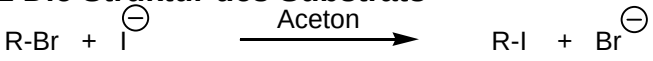
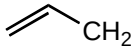
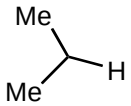
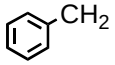
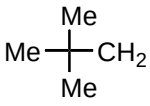
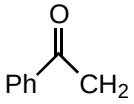
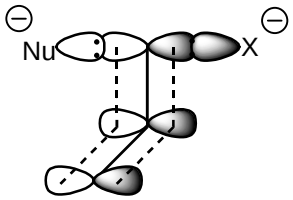
2.2 Die S_N2 - Reaktion

2.2.1 Die Struktur des Substrats



R	k_{rel}	R	k_{rel}
CH_3	30		40
Et	1		
$CH_3CH_2CH_2$	0.4		
	0.025		120
	0.00001		15000



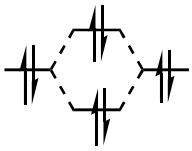
S_N2 : Me > prim > sek >> tert- ~ Neopentyl, aber Allyl, Benzyl, π-Substituenten reagieren schnell

2.2.2 Das Nukleophile Agens

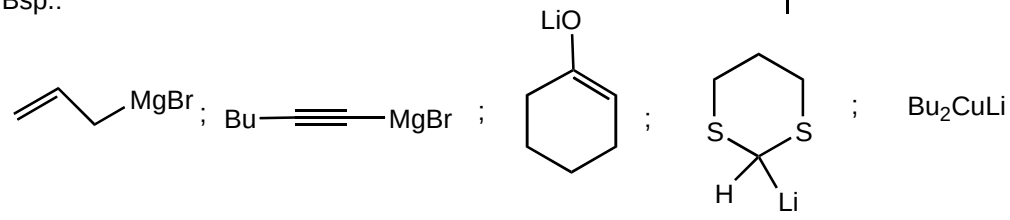
Nukleophilie und Basizität laufen parallel am selben Zentralatom

Nukleophilie:	$MeO^{\ominus}$	> $PhO^{\ominus}$	> $CH_3CO_2^{\ominus}$	> MeOH
pk_a:	15.7	9.9	4.75	-1.7

α-Effekte:
NH_2-NH_2, HO-NH_2, >> NH_3
HO-OH > H_2O

Vgl. 

"Carbanionen" sind gute Nukleophile
Bsp.:



Ambidente Nucleophile: