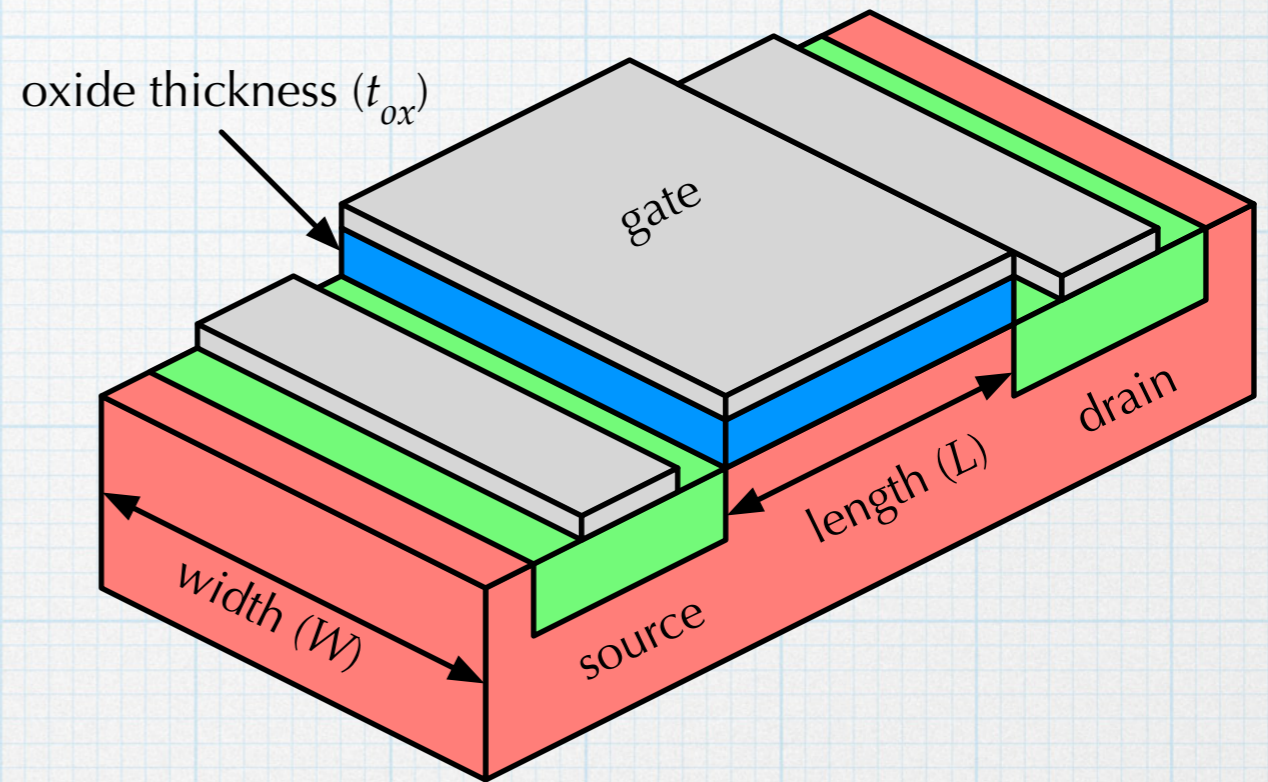
CyMOS

NMOS



p-type substrate (body)

PMOS



n-type substrate (body)

In CMOS, we need to combine both with a single starting substrate.

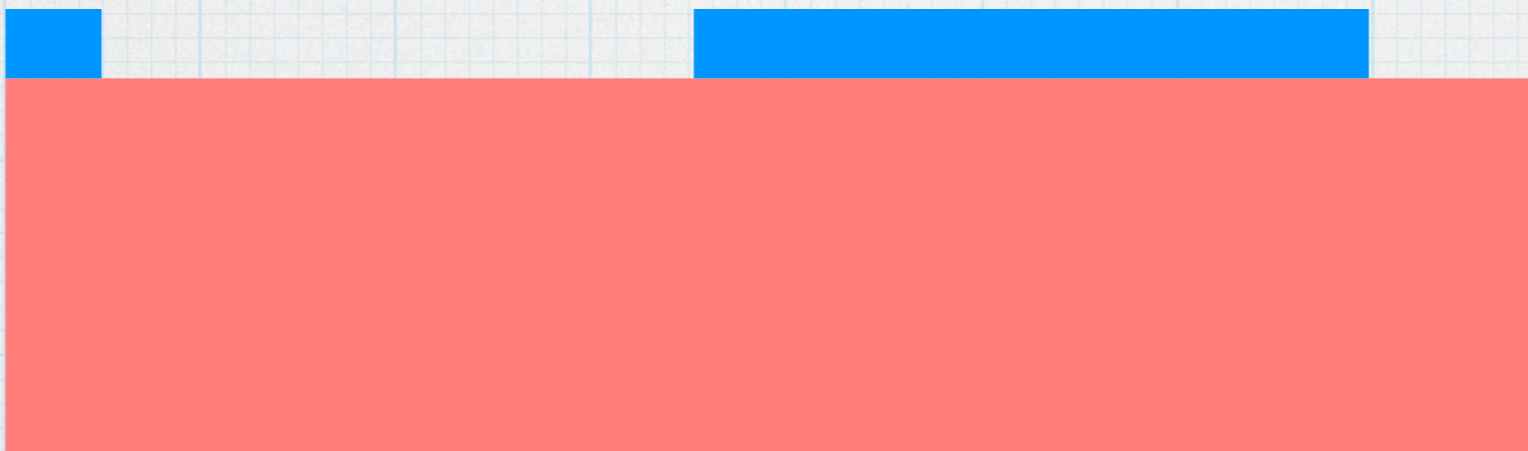


0. n-type silicon wafer

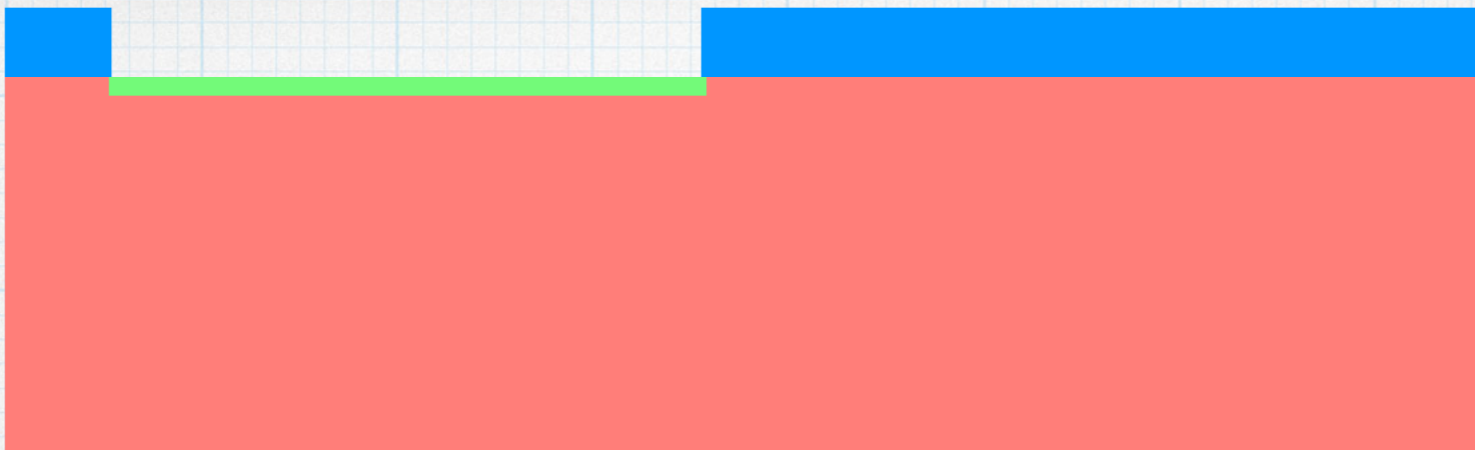


Oxidation
Lithography

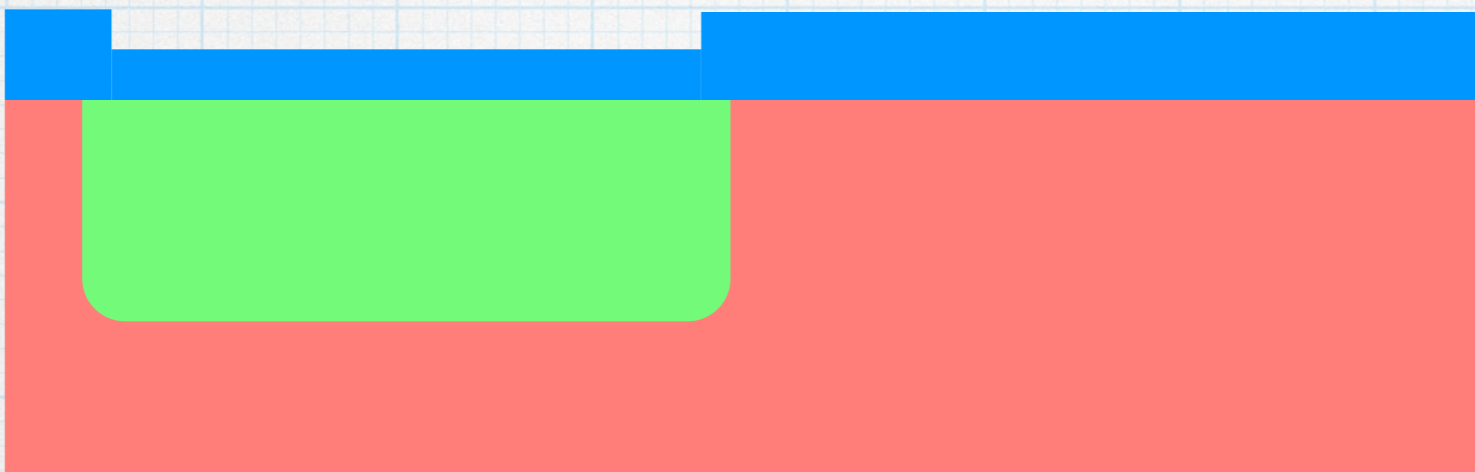
1. grow field oxide



2. pattern and etch for PWELL

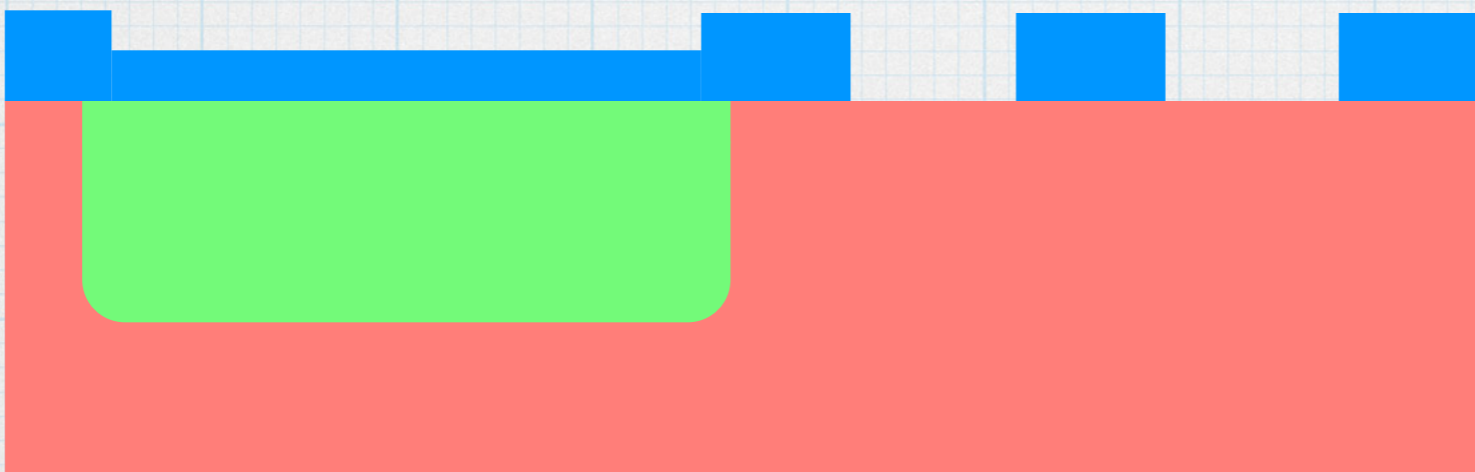


3. PWELL boron deposition

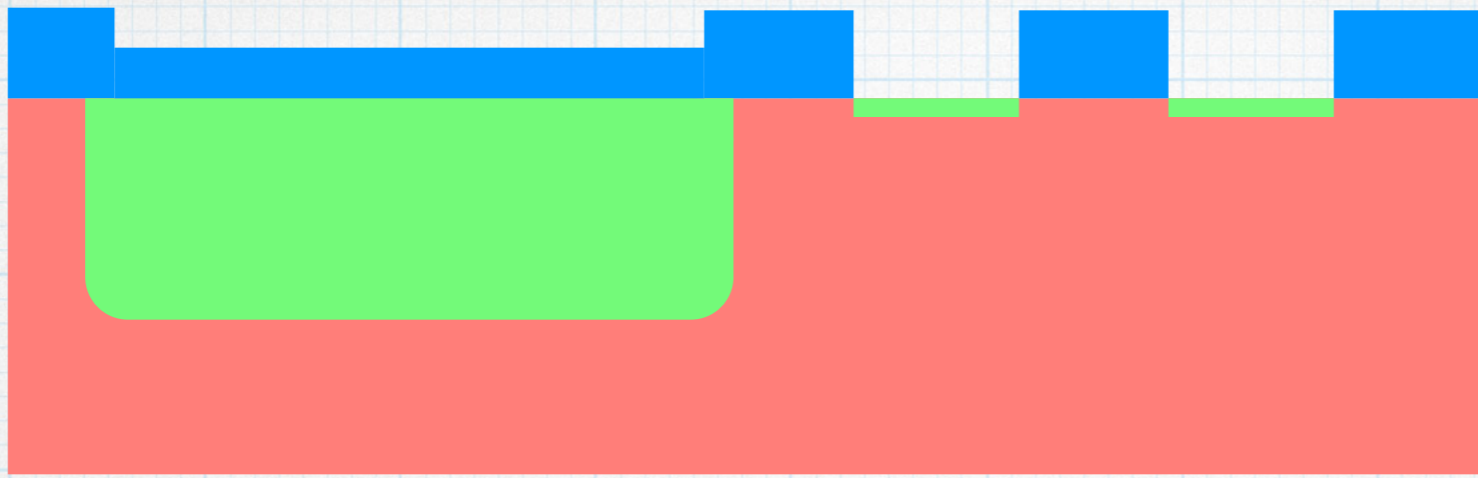


Oxidation 2
Lithography 2
Diffusion 1

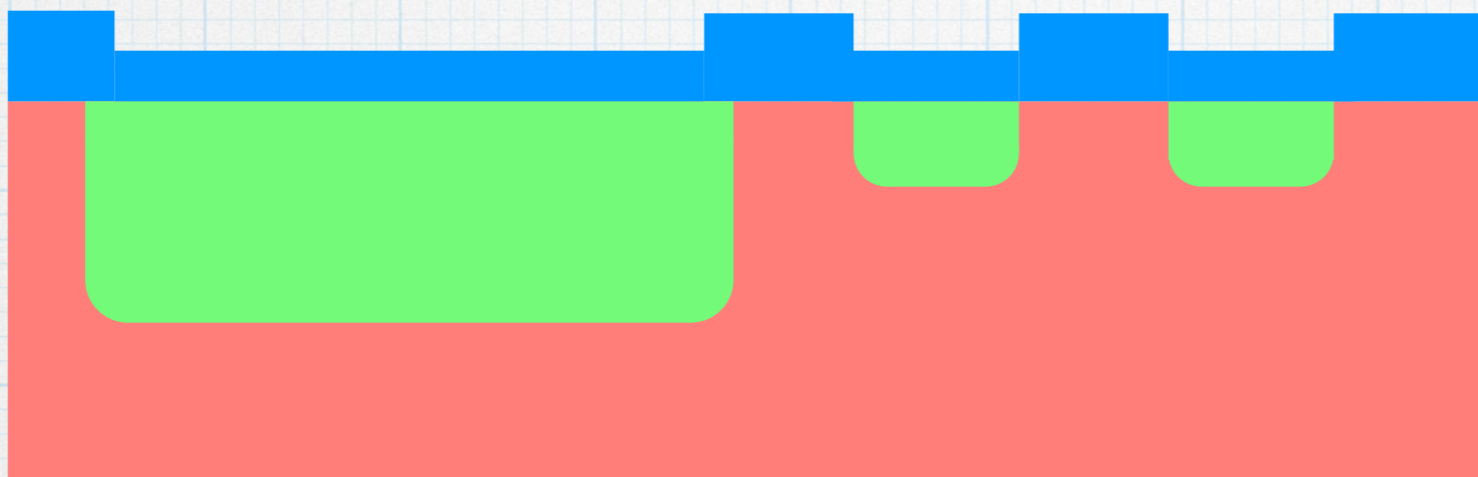
4. PWELL boron drive and oxidation



5. pattern and etch for PMOS source/drain

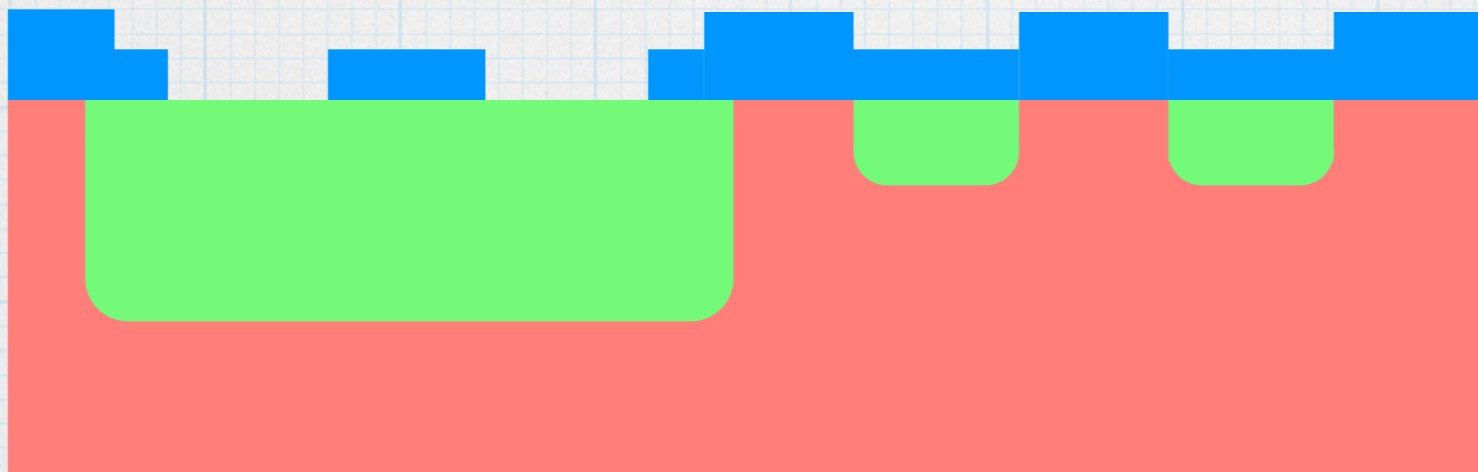


6. PMOS boron deposition

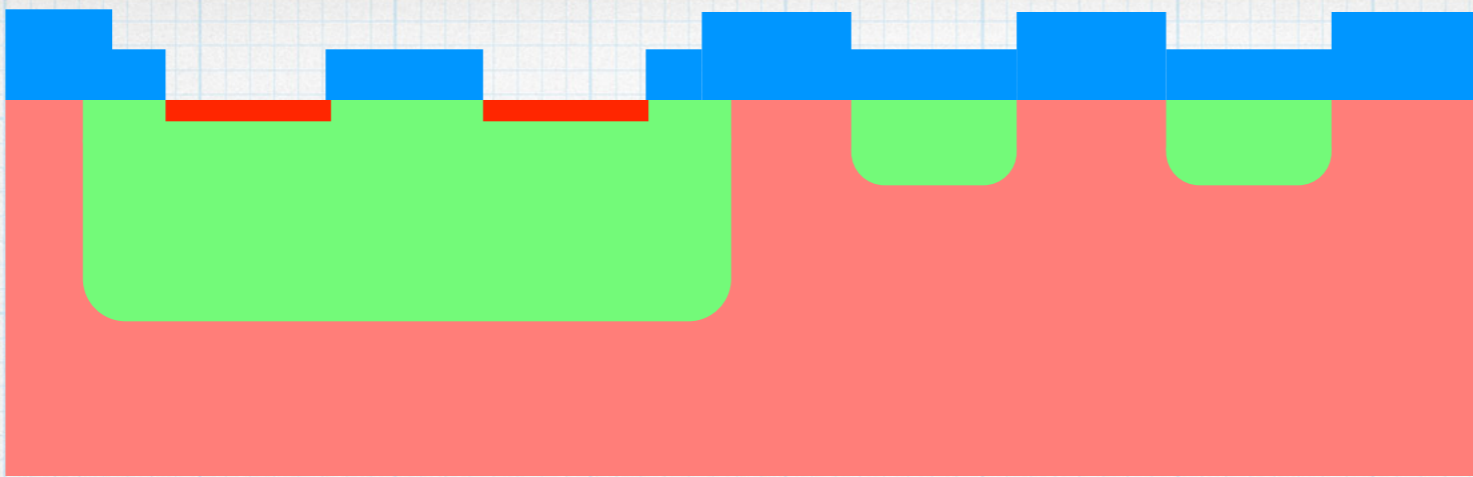


Oxidation 3
Lithography 3
Diffusion 2

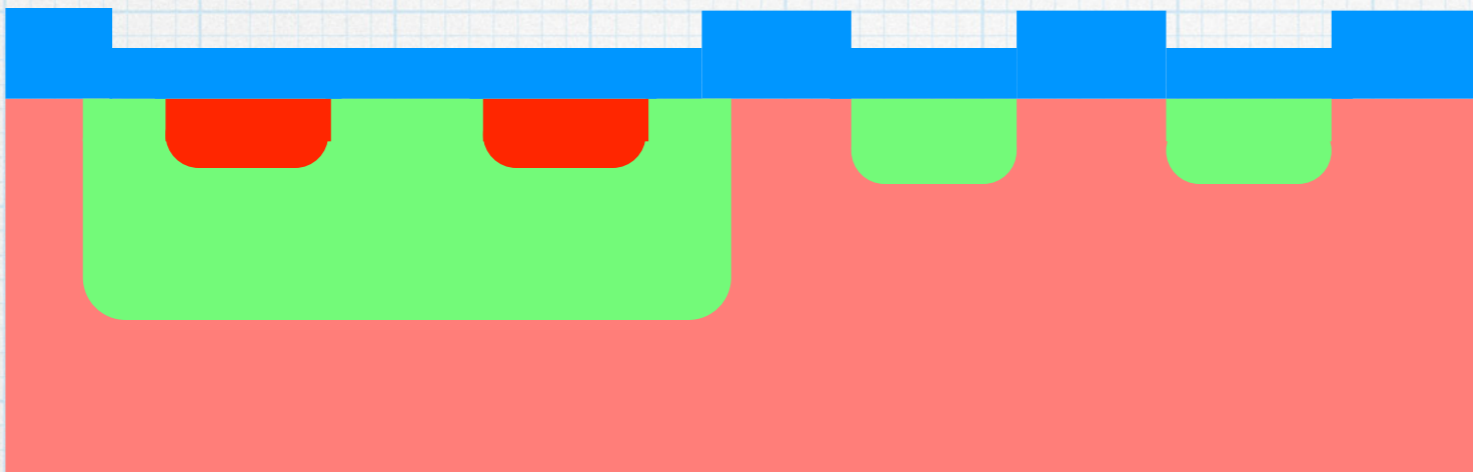
7. PMOS boron drive and oxidation



8. Pattern and etch for NMOS source and drain

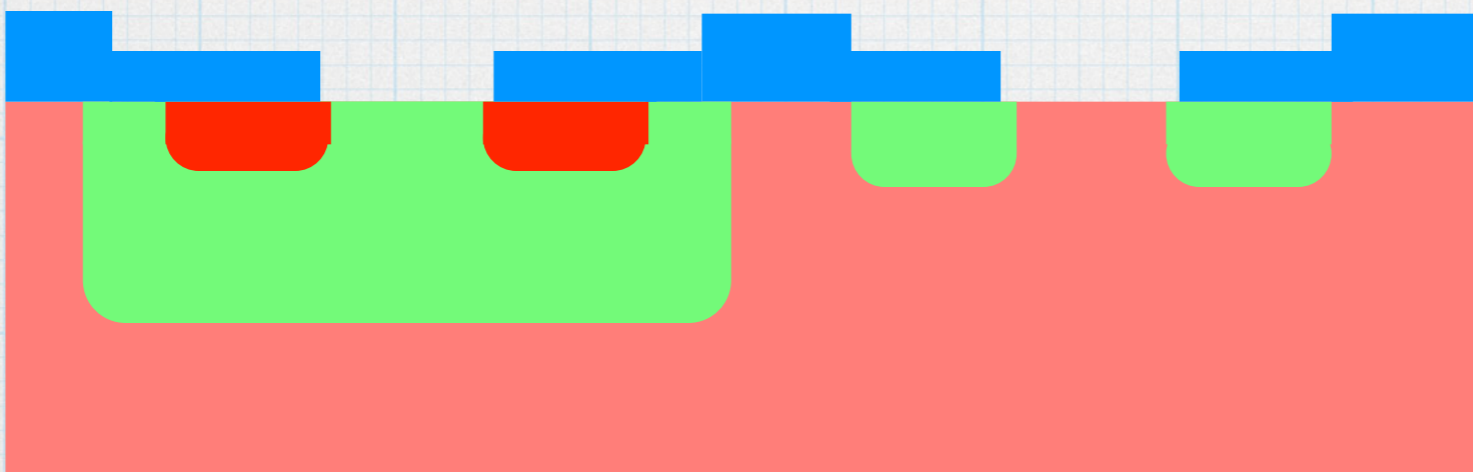


9. NMOS phosphorus deposition

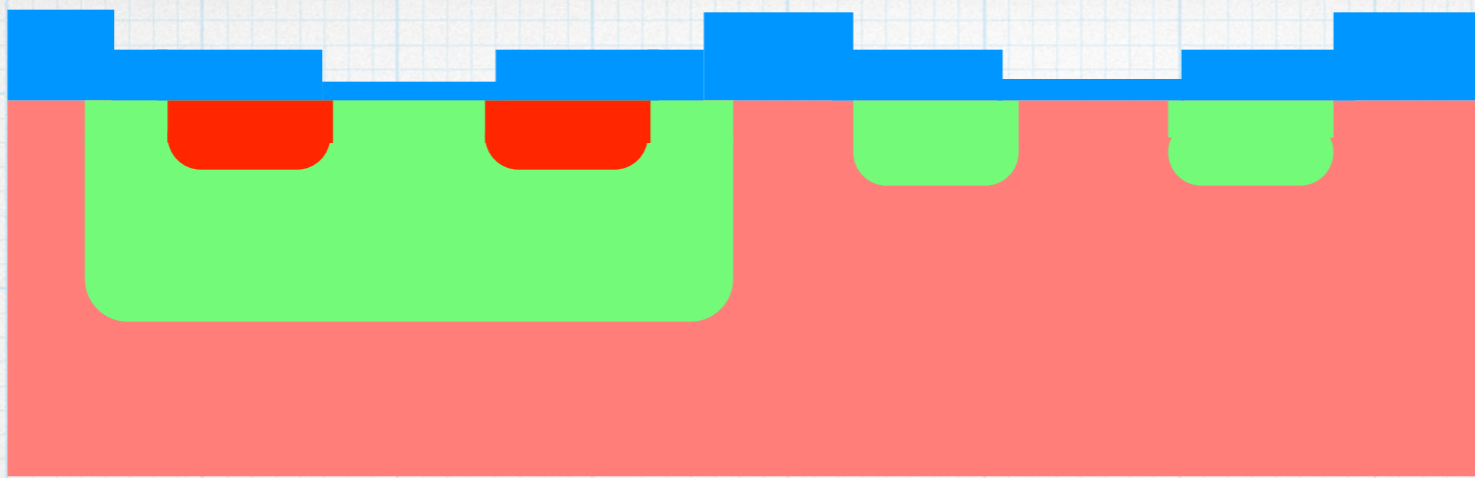


10. NMOS phosphorus drive and oxidation

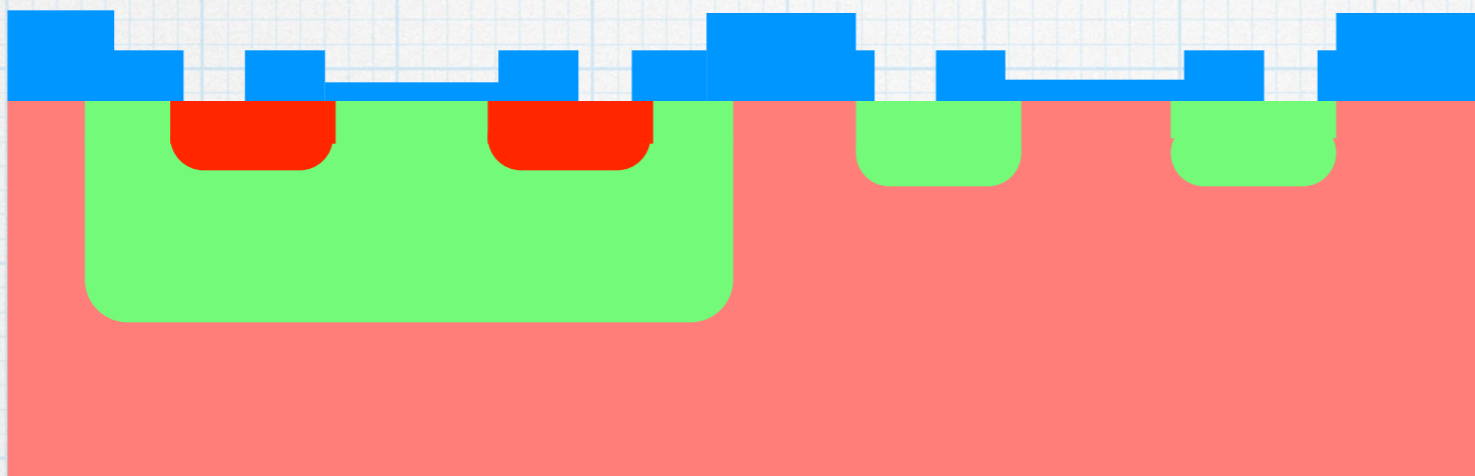
Oxidation 4
Lithography 4
Diffusion 3



11. Pattern and etch for Gate Oxide (GATEOX)

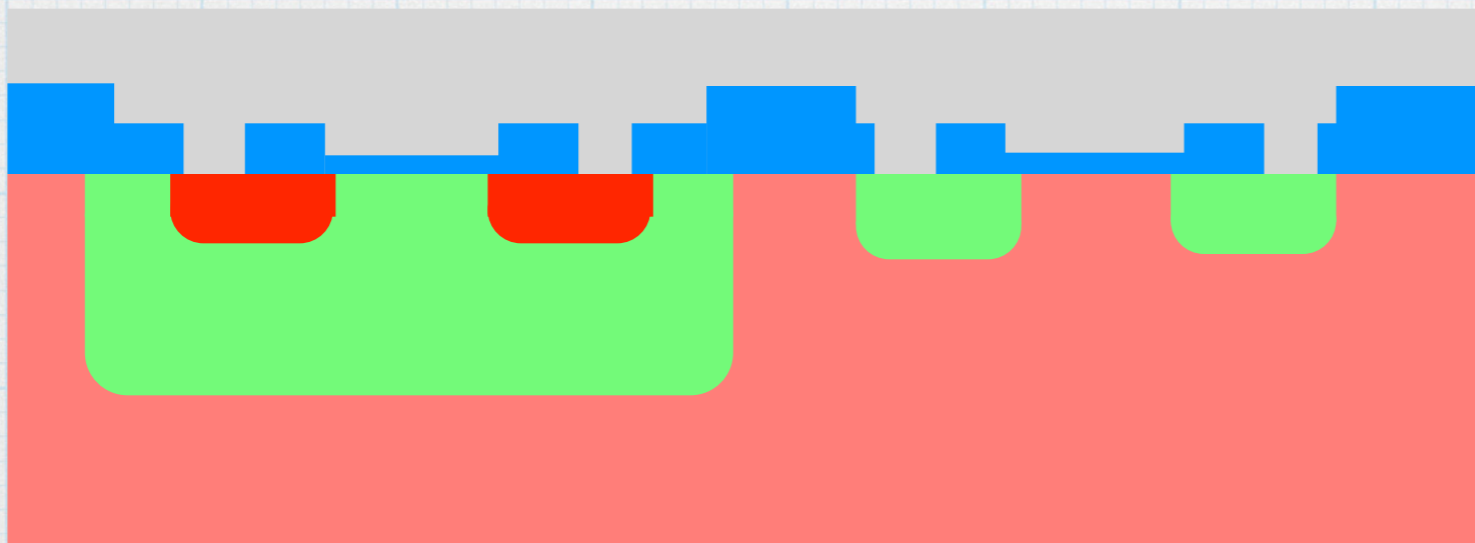


12. oxidation for the gate

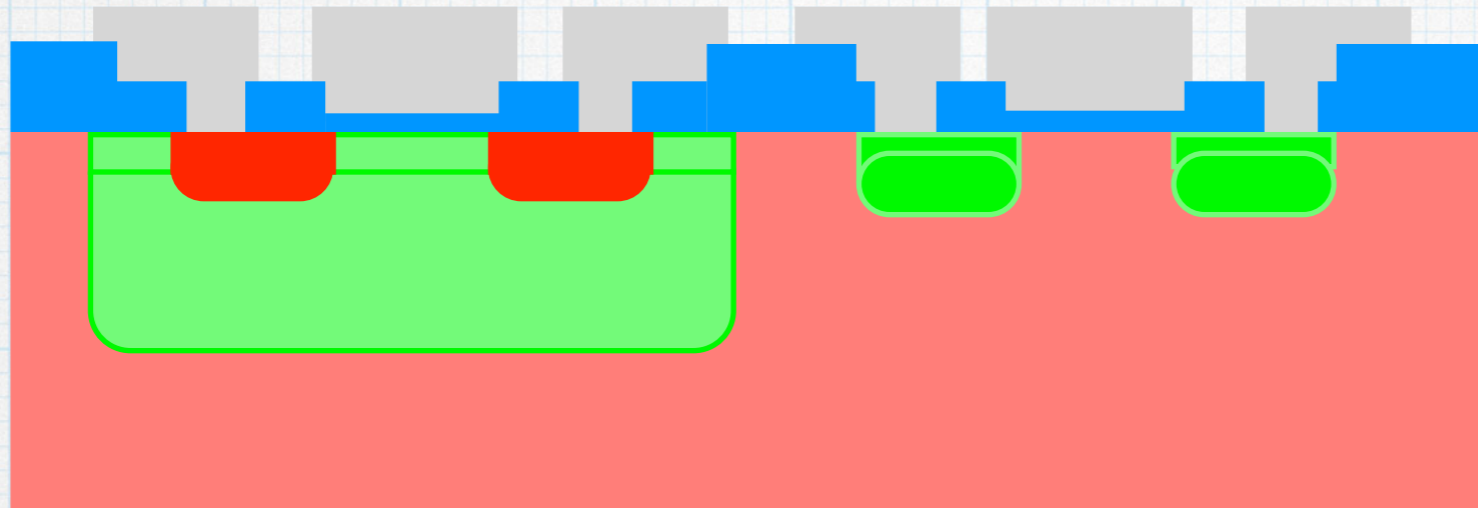


Oxidation 5
Lithography 5
Diffusion 3
Metal deposit 1

13. Pattern and etch for contacts



14. Deposit aluminum



15. Pattern, etch, and sinter aluminum for contacts

Oxidations 5

Lithographies 6

Diffusions 3

Metal deposition 1