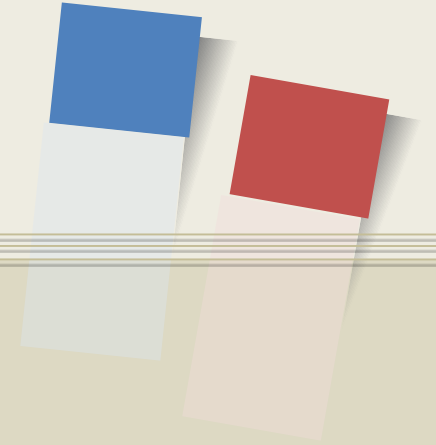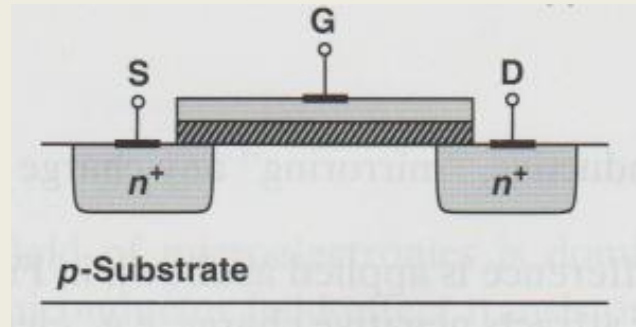2012142030 신윤철

PMOS

MOS Device Type(1)
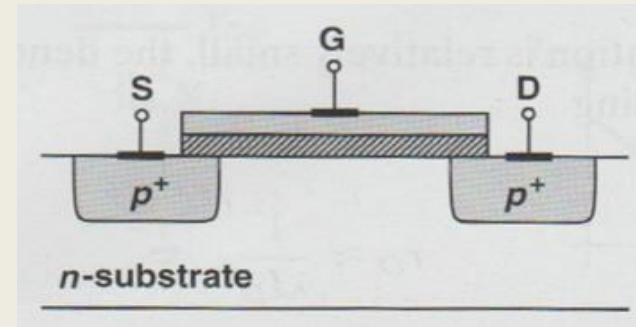
<NMOS>

- $V_G > V_S$
- $V_{TH} > 0$
- $V_D > V_S$

<PMOS>

- $V_G < V_S$
- $V_{TH} < 0$
- $V_D < V_S$

- To turn on the PMOS device, $V_{GS} < V_{TH}$
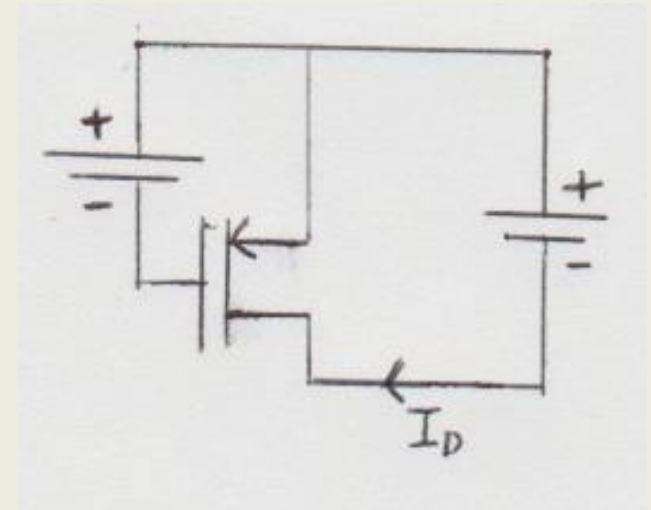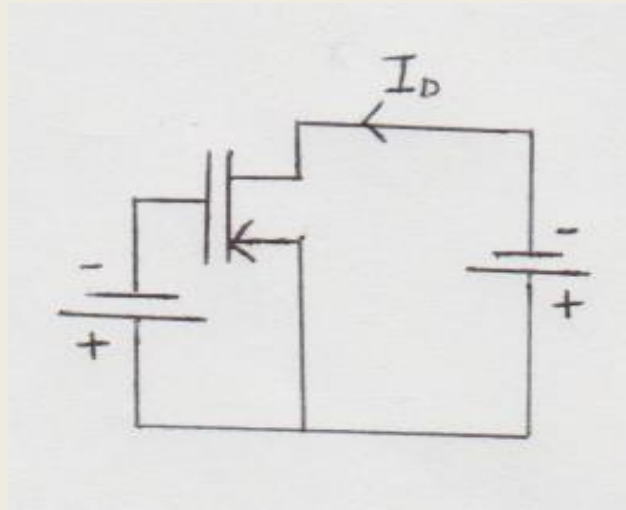
MOS Device Type(2)

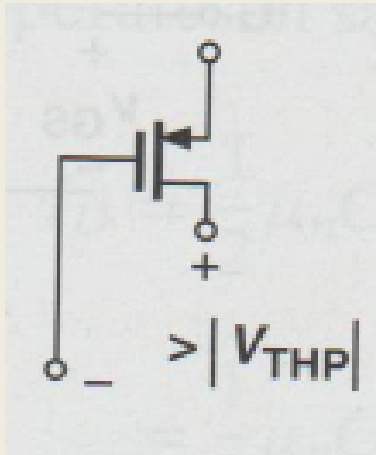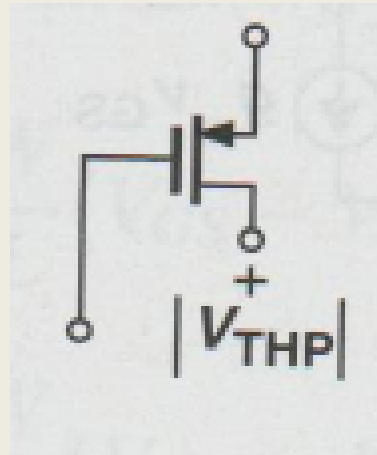<NMOS>   <PMOS>

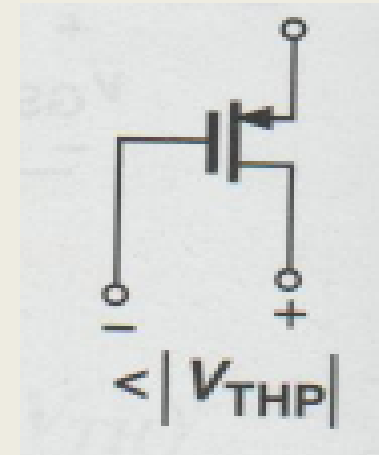- In saturation : $I_D = -\frac{1}{2}\mu_n C_{ox}\frac{W}{L}(V_{GS} - V_{TH})^2(1 - \lambda V_{DS})$ (λ>0)
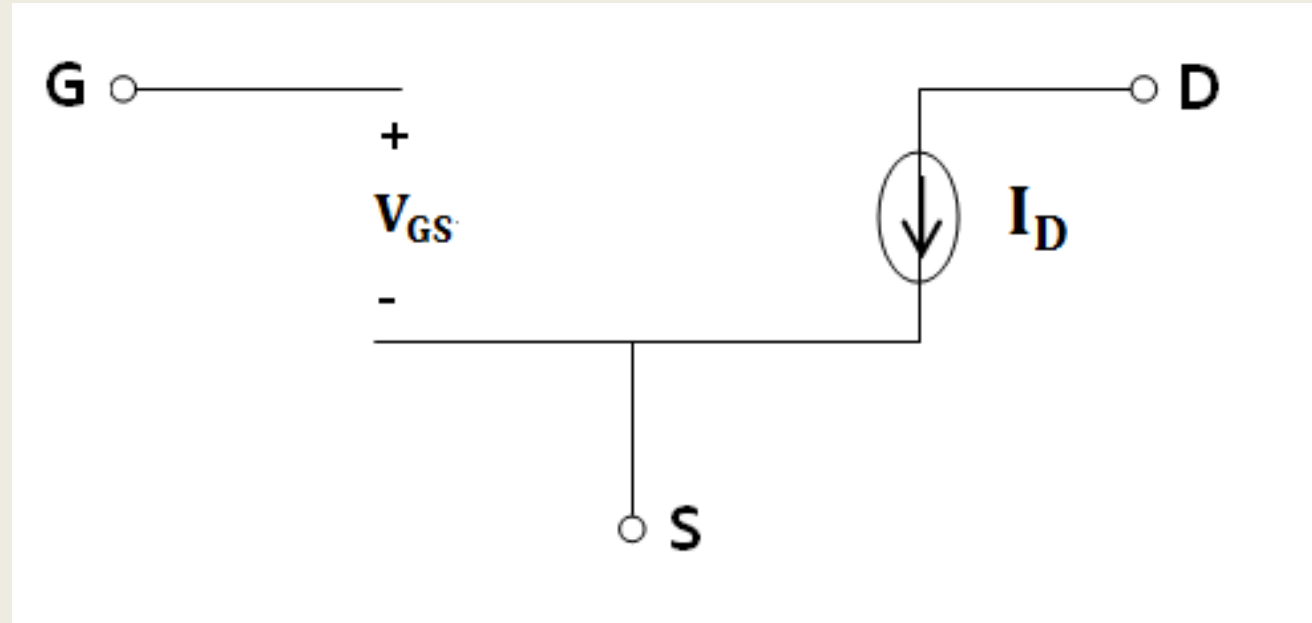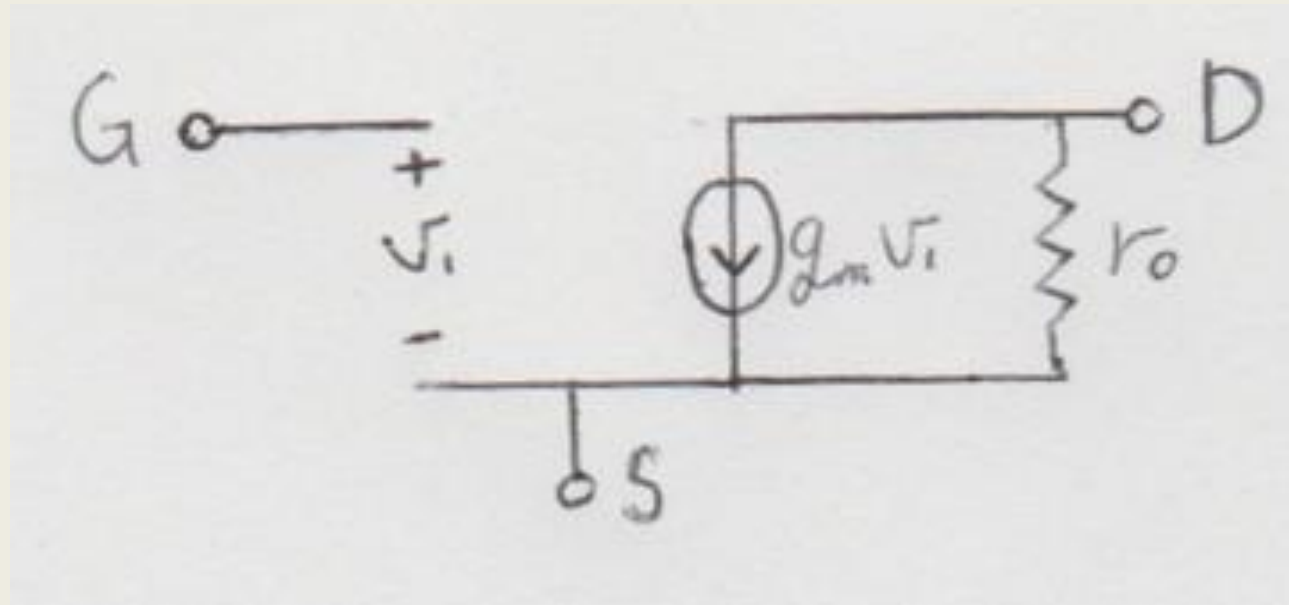
MOS Device Type(3)

Triode

Edge

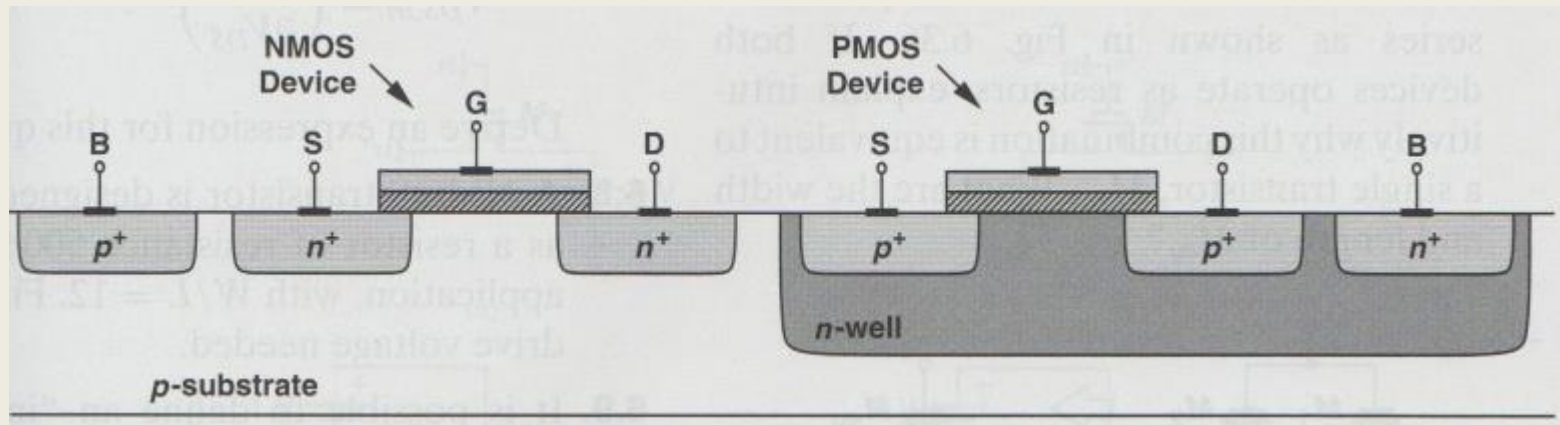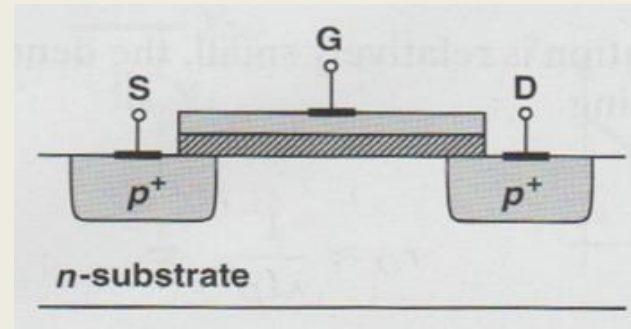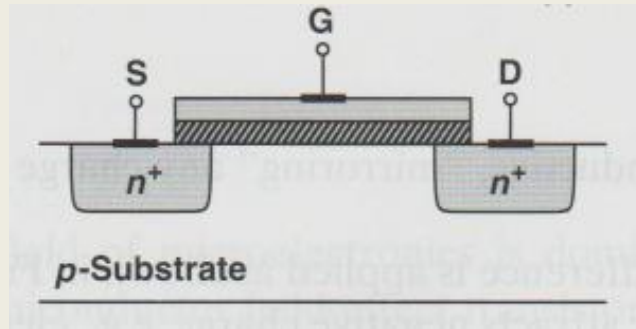Saturation

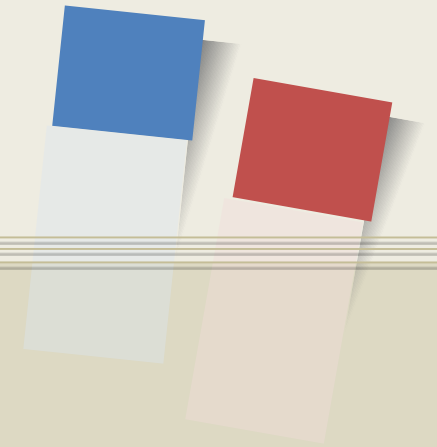# PMOS – Large-signal model

- *Identical* to the small-signal model of NMOS.

<NMOS>

<PMOS>

CMOS Technology

Thank you