

COL215L: Digital Logic & System Design

Lecture 4: CMOS Circuits (Cont.)

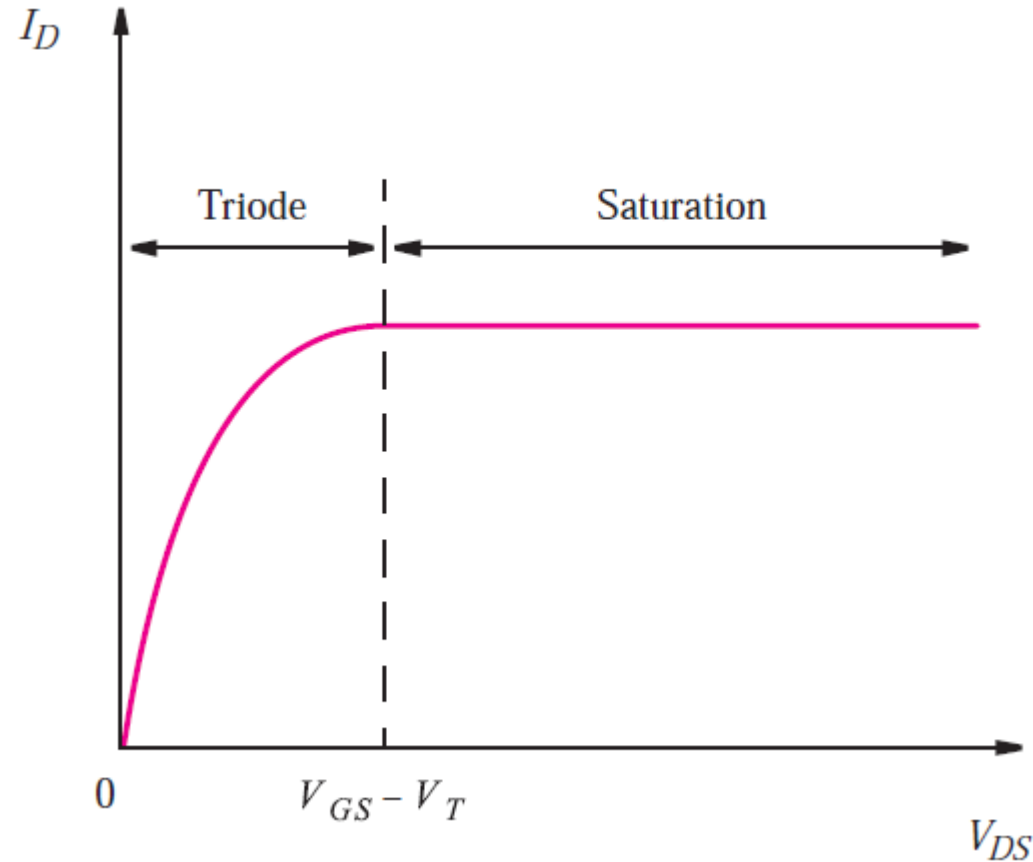


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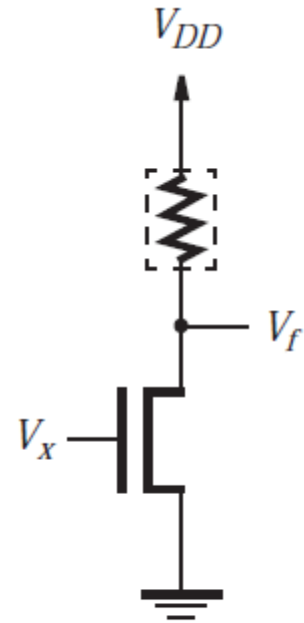
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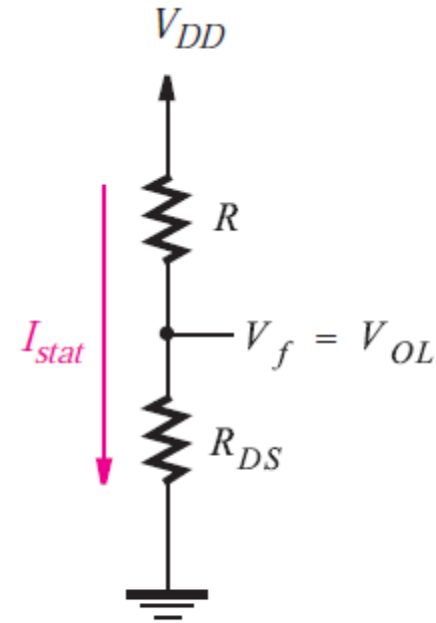
Current-Voltage Relationship in NMOS



On-resistance in NMOS

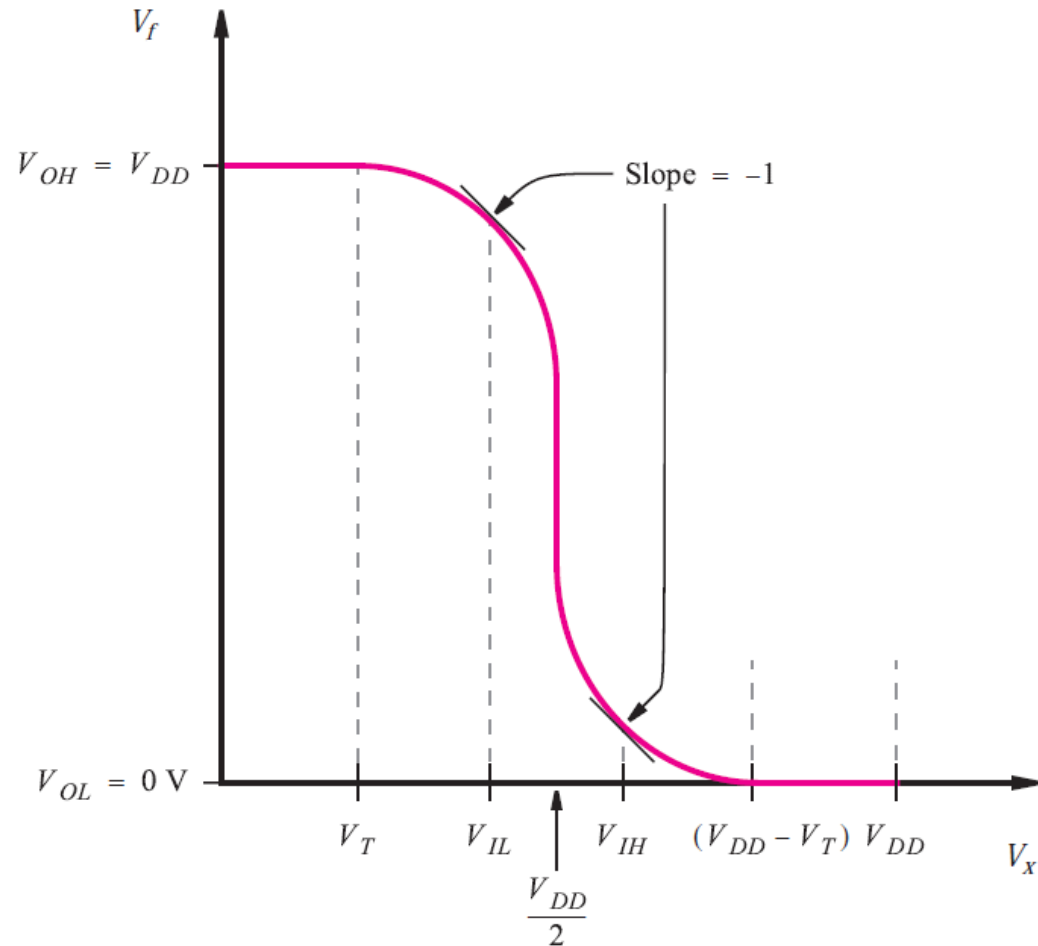
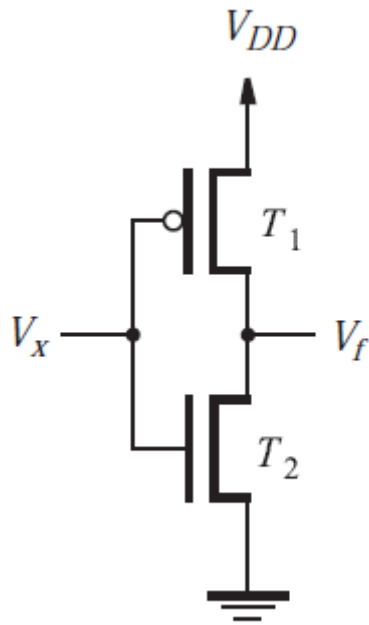


(a) NMOS NOT gate

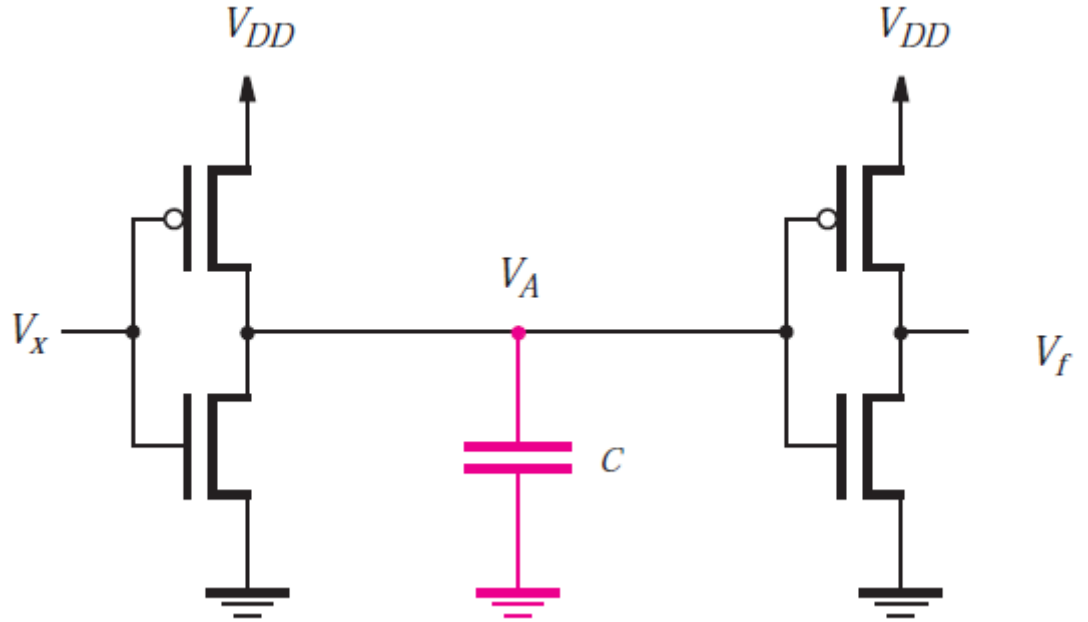
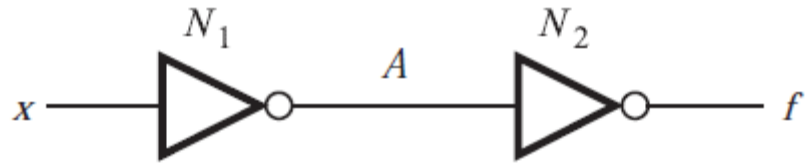


(b) $V_x = 5\text{ V}$

Voltage Characteristics in CMOS Inverter



Dynamic Behavior



Propagation Delay

