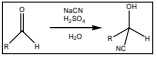
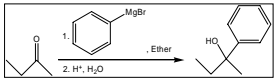
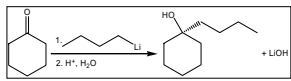
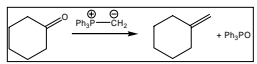
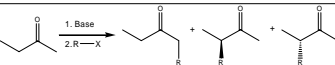
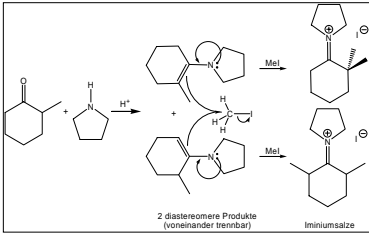


Reaktionen in der Carbonylchemie

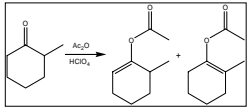
C-Nukleophile

- Cyanid 
- Grignard-Reaktion 
- Organolithiumverbindungen 
- Wittig-Reaktion (Ylid) 
- Enolatreaktionen (C-Alkylierung) 

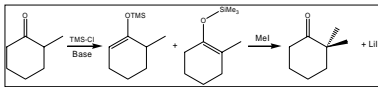
Enamine



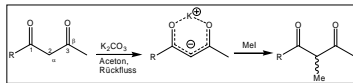
Enolester



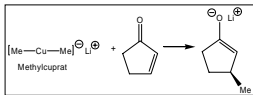
Silylenolether



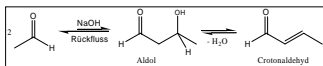
β-Dicarbonylverbindungen



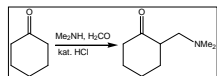
Cuprate



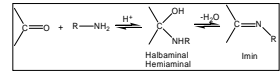
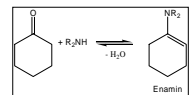
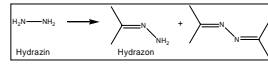
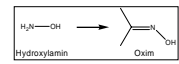
Aldolreaktion



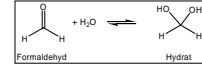
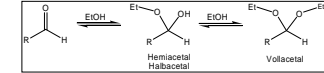
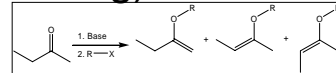
Mannich-Reaktion



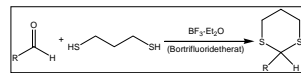
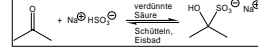
N-Nukleophile

- Primäre Amine zum Imin 
- Sekundäre Amine zum Enamin 
- Hydrazin zum Hydrazon 
- Hydroxylamin zum Oxim 

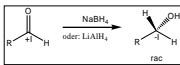
O-Nukleophile

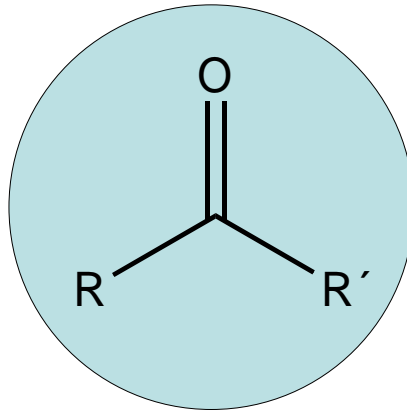
- Hydrolyse (H₂O) 
- Alkohole (R-OH) 
- Enolatreaktionen (O-Alkylierung) 

S-Nukleophile

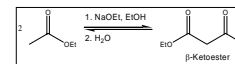
- Thioalkohole (R-SH) 
- Natriumhydrogensulfit (NAHSO₃) 

H-Nukleophile

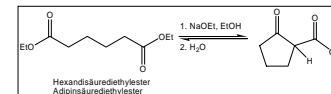
- Reduktionen (LiAlH₄, NaBH₄) 



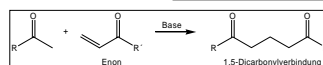
Claisen-Esterkondensation



Dieckmann-Kondensation



Michael-Addition



Krapcho-Decarboxylierung

