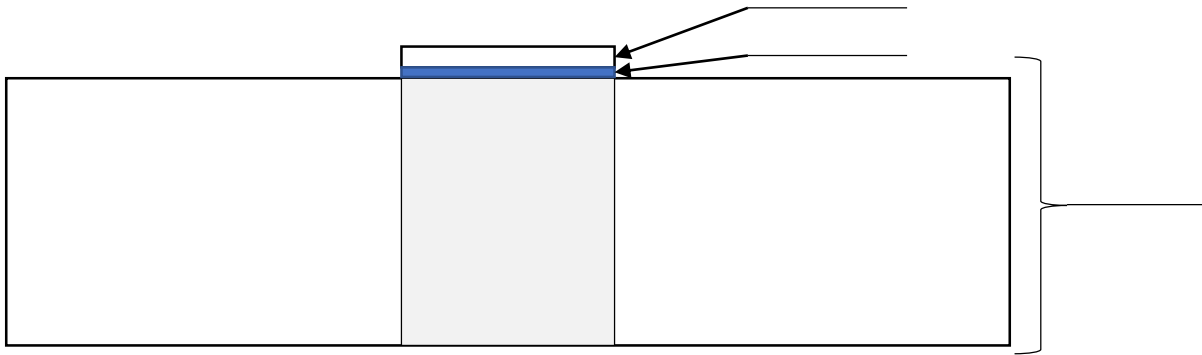


MOSFET Transistors

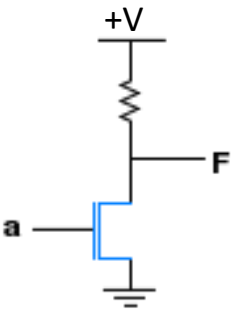
M
O
S
F
E
T

Periodic Table of the Elements																	
																	18
1																	2
H Hydrogen 1.01																	He Helium 4.00
2																	
3	4															10	
Li Lithium 6.94	Be Beryllium 9.01															Ne Neon 20.18	
12																18	
Na Sodium 22.99	Mg Magnesium 24.31															Ar Argon 39.95	
3		4		5		6		7		8		9		10		18	
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	36	
K Potassium 39.10	Ca Calcium 40.08	Sc Scandium 44.96	Ti Titanium 47.87	V Vanadium 50.94	Cr Chromium 51.99	Mn Manganese 54.94	Fe Iron 55.85	Co Cobalt 58.93	Ni Nickel 58.69	Cu Copper 63.55	Zn Zinc 65.38	Ga Gallium 69.72	Ge Germanium 72.63	As Arsenic 74.92	Se Selenium 78.97	Kr Krypton 84.80	
38		39		41		43		45		47		49		51		54	
Rb Rubidium 84.47	Sr Strontium 87.62	Y Yttrium 88.91	Zr Zirconium 91.22	Nb Niobium 92.91	Mo Molybdenum 95.95	Tc Technetium 98.91	Rh Rhodium 101.07	Pd Palladium 106.42	Ag Silver 107.87	Cd Cadmium 112.41	In Indium 114.82	Sn Tin 118.71	Sb Antimony 121.76	Te Tellurium 127.6	I Iodine 126.90	Xe Xenon 131.29	
55		56		57-71		72		73		74		75		76		78	
Cs Cesium 132.91	Ba Barium 137.33	Lanthanides		Hf Hafnium 178.49	Ta Tantalum 180.95	W Tungsten 183.84	Re Rhenium 186.21	Os Osmium 190.23	Ir Iridium 192.22	Pt Platinum 195.09	Au Gold 196.97	Hg Mercury 200.59	Tl Thallium 204.38	Pb Lead 207.2	Bi Bismuth 208.98	Po Polonium [209]	
87		88		89-103		104		105		106		107		108		109	
Fr Francium 223.02	Ra Radium 226.03	Actinides		Rf Rutherfordium [261]	Db Dubnium [262]	Sg Seaborgium [264]	Bh Bohrium [264]	Hs Hassium [269]	Mt Meitnerium [269]	Ds Darmstadtium [269]	Rg Roentgenium [272]	Cn Copernicium [277]	Uut Ununtrium [289]	Fl Flerovium [289]	Uup Ununpentium [294]	Uuo Ununhexium [294]	

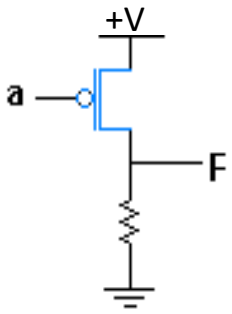
Transistor – NPN FET



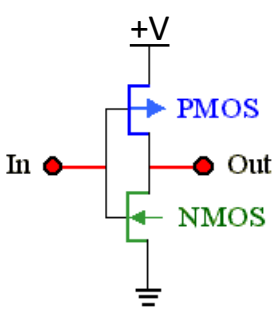
Logic – NMOS/PMOS Inverter vs CMOS Inverter



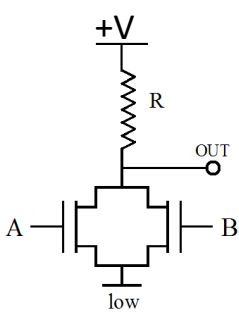
NMOS Not



PMOS Not

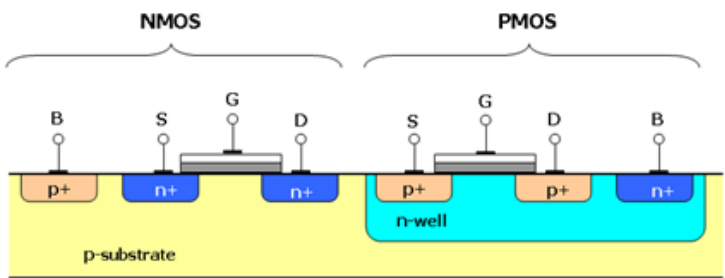


CMOS Not



What is this?

Fabrication – The CMOS process



Draw the P doping mask(s)